

Banner General User Guide

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Notices

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System Overview

Banner™supports the integrated processing of the information your organization uses to manage its resources and functions. The General System is the core component of Banner, providing centralized system management tools and utility programs to the other Banner systems. This manual provides instructions for using the General System.

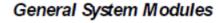
Banner General modules

The General System contains the modules that are common to all the Banner application systems.

Student Accounts Receivable Financial Aid

Human Resources Advancement Finance

Banner Application Systems



Job Submission Population Selection Letter Generation

System Functions/Administration Event Management

General Web Management General International Management

General VR Management Business Rule Builder

Oracle

Job Submission

This module facilitates the submission of reports and processes throughout Banner. You can define new reports and processes to Job Submission, define default parameters, and run Banner reports and processes. You can also set up Job Submission for reports and processes developed on site.

Population Selection

This module lets you identify and group entities in the database, such as people, vendors, or organizations. You can define selection criteria to identify and extract a subset of these entities to use in Banner reports, processes, and letters.

Letter Generation

This module allows you to define extract variables, build paragraphs, build a letter, extract variable data from the database, and merge the extracted variable data into the letter. You can also create a download file that can be used to produce letters with Microsoft Word or WordPerfect.

General International Management

This module has been designed to help institutions meet the requirements of the United States Bureau of Citizenship and Immigration Services (BCIS). If your institution is not located in the USA, you may not need these features. This module includes Visa tracking and SEVIS support.

System Functions/Administration

This module lets you set up, operate, and monitor Banner. You can set up currency codes, maintain EDI information, set up the Desktop Tools application, set up Event Queue Maintenance, customize menus, create Banner objects, and set up QuickFlows, Fine-Grained Access Control (FGAC), and Common Matching.

Event Management

This module helps you manage an event and the functions, tasks, and participants associated with the event. You can schedule functions, organize administrative tasks, track attendance, and send messages. Keeping track of this information not only helps you manage the current event, but provides information that can be used to plan future events.

General Web Management

This module supports the integrated processing between Banner and your self-service applications (Student Self-Service, Faculty and Advisor Self-Service, Employee Self-Service, Advancement Self-Service, and Executive Self-Service).

General VR Management

This module is a Banner software option available for Banner Student and Banner Financial Aid Systems that supports touch-tone telephone data entry and inquiry for student information. Voice Response includes Registration, Grade Reporting, Billing, Financial Aid, and Admissions modules.

Additional information about this module is in the Banner Voice Response Implementation Guide.

Business Rule Builder

This module includes pages you can use to build business rules. It was designed to help you manage your Banner data for SEVIS processing, Multi-Institution Functionality (MIF), and Banner Integration Components, but rules you create can be used for other purposes.

You can create rules to create student and exchange visitor records automatically, and to populate columns in Banner tables with values from other columns.

Proxy Access

Proxy Access allows properly authenticated constituents to set up access to designated Self-Service Banner pages and specify what activities a proxy user can perform.

After these decisions are configured, users will then have the option to set up proxies. For example, each student can then decide who they want to serve as a parental proxy and who they want as potential employer proxies. Users may also decide to not set up any proxies. For each individual proxy, each user can select specific pages from the list of available pages to authorize.

For more information on Proxy Access, please refer to the *Banner General 8.5 Proxy Access Handbook*.

Features

The General System includes the following major features.

- Comprehensive reporting—Both hard-copy reports and online inquiry pages are available.
- Main menu. The main menu provide easy access and navigation to infrequent users. Menus can
 be customized for your institution and individual users. Frequent users can use Direct Access
 or Object Search to bypass the main menu. It also includes a high-level Site Map to help users
 move through Banner more efficiently.
- Validation pages—Validation pages standardize the contents of certain fields and control data input. You can specify custom values without programmer intervention.
- Flexible, user-defined security—The limited access security system helps ensure that data is
 viewed and updated by authorized users only. The security feature can accommodate both
 centralized and decentralized operations. Additional information is provided in the Banner
 Security Administration Handbook.

Note: In some fields, data can be partially or completed obscured for selected users through techniques called masking and concealing. Fields can also be made completely invisible to users through field hiding. For more information, see the *Banner Data Security Handbook*.

Note: Value-based security (VBS) and personally identifiable information security (PII) -- both implemented through Oracle's Fine-Grained Access Control (FGAC), can selectively limit the data users can see through Banner pages. The details of the limitations depend entirely on the institution's VBS and PII rules. For more information, see the *Banner Data Security Handbook*.

Online Help—The Online Help system contains information about pages and fields.

• Local Dynamic Help and Item Properties (choices available from the Help pull-down menu in Banner) both display column information when it is available.

Note: Ellucian no longer delivers page and field information for Dynamic Help, but there are no plans to phase out Local Dynamic Help, which is a good place for you to maintain any custom information about pages or fields.

Online manuals—You can access Banner documents directly from your computer. These
electronic documents look the same as the hard copy versions, regardless of the computer you
are using.

More information

In addition to the information found in this Banner General User Guide, there are other sources of information to help you understand the Banner General system.

Online Help: Banner page and Field Reference

Information on Banner pages and fields can be found in Banner Online Help. The help system runs in a web browser, and is available by choosing the **Online Help** button on the toolbar or the Online Help option from the Help pull-down menu. Additionally, you can access online help by selecting the **Help Center** link on the main menu.

Getting Started Guide

The *Banner Getting Started Guide* is aimed at new Banner users. It describes how to navigate and use the Banner system.

Specialized Handbooks

Several handbooks deal with specialized topics:

The *Banner Data Security Handbook* describes how to set up Value-Based Security (VBS), Personally Identifiable Information (PII) security, and field-level masking—techniques that are aimed at limiting users' access to sensitive data in the Banner database.

The Common Matching Handbook describes how to set up and use Banner's common matching feature, which helps users search for person records in the system.

Technical Publications

Several publications are aimed at the technical staff who set up and support Banner.

- The Banner General Technical Reference Manual includes information on some of the behindthe-scenes components of the Banner General system.
- The Banner Middle Tier Implementation Guide is a guide to setting up the middle tier servers
 that support the Banner system in connection with Self-Service Banner products and Luminis®
 Channels.
- The Banner Security Administration Handbook is a guide to setting up and managing Banner user accounts and other aspects of Banner security.

Note: The *Banner Middle Tier Implementation Guide* is posted on the Software Downloads section of the Customer Support Center. Only users with software download privileges have access to this publication.

Date fields

The use of SYSDATE in a **Date** field will no longer convert to today's date. You can enter any single, non-numeric character in the **Date** field and Banner will automatically convert it to today's date. For example, if you enter a or g and go to the next field, Banner will enter today's date as the default.

GUIMAGE functionality

GUIMAGE 9x no longer supports the TIFF (Tag Image File Format) file format for images (.tiff file extension) although it is supported for INB.

Consent to capture and process personal data support

Banner General supports the functionality to keep record(s) of consent to process personal data from an individual, parent/guardian (if required), and a source of the consent, to help the institution verify they have consent for the person and the point of data entry into the institution.

Record consent to process personal data

The Consent to Capture and Process Personal Data (GUACCPR) page allows you to keep record(s) of consent to process personal data from an individual, parent/guardian (if required), and a source of the consent.

Procedure

- 1. Access the Consent to Capture and Process Personal Data (GUACCPR) page.
- 2. In the **ID** field, enter the ID for which you want to record consent.
- 3. Click Go to go to the Consent to Capture and Process Personal Data section.
- 4. In the Persona field, specify the type of individual providing consent.
 You can select the down arrow icon to access the Personal Data Persona Type Code Validation (GTVCCPP) page to search for a persona type code.
- 5. In the **Source** field, enter the source through which you want to provide consent.

 You can select the down arrow icon to access the **Personal Data Source Code Validation**(GTVSCDE) page to select a source code.
- 6. In the **Consent** field, enter the type of consent you provide.

You can select the down arrow icon to access the **Personal Data Consent Code Validation (GTVCCPD)** page to select a consent code.

Examples may include a persona of Student, source of Banner, and consent value of parent provided consent for minor. Another example may include a persona of Vendor, source is Third Party, and consent value of affirmative.

- 7. In the **Consent Date** field, enter the date on which you are providing consent.
- 8. Save your changes.

Validation Pages

This section describes the pages used to set up validation tables for the General System. Validation tables let you tailor the system to your needs by providing lists of coded values that can be entered in specific fields. You can use validation pages to build, maintain, and view validation tables.

The Expense Code Validation (GTVEXPN) page, for example, lets you identify and assign a code to each expense associated with event functions. When a user enters a value in the **Expense** field on a data entry page, the system checks the validation table, verifies the code, and issues an error message if the value is not valid. The system may also display the complete name of the expense code entered. If you need a new event expense or want to delete an obsolete expense, you can easily update the list of valid values by editing the validation page.

If more than one Banner™product is installed at your institution, a number of the validation page names beginning with STV are shared validation pages. Shared validation pages are also listed in this section.

Accessing validation pages

Validation pages can be accessed in the following ways.

- · Use Direct Access to enter the page name.
- · Use Object Search to search for and select the page.
- Choose the List function while in the field. Sometimes the complete validation page appears, while other times a **Lookup** button appears. In either case, the values are display-only.
- Select from a menu.

Validation pages reference

The list below identifies the validation pages used by the General System.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
GTVADID	%IDEN pages
Additional Identification Type Validation page	
GTVCCPD	GUACCPR
Personal Data Consent Code Validation page	Consent to Capture and Process Personal Data page
GTVCCPP	GUACCPR

Validation page	Used By
Personal Data Persona Type Code Validation page	Consent to Capture and Process Personal Data page
GTVCCRD	GORCCRD
Credit Card Type Validation page	Credit Card Rules page
	GOAMERC
	Credit Card Merchant ID page
GTVCELG	GOAINTL
Certification of Eligibility Validation page	International Information page
GTVCMSC	GOAMTCH
Common Matching Source Code Validation	Common Matching Entry page
page	GORCMRL
	Common Matching Rules page
	GORCMSC
	Common Matching Source Rules page
	GORCMUS
	Common Matching User Setup page
GTVCTYP	GERCOMM
Proxy Access Communication Type Validation page	Proxy Access Communication Rule page
GTVCURR	GUACURR
Currency Codes Validation page	Currency Conversion page
	GUAINST
	Installation Control page
	GXRBANK
	Bank Code Rule page
GTVDADD	GOADADD
Desktop Tools - Add-In Validation page	Desktop Tools - Add-In Application page
GTVDICD	SLAEVNT
District Division Code Validation page	Event page
	STVCAMP
	Campus Code Validation page

Directory Item Validation page GTVDOCM GOAINTL Visa Document Code Validation page GTVDPRP Desktop Tools - Step Property Validation page GTVDSTP Desktop Tools - Step Type Validation page GOADSTE Desktop Tools - Step Type Validation page GORDSTP Desktop Tools - Step Type Properties Rule GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Step Type Properties Rule Bestop Tools - Wizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps Setup Applic page GORDSTP Desktop Tools - Vizard Steps	
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Extension page SSARULE Schedule Processing Rules page SSASECQ Schedule Section Query page	
SSARULE Schedule Processing Rules page SSASECQ Schedule Section Query page	
Schedule Processing Rules page SSASECQ Schedule Section Query page	
SSASECQ Schedule Section Query page	
Schedule Section Query page	
SSASECT	
SONSECT	
Schedule page	
GTVEMAL GOAEMAL	
E-mail Address Type Validation page E-mail Address page	
GTVEMPH SLAEVNT	
Emphasis Code Validation page Event page	

GOAEQRM
Event Queue Record Maintenance page
GOREQNM
Event Queue Name Definition page
GOREQNM
Event Queue Name Definition page
GOREQPG
Parameter Group Rule page
GOREQPG
Parameter Group Rule page
GOAEQRM
Event Queue Record Maintenance page
GOREQNM
Event Queue Name Definition page
SLAEVNT
Event page
GOAFGAC
FGAC Group Rules page
GORFDMN
FGAC Domain Driver Rules page
GOAFBPI
FGAC PII Domain Business Profile Assignments
GORFDMN
FGAC Domain Driver Rules page
GORFDTP
FGAC Domain Type Predicate Rules page
GEAATID
Event Registration page
GEAATTD
Attendance page
GOAFGAC

Validation page	Used By
FGAC Group Validation page	FGAC Group Rules page
GTVFBPR	GOAFGAC
FGAC Business Profile Validation page	FGAC Group Rules page
	GOAFPUD
	FGAC Person User Defaults page
	GORDMSK
	Data Display Mask Rules page
	GOAFBPR
	FGAC Business Profile Assignments page
	GOIFBPR
	FGAC Business Profile Inquiry page
GTVFSTA	SLAEVNT
Function Status Code Validation page	Event page
GTVFTYP	SLAEVNT
Fee Type Code Validation page	Event page
GTVFUNC	SLAEVNT
Function Code Validation page	Event page
GTVINSM	ROASECT
Instructional Method Validation page	Section Unavailable for Aid page
	SCACRSE
	Basic Course Information page
	SFARGFE
	Registration Fee Assessment Rules page
	SOAORUL
	Open Learning Section Default Rules page
	SSADFEE
	Section Fee Assessment Control page
	SSASECQ
	Schedule Section Query page
	SSASECT
	Schedule page
	STVSCHD

Schedule Type Code Validation page GTVLETR Letter Code Validation page Event page GUALETR Letter Process page GTVLFST Learner Field of Study Type Validation page SAADMS Admissions Application page SGASTDN General Student page SFAREGS Student Course Registration page SHADEGR Degrees and Other Formal Awards page GTVMAIL Mail Code Validation page GTVMENU Menu Code Validation page GTVMTP Meeting Type Validation page GTVMTYP SSASECT Meeting Type Validation page GTVNTYP SPAIDEN Identification page GTVNTYP SPAIDEN Identification page GTVOBJT Object Code Validation page GUAOBJS Object Code Validation page GUAOBJS Object Definition page	Validation page	Used By
Letter Code Validation page Event page GUALETR Letter Process page GTVLFST Learner Field of Study Type Validation page Recruit Prospect Information page SAAADMS Admissions Application page SGASTDN General Student page SFAREGS Student Course Registration page SHADEGR Degrees and Other Formal Awards page GTVMAIL Mail Code Validation page GTVMENU Menu Code Validation page GEAATID Attendance page SLAEVNT Event page GTVMTYP SSASECT SCASTDN General Student page SFAREGS Student Course Registration page SHADEGR Degrees and Other Formal Awards page GEAATID Attendance page SLAEVNT Event page GTVMTYP SSASECT SCHOdule page SSAXMTI Cross List Meeting Time / Instructor Query page GTVNTYP Name Type Validation page GTVOBJT GUAOBJS		Schedule Type Code Validation page
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Meeting Type Validation page Schedule page SSAXMTI Cross List Meeting Time / Instructor Query page GTVNTYP SPAIDEN Name Type Validation page GTVOBJT GUAOBJS		Event page
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GTVNTYP SPAIDEN Name Type Validation page Identification page GTVOBJT GUAOBJS		SSAXMTI
Name Type Validation page GTVOBJT GUAOBJS		Cross List Meeting Time / Instructor Query page
GTVOBJT GUAOBJS	GTVNTYP	SPAIDEN
	Name Type Validation page	Identification page
Object Code Validation page Object Definition page	GTVOBJT	GUAOBJS
	Object Code Validation page	Object Definition page

Validation page	Used By
	GUTGMNU
	Menu Maintenance page
	GUAPMNU My Banner Maintenance page
	GUTPMNU
	My Banner Maintenance and Copy page
GTVOTYP	GERPRXY
Proxy Access Option Type Validation page	Proxy Access Data Option Rules
GTVPARA	GUALETR
Paragraph Code Validation page	Letter Process page
	GUAPARA
	Paragraph page
GTVPARS	None
Scheduling Partition Validation page	
GTVPRNT	GJAJOBS
Printer Validation page	Process Maintenance page
	GJAPCTL
	Process Parameter Entry page
GTVPROC	GOAMERC
Process Name Validation page	Credit Card ID Transaction page
GTVPTYP	GEAPART
Participant Type Code Validation page	Function Participant page
GTVPURP	SLAEVNT
Purpose Code Validation page	Event page
GTVQUIK	GUAQUIK
QuickFlow Code Validation page	QuickFlow Definition page
GTVRATE	SLAEVNT
Fee Rate Code Validation page	Event page
GTVRETP	GERCOMM
Proxy Access Relationship Type Validation page	Proxy Access Communication Rule page
	GERPRXY

Validation page	Used By
	Proxy Access Data Option Rules
GTVREVN	SLAEVNT
Revenue Code Validation page	Event page
GTVRSVP	GEAATID
RSVP Code Validation page	Event Registration page
	GEAATTD
	Attendance page
GTVRTNG	GEAPART
Rating Code Validation page	Function Participant page
GTVSCDE	GUACCPR
Personal Data Source Code Validation page	Consent to Capture and Process Personal Data page
GTVSCHS	None
Scheduling Status Code Validation page	
GTVSCOD	GUACURR
EDI/ISO Standard Code Validation page	Currency Code Maintenance page
GTVSDAX	None
Crosswalk Validation page	
GTVSQPA	GORRSQL
Business Rule Parameter Code Validation page	Business Rules page
GTVSQPR	GORRSQL
Business Rule Process Code Validation page	Business Rules page
GTVSQRU	GORRSQL
Business Rule Code Validation page	Business Rules page
GTVSRCE	GOAINTL
Visa Source Code Validation page	Visa International Information page
GTVSUBJ	GEAFCOM
Subject Index Code Validation page	Function Comment page
GTVSVCA	GOASEVS
	SEVIS Information page

Validation page	Used By
SEVIS Student Cancellation Reason Code Validation page	
GTVSVCC	GOASEVS
SEVIS Category Code Validation page	SEVIS Information page
GTVSVCP	GOASEVS
SEVIS Consular Post Validation page	SEVIS Information page
GTVSVCR	GOASEVS
SEVIS Creation Reason Code Validation page	SEVIS Information page
GTVSVDT	GOASEVS
SEVIS Dependent Termination Code Validation page	SEVIS Information page
GTVSVEL	GOASEVS
SEVIS Education Level Code Validation page	SEVIS Information page
GTVSVEP	GOASEVS
SEVIS EV End Program Reason Code Validation page	SEVIS Information page
GTVSVFT	GOASEVS
SEVIS Drop Below Full Time Reason Code Validation page	SEVIS Information page
GTVSVGO	GOASEVS
SEVIS Governmental Organization Code Validation page	SEVIS Information page
GTVSVIO	GOASEVS
SEVIS International Organization Code Validation page	SEVIS Information page
GTVSVIT	GOASEVS
SEVIS Infraction Type Code Validation page	SEVIS Information page
GTVSVPC	GOASEVS
SEVIS Exchange Visitor Position Code Validation page	SEVIS Information page
GTVSVRP	GOASEVS
	SEVIS Information page

Validation page	Used By
SEVIS Request for page Reprint Code Validation page	
GTVSVTR	GOASEVS
SEVIS Termination Reason Code Validation page	SEVIS Information page
GTVSVTS	SEVIS Transmittal History (GOASEVR) page
SEVIS Transmittal Status Code Validation page	
GTVSYSI	GJAJOBS
System Indicator Validation page	Process Maintenance page
	GLRAPPL
	Application Definition Rules page
	GORTCTL
	Third-Party Electronic Control Rules page
	GUAOBJS
	Object Maintenance page
	GUTGMNU
	Menu Maintenance page
	GSASECR
	Banner Security Maintenance page
	SLAEVNT
	Event page
GTVSYST	GERCOMM
Proxy Access System Code Validation page	Proxy Access Communication Rule page
	GERPRXY
	Proxy Access Data Option Rules
	GTVOTYP
	Proxy Access Option Type Validation page
GTVTARG	SLAEVNT
GTVTARG Target Audience Code Validation page	SLAEVNT Event page
Target Audience Code Validation page	Event page

Validation page	Used By
EDI Transaction Type Validation page	EDI Trading Partner Identification page
	GXRETID
	EDI Transaction ID Rules page
GTVTSTA	GEATASK
Task Status Code Validation page	Function Task page
GTVTTYP	GEATASK
Task Type Code Validation page	Function Task page
	GTVTASK
	Task Code Validation page
GTVVAPP	GOABACR
Value-Based Security Application Codes page	Value-Based Security Access Rules page
	GOAPCRL
	Value-Based Security Pattern Control Rules page
	GOAVUSR
	Value-Based Restricted Users page
GTVVBTY	GTVVAPP
Value-Based Security Type Validation page	Value-Based Security Application Codes page
GTVVISS	GOAINTL
Visa Issuing Authority Validation page	Visa International Information page
GTVVOBJ	GOABACR
Value-Based Security Object Code Validation	Value Based Security Access Rules page
page	GOAPCRL
	Value-Based Security Pattern Control Rules page
GTVZIPC	SLABLDG
ZIP/Postal Code Validation page	Building Definition page
	STVSITE
	Site Code Validation page
GXVDIRD	GXADIRD
	Direct Deposit Recipient page

Validation page	Used By
STVASRC	GOAADDR
Address Source Validation page	Address Review and Verification page
STVATYP	GOAADDR
Address Type Code Validation page	Address Review and Verification page
	GOAADRL
	Address Role Privileges page
	GOADIRO
	Directory Options Rule page
STVBLDG	SLABLDG
Building Code Validation page	Building Definition page
STVCAMP	GTVPARS
Campus Code Validation page	Scheduling Partition Validation page
	SLABLDG
	Building Definition page
	SLAEVNT
	Event page
STVCITZ	Refer to the system-specific documentation for a
Citizen Type Code Validation page	complete listing
STVCNTY	GOAADDR
County Code Validation page	Address Review and Verification page
	GTVZIPC
	ZIP/Postal Code Validation page
	SLABLDG
	Building Definition page
	APAIDEN, FOAIDEN, PPAIDEN, SPAIDEN
	Identification Pages
STVCOLL	GTVEMPH
College Code Validation page	Emphasis Code Validation page
	SLABLDG
	Building Definition page
	SLAEVNT

Validation page	Used By
	Event page
	SLARDEF
	Room Definition page
STVDAYS	SLAEVNT
Day of Week Validation page	Event page
STVDEGC	Refer to the system-specific documentation for a
Degree Code Validation page	complete listing
STVDEPT	GTVEMPH
Department Code Validation page	Emphasis Code Validation page
	SLABLDG
	Building Definition page
	SLAEVNT
	Event page
	SLARDEF
	Room Definition page
STVEMPT	Refer to the system-specific documentation for a
Employment Type Validation page	complete listing
STVETHN	Refer to the system-specific documentation for a
Ethnic Code Validation page	complete listing
STVETYP	SLEVNT
Event/Function Type Code Validation page	Event page
	GTVFUNC
	Function Code Validation page
STVHOND	Refer to the system-specific documentation for a
Departmental Honors Code Validation page	complete listing
STVLGCY	Refer to the system-specific documentation for a
Legacy Code Validation page	complete listing
STVMAJR	Refer to the system-specific documentation for a
Major, Minor, Concentration Code Validation page	complete listing

Validation page	Used By
STVMRTL	Refer to the system-specific documentation for a
Marital Status Code Validation page	complete listing
STVNATN	GOAADDR
Nation Code Validation page	Address Review and Verification page
	GOASEVS
	SEVIS Information page
	GTVZIPC
	ZIP/Postal Code Validation page
	GUACURR Currency Code Maintenance page
	GUAINST Installation Control page
	STVSITE Site Code Validation page
	APAIDEN, FOAIDEN, PPAIDEN, SPAIDEN
	Identification Pages
STVPRCD	SLABLDG
Phone Rate Code Validation page	Building Definition page
	SLARDEF
	Room Definition page
STVRDEF	SLABLDG
Building/Room Attribute Code Validation page	Building Definition page
	SLARDEF
	Room Definition page
STVRELG	Refer to the system-specific documentation for a
Religion Code Validation page	complete listing
STVRELT	Refer to the system-specific documentation for a
Relation Code Validation page	complete listing
STVRMST	SLARDEF
Room Status Code Validation page	Room Definition page
STVRRCD	SLABLDG
Room Rate Code Validation page	Building Definition page
	SLARDEF
	Room Definition page

Validation page	Used By
STVSITE	SLABLDG
Site Code Validation page	Building Definition page
	SLAEVNT
	Event page
STVSTAT	GOAADDR
State/Province Code Validation page	Address Review and Verification page
	GTVZIPC
	ZIP/Postal Code Validation page
	SLABLDG
	Building Definition page
	STVSITE
	Site Code Validation page
STVTELE	GOAADDR
Telephone Type Validation page	Address Review and Verification page
	STVATYP
	Address Type Code Validation page
	APAIDEN, FOAIDEN, PPAIDEN, SPAIDEN
	Identification Pages
STVTERM	SLARDEF
Term Code Validation page	Room Definition page
GTVIMMU	GOAIMMU
Immunization Code Validation page	Immunization Information page
GTVIMST	GOAIMMU
Immunization Status Code Validation page	Immunization Information page

Processing

This section describes the miscellaneous tasks you can perform with Banner™ General.

In addition, tasks related to the following General modules can be found in their respective chapters in this User Guide:

- Job Submission
- · Population Selection
- · Letter Generation
- · General International Management
- · System Functions/Administration
- Event Management
- · Business Rule Builder
- · Basic Person Maintenance

The following documentation contains additional information about using Banner General features:

- The Banner Getting Started Guide contains basic information about using the Banner® system, such as navigating, filtering, and entering data in a page.
- The Web Tailor User Guide includes detailed information on using the General Web Management module.
- The Voice Response Implementation Guide contains more detailed information on using the Voice Response module.
- The Banner Data Security Handbook has more detailed information on using the FGAC module.
- The Banner Common Matching Handbook includes information about setting up and using Common Matching.
- The Banner Security Administration Handbook includes information about managing Banner security and user accounts.
- The Banner General Technical Reference Manual includes information for database administrators and technicians maintaining the Banner system.

Multi-Entity Processing procedures

At institutions that use Multi-Entity Processing, all pages that are Multi-Entity Processing-enabled display two contexts in the title bar: the home context and the process context. In the following

example, the home context appears first, and is enclosed in parentheses. The process context appears second, and has no parentheses.

Home context

The home context is the **Institution Code** that is an Oracle Application Context; the value is your default VPDI code. Your options for choosing the home context vary according to how **Institution Codes** are set up for you on the Oracle/Banner VPD Security Maintenance (GSAVPDI) page.

- If there are multiple Institution Codes set up for your User ID on the User Assignment section
 of GSAVPDI, then you will have multiple codes from which to choose the home context for
 your Banner session. If you exit GUQSETI without manually selecting a code, then the code
 designated as your default Institution Code on GSAVPDI will be used as the home context.
 Your default code always appears first in the GUQSETI list, and is highlighted.
- If there is only one **Institution Code** set up on the User Assignment section, then that code will be used as your home context, and GUQSETI will not appear when you log in. The Institution Code assigned to you is your default Institution Code.
- If no codes are set up for you on the User Assignment section, then the Banner system default Institution Code will be used as your home context.

Process context

The process context is the **Institution Code** to which you switch during your Banner session. In some Multi-Entity Processing implementations, the process context can be changed to filter different institutions.

If your process context is different than your home context, you cannot save any changes to the database for the Institution Code of your process context.

Note: If you need to switch to a different Institution Code and make changes to that institution's data, you must restart your Banner session and select the new Institution Code during login. The new Institution Code is then your home context.

If you do not change codes during the session, then your process context will be the same as your home context.

Note: The process context (and not the home context) is used by the Banner Document Management Suite (BDMS) interface. The process context is passed as a parameter in the URL handed from Banner to BDMS.

How to switch between institution codes

If your institution has determine to allow cross institution viewing of data on specific pages, you can switch institutions (process context) without leaving the page. This feature only works for data that has been designed to be queried by all institutions.

About this task

The **Institution Selector** button is enabled only for pages that use data which is designed to be queried by all institutions.

Procedure

- 1. Click the icon on the toolbar, or press the Ctrl-Shift-F10 keys simultaneously.
- 2. Enter an Institution Code. You can use the Lookup button to select a code from the Institution Code Validation (GTVVPDI) list, or, if you want to view further information about the available codes, click the View Existing Institutions Values link. If you select a row from the Existing Institution Values list, the values are brought back to the key block of the page. You can then view the data related to those particular values elsewhere on the page.
- 3. Click OK.

This **Institution Code** (the "process context") now appears in the title bar after the code under which you logged in (the "home context"). Depending on the security policies established by the institution, you may have the ability to insert, update, or delete information using this selected institution code, or you may be limited to only viewing data with this selected institution.

How changing institution codes impacts your Banner session

Banner processes always use the user's home context, the institution chosen on the Set Institution Code (GUQSETI) page during Banner login.

Banner pages might use the new institution code (your process context) if the Multi-Entity Processing implementation allows the data on the page to be queried across institutions; processes will continue to use your home context.

When you change **Institution Codes** during a session, the Banner page might use the code that appears second in your title bar if the Multi-Entity Processing implementation allows for filtering across institutions for the data the page uses. The code you chose on GUQSETI upon login appears first in the title bar.

Example of title bar after you have switched Institution Codes:

```
(CAMP1) : CAMP2
```

(CAMP1) is the Home Context you chose upon login. It is always used by Banner processes, regardless of whether you change **Institution Codes**.

CAMP2 is the Process Context, the code to which you changed. It might be user by Banner pages if the Multi-Entity Processing implementation allows for filtering across institutions for the data behind the Banner pages.

Job Submission

Your jobs will run under the home institution that you set for the session at login, regardless of the default institution code that is set up for you on GSAVPDI.

For jobs submitted through Job Submission (not on hold)

The institution code that Banner uses for processing in a particular session is always the one you chose on login to that Banner session. Before this enhancement, if you had several sessions open at once, Banner used the code from the most recently-opened session for jobs that you processed in any of your open sessions, regardless of the code originally chosen for that session. With this enhancement, the institution code used for processing jobs is specific to the session you are in, regardless of other sessions you may have open.

For jobs put on hold for future processing

When you put a job on hold on the Job Submission (GJAPCTL) page, Banner saves the institution code that you chose for the session, along with the job sequence number, to a new table. Later, when you submit the job for processing, you must manually set the "one up" environment variable to the job sequence number, so that Banner can retrieve the stored institution code for the job.

The environment variable you must set is:

Platform	Variable	Example
UNIX	ONE_UP	export ONE_UP=123456 (where 123456 is the jobseqno)
WIN NT	SCTBAN_ONE_UP_NUMBER	set SCTBAN_ONE_UP_NUMBER = 123456 (where 123456 is the jobseqno)
VMS	SEQ	ONE_UP_NO :== 123456 (where 123456 is the jobseqno)

Oracle Reports

You can run the Oracle Reports from the page of from Job Submission.

Running Oracle Reports from the page

Oracle Reports are run using the process context setting in the preceding example), as long as the page from which the report is being called is listed on GORVPDI.

Note: If the page that calls the Oracle Report is not listed on GORVPDI, then the report can only be run under the user's home context.

Running Oracle Reports from Job Submission

If you have Oracle Reports that can only be run through GJAPCTL, or if the Oracle Report is initiated through GJAPCTL, then the home context is used.

If users need to use the process context for Oracle Reports that are initiated through GJAPCTL, then you may consider adding GJAPCTL to GORVPDI. However, this causes the process context to appear in the title bar of GJAPCTL, which then allows the user to change **Institution Codes**. A user who is executing a C process or other Banner report might assume that the process or report is being executed under the process context institution, which is not the case. The change in the **Institution Code** is effective only for Oracle Reports.

How Institution Role Maintenance Process (GURIROL) works

The Institution Role Maintenance (GURIROL) process manages processing with scope roles for Luminis in a multi-entity processing implementation using VPD.

Following is the example from gurirol.pc 7.4 version:

```
FUNCTION f get context tab (context in VARCHAR2) RETURN
 gt context tab type
IS
TYPE gt_context_ex_tab_type IS TABLE OF VARCHAR2(15);
context_tab gt_context_tab_type := gt_context_tab_type ();
context tab tmp gt context tab type := gt context tab type ();
                         SYS REFCURSOR;
lv cursor
context exclusion tab
                         gt_context_ex_tab_type;
                         VARCHAR2(1) := 'N';
exclude
CURSOR gtvsdax c
TS
SELECT gtvsdax external code
FROM gtvsdax
WHERE gtvsdax internal code = 'LDIINSTEX'
AND gtvsdax internal code group = 'INTCOMP';
BEGIN
IF context in = 'NOCONTEXT'
THEN
context tab.EXTEND;
context tab (1).code := 'NOCONTEXT';
context_tab (1).description := 'No context';
ELSIF context in = 'GETMIF'
THEN
IF g$ vpdi security.g$ is mif enabled
THEN
-- Set multiuse context to OVERRIDEALL
gokvpda.p set vpdi m context o all;
-- Get full set of GTVVPDI codes
g$ vpdi security.g$ vpdi get mif codes (lv cursor);
-- Assign ref cursor to local variable
FETCH lv cursor BULK COLLECT INTO context tab tmp;
-- Set multiuse context to RESTRICT
gokvpda.p set vpdi off process context;
-- Get context codes to exclude in return variable
```

```
OPEN gtvsdax c;
FETCH gtvsdax c BULK COLLECT INTO context exclusion tab;
CLOSE gtvsdax c;
-- If context code is in exclusion list, set exclude flag to Y.
FOR idx IN 1 .. NVL (context tab tmp.LAST, 0)
FOR idx1 IN 1 .. NVL (context exclusion tab.LAST, 0)
LOOP
IF context exclusion tab(idx1) = context tab tmp(idx).code
exclude := 'Y';
END IF;
END LOOP;
-- If exclude flag is not Y, then copy context code to return variable.
IF exclude = 'N'
THEN
context tab.EXTEND;
context_tab (context_tab.LAST).code := context tab tmp (idx).code;
context_tab (context_tab.LAST).description := context tab tmp
 (idx).description;
END IF;
-- Reset exclude flag
exclude := 'N';
END LOOP;
END IF;
ELSE
context tab.EXTEND;
context_tab (1).code := context in;
context tab (1).description := context in;
END IF;
RETURN context tab;
END f get context tab;
BEGIN
IF g$_vpdi_security.g$_is_mif_enabled
lv context tab := f get context tab ('GETMIF');
lv context tab := f get context tab ('NOCONTEXT');
\overline{\text{END}} IF;
p get inst codes (lv context tab, :inst codes);
END:
END-EXEC;
POSTORA;
```

Set up medical information

The General Medical Information (GOAMEDI) page allows you to view and update the medical conditions of people at your institution, including students, faculty, and staff. The following steps are necessary to set up medical information.

Procedure

1. Go to the **Disability Type Validation (STVDISA)** page.

- a) Create Disability Codes.
- b) Save the page.
- 2. Go to the Medical Disability Rule (GORMEDR) page.
 - a) In Disability Type Information section, search for the Disability Code that will be the default code on the **General Medical Information (GOAMEDI)** page.
 - b) Check **Default** for the code that will be the default code on the General Medical Information (GOAMEDI) page.
 - c) Save the page.
- 3. Go to General Medical Information (GOAMEDI) page.
 - a) In the Key Block, search for the name of the person for which you are defining medical information.
 - b) In the Medical Information section, enter a Medical Code, a Medical Date, and a Disability Type, and a Comment at a minimum.
 - c) Save the page.

Job Submission

The Job Submission module facilitates the submission of reports and processes throughout Banner™.

Some of the functions you can perform in the Job Submission module are:

- · Submit a Banner report or process for processing.
- Define the characteristics of each Banner report or process that can be run at your institution.
- Define the parameters that control the processing of a report or process.
- Define user-level defaults for the parameters that control the processing of a report or process.
- Display output from a report or process that was run through Job Submission and saved to the database.
- · Import and download files from the Job Submission server without having direct file access

Validation pages

Job Submission pages use the following validation pages.

Validation page	Used By
GTVPRNT	GJAJOBS
Printer Validation page	Process Maintenance page
	GJAPCTL
	Process Submission Control page
GTVSYSI	GJAJOBS
System Indicator Validation page	Process Maintenance page

Related report

The List of Reports and Parameters (GJRRPTS) shows reports and processes with their associated parameters. You can print the report for a single process, or you can use wildcards to print the report for all processes that begin with a specified string of characters.

For additional information and a report sample, refer to Chapter 13, Reports and Processes.

Menu navigation table

Pages in the Job Submission module can be accessed from the following menu.

Menu	Description
GJAPCTL	Process Submission Control page
	Lets you submit a Banner report or process for processing. You can run the process or report immediately or hold it for later processing. You can save the parameter values as user-level defaults.
GJAJOBS	Process Maintenance page
	Defines the characteristics of each Banner report and process that can be run at your institution.
GJAPDEF	Parameter Definition page
	Identifies the parameters that control the processing of a report or process. Establishes validation characteristics for the parameters. Defines system-level defaults for the parameters.
GJAPVAL	Parameter Value Validation page
	Defines valid values for the parameters that control the processing of a report or process.
GJAPDFT	Default Parameter Value Validation page
	Defines user-level defaults for the parameters that control the processing of a report or process.
GJRJPRM	Job Parameter Set Rule page
	Defines the names of the job parameter sets used at your institution.
	The actual defaults in a set are defined on the Process Submission Control (GJAPCTL) page or the Default Parameter Value Validation (GJAPDFT) page.
GJARSLT	Process Results page
	Displays a list of reports and processes that were run through Job Submission. Failure messages identify problems in batch processing and COBOL processes that were run online.
GTVPR NT	Printer Validation page
	Defines the codes that identify the printers at your institution.
GJIREVD	Delete Saved Output page
	A page to enable the deletion of multiple files at one time.

Menu	Description
GJIREVO	Saved Output Review page
	Displays output from a report or process that was run on the Process Submission Control (GJAPCTL) page and saved to the database.
GJAJPRF	Job Submission Profile Maintenance page
	Defines the directory used to save output from Pro*C jobs run with the Process Submission Control (GJAPCTL) page.
GJASWPT	Sleep Wake Maintenance page
	Allows you to monitor and control sleep/wake processing that has been set up for specific Banner processes in the Student System and the Accounts Receivable System.
GJAJBMO	JobSub Output Definition (GJAJBMO) page
	Allows you to define and activate Job Submission processes for the file save and download process.
GJAJFLU	Import File to JobSub Server (GJAJFLU) page
	Allows you to import files to the Job Submission server.
GJAJLIS	Saved JobSub Reports (GJAJLIS) page
	Displays a list of the report files that are uploaded and saved to the Job Submission server.
GJALCPR	Local Print Printer Definition (GJALCPR) page
	Identifies the printers on the Printer Validation (GTVPRNT) page that are printed external to Job Submission.
GJIJBMO	JobSub Output Definition Inquiry (GJIJBMO) page
	Allows you to view the status of jobs activated for GJRJLIS output processing.
GTVPDFT	JobSub PDF Font Type (GTVPDFT) page
	Stores the valid PDFBox font code values used by the Purge Saved Report Output from JobSub Server (GJPJLIS) process to convert Job Submission output to PDF.

Job Submission also uses the Alternate Logon Verification (GUAUIPW) page, which is not called from the menu. This page lets you enter an alternate user ID and password, changing the user ID that runs the job.

Note: You cannot enter an OPS\$ account in the Alternate User ID field on GUAUIPW.

Oracle*Wallet Proxy for Job Submission

Banner General 8.8 delivers a modification to the Job Submission process. This modification supports communicating with Job Submission through a proxy user with an Oracle*Wallet supporting configuration on the Job Submission server.

Essentially, this modification supports running batch jobs without requiring to pass the user's password value to the Job Submission server.

When a user is connected to the Banner Transformed application, that user is commonly connected through a proxy connection. The user's password will not be known to pass it to the Job Submission server. For that reason, Banner Transformation requires General 8.8 Proxy Wallet Job Submission to be installed and configured.

See Banner General Security Administration Handbook for more details.

Job Submission procedures

Submitting reports and other data processing jobs is a common activity for all Banner systems.

With the Job Submission module you can:

- · Define new reports and processes to Job Submission
- · Define default parameter settings
- Run Banner reports and processes
- Upload and download files from the Job Submission server without having direct file access

Define new reports and processes to Job Submission

You can define a new report and process to Job Submission.

Procedure

 Use the Process Maintenance (GJAJOBS) page to define the characteristics of the report or process.

Note: If the code for the process is not written in RPT or Pro C, you may need to modify the gjajobs procedure (gjajobs.shl or gjajobs.com) to submit jobs from the Process Submission Control (GJAPCTL) page.

- 2. Use the **Parameter Definitions (GJAPDEF)** page to define the characteristics and validation requirements of the parameters for the report or process. Optionally, you can establish systemlevel defaults.
- 3. For parameters that cannot be validated by an existing validation or list page on Banner, but have a defined set of values, use the **Parameter Value Validation (GJAPVAL)** page to set up

- valid values. An example of this type of parameter is a Y/N option or a R (report)/U (update) option.
- 4. Use the **Default Parameter Value Validation (GJAPDFT)** page to define any user-level defaults. Each user must individually identify defaults on this page. Defaults are saved under the user ID that logged on to Banner.

Set up parameter defaults for Banner reports and processes

Using default parameters reduces the number of parameter values you must enter each time you run a report or process. You can define both system-level and user-level defaults.

System-level defaults apply to all users at your institution. They have lower priority and are used only when a parameter does not have a user-level default. System-level defaults are defined on the Parameter Definition (GJAPDEF) page. A report or process can have only one set of system-level defaults.

Individual users can have one or more sets of user-level defaults for a report or process. This is useful if a user wants to run a report or process with distinct, but frequently used parameter combinations. For example, a user can have three sets of defaults for running the Person Directory (SPRPDIR): one set for recruits, another for students, and another for faculty. Each set of defaults is called a job parameter set and has its own name. If a user has more than one set of defaults for a report or process, the name of the job parameter set must be entered when the report or process is submitted on the Process Submission Control (GJAPCTL) page.

Parameter defaults must pass several validation checks when you create them:

- If specific parameter values are defined on the Parameter Value Validation (GJAPVAL) page, the default must equal one of these values.
- If a validation page is linked to the parameter on the Parameter Definition (GJAPDEF) page, the default must equal a value on the validation page.
- If a validation routine is linked to the parameter on GJAPDEF, the default must pass the special validation checking.
- The default must meet all validation criteria defined on GJAPDEF. These criteria include the data type, length, and range of values.
- If a validation routine is linked to the report or process on the Process Maintenance (GJAJOBS) page, the default must pass consistency checks applied to a group of parameters.

Set up system-level defaults

You can use the Parameter Definition (GJAPDEF) page to set up system-level defaults.

Procedure

- 1. Access the **Parameter Definition (GJAPDEF)** page.
- Enter the name of the report or process in the Process Name field. You can select the down arrow icon to access the Process Maintenance (GJAJOBS) page to search for a report or process.
- 3. Go to the next section.

- 4. Select the parameter for which you are entering a system-level default.
- 5. Enter the default value in the **Default** field. If validation requirements have been established for the parameter, select the down arrow icon to display a list of valid parameter values.
- 6. Save your changes.

Set up valid characters for the Special Print field

You can establish which characters are permitted in commands entered in GJAPCTL's **Special Print** field. You can set up either a list of not valid characters that will not be permitted in the special print field, or a list of valid characters, with all other characters being prohibited.

This rule is set up one time and affects all users in the institution. The setup must be done by a security administrator in the Banner Security Maintenance page (GSASECR). See the *Banner Security Administration Handbook* for details.

Set up user-level defaults

There are two ways to set up user-level parameter defaults.

- You can create a single set of user-level defaults for a report or process on the Default Parameter Value Validation (GJAPDFT) page. The defaults are associated with the user ID.
- You can create one or multiple sets of defaults by using the Process Submission Control (GJAPCTL) page. If you have multiple sets, each job parameter set must have its own name. The defaults in each set are associated with the user ID and the job parameter set.

Use GJAPDFT

This page allows you to create a single set of user-level parameter defaults for a report or process.

Procedure

- 1. Log on to Banner with the user ID that will be linked to the defaults.
- 2. Access the **Default Parameter Value Validation (GJAPDFT)** page.
- 3. Enter the report or process name in the **Process** field. Select the down arrow icon to access the **Process Maintenance (GJAJOBS)** page to search for a report or process.
- 4. Make sure the **Parameter Set** field is blank.
- 5. Go to the next section.
- 6. Select the parameter for which you are entering a user-level default.

Note: A message at the bottom of the page describes the selected parameter.

- 7. Go to the next section.
- 8. Enter the valid parameter value in the **User Default** field. If validation requirements have been established for the parameter, select the down arrow icon to display a list of valid parameter values.

9. Save your changes.

Use GJAPCTL

This page allows you to run a report or process and save the parameters as user-level defaults. If you want to save more than one set of parameters for the report or process, you can save the current set with a unique name.

About this task

The defaults in each set are associated with the user ID and the job parameter set.

Procedure

- 1. Log on to Banner with the user ID that will be linked to the defaults.
- 2. Access the Process Submission Control (GJAPCTL) page.
- 3. Enter the name of the report or process in the **Process** field. You can select the down arrow icon to access the **Process Maintenance (GJAJOBS)** page to search for a report or process.
- 4. Make sure the **Parameter Set** field is blank.
- 5. Go to the Printer Control section.
- 6. Optional: Enter any print parameters. (Print parameters are not saved as user-level defaults.)
- 7. Go to the Parameter Values section.
- 8. Enter the default value for each parameter in the Values fields.

Select the down arrow icon on the **Parameters** field to display the Parameter Definition (GJAPDEF) page with details for the selected parameter.

If validation requirements have been established for the parameter, you can select the down arrow icon on the **Values** field to display a list of valid parameter values.

Note: A message at the bottom of the section describes the selected parameter.

- 9. Go to the Submission section.
- 10. Select the Save Parameters check box.
- 11. If you want only one set of parameter defaults for the report or process, make sure the **As** field is blank.

OR

If you want multiple sets of parameter defaults for the report or process, enter the name and description of a new job parameter set in the **As** field.

- 12. Select the **Hold** option button or the **Submit** option button.
- 13. Save your changes.

Note: If you enter a job parameter set name and description in step 11, the job parameter set is automatically added to the Job Parameter Set Rule (GJRJPRM) page.

Change user-level defaults

You can change user-level parameter defaults on two different pages.

- Default Parameter Value Validation (GJAPDFT) page
- Process Submission Control (GJAPCTL) page

Use GJAPDFT

You can use this page to change user-level parameter defaults.

Procedure

- 1. Log on to Banner with the user ID that is linked to the defaults that need to be changed.
- 2. Access the **Default Parameter Value Validation (GJAPDFT)** page.
- 3. Enter the report or process name in the **Process** field. You can select the down arrow icon to access the **Process Maintenance (GJAJOBS)** page to search for a report or process.
- 4. If you are changing defaults for a job parameter set, enter the name of the set in the **Parameter Set** field. You can select the down arrow icon to access the **Job Parameter Set Rule** (**GJRJPRM**) page to search for a job parameter set.
- 5. Go to the next section.
- 6. Select the parameter for which you are changing a user-level default.

Note: A message at the bottom of the page describes the selected parameter.

- 7. Go to the next section.
- 8. To change the default, enter the new default in the **User Default** field. If validation requirements have been established for the parameter, you can select the down arrow icon to display a list of valid parameter values.

OR

To delete the default, select the Remove Record function.

OR

To clear all user-level defaults associated with the job parameter set for the report or process, select the Clear Block function.

9. Save your changes. The new defaults appear on the **Process Submission Control** (**GJAPCTL**) page the next time the report or process is run.

Use GJAPCTL

You can use this page to change user-level parameter defaults.

Procedure

1. Log on to Banner with the user ID that is linked to the defaults that need to be changed.

- 2. Access the Process Submission Control (GJAPCTL) page.
- 3. Enter the name of the report or process in the **Process** field. You can select the down arrow icon to access the **Process Maintenance (GJAJOBS)** page to search for a report or process.
- 4. If you are changing defaults for a job parameter set, enter the name of the set in the **Parameter Set** field. You can select the down arrow icon to access the **Job Parameter Set Rule** (**GJRJPRM**) page to search for a job parameter set.
- 5. Go to the Printer Control section.
- 6. Optional: Enter any print parameters. (Print parameters are not saved as user-level defaults.)
- 7. Go to the Parameter Values section.
- 8. Enter any changes to the parameter values in the **Values** fields.

Select the down arrow icon on the **Parameters** field to display the Parameter Definition (GJAPDEF) page with details for the selected parameter.

If validation requirements have been established for the parameter, you can select the down arrow icon on the **Values** field to display a list of valid parameter values.

Note: A message at the bottom of the section describes the selected parameter.

- 9. Go to the Submission section.
- Select the Save Parameters check box.

Note: If you entered a job parameter set name in step 4, the name and description automatically appear in the **As** fields.

Warning! If you delete the job parameter set in this section, defaults associated with the user ID will be updated, not the defaults associated with the job parameter set.

- 11. Select the **Hold** option button or the **Submit** option button.
- 12. Save your changes.

Copy user-level defaults to another user

You can copy the user-level parameter defaults of one user to another user.

Procedure

- 1. Log on to Banner with the user ID that is linked to the defaults that are being copied.
- 2. Access the **Default Parameter Value Validation (GJAPDFT)** page.
- 3. Enter the name of the report or process in the **Process** field. Select the down arrow icon to access the **Process Maintenance (GJAJOBS)** page to search for a report or process.
- 4. If you are copying defaults for a job parameter set, enter the name of the set in the **Parameter Set** field. You can select the down arrow icon to access the **Job Parameter Set Rule** (**GJRJPRM**) page to search for a job parameter set.
- 5. Go to the next section.

- 6. Select Copy Defaults to New User from the Options menu. The Copy Defaults to New User window appears.
- 7. Enter the user ID to whom the defaults are to be copied in the **New User** field. You can select the down arrow icon to list user IDs.
- 8. Save your changes.

Create a job parameter set

A single user can have multiple sets of user-level parameter defaults for a report or process. Each set of defaults is called a job parameter set and has its own name.

There are two ways to create a job parameter set:

- You can use the Job Parameter Set Rule (GJRJPRM) page to define the name of the job
 parameter set. The actual defaults for a specific user are defined at a later time on the Process
 Submission Control (GJAPCTL) page. Different users can use the same job parameter set name
 but have different defaults in the set.
- You can define the name of the job parameter set and save the associated parameter values as user-level defaults all at one time on the Process Submission Control (GJAPCTL) page. The job parameter set is automatically added to GJRJPRM.

In either case, after defaults are saved on GJAPCTL, the job parameter set cannot be deleted from GJRJPRM.

Use GJRJPRM

You can use the Job Parameter Set Rule (GJRJPRM) page to create a job parameter set.

Procedure

- 1. Access the **Job Parameter Set Rule (GJRJPRM)** page.
- 2. Enter the report or process name in a blank **Process** field. Select the down arrow icon to access the **Process Maintenance** (**GJAJOBS**) page to search for a report or process.
- 3. Enter the name of the job parameter set in the **Parameter Set** field.
- 4. Enter a description of the job parameter set in the **Description** field.
- 5. Save your changes.

Results

These steps establish the name of the job parameter set. The actual defaults in the set are defined on the Process Submission Control (GJAPCTL) page. See the steps on Use GJAPCTL on page 45 for details.

Different users can define different defaults with the same job parameter set name. For example, users JKELLY and KMEYER might both use job parameter set YEAREND. JKELLY's default for parameter 1 might be Y (yes), while KMEYER's default for the same parameter might be Y (no).

Use GJAPCTL

You can define the name of the job parameter set and save the associated parameter values as user-level defaults all at one time on the Process Submission Control (GJAPCTL) page. The job parameter set is automatically added to the Job Parameter Set Rule (GJRJPRM) page.

See the steps on Use GJAPCTL on page 45 for details.

Use Oracle*Reports

Oracle Reports are special product-specific reports that are delivered with Banner Student, Accounts Receivable, and Finance. Additionally, your site may have its own custom Oracle Reports.

For information about running a specific Oracle Report, refer to the appropriate Banner Student, Accounts Receivable, or Finance user guide. For technical information about Oracle Reports, refer to the *Banner General Technical Reference Manual*.

You can specify the following for your Oracle Reports:

- Format of the report (PDF, HTML, RTF, XML, and so on.)
- Destination type of the report (CACHE, FILE, MAIL, or PRINTER)
- Where you want the report to be sent (either a file location or, if the destination type is MAIL, an
 e-mail address)
- Execution mode (BATCH or RUNTIME)
- Whether the report should be run synchronously or asynchronously
- Whether you will run the report from GJAPCTL alone or from a page
- Whether the Oracle Reports parameter page should appear, displaying the existing parameters and allowing you to change them

These options are specified in the following parameters:

- 71 Destination Format
- · 72 Destination Type
- 73 Destination Name
- 74 Execution Mode
- 75 Communication Mode
- 76 Parameter page
- · 77 Display Report Value Window

Set up default values for parameters 71-77

Job Submission parameters 71 -77 define how the report will be run (for example, its format, destination, whether it will be run in synchronous or asynchronous mode, and so on.).

About this task

You can set up the default values for each report on the Parameter Definitions (GJAPDEF) page and the Parameter Value Validations (GJAPVAL) page.

Note: You have the option of using GJAPCTL to run custom Oracle Reports without any rows defined on the Parameter Definitions (GJAPDEF) page. The system automatically adds parameters 71 through 76.

Procedure

- 1. Access the **Parameter Definitions (GJAPDEF)** page.
- 2. Enter a value for 71 Destination Format.

This parameter defines the report's default format. Valid values include <code>DELIMITED</code>, <code>HTML</code>, <code>PDF</code>, and <code>RTF</code>. The default value is <code>PDF</code>.

Note: POSTSCRIPT and PRINTER DEFINITION are not available at this time. If you choose either of these values, you will receive the error Destination format of printer definition is not currently supported.

3. Enter a value for 72 - Destination Type.

This parameter specifies the report's default destination type. Valid values are:

- CACHE display the report on the screen (the default)
- FILE save the report to a file
- MAIL send the report to an e-mail address
- PRINTER send the report to a printer

Note: If you choose a Destination Type of FILE, MAIL, or PRINTER, then the Execution Mode parameter must be ASYNC.

Warning! Because your institution's reports could contain sensitive information, make sure that you send report data to a place where only the appropriate users have access to it.

4. Enter a value for 73 - Destination Name.

This parameter defines the default location where you want the report to be sent. You can enter up to 30 characters.

- If the Destination Type is FILE, this must be the name and location of a file to which the data should be written.
- If the Destination Type is MAIL, this must be a valid e-mail address. If you are sending the data to more than one address, each address must be separated by a comma (no spaces are permitted).

- If the Destination Type is PRINTER, this must be a valid printer name. If you leave this blank, the output will go to the report server's default printer (if you have defined one).
- 5. Enter a value for 74 Execution Mode.

This parameter specifies either BATCH or RUNTIME as the execution mode. RUNTIME is the default value.

- 6. Enter a value for 75 Communication Mode.
 - If the Communication Mode is ASYNC (asynchronous), the person who submitted the report can continue working in Banner while the report runs.
 - If the Communication Mode is SYNC (synchronous), control only returns to the calling page after the report has finished processing.

The default value is SYNC.

When you submit a report asynchronously, you will receive a message in a pop-up window with the report job ID.

Note: If you have the Communication Mode parameter set to <code>ASYNC</code> (<code>Asynchronous</code>), you cannot set the Parameter page Designation to <code>Yes</code>.

7. **Optional:** Enter a value for 76 - Parameter page Designation.

This parameter controls the display of the Oracle Reports parameter page.

- If YES, the page is displayed.
- If NO, the page is not displayed.

If you want to run a report with the Parameter page Designation parameter set to \mathtt{YES} , then the Destination Type parameter must be CACHE.

Note: You will receive an error if you run any Oracle Report with the parameters page set to display (parameter 76 = YES) in conjunction with a wildcard value for any of the other parameters.

8. Enter a value for 77 - Show Report Value Window.

This parameter specifies whether the Oracle Report Value Window appears when a user runs a report from a page other than GJAPCTL. It enables you to review and, if necessary, change various processing parameters for your job.

- If YES, the window appears and the user can change the values before submitting the report.
- If \mathtt{NO} , the window does not appear and the report is run with the default values.

Note: The Report Value Window is not displayed for reports run from GJAPCTL because the information it contains is displayed in the Parameter Values section on GJAPCTL. It is available for pages like the Standard Billing 270 page (FRR270B), where you can enter data into the page, then run the report through the Options menu.

9. Save your changes.

Note: You will receive an error if you try to resubmit a report after returning to the parameter page to correct an error.

Note: For example, if you entered a detail category code value of BLL instead of BIL, you would receive no data. You would then return to the parameter page, correct your mistake, and re-execute the report, at which point you would receive the error.

Access the Oracle Reports URL (Report Server Showjobs)

Only users with the Reports Administrator role can access Oracle Report output through a URL or any of the Report Server commands.

Run Banner reports and processes

There are two ways to run Banner reports and processes.

- Using Job Submission
- Using the operating system prompt

Whatever method you use, your Job Submission procedures may vary from the ones described in this section, usually because of differences in operating systems, different versions, or site-specific system modifications. Modify the following procedures to your site-specific standards as necessary. See the *Banner General Technical Reference Manual* for more information.

Note: Interactively entering job parameters from the host is no longer supported. Parameters for all jobs must be entered on the Process Submission Controls (GJAPCTL) page.

Use Job Submission

Job Submission uses the Process Submission Control (GJAPCTL) page to run reports and processes. You can optionally use the Saved Output Review (GJIREVO) page to view, save, and print these reports and processes without exiting to the operating system.

Run reports and processes

You must have proper authorization before you can run a report or process. User authorization is established on the Oracle/Banner Security Maintenance (GSASECR) page by authorized staff according to the policies and procedures defined at your institution.

Procedure

- 1. Access the Process Submission Control (GJAPCTL) page.
- 2. Enter the name of the report or process in the **Process** field. You can select the down arrow icon to access the **Process Maintenance (GJAJOBS)** page to search for a report or process.
- If the report or process has more than one job parameter set, enter the name of the set in the Parameter Set field. You can select the down arrow icon to access the Job Parameter Set Rule (GJRJPRM) page to search for a job parameter set.

- 4. Go to the Printer Control section.
- 5. **Optional:** Enter any print parameters. Defaults come from the Process Maintenance (GJAJOBS) page, but they can be changed.

Note: If you want to view, save, or print online, you can indicate DATABASE in the **Printer** field. With the addition of the "Manage files for SaaS and Cloud hosted environment" functionality, all output will be written to the database as a BLOB file, whether the user enters DATABASE in the **Printer** field or not.

- 6. Go to the Parameter Values section. Parameters defined for the report or process appear. These parameters are defined on the **Parameter Definition (GJAPDEF)** page. Default parameter values appear, if they have been defined. These defaults can be system-level or user-level.
- 7. Enter any changes to the parameter values in the **Values** fields. Here are some tips:
 - A message at the bottom of the section describes the currently selected parameter.
 - You can select the down arrow icon on the **Parameters** field to display the Parameter Definition (GJAPDEF) page with details for the selected parameter.
 - If validation requirements have been established for the parameter, you can select the down arrow icon on the **Values** field to display a list of parameter values.
 - Some parameters can have more than one value. This is indicated in the message at the bottom of the section as **M/S: Multiple**. To enter multiple values, place the cursor on the parameter. Select Insert Record. Select Duplicate Record to copy the previous value. Place the cursor on the copied value and change it to the appropriate value. Do not enter multiple values on the same line.
- 8. Go to the Submission section.
- 9. Optional: To save the set of parameter values as user-level defaults, select the Save Parameters check box. If you have only one set of user-level defaults for the report or process, leave the As field blank. If you have more than one set of user-level defaults, enter the job parameter set name and description in the As field.

Note: If you entered a job parameter set name in step 3, the name and description automatically appear in the **As** fields.

10. To hold the report or process and run it from the operating system, select the **Hold** option button. Take note of the sequence number that appears in the auto hint. Refer to the procedure on Use the operating system prompt on page 55 to run the report or process from the operating system.

OR

To run the report or process immediately, select the **Submit** option button.

11. Save your changes.

Warning! When a report or process is saved on GJAPCTL, the associated parameters are stored in the GJBPRUN Table with an assigned parameter sequence number. If a process on hold is never run or if a process runs and fails, the parameter entries remain in the GJBPRUN Table. Over time the table can grow in size tremendously. This is a potential problem depending on the procedures at your installation. The space allocation for GJBPRUN should be monitored closely. Parameters left in the table can be removed through SQL*Plus.

Set up Banner to support view, save, and print online output

Job Submission provides online access to output for viewing, saving, and printing through the Saved Output Review (GJIREVO) page.

About this task

Note: In a Macintosh environment, you cannot print directly from GJIREVO. You must first save the output to a desktop file and print from there.

The Job Submission Profile Maintenance (GJAJPRF) page contains user-level parameters that are used with GJIREVO. The **GURJOBS_DIRECTORY** parameter identifies the directory used to save your output from Pro*C jobs that are run with the Process Submission Control (GJAPCTL) page.

To set up Banner to support this feature, you must perform the following steps:

Procedure

1. Create an Oracle Application Server Listener and PL/SQL cartridge, or use an existing one. An example URL might be:

```
http://yourserver.com:portnumber/plsql/
```

- 2. In Banner, go to the General User Preferences Maintenance (GUAUPRF) page. Select the Directory Options section.
- 3. Scroll down until you find the **Description** that contains Enter the name of your Web Output URL.

The **Default Value** field contains http://yourserver.com/directory.

- 4. Enter your directory name in **User Value**.
- 5. Enter the URL you created in **User Value** and save your changes. For example:

```
http://machine123.college.edu:8888/plsql/
```

Note: If you want to change this value for all users, you must log onto Banner as the BASELINE user, and then make the changes on GUAUPRF.

6. Login to Banner and go to GJIREVO. The output of the job appears in a separate browser window. You can save the output to a file or send it to a printer by selecting the appropriate item from the Options menu.

View, save, and print online output

You must perform the following steps to view, save, and print online output.

Procedure

- 1. Make sure that the default printer used to print online output is set up on the **Printer Validation** (GTVPRNT) page.
- Use the Process Submission Control (GJAPCTL) page to run the report or process as usual. Enter DATABASE in the Printer field.

Note: If you are running multiple jobs with the same name, the system should not overwrite existing output because Job Submission uses the job's "one up number" as part of the file name. If you are running jobs that don't use the "one up number" as part of the file name, you may overwrite an existing file.

- 3. Access the Saved Output Review (GJIREVO) page.
- 4. Enter the report or process name that created the output in the **Process Name** field.
- 5. Enter the sequence number that identifies the specific report or process in the **Number** field.
- 6. Enter the name of the output file in the File Name field.
- 7. Review the job's output.
- 8. Select one of these options to save your output
 - To save your output to your local directory and print a copy:
 - Windows PC: Select Save and Print File from the Options menu. A series of dialog boxes asks you to choose a printer and optionally set up a default printer.
 - Macintosh computer: Select Save to File from the Options menu. Then print from your desktop.
 - Web browser: The output of the job appears in a separate browser window. You can save the output to a file or send it to a printer by selecting the appropriate item from the Options menu.
 - To save your output to your local directory without printing, select Save to File from the Options menu.
 - To remove the selected file from the database, select Delete Output from the Options menu.

Note: A file is not automatically deleted from the local directory when you save or print the file. You must maintain this directory.

Use the operating system prompt

You can submit a report or process from the operating system. You need directions from your technical support staff regarding directory names, specific commands, and syntax for your operating

system. There may be timing restrictions at your installation to prevent long processes from being executed during peak operating hours.

Use the following command format to submit a Banner baseline report or process from the host command:

UNIX:	jobname username/password
OpenVMS:	runproc jobname username/password

For example, the command to run GJRRPTS is

UNIX:	gjrrpts genlusr/u_pick_it
OpenVMS:	runproc gjrrpts genlusr/u_pick_it

If you don't specify the username and password on the command line, the system prompts you for them.

Depending on where the executable C program is located at your institution, you may need to enter the directory name before entering the job name. Check with your data center personnel for details. All output is directed to the current directory.

To create an automatic page break for each page (rather than a series of line feeds), enter -f following the job name. For example,

UNIX:	gjrrpts -f genlusr/u_pick_it
OpenVMS:	runproc gjrrpts -f genlusr/u_pick_it

Note: Interactively entering job parameters from the host is no longer supported. Parameters for all jobs must be entered on the Process Submission Controls (GJAPCTL) page.

The system requests two additional parameters:

- Run Sequence Number—This is a system-generated number that uniquely identifies the parameter values for executing the job. It is generated when you select the Hold field on the Process Submission Control (GJAPCTL) page. If you can leave the parameter blank, the report or process prompts you for all other parameters required for processing. If you enter the run sequence number, the report or process does not prompt for any other parameters. It obtains the parameter values from the parameter table, using the run sequence number as the key to the table. All reports and processes request this parameter, even those normally set up on sleep/wake routines. Entries in the GJBPRUN Table for the run sequence number are deleted after the process is successfully completed.
- Number of Lines Per Printed Page—This parameter controls page breaking. The default, which
 is set on the Process Maintenance (GJAJOBS) page, is 55 lines per page. You can override the
 default on GJAPCTL before the job is run.

Warning! The default 55 lines per page cannot be overridden with a value greater than 66 because of an existing rpf restriction that is being enforced to emulate rpf functionality in Pro*C programs converted by SCTCCONV.

You may want to view the contents of your report online before you print it to verify that you will get the desired output. Check with your technical staff for instructions.

Banner also allows specific reports to be written to a collector file for user-specified time interval processing and print capabilities. These processes use the "sleep/wake" routines which are unique to each process.

Manage files for SaaS and Cloud hosted environments

Banner Job Submission supports the management of files for SaaS and Cloud hosted environments.

Users can import and download files from the Job Submission server without having direct file access. This is an alternative to the existing Banner **File Upload Utility (GUAUPLP)** page which has dependencies on Oracle directories and Banner 8 Self-Service.

Import files to the Job Submission server

You can use the **Import File to JobSub Server (GJAJFLU)** page to import files to the Job Submission server.

Procedure

- 1. Access the **Import File to JobSub Server (GJAJFLU)** page.
- 2. In the **Job Name** field, enter a job name.

Your user ID is displayed in the key block and the next available number for Job Submission displays in the **One Up No** field.

If you have the Banner security object GJAJFLU_USER, you can view any other user's imported files on the GJAJFLU page. You can also change the user ID and view the rows. This option is useful in situations when a user has left their position and there is a requirement to view their imported files. You can also create FGAC rules to optionally control which users with the Banner security object GJAJFLU_USER can view them.

3. Click the **Select File** option to browse and select a file from your desktop to import to the Job Submission server.

The selected file name appears in the **File Name** field and defaults into the **Save as File Name** field.

4. In the Save as File Name field, enter the name that you want for the saved file.

The file name in the **File Name** field is defaulted after the file is selected.

Both the file names are limited to a length of 30 characters.

5. In the **Delete After Days** field, enter the number of days the file should be saved on the Job Submission server.

The **Delete After Days** is defaulted to 999 days.

The Purge Report Output (GJPJLIS) process removes the files and the Import File JobSub Server (GJRJFLU) rows after the number of days entered in this field is passed. The user is allowed to update this field after the file is saved.

6. Save your changes.

The save action submits the job that runs on the Job Submission server to import the file to the Job Submission server.

If the file is removed from the Job Submission server or Job Submission is not up, you can run the Import File JobSub Server (GJRJFLU) process from the Process Submission Control (GJAPCTL) page. You need to enter the Job Submission process name, the one up number recorded on the GJAJFLU page and the input file name.

Define attributes for the file

You can use the **JobSub Output Definition (GJAJBMO)** page to define and activate Job Submission processes for the file save and download process.

Procedure

- 1. Access the JobSub Output Definition (GJAJBMO) page.
- 2. Select the **Enable All** button to do a bulk selection of records and commit them instead of selecting and committing them one by one.
- 3. In the **Job Name** field, enter a job name.
- 4. Select the **Enabled** check box to indicate that the file should be imported.
- 5. In the MIME Type field, specify the format in which the file should be saved: plain text or PDF.
- 6. In the **PDF Font** field, specify the font that should be used for the PDF. The font is Courier by default.
- 7. In the **PDF Font Size** field, specify the size of the PDF font.
 - The font size is 8 by default.
- 8. In the **Maximum Delete After Days** field, specify the maximum number of days the file should be saved on the Job Submission server.
 - The Maximum Delete After Days is 999 by default.
- 9. Save your changes.

You must have the Banner security object GJAJBMO_INSERT to insert on this page. The **Insert**, **Update**, and **Delete** check boxes are disabled if the environment setting is defined as Windows.

Entries for GJAJBMO are delivered with baseline upgrades for each of the products after the shell scripts for the jobs have been updated to include the step to execute the Saved Job Report Output (GJRJLIS) process. The entry in GJRJBMO allows the administrator to enable the process and users can start using the Saved JobSub Reports (GJAJLIS) page to view their output.

Download files from the Job Submission server

You can use the Saved JobSub Reports (GJAJLIS) page to list and download the output files from the Job Submission server.

Procedure

1. Access the Saved JobSub Reports (GJAJLIS) page.

This page lists the report files that are imported and saved to the Job Submission server.

Output rows are sorted by the created date in descending order so that you see the newest files first, followed by the job name and the one up number.

You can alternatively enter the job name in the key block and filter the output files using the filter options Job Name, Created Date, One Up Number, File Name, Delete After Days, Delete After Date, Printer Code, MIME Type, PDF Font, and PDF Font Size. You can update the Delete After Days field and postpone the automatic deletion of the physical file.

If you have the Banner security object GJAJLIS_USER, you can view any other user's output files on the GJAJLIS page. You can also change the user ID and view the rows. This option is useful in situations when a user has left their position and there is a requirement to view their output files. You can also create FGAC rules to optionally control which users with the Banner security object GJAJLIS_USER can view them.

2. Select the file you want to download and click the **Download File** option.

You have the option to save the file and open it later or open the file and download or print it.

Some sites have printers that are not accessible to the Job Submission server. In such cases, Job Submission cannot print the output. The printers that are printed external to Job Submission are entered on the Local Print Printer Definition (GJALCPR) page. The print command is by-passed for those printers. If it is a printer accessible to Job Submission, the print date is updated by the GJRJLIS process. The process assumes that the print execution has completed successfully.

If the printer is not listed on the GJALCPR page, gjajobs.shl will execute the print command as normal and the GJAJLIS page will be updated with a print date. The **Print Date** field on this page will be blank if the printer is listed on GJALCPR and gjajobs.shl will not execute the print command for these printers.

If the **Print Date** is null, you can select a printer from GJALCPR in the **Printer** field.

Alternate method to download files from the Job Submission server

Users can continue to use the process of specifying DATABASE in the GJAPCTL printer and exporting files with .lis and .log suffixes from GJIREVO.

With Banner General 8.9.3 release, files created by C processes will be automatically inserted with other suffixes (.csv, .xml, .ctl, .txt, dat, .html) into GJIREVO as long as the file is named for the job and one up number. For example, sfrsscr_1234.dat.

Note: This change is applicable for all deployment models: SaaS, Hosted and On Premise.

With Banner General 8.9.3 release, there is another option for files with a .lis suffix. The GJRJLIS process inserts files into the new BLOB column on the GJRJLIS table and optionally converts them to PDF. Users are not required to enter DATABASE in the printer for this functionality to be executed. To enable a job to be saved in GJRJLIS, the job must be listed on the GJAJBMO page to define defaults and activate GJRJLIS for a job. Ellucian delivers DML scripts to insert jobs into GJAJBMO, but as inactive. The site system administrator can enable jobs as required.

The initial entry of jobs on the GJAJBMO page is set to **MIME Code** of plain text and the **Maximum Delete After Days** is set to 999. The system administrator can change both of these. If the MIME code is changed to PDF, the font COURIER and font size 8 are defaulted on the page. The values can be changed, but the output should be tested to verify that the new font type and font size will not distort the output. Ellucian recommends to use COURIER font and font size 8.

The user can override the default values on GJAPCTL when they set up their job to execute. The new columns for **MIME Code**, **PDF Font**, **Font Size** and **Delete After Days** are defaulted in the Print Control section of the GJAPCTL page. The user can change these default values.

After a process's output is listed on the GJAJLIS page, the user can download the file and print or save it to disk. The user can also choose to change the life span of the output by updating the **Delete After Days** value on the GJAJLIS page. Users can only view files they have created by clicking the **Download** button and opening the file on their desktop application.

Job Submission server file maintenance

The **Purge Report Output (GJPJLIS)** process purges files from the Job Submission server. The GJPJLIS process can be scheduled on regular basis with defaults to purge files that have reached the delete after date.

There are several options to set up the job for special processing. The system administrator can select to run with a filter based on a file name. They can also catch old files and override the delete after days age.

The job also has the option to list files on the Job Submission server.

Windows and saved output

Clients with Windows Job Submission servers are not able to use the automatic JobSub Save Output processing from the Job Submission process (GJAPCTL).

To save output to the JobSub Save Output table, clients must manually submit the job GJRJLIS from GJAPCTL. There can be an issue in that the job output filename must have a length less than 30 characters.

The file name template delivered in <code>gjajobs.pl</code> may set the output file name to be longer than 30 characters. Clients with Windows environment can use the **Import to JobSub (GJAJFLU)** process. Windows clients can also use the **Purge Saved Report Output (GJPJLIS)** process to maintain files.

Job Submission messages

If you make a mistake when you submit a job using the Process Submission Control (GJAPCTL) page, Banner provides a diagnostic message to alert you to the problem and gives you directions to remedy the situation.

Here are some of the common diagnostic messages you may see, with their corrective actions.

Can't read page by that name

The system cannot validate a parameter you entered on the Process Submission Control (GJAPCTL) page because it can't find the appropriate validation page for this application. GJAPCTL validates parameters on the system-specific validation page (*OKPVAL), where * is the first character of the application's job name.

page	Prefix Description
AOQPVAL	Alumni
FOQPVAL	Finance
GOQPVAL	General
NOQPVAL	Position Control
POQPVAL	Payroll
ROQPVAL	Financial Aid
SOQPVAL	Student
TOQPVAL	Accounts Receivable

Can't read page by that name

This message usually occurs when trying to submit a locally created job that begins with W, Y, or Z. For baseline Banner jobs, parameter and process level validation are performed by a product specific database package xOKPVAL, where x is the product's System Indicator code.

For example, General's package is named GOKPVAL. In the event that the database package is not accessible, an attempt is made to call the product specific validation page xOQPVAL, where, once again, x is the product's System Indicator code.

The reason for the error message is that neither the package nor the page could be found and validation was specified for the parameter or job.

If you are submitting a baseline job, speak with your data center personnel and tell them you suspect a problem with the XOKPVAL package. If you are submitting a local job, one beginning with the letter W, Y, or Z, verify that a corresponding xOKPVAL database package has been created, or that a xOQPVAL page has been created. One or the other must exist before the validation can occur. Talk with your data center personnel about your requirements.

Run sequence number is invalid. Aborting job.

If you submitted this job using the Process Parameter Control (GJAPCTL) page, the system cannot find the parameter values and associated run sequence numbers that are stored for each job in the GENERAL.GJBPRUN Table.

If the job is a newly-created one, it's possible that the variable that defines the name of the process is not correct. Often a new process is cloned from an existing one, and some instances of the old process name are not changed.

If you submitted this job interactively from the host command, the run sequence number you entered can't be found with the parameter values that are stored for each job in the GJAPCTL. You probably did not enter the correct run sequence number.

If this is a first-time use of a new job, look for all occurrences of the name of the process that was copied and change them to the new name. You may need help from your data processing personnel. Resubmit the job.

If you're running this job from the host command, you probably did not enter the correct run sequence number. Enter the parameter values on GJAPCTL again and "hold" the values. When you have finished, note the sequence number that appears in the auto hint -- this is the number that should be used as the run sequence number when you rerun the job from the host.

Run sequence number is invalid. Aborting job.

No entries were found in the Process Run Parameter Table (GJBPRUN) for the run sequence number specified. If you submitted this job interactively, the run sequence number you entered can't be found in the GENERAL.GJBPRUN Table. You probably did not enter the correct run sequence number.

Check the source of the program to verify that all selects against the GJBPRUN table refer to the correct job name. If the job is new and was cloned from an existing one, check that the selects against the GJBPRUN table were changed to refer to the new program name, not the cloned one. You may need help from your data processing personnel. Resubmit the job. If you're running this job from the operating system prompt, you probably did not enter the correct run sequence number. Enter the parameter values on GJAPCTL again and select "hold", then select Commit. When you have finished, note the sequence number that appears in the autohelp -- this is the number which should be used as the Run Sequence Number when you rerun the job from the operating system prompt.

ERROR Problem communicating with job submission program. Seek Help.

Either the background process that processes Job Submission requests is not running, or the volume of job requests is excessive.

Contact your technical staff to determine whether you should start the background process (gurjobs) if it not running. If it is running, technical staff may need to start more than one occurrence of gurjobs to handle the volume.

ERROR Unable to submit job. Verify that the gurjobs program is running.

Either the background process that processes job submission requests is not running, or the volume of job requests is excessive.

Contact your technical staff to determine whether it is necessary to start the background process (gurjobs) if it not running. If it is running, technical staff may need to start more than one occurrence of gurjobs to handle the volume.

Warning Timed out waiting for response from job submission program.

The background process that processes job submission requests is not running, the volume of job requests is excessive, the job you submitted is still running or the job you submitted aborted.

Contact your technical staff to determine whether it is necessary to start the background process (gurjobs) if it not running. If it is running, try to locate any output files generated by your job to see if an error message is present.

The variables' values do not print when I run GLRLETR.

When I print my letters directly from Banner (the "0 = none" option), only the variables within the letter print (for example, *FNAME, *LNAME), and not the values for the variables. The GLRCOLR table has been updated correctly through the GLBLSEL process.

This situation occurs when the letter's table definitions [i.e., "margin settings"] are not contained within a separate paragraph code (GTVPARA/GUAPARA).

All table definitions [not text or variables] must be held in a separate paragraph, and that paragraph must be Sequence 1 on the Letter Process (GUALETR) page. A good technique, also, is to have the new page format command [#NP] in a separate paragraph and to have that be Sequence 2 on the Letter Process page.

External Program Could Not Execute Or Had An Error.

This occurs sometimes when I enter variable rules on GLRVRBL or population selection rules on GLRSLCT, and I exit the pages so the GLOLETT process can compile the rules, How can I prevent this from occurring?

The Process Results table, GJBRSLT, may be growing too large. This table should be monitored and periodically cleaned out through SQL*Plus.

There may be some extraneous values lodged in the GJBPRUN table. Have your Computer Services Department issue the following statement using SQL*Plus:

SQL> delete gjbprun where gjbprun job = 'GLOLETT';

Dynamic parameters found. Please fill in the appropriate values.

The job which you have submitted has dynamic parameters which must be entered. You will be prompted with a second window to allow you to enter the necessary values.

Population Selection

The Population Selection module allows you to identify any group entities in the database (for example, people, vendors, and organizations). You can define selection criteria to identify and extract a subset of these entities to use in Banner™reports, processes, and letters.

Some of the functions you can perform in the Population Selection module are:

- Manually create, change, and display a population of IDs for reports, processes, and letters.
- · Define the rules used to select IDs from the Banner database for reports, processes, and letters.
- Define the functional areas (applications) used in the Population Selection and Letter Generation modules.
- Define the variables used in the Population Selection and Letter Generation modules to select a specific piece of data in the database.
- Define common rules, or objects, that are used in many different population selections and variables.

Definitions

The following definitions are useful for understanding the functions of the Population Selection module.

- **population, definition of Population**. A set of Banner IDs used for reports, processes, and letters. A population is uniquely identified by an application, selection ID, creator ID, and user ID.
- population selection definition of Population selection. A set of rules used to select IDs from the Banner database for reports, processes, and letters. A population selection is uniquely identified by an application, selection ID, and creator ID.
- **application**, **definition ofApplication**. A functional area with similar characteristics that can be applied to population selections, populations, and variables.
- variable definition of Variable. A specific piece of data in the database and the set of rules used to select that data.
- **object, definition ofObject**. A set of common rules used in many different population selections and variables. Objects are not required, but they simplify data entry and provide some consistency.

Validation pages

Population Selection pages use the following validation page.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
GTVSYSI	GLRAPPL
System Indicator Validation page	Application Definition Rules page

Related processes

The following processes are related to the Population Selection module.

For additional information, refer to Chapter 13, Reports and Processes.

- The Population Selection Extract Process (GLBDATA) extracts IDs (people and non-persons) from the Banner database based on the rules entered on the Population Selection Definition Rules (GLRSLCT) page. This is a COBOL program. If the results of this extract will be used to identify the population receiving a letter, it should be executed before running the Variable Data Extract Process (GLBLSEL). If the results of this extract will be used to identify the population to be used in a report, it must be executed before running that report.
- Parameter Selection Compile Process (GLBPARM) creates Job Submission parameters for all
 variables for a given application and all selection IDs for the logged in user ID. This COBOL
 program that should be executed before the Automatic Letter Compilation Process (GLOLETT).
 Only execute this process when application rule changes require recompiling the associated
 population selections.
- Automatic Letter Compilation Process (GLOLETT) generates SQL statements from the rules
 entered on the Population Selection Definition Rules (GLRSLCT) page and the Variable Rules
 Definition (GLRVRBL) page. This COBOL program that is executed automatically from the
 GLRSLCT page when a population selection is created or changed and from the GLRVRBL
 page when a variable is created or changed.

Menu navigation table

Pages in the Population Selection module can be accessed from the following menu.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
GLIEXTR	Population Selection Extract Inquiry page
	Displays a population, which is a set of Banner IDs used for reports, processes, and letters.
GLAEXTR	Population Selection Extract Data page

Menu	Description
	Allows you to manually create, change, and display a population, which is a set of Banner IDs used for reports, processes, and letters.
GLRSLCT	Population Selection Definition Rules page
	Defines a population selection, which is a set of rules used to select IDs from the Banner database for reports, processes, and letters.
GLISLCT	Population Selection Inquiry page
	Displays a list of population selections within an application.
GLRAPPL	Application Definition Rules page
	Defines an application, which is a functional area that controls population selections, populations, and variables.
GLIAPPL	Application Inquiry page
	Displays a list of all applications defined on the GLRAPPL page.
GLRVRBL	Variable Rules Definition page
	Defines a variable, which is a specific piece of data in the database and the set of rules used to select that data.
GLIVRBL	Variable Inquiry page
	Displays a list of the variables defined on the GLRVRBL page for an application.
GLROBJT	Object Definition Rules page
	Defines an object, which is a set of common rules used in many different population selections and variables.
GLIOBJT	Object Inquiry page
	Displays a list of objects defined on the GLROBJT page.
GTVSYSI	System Indicator Validation page
	Defines codes that identify the Banner applications used at your institution.

Population Selection also uses the Population Selection Result Inquiry (GLIRSLT) page, which is not called from the menu. This page displays a list of populations within a specific application.

Population selection procedures

Many Banner reports, processes, and letters use sets of Banner IDs called populations. For example, a particular letter may be mailed to a specific population, and a Banner report may be generated for another population.

With the Population Selection module, you can:

- Build a population selection, which is a set of rules used to select IDs from the Banner database. You can build the rules from scratch or copy an existing population selection and make changes.
- Create a population of Banner IDs. You can either use the rules in a population selection to extract IDs from the database, or you can manually create a population.

When a population is created, you can view its contents on the Population Selection Extract Inquiry (GLIEXTR) page.

Definitions

The following definitions are useful for understanding the functions of the Population Selection module.

Term	Description
Population	A set of Banner IDs used for reports, processes, and letters. A population is uniquely identified by an application, selection ID, creator ID, and user ID.
Population selection	A set of rules used to select IDs from the Banner database for reports, processes, and letters. A population selection is uniquely identified by an application, selection ID, and creator ID.
Application	A functional area with similar characteristics that can be applied to population selections, populations, and variables.
Variable	A specific piece of data in the database and the set of rules used to select that data.
Object	A set of common rules used in many different population selections and variables. Objects are not required, but they simplify data entry and provide some consistency.

Build a population selection

A population selection is a set of rules used to select IDs from the Banner database for reports, processes, and letters. A population selection is uniquely identified by an application, selection ID, and creator ID.

About this task

Note: You can use objects to simplify the building process. An object is a set of common rules used in many different population selections and variables. Objects are defined on the Object Definition Rules (GLROBJT) page. When they are defined, you can reference the object rather than enter the entire set of rules each time it is needed. Objects are not required, but they simplify data entry and provide some consistency.

Procedure

Make sure the application associated with the population selection is defined on the
 Application Definition Rule (GLRAPPL) page. An application is a functional area that controls
 a population selection. Optionally, an application will include general, high-level rules used to
 select IDs, if they exist for that application.

Note: When defined, the application can be used repeatedly for every population selection associated with that application.

- 2. Access the Population Selection Definition Rules (GLRSLCT) page.
- 3. Enter the application in the **Application** field.
- Enter a population selection name in the Selection ID field. You can click the down arrow icon
 to access the Population Selection Inquiry (GLISLCT) page to see the population selections
 that already exist.
- 5. Verify the **Creator ID**. Your user ID is the default, but it can be changed.
- 6. Go to the Description section.
 - a) Enter a free-page description of the population selection in the **Description** field.
 - b) **Optional:** Select the **Manual** check box if all joins must be entered manually in the Rules section. No automatic PIDM joins occur when rules are compiled. This check box is used for population selections that use secondary PIDMs rather than key PIDMs to join two or more tables.
 - Any GLRAPPL high-level rules for the application will be included in manual population selections.
 - c) Optional: Select the Lock check box to lock the population selection. If the population selection is locked, only the creator ID can use this population selection in the Population Selection Extract Process (GLBDATA), view a selected population on the Population Selection Extract Inquiry (GLIEXTR) page, or change a selected population on the Population Selection Extract Data (GLAEXTR) page.

Note: A user cannot change or delete population selection rules that were created by another user ID, regardless of the lock indicator.

- d) **Optional:** Select the **Delete** check box to delete all rules associated with the population selection. This also deletes all IDs that have the same user ID as the creator ID associated with their population selection. If a population was extracted by a user ID different from the creator ID, the IDs are not deleted.
- 7. Go to the Definition section. This is where you identify the data to be selected from the database.
 - a) In the **Select** field, enter the database column from which data will be extracted. This database column must reference a PIDM (for example, SPRIDEN_PIDM or RORSTAT_PIDM). (A PIDM is a unique internal ID maintained by the system for each entity entered on Banner.) This column name is validated against the data dictionary.
 - b) In the **From** field, enter the names of all tables from which you want to extract data. Use the format <alias>, separating multiple table names with commas. You can use aliases to reference tables in subqueries within the selection rules, or multiple times within the selection rules. Aliases have a maximum length of four characters. Table names are validated against the data dictionary.
 - If the application associated with a population selection has selection rules, include all tables referenced in the application rules. To improve performance of the Population Selection Extract Process (GLBDATA), list multiple tables in the **From** field from most general to most specific, or largest to smallest. For example, if two tables are being used, one with one record per ID and another with multiple records, list the multiple record table first.
- 8. Go to the Rules section. This is where you enter the selection rules.

Note: Use open and closed parentheses to group nested statements for logical evaluation. You can use up to three levels of nested statements. The number of open parentheses on a line must equal the number of closed parentheses.

- a) In the **Object** field, enter an object name or, in the **Data Element** field, enter the name of the database column used in the selection rule. The name must be a valid database column in the Oracle data dictionary. You cannot enter the name of an SQL function, such as MAX or MIN, in this field.
 - To reference an object, enter *INCL followed by the object name. For example, enter *INCL AID_PERIOD. Then go to the next item. The rules from the AID_PERIOD object are automatically added to the population selection. You can click the down arrow icon to access the Object Inquiry (GLIOBJT) page to search for an object.
- b) In the **Operator** field, enter an SQL operator (=, <>, >, <, and so forth). The operator is used to compare the **Data Element** and **Value** fields.

For date comparisons, avoid using an equal sign (=) because dates are often stored with hours, minutes, and seconds. A better approach is to use less than (<), greater than (>), less than or equal (<=), or greater than or equal (>=). You might need an extra condition. For example, ACTIVITY_DATE is stored with hours, minutes, and seconds. Use these statements to find addresses changed on March 1, 2003:

```
SPRADDR_ACTIVITY_DATE >= '01-MAR-03' AND SPRADDR_ACTIVITY_DATE < '02-MAR-03'
```

IN checks for inclusion in a list of values:

```
GOREMAL_EMAL_CODE IN ('ACAD', 'BUS', 'HOME')

NOT IN checks for exclusion from a list of values:

GOREMAL EMAL CODE NOT IN ('ACAD', 'BUS', 'HOME')
```

c) In the Value field, enter the value that is compared with the Data Element based on the Operator. This can be a constant literal, another database column name or alias, combination of a constant literal and database column name, dynamic parameter, or subquery. Use upper case.

Note: Do not enter a value if the Operator contains NULL or IS NOT NULL.

Constant literal: The data type of the **Data Element** determines the format of the literal. Values that are compared to character data elements must be enclosed in single quotes. Values that are compared to numeric data elements must be numeric. Values that are compared to date data elements must be in the format 'DD-MON-YY' or 'DD-MON-YYYY'. Single quotes are not used with SYSDATE. Use the operator AND between ranges. For example, enter '01-JAN-03' AND '31-JAN-03'. Use the same format for both years (YY or YYYY).

Note: The operator BETWEEN cannot execute dynamic parameters in a Selection ID or Variable. Dynamic parameters contained within single quotes are treated as literals.

Another database column name: The **Value** is validated against the Oracle data dictionary. If the data types (character, numeric, or date) of the **Value** and **Data Element** are not the same, a warning appears. You can override the warning and keep the comparison.

Dynamic parameter: Enter an ampersand (&) followed by text (for example, $\& \texttt{Letter_Code}$). When you extract a population with the Population Selection Extract Process (GLBDATA), the system prompts for each dynamic parameter in the selection rules.

Subquery: Enter (*SUB<variable>). Use a subquery to select one record when an ID might have multiple records. The parentheses are required. The literal *SUB indicates this is a subquery, or reference to another variable. The variable is a valid variable name already defined on the Variable Rules Definition (GLRVRBL) page and compiled in this application. You can select the down arrow icon to access the Variable Inquiry (GLIVRBL) page to search for a variable. If you select a variable from the list, the system gives it the proper syntax. A population selection can have only one subquery. If defined, it must be the last rule.

- 9. In the **AND/OR** field, enter the connector that links rules with AND or OR logic. All lines in the Rules section, except the last line, must contain a connector.
- 10. After all the rules are entered, save your changes.
- 11. Exit the page.

The GLOLETT process will run to compile the selection only after you exit the GLRSLCT page.

Task notes

Remember the following while performing this task.

When using a dynamic parameter with an IN or NOT IN operator do not include left and right
parentheses. Do not include spaces when entering the value for the dynamic parameter. Define
the IN statement similar to the following:

```
column name IN &Term
```

• GLBLSEL will generate an 88 level prompt for &Term. Enter the values within single quotes with the parentheses, without using spaces:

```
88 &Term ('200111','200222','200333')
```

- LIKE compares a character value to a pattern and may include wildcards. The following wildcards may be used:
 - an underscore () matches exactly one character
 - a percent sign (%) matches zero or more characters
- To find SPRIDEN_LAST_NAME values like 'Smith' and 'Smithsonian', the following may be used:

```
SPRIDEN LAST NAME LIKE 'Smith%'
```

• NOT LIKE compares a character value to a pattern and excludes the matched values. For example, to exclude SPRIDEN LAST NAME values like 'Smith' and 'Smithsonian':

```
SPRIDEN LAST NAME NOT LIKE 'Smith%'
```

IS NULL selects rows which have a null value in a particular column. For example:

```
GURMAIL DATE PRINTED IS NULL
```

• IS NOT NULL selects rows which have a non-null value. For example:

```
GURMAIL DATE PRINTED IS NOT NULL
```

• BETWEEN tests whether a value is within a range of values by testing "greater than or equal to <low value> and less than or equal to <high value>". For example:

```
GURMAIL TERM CODE BETWEEN '20100' AND '20999'
```

- To improve processing time, certain criteria (such as whether a person is alive or has a current ID) should be specified through population selection rules rather than with a subquery.
- Outer joins cannot be performed. A join in Oracle occurs when fields from two or more tables
 are compared. If a matching row in one table does not exist, no result is returned. An outer join
 would cause a result to be returned even if a matching row does not exist.

For example, suppose you want to select everyone on Banner with a birth date after 1985, or an unknown birth date. The birth date is stored on the General Person Table (an optional table). If the person record exists for an ID, the ID and birth date are selected even if the birth date does not exist. If the person record does not exist for the ID, the ID is not selected. To extract this information you must create two population selections: one to select everyone with a person record whose birth date is greater than 1985 or whose birthdate is null, and another to select everyone who does not have a person record. The two population selections would then be combined in the Population Selection Extract Process (GLBDATA) with a union function, to give the desired population.

Copy a population selection

You can copy the rules in an existing population selection to create a new population selection. You can change the application and selection ID. Your ID becomes the creator ID. A copied population selection can be changed as needed.

Procedure

- 1. Access the **Population Selection Definition Rules (GLRSLCT)** page.
- 2. Enter the application associated with the population selection you want to copy in the **Application** field.
- Enter the population selection you want to copy in the Selection ID field. You can select the
 down arrow icon to access the Population Selection Inquiry (GLISLCT) page to search for a
 population selection.
- 4. To access the Selection ID Copy window, select Copy from the Options menu. Information in the Copy From section defaults from the main window.
- 5. Enter the application associated with the new population selection in the Copy To **Application** field.
- 6. Enter the new population selection ID in the Copy To **Selection** field. You can select the down arrow icon to access the Population Selection Inquiry (GLISLCT) page to see the existing population selection IDs that cannot be used.

Note: The Creator ID defaults to your user ID. It cannot be changed.

- 7. Select the Insert Record function. The main window reappears with the cursor in the **Description** field.
- 8. Use the normal steps to change and save rules for the new population selection. You can use the steps in Build a population selection on page 69, beginning with step 6.

Create a population with GLBDATA

A population is a set of Banner IDs used for reports, processes, and letters. One way to create a population is with the Population Selection Extract Process (GLBDATA). The Banner user ID that runs GLBDATA becomes the user ID associated with the population.

There are two ways to use GLBDATA:

- Extract IDs using the population selection rules defined on the Population Selection Definition Rules (GLRSLCT) page.
- Create a population from the union, intersection, or difference (minus) of the rules in two existing population selections.

You can run GLBDATA from the Process Submission Control (GJAPCTL) page or from the operating system. If you run the process from the operating system prompt, check with your technical personnel for the appropriate command to use at your institution. For example:

UNIX: glbdata.shl username password

OpenVMS:	@glbdata username password

Extract IDs using population selection rules

You can create a population by extracting IDs using the population selection rules defined on the Population Selection Definition Rules (GLRSLCT) page.

Procedure

- 1. Access the Process Submission Control (GJAPCTL) page.
- 2. Enter GLBDATA in the Process field.
- 3. If the process has more than one job parameter set, enter the name of the set in the **Parameter Set** field. You can select the down arrow icon to access the **Job Parameter Set Rule** (**GJRJPRM**) page to search for a job parameter set.
- 4. Optional: If you want to view, save, or print online, enter DATABASE in the Printer field.
- 5. Go to the Parameter Values section. Parameters defined for the process appear. Default parameter values appear, if they have been defined.
- 6. Enter the following parameter values:

Parameter Number	Parameter	Value
1	Selection Identifier 1	ID of the population selection that will be used to extract the population
6	Application Code	Application associated with the population selection
7	Creator ID of Selection ID	Oracle ID of the user who created the population selection
8	Detail Execution Report	 S = Display SQL statements I = Display SQL statements and inserts. Y = Display paragraphs.

- 7. Go to the Submission section.
- 8. Select the **Hold** option button or the **Submit** option button.
- 9. Save your changes.
- 10. **Optional:** If the population selection in parameter 1 has dynamic parameters, the cursor returns to the Parameter Values section. Enter values for the dynamic parameters in parameter 88. Return to the Submission section. Save your changes again.

Note: You must enter a non-blank value for each 88 level prompt.

Create a population from the union, intersection, or minus of existing population selection rules

You can create a population from the union, intersection, or minus (difference) of the rules in two existing population selections. The rules in both of the existing population selections are defined on the Population Selection Definition Rules (GLRSLCT) page.

About this task

Note: The two existing population selections must have the same application and creator ID.

- 1. Access the Process Submission Control (GJAPCTL) page.
- 2. Enter GLBDATA in the Process field.
- If the process has more than one job parameter set, enter the name of the set in the Parameter Set field. You can select the down arrow icon to access the Job Parameter Set Rule (GJRJPRM) page to search for a job parameter set.
- 4. Optional: To view, save, or print online, enter DATABASE in the Printer field.
- 5. Go to the Parameter Values section. Parameters defined for the process appear. Default parameter values appear, if they have been defined.
- 6. Enter the following parameter values:

Parameter Number	Parameter	Value
1	Selection Identifier 1	ID of the first existing population selection that will be used to create a new population selection.
2	Selection Identifier 2	ID of the second existing population that will be used to create a new population selection.
3	New Selection Identifier	ID of the new population selection that will be created from the two existing population selections.
4	Description for New Selection	Freeform description of the new population selection.
5	Union/Intersection/Minus	Code that determines the contents of the resulting population:
		 U = The population includes all IDs extracted by the first population selection and all IDs extracted by the second population selection. If an ID is selected by both, it is included only one time in the population.
		 I = The population includes only those IDs that are extracted by both population selections.

Parameter Number	Parameter	Value
		 M = The population includes all IDs extracted by the first population selection except those IDs extracted by the second population selection.
6	Application Code	Application associated with the two existing population selections. This becomes the application associated with the new population selection.
7	Creator ID of Selection ID	Oracle ID of the user who created the two existing population selections.
8	Detail Execution Report	 S = Display SQL statements I = Display SQL statements and inserts Y = Display paragraphs

- 7. Go to the Submission section.
- 8. Select the **Hold** option button or the **Submit** option button.
- 9. Save your changes.
- 10. **Optional:** If either of the population selections in parameter 1 or 2 has dynamic parameters, the cursor returns to the Parameter Values section. Enter values for the dynamic parameters in parameter 88. Return to the Submission section. Save your changes again.

Note: You must enter a non-blank value for each 88 level prompt.

Task notes

Remember the following while performing this task.

- 1. Creating a new population from the union, intersection, or minus of two existing population selections uses the rules defined for the two existing population selections. Manual entries for a population are not considered as part of any population selection.
- 2. For the union or intersection option, the order of the selection IDs in parameters 1 and 2 does not matter. For the minus option, the results are different depending on the order of the selection IDs
- 3. A population selection created from the union, intersection, or minus cannot be used as parameter 1 or parameter 2 because there are no rules associated with it. However, a population selection can be created with rules that extract the IDs from the generated population selection with no rules.
- 4. If you are using the union, intersection, or minus option, you only have to run GLBDATA one time to get IDs for the new population (union, intersection, or minus). You don't have to run

- GLBDATA for the two existing population selections before you run it for the new population selection.
- 5. When you create a new population selection from two existing population selections, "header" information for the new population selection is based on parameters 3 (ID) and 4 (description) that are entered for GLBDATA.
 - a) If this is a new ID, the ID and description are added to the Population Selection Definition Rules (GLRSLCT) page. The new population selection has no selection rules.
 - b) If the ID already exists on GLRSLCT without rules associated with it, the description is updated with the description you entered in parameter 4.
 - c) If the ID already exists on GLRSLCT with rules, you'll receive an error message. The GLBDATA process terminates.
- 6. To avoid a potential problem with GLBDATA adding duplicate IDs to POP SEL on GLAEXTR, use the following steps:
 - a) Before running any popsel where you think you may have duplicate IDs, remove all records from GLBEXTR.
 - b) Got to GLAEXTR, pull up POP SEL, and check the **Delete All** check box.

OR

Delete through SQLPLUS:

```
delete from glbextr where GLBEXTR_APPLICATION = 'MARK_TEST' AND
GLBEXTR_SELECTION = 'SMITH' AND GLBEXTR_CREATOR_ID = 'SAISUSR' AND
GLBEXTR USER ID = 'SAISUSR'; commit;
```

- c) Run GLBDATA to get all the correct SYSTEM entry IDs.
- d) Run GLAEXTR and manually add those IDs you need to add, making sure to not to add any MANUAL duplicates as described above.

Create a manual population

A population is a set of Banner IDs used for reports, processes, and letters. You can create a manual population with the Population Selection Extract Data (GLAEXTR) page.

Procedure

Make sure the application associated with the population is defined on the Application
 Definition Rule (GLRAPPL) page. An application is a functional area that controls a population.

Note: When defined, the application can be used repeatedly for every manual population associated with that application.

- 2. Make sure the population selection associated with the population is defined on the **Population Selection Definition Rules (GLRSLCT)** page. Because this is a manual population, you don't need selection rules, just a name and description.
- 3. Access the Population Selection Extract Data (GLAEXTR) page.
- 4. Enter the application in the **Application** field.

5. Enter the population selection name in the **Selection ID** field. You can select the down arrow icon to access the **Population Selection Inquiry (GLISLCT)** page to search for a population selection.

Note: If the population selection is locked, only the creator ID can create a population with the population selection.

- 6. Verify the Creator ID. The ID associated with the population selection is the default.
- 7. Go to the next section.
- 8. Enter each ID in the population. You can select the down arrow icon to access the Person Search (SOAIDEN) page or the Non-Person Search (SOACOMP) page to search for an ID. The Manual option button is automatically selected to indicate the ID was added manually.

Note: Duplicate IDs cannot be added on GLAEXTR.

9. Save your changes.

Task note

No rules are associated with a manual population. Therefore, a manual population cannot be used in the Population Selection Extract Process (GLBDATA) to create a new population from the union, intersection, or minus of two population selections.

Population selection messages

If a problem arises as you work with the Population Selection Extract Process (GLBDATA), Banner provides diagnostic messages to guide you toward solution.

In addition, you may encounter Oracle messages if GLBDATA does not run successfully. Look up the message number displayed on the screen as "SQLCODE=####" in your *Oracle Error Messages Manual*.

Listed below are some of the Banner diagnostic messages you may see, with their corrective actions.

Application <application> does not exist

The application entered as a parameter has not been defined on the Application Definition Rules (GLRAPPL) page.

Define the application on GLRAPPL, or enter the correct application for the parameter.

Maximum number of dynamic parms exceeded

More than 100 unique dynamic parameters were found among all population selection and application rules used in the population.

Reduce the number of dynamic parameter to less than 100 by either "hardcoding" values or setting values equal to other field values.

No GLRCMPL record for <selection ID>

No rules were found for the combination of application code, selection ID, and creator ID that were entered as parameters.

Reenter rules on the Population Selection Definition Rules (GLRSLCT) page to force the rules to be generated again.

Private Selection ID. Cannot Access.

The population selection is locked on the Population Selection Definition Rules (GLRSLCT) page.

Either unlock the population selection on GLRSLCT (if you are the creator), or enter a population selection that is not locked.

Query does not exist <application/selection/creator>

The combination of the application code, selection ID, and creator ID that were entered as parameters does not exist on the Population Selection Definition Rules (GLRSLCT) page.

Either create the selection ID under the application and creator ID on GLRSLCT, or enter a combination that is already defined.

Variable/population selection messages

When you build population selection rules on the Population Selection Definition Rules (GLRSLCT) page and variable rules on the Variable Rules Definition (GLRVRBL) page, the system generates SQL code to extract the IDs and variable data. Both pages call the COBOL process Automatic Letter Compilation Process (GLOLETT).

The following diagnostic messages may be generated during the process.

MAXIMUM NUMBER OF TABLES ALLOWED HAS BEEN REACHED . . . ABORTING

More than 15 tables are used in the variable/population selection.

Reduce the number of tables being used to less than 15.

No GLRVFRM record found for: <application, variable >

The variable being "compiled" by the Automatic Letter Compilation Process (GLOLETT) could not be found.

Verify that the variable has the 'Select' information entered on the Variable Rules Definition (GLRVRBL) page.

Only 1 sub-query per variable allowed . . . ABORTING

A variable being compiled has a subquery on another variable that has a subquery defined. Subqueries can be nested only 1 deep.

Redefine the variables to only use one subquery.

Select Valid Column . . . Aborting

A column name found in the variable or population selection could not be found or is found multiple times in the ALL_TAB_COLUMNS view. Finding it multiple times implies that the field name might exist on two different tables or views.

Create unique field names within Banner tables and views that are used by variables and population selections.

Unknown function . . . Aborting

The text immediately preceding a left parenthesis in the Select statement of the variable is not one of the fifty (50) functions known to the program.

Change the variable.

Undefined column located . . . Aborting

A column specified in the variable or population selection is not found in the ALL_TAB_COLUMNS view for that table and user.

Change the variable or population selection to include the correct column name. Usually it is a misspelling of a column name in the Select statement or the **Value** field.

Unknown variable/object . . . Aborting

A table specified in the variable or population selection is not found in the ALL_TAB_COLUMNS view for that user, and is considered not valid. This is probably because the user ID running the program has not been granted Select access to a table referenced in the variable or population selection. It does not matter to the program that the user might have DBA access; explicit grants to the table(s) are needed.

Verify that the user ID of the person who is attempting to run the variable/selection process has access to all tables referenced in the rules. To do this, perform a Describe on each table in SQL* Plus.

Variable <variable> cannot be used here . . . Aborting

A variable referenced in the Select clause of another variable cannot reference THAT variable in its own Select clause.

Change the variables.

Variable <variable> does not return a numeric value

The variable specified in the error message is referenced in the Select clause of the variable being compiled. This 'referenced' variable was not compiled first.

Find the variables 'referenced' in the Select statements and compile them first. They can be found with the following SQL statement:

```
SELECT GLRVFRM_APPLICATION, GLRVFRM_SELECT_CLAUSE FROM GENERAL.GLRVFRM

WHERE (GLRVFRM_SELECT_CLAUSE LIKE '%*%'

AND GLRVFRM SELECT CLAUSE NOT LIKE '%* %')
```

ORDER BY GLRVFRM APPLICATION, GLRVFRM SELECT CLAUSE

<element> is undefined. Cannot compile.

An undefined element was found in the Select clause of the variable. The program cannot determine what it is, so compilation terminates.

Find the variable causing the problem, and correct the syntax in the Select clause, or redefine the element.

Letter Generation

The Letter Generation module lets you generate letters or produce a download file that can be used to produce letters with Microsoft Word or WordPerfect.

Some of the functions you can perform in the Letter Generation module are:

- Define the functional areas (applications) used in the Population Selection and Letter Generation modules.
- Define common rules (objects) that are used in many different population selections and variables.
- Define the variables used in the Population Selection and Letter Generation modules to select a specific piece of data in the database.
- Build paragraphs that include user-created text, variables, and formatting commands.
- Build a letter from these paragraphs.
- Extract variable data from the database for pending letters, or for a specific letter and selected population. (You can use the Population Selection module or a specific Banner™ process to select the population.)
- Merge the extracted variable data into the letter and generate letters, or produce a download file for Microsoft Word or WordPerfect.

Note: Ellucian does not support WordPerfect 8.0 and higher.

Validation pages

Letter Generation pages use the following validation pages.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
GTVLETR	GUALETR
Letter Code Validation page	Letter Process page
GTVPARA Paragraph Code Validation page	GUALETR
	Letter Process page
	GUAPARA
	Paragraph page
GTVSYSI	GLRAPPL
System Indicator Validation page	Application Definition Rules page

Related processes and report

The following processes and report are related to the Letter Generation module.

For additional information, refer to Chapter 13, Reports and Processes.

- The Automatic Letter Compilation Process (GLOLETT) generates SQL statements from the rules entered on the Variable Rules Definition (GLRVRBL) page. This COBOL program is executed automatically when you create or change a variable on GLRVRBL. It adds the necessary pidm joins as part of the SQL statements.
- The Letter Extract Process (GLBLSEL) extracts variable data from the Banner database to be included when letters are printed. This COBOL program is run before executing the Letter Generation Print Process (GLRLETR). GLBLSEL can be run for all pending letters (letters waiting to be printed) for a letter code, or for a letter code for a specific population. If the letter cannot be created because no address existed in SPRADDR for that ID, or because the address was found but it is inactive, a log file will list the names and IDs for those who did not receive the letter. This listing is printed whether or not you elect to print the error report.

The messages are:

- ### Following persons did NOT meet Selection criteria and will not get a letter
- ### Following person did NOT meet Address criteria and will not get a letter
- The Letter Generation Print Report (GLRLETR) generates letters directly from Banner, prints a summary report, and updates the General Mail Table (GURMAIL). Alternatively, GLRLETR can produce a download file for Microsoft Word or WordPerfect.

Note: IFNULL only works when you run GLRLETR for a Banner extracted letter (Word Processor Extract Option = 0). In addition, the download file will not contain paragraph text or literals.

Multiple letters per time frame

For Financial Aid, Advancement, Student, and other products that use a time frame parameter (such as fiscal or aid year, or term code), one method to allow for the letter to be run multiple times is to check the **Allow Duplicates** check box on the Letter Code Validation (GTVLETR) page.

Below is a select clause that can be run in sqlplus that you can use to keep track of people to whom you might have sent duplicate letters. It contains an example to identify those PIDMs that have already received the specific letter in the current fiscal year.

Note that you would need to enter the specific letter and the last day the previous fiscal year ended indicated on the Fiscal Year Validation (ATVFISC) page.

```
select * from gurmail
where gurmail_system_ind not in ('R','S')
```

```
and gurmail_letr_code = '&LETRCODE'
and gurmail_date init > to_date('&&fiscyr_end_date','DD-MON-YY')
and gurmail_date_printed > to_date('&&fiscyr_end_date','DD-MON-YY');
```

Note: Inspect both the gurmail_date_init and gurmail_date_printed columns rather than just the date_printed, because there might be some previous years' letters actually printed in the current fiscal year.

Menu navigation table

Pages in the Letter Generation module can be accessed from the following menu.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
GUIMAIL	Mail Query page
	Lists printed letters and pending letters (those waiting to be sent) for an ID.
GUALETR	Letter Process page
	Builds a letter from paragraphs created on the Paragraph (GUAPARA) page.
GUAPARA	Paragraph page
	Builds a paragraph that can be inserted in letters on the Letter Process (GUALETR) page. A paragraph can include text, variables, and formatting commands.
GLRVRBL	Variable Rules Definition page
	Defines a variable, which is a specific piece of data in the database and the set of rules used to select that data.
GLIVRBL	Variable Inquiry page
	Displays a list of the variables defined on the GLRVRBL page for an application.
GLROBJT	Object Definition Rules page
	Defines an object, which is a set of common rules used in many different population selections and variables.
GLIOBJT	Object Inquiry page
	Displays a list of objects defined on the GLROBJT page.
GLRAPPL	Application Definition Rules page

Menu	Description
	Defines an application, which is a functional area that controls population selections, populations, and variables.
GLIAPPL	Application Inquiry page
	Displays a list of all applications defined on the GLRAPPL page.
GTVLETR	Letter Code Validation page
	Defines codes that identify the letters you can generate in Banner .
GTVPARA	Paragraph Code Validation page
	Defines codes that identify the paragraphs used in Banner letters.
GTVSYSI	System Indicator Validation page
	Defines codes that identify the Banner applications used at your institution.

Letter Generation also uses the Letter Display (GUQLETR) page, which is not called from the menu. This page displays the details of a letter, including the text, variables, and formatting commands.

Letter generation procedures

The Letter Generation module allows you to do the following.

- Define the variables used to select a specific piece of data in the database.
- · Build letters.
- Extract variable data from the database for a specific letter.
- · Generate letters by merging the extracted variable data with a letter.
- Create a download file to merge with a Microsoft Word or WordPerfect text file.

Note: Ellucian does not support WordPerfect 8.0 or higher.

Before using these procedures, you should be familiar with the procedures described for the Population Selection module. See the "Population Selection" chapter of this User Guide.

Ellucian delivers and supports certain letters, variables, and population selections. Refer to the product-specific Banner user guides for additional information.

Note: The overall Letter Generation process is a powerful tool. The coding or modification of variables and population selections requires SQL-like code, which is considered site-specific customization that is not eligible for support.

Definition of variables

A variable is a specific piece of data in the database and the set of rules used to select that data.

Variables are used to:

- · Insert variable data into letters.
- Reference subqueries in application rules, population selection rules, and variable selection rules.

Each variable is associated with an application.

Create a variable

You can use the Variable Rules Definition (GLRVRBL) page to create a variable.

Procedure

- 1. Make sure the application associated with the variable is defined on the **Application Definition Rule (GLRAPPL)** page. An application is a functional area that controls a variable.
- 2. Access the Variable Rules Definition (GLRVRBL) page.
- 3. Enter the application in the **Application** field.
- 4. Enter the variable name in the **Variable** field. The name must begin with an asterisk (*) and must contain at least one alpha character. The maximum number of characters is 30.

You can select the down arrow icon to access the Variable Inquiry (GLIVRBL) page to see the variable names that already exist for the application.

Note: The same variable name can be used with different applications and defined with different rules.

- 5. Go to the Description section.
 - a) Enter a free-page description of the variable in the **Description** field.

(Optional) Select the **Type** of variable if special processing and updating of the database occur when the variable is used in a letter. See the list of types below.

Leave this field blank if none of these type applies.

Type	Description
Checklist	The value of the variable contains information regarding checklist items associated with an admissions application. For example, the Admissions Office uses this type of variable for applicants who need to send information to the institution to continue the admissions process. When you run the Letter Generation Print Report (GLRLETR) for a letter containing a checklist variable, the First Request, Last Request, and Count fields on the Student Checklist Table (SARCHKL) on the Admissions Application (SAAADMS) page are updated for all checklist

Туре	Description
	items for an applicant and term (parameter to GLRLETR) that have not been received yet and are indicated to print.
First	The Letter Extract Process (GLBLSEL) processes this variable first. See Definition of a variable with a first variable type on page 97 for more information.
Manual	You must enter all joins in the Rules section. See Creation of a variable with ID information other than the ID receiving the letter on page 94 for more information.
RORVIEW	The variable looks at one of the following Financial Aid views to determine its value:
ROVCSUM	Third Party Contract Payment Detail
ROVESUM	Billing Exemption Payment Summary
RPVARCO	Contract Resource
RPVAREX	Exemption Resource
RPVATRM	Award by Term
RPVTERM	Applicant Award Term
	Identifying a RORVIEW variable improves performance. The Letter Extract Process (GLBLSEL) populates RORVIEW with a record for each type RORVIEW variable in the letter.
	There are two other Financial Aid RORVIEW views that cannot be used with GLBLSEL. These views are Basic Student Selection (ROVSTDD) and GPA By Term and Level Selection (ROVTRMG). ROVSTDD and ROVTRMG select rows where the RORVIEW_TYPE_IND is A or T, respectively. GLBLSEL inserts records into RORVIEW only when the RORVIEW_TYPE_IND is R, so variables that reference ROVTRMG or ROVSTDD will never extract any data.
Signature	The value of the variable comes from the Initials Code Validation (STVINIT) page. This page maintains initials, descriptions, and titles for people. The initials associated with the value of the variable are placed in the Initials field on the Mail Table (GURMAIL) when the Letter Generation Print Report (GLRLETR) is run in update mode.

6. Go to the Definition section. This is where you identify the data to be selected from the database.

Note: The system-generated **Sequence** fields identify the number of pieces of information being selected from the database. The first number defines the sequence number of the record currently displayed. The second number defines the total number of records defined for the variable (for example, 1 of 3).

a) In the **Select** field, enter the database column from which data will be extracted, literal text, or a combination of both such as 'Dear' || SPRIDEN_FIRST_NAME || ','. SQL functions (such as MAX or MIN) are allowed in the **Select** field.

Note: Database columns entered here are not validated against the data dictionary, so be careful to enter the names correctly. All database columns and functions should be referenced in upper case on the Variable Inquiry (GLRVRBL) page to ensure proper compiles.

You can refer to another variable in the Select statement as long as the variable is already defined and the rules are compiled under the same application as the variable that references them. You must also define a referenced variable in the letter so that the Letter Extract Process (GLBLSEL) can determine the value.

You can model a more complex filter on the following example:

Example where the same table is used in both the query and the subquery:

SELECT DISTINCT(SPRIDEN_PIDM), SYSDATE FROM SATURN.SPBPERS
A, SATURN.SPRIDEN WHERE SPBPERS_PIDM = SPRIDEN_PIDM AND
SPRIDEN_LAST_NAME = 'Smith' AND SPRIDEN_CHANGE_IND IS NULL AND
SPRIDEN_PIDM NOT IN (SELECT SPBPERS_PIDM FROM SATURN.SPBPERS WHERE
SPBPERS DEAD IND = 'Y' AND SPBPERS PIDM = A.SPBPERS PIDM)

- b) In the **From** field, enter the names of all tables referenced in the **Select** field. Use the format <owner>.<alias>, separating multiple table names with commas. The owner is required only if your database contains multiple tables with the same name. You can use aliases to reference tables in subqueries within the variable selection rules. Aliases have a maximum length of four characters. Owner and table names are validated against the data dictionary.
 - To improve performance of the Letter Extract Process (GLBLSEL), list multiple tables in the **From** field from most general to most specific, or largest to smallest. For example, if two tables are being used, one with one record per ID and another with multiple records, list the multiple record table first.
- c) In the **Order By** field, enter the names of the database columns used to sort multiple records returned from the database. Use commas to separate multiple column names. These database column names are validated against the data dictionary. SQL functions (such as MAX or MIN) are not allowed with these field names.
- d) In the Group By field, enter the names of the database columns used to group multiple records returned from the database. Use commas to separate multiple column names. These database columns are validated against the data dictionary. SQL functions (such as MAX or MIN) are not allowed with these field names.
- e) In the **Description** field, enter an optional description of this selection within the variable. This is an 80-character field.
- 7. Go to the Rules section. This is where you enter the selection rules that determine how data is selected. PIDM join rules are not required except for a Manual type variable. The Automatic Letter Compilation Process (GLOLETT) adds the necessary PIDM joins for other variable types.

Note: Use open and closed parentheses to group nested statements for logical evaluation. You can use up to three levels of nested statements. The number of open parentheses on a line must equal the number of closed parentheses.

a) In the **Data Element** field, enter the name of the database column used in the selection rule. The name must be a valid database column in the data dictionary. SQL functions (such as MAX or MIN) are *not* allowed with these column names.

To reference an object, enter *INCL followed by the object name (for example, *INCL AID_PERIOD). Then go to the next item. The rules from the AID_PERIOD object are automatically added to the variable rule. You can click the down arrow icon to access the Object Inquiry (GLIOBJT) page to search for a valid object.

b) In the **Operator** field, enter an SQL operator (=, <>, >, <, and so forth). The operator is used to compare the **Data Element** and **Value** fields.

For date comparisons, avoid using an equal sign (=) because dates are often stored with hours, minutes, and seconds. A better approach is to use less than (<), greater than (>), less than or equal (<=), or greater than or equal (>=). You might need an extra condition. For example, ACTIVITY_DATE is stored with hours, minutes, and seconds. Use these statements to find addresses changed on March 1, 2003:

```
SPRADDR_ACTIVITY_DATE >= '01-MAR-03' AND SPRADDR_ACTIVITY_DATE <
'02-MAR-03'</pre>
```

IN checks for inclusion in a list of values:

```
GOREMAL EMAL CODE IN ('ACAD', 'BUS', 'HOME')
```

NOT IN checks for exclusion from a list of values:

```
GOREMAL EMAL CODE NOT IN ('ACAD', 'BUS', 'HOME')
```

c) In the Value field, enter the value that is compared with the Data Element based on the Operator. This can be a constant literal, another database column name or alias, combination of a constant literal and database column name, dynamic parameter, or subquery. Use upper case.

Note: Do not enter a value if the Operator contains NULL or IS NOT NULL.

Constant literal: The data type of the **Data Element** determines the format of the literal. Values that are compared to character data elements must be enclosed in single quotes. Values that are compared to numeric data elements must be numeric. Values that are compared to date data elements must be in the format 'DD-MON-YY' or 'DD-MON-YYYY'. Single quotes are not used with SYSDATE. Use the operator AND between the ranges. For example, enter '01-JAN-03' AND '31-JAN-03'. Use the same format for both years (YY or YYYY).

Note: The operator BETWEEN cannot execute dynamic parameters in a Selection ID or Variable. Dynamic parameters contained within single quotes are treated as literals.

Another database column name: The **Value** is validated against the data dictionary. If the data types (character, numeric, or date) of the **Value** and **Data Element** are not the same, a warning appears. You can override the warning and keep the comparison.

Dynamic parameter: Enter an ampersand (a) followed by text (for example, aLetter_Code). When you extract a variable with the Letter Extract Process (GLBLSEL), the system prompts for each dynamic parameter in the application rules and variable rules.

Subquery: Enter (*SUB<variable>). The parentheses are required. The literal *SUB indicates this is a subquery or a reference to another variable. The variable is a valid variable name already defined on the Variable Rules Definition (GLRVRBL) page and compiled in this application. You can click the down arrow icon to access the Variable Inquiry (GLIVRBL) page to search for a variable. If you select a variable from the list, the system gives it the proper syntax. A variable used as a subquery cannot have another subquery defined within it. A variable can have only one subquery. If defined, it must be the last rule.

- 8. In the **AND/OR** field, enter the connector that links rules with AND or OR logic. All lines in the Rules section, except the last line, must contain a connector.
- 9. After all the rules are entered, save your changes.
- 10. Exit the page. The GLOLETT process will run to compile the variable only after you exit the GLRVRBL page.

Task notes

Remember the following while performing this task.

- When using a dynamic parameter in a variable, the field that is being compared to the dynamic parameter should, if possible, be from the table that is used in the Select statement.
- When using a dynamic parameter with an IN or NOT IN operator do not include left and right parentheses. Do not include spaces when entering the value for the dynamic parameter. Define the IN statement similar to the following:

```
column name IN &Term
```

• GLBLSEL will generate an 88 level prompt for &Term. Enter the values within single quotes with the parentheses, without using spaces:

```
88 &Term ('200111','200222','200333')
```

- LIKE compares a character value to a pattern and may include wildcards. The following wildcards may be used:
 - an underscore (_) matches exactly one character
 - a percent sign (%) matches zero or more characters
- To find SPRIDEN_LAST_NAME values like 'Smith' and 'Smithsonian', the following may be used:

```
SPRIDEN LAST NAME LIKE 'Smith%'
```

• NOT LIKE compares a character value to a pattern and excludes the matched values. For example, to exclude SPRIDEN LAST NAME values like 'Smith' and 'Smithsonian':

```
SPRIDEN LAST NAME NOT LIKE 'Smith%'
```

IS NULL selects rows which have a null value in a particular column. For example:

```
GURMAIL_DATE_PRINTED IS NULL
```

• IS NOT NULL selects rows which have a non-null value. For example:

```
GURMAIL DATE PRINTED IS NOT NULL
```

• BETWEEN tests whether a value is within a range of values by testing "greater than or equal to <low value> and less than or equal to <high value>". For example:

```
GURMAIL TERM CODE BETWEEN '20100' AND '20999'
```

- To improve processing time, certain criteria (such as whether a person is alive or has a current ID) should be specified through population selection rules rather than in variables.
- Columns from the Address View (SPVADDS) or any view using collector table records, cannot
 be concatenated with columns from other tables in the same Select statement on GLRVRBL.
 For example, Mr. John Smith cannot be extracted from a single variable because Mr. is the prefix
 being extracted from the Person Table (SPBPERS) and John Smith is the name being extracted
 from the Address View (SPVADDS). Creating two separate variables, one for the prefix and one
 for the name, and printing them together is a solution. A second solution would be to extract
 the name from the Identification Table (SPRIDEN) rather than the Address View. If the second
 solution is used, the prefix can be extracted in the same variable and concatenated to the name.
- A variable cannot have multiple sequences if the SPVADDS view is being used. The address variables must be broken into their component pieces such as street line 1, city, and state.
- Rules entered in the Rules section on the GLRVRBL page are ignored for variables that select columns from the SPVADDS view.

Copy variable rules

You can copy the rules for an existing variable to create a new variable. A copied variable can be changed as needed.

- 1. Access the Variable Rules Definition Rules (GLRVRBL) page.
- 2. Enter the application associated with the variable you want to copy in the **Application** field.
- 3. Enter the variable you want to copy in the **Variable** field. You can select the down arrow icon to access the **Variable Inquiry (GLIVRBL) page** to search for a variable.
- 4. To access the Variable Copy window, select Copy from the Options menu. Information in the Copy From section defaults from the main window.
- 5. Enter the application associated with the new variable in the Copy To **Application** field. You can select the down arrow icon to access the **Application Inquiry (GLIAPPL)** page to search for an application.
- 6. Enter the new variable in the Copy To Variable field. The name must begin with an asterisk (*).
- 7. Save your changes. The main window reappears with the cursor in the **Description** field.
- 8. Use the normal steps to change and save rules for the new variable. You can use the steps in Create a variable on page 86, beginning with step 5.

Creation of a multiple-sequence variable

You can create a variable with multiple sequences. Each sequence can have its own definition elements such as Select, From, Order By, Group By, and selection rules.

Situations when multiple sequence variables are valuable include:

- · Bringing back a value for each sequence without creating multiple variables
- · Bringing back a single value that depends on the characteristics of the ID

Bring back a value for each sequence without creating multiple variables

It is sometimes easier and gives better results to create a single variable with multiple sequences than to create multiple variables.

About this task

For example, you want to print an individual's first, last, and middle names on a letter in this format:

Last: Smith First: Ron

Middle: James

You could create three variables, one for each part of the name. Another method is to create one variable with three sequences, one for each part of the name:

Procedure

- 1. Enter Full Name as the variable description in the **Description** field.
- 2. Define the first variable sequence:

Sequence	1 of 3
Select	'Last: ' SPRIDEN_LAST_NAME
From	SPRIDEN
Data Element	SPRIDEN_CHANGE_IND
Operator	IS NULL
Value	

This sequence concatenates the text of 'Last:' with the value of the last name. Notice the rule to check that the current name record is accessed (SPRIDEN CHANGE IND IS NULL).

3. Define the second variable sequence:

Sequence	2 of 3
Select	'First: ' SPRIDEN_FIRST_NAME

Sequence	2 of 3
From	SPRIDEN
Data Element	SPRIDEN_CHANGE_IND
Operator	IS NULL
Value	

This sequence concatenates the text of 'First:' with the first name. Again note the rule to check that the current name record is accessed.

4. Define the third variable sequence:

Sequence	3 of 3
Select	'Middle: ' SPRIDEN_MIDDLE_NAM
From	SPRIDEN
Data Element	SPRIDEN_CHANGE_IND
Operator	IS NULL
Value	

This sequence concatenates the text of 'Middle:' with the middle initial. You must enter the same rule on all sequences to ensure the current name record is returned. You have created only one variable. If an ID doesn't have a middle name, the printed letter will not have a blank.

Bring back a single value that depends on the characteristics of the ID

A variable can sometimes return only one value for an ID, but, depending on the characteristics of the ID, the value could differ.

About this task

For example, you're sending the same letter to both people and organizations. You could define, as a single variable, a variable that has either first and last name (if a person) or name (if an organization). But because an ID is a person or an organization (not both), you can use a multiple sequence variable.

Procedure

1. Define the first variable sequence:

Sequence	1 of 2
Select	SPRIDEN_FIRST_NAME ' ' SPRIDEN_LAST_NAME
From	SPRIDEN
Data Element	SPRIDEN_CHANGE_IND

Sequence	1 of 2
Operator	IS NULL
Value	
Data Element	SPRIDEN_ENTITY_IND
Operator	=
Value	'P'

This sequence concatenates the first name and last name, with a space between, based on the rules established for the person. Notice the rule to check that the current name record is accessed (SPRIDEN CHANGE IND IS NULL).

2. Define the second variable sequence:

Sequence	2 of 2
Select	SPRIDEN_LAST_NAME '
From	SPRIDEN
Data Element	SPRIDEN_CHANGE_IND
Operator	IS NULL
Value	
Data Element	SPRIDEN_ENTITY_IND
Operator	=
Value	'C'

This sequence retrieves only the last name field because that is where the organization name is stored. Notice the rule that this sequence will be met only by IDs that are organizations (SPRIDEN_ENTITY_IND = 'C'). Again note the rule to check that the current name record is accessed (SPRIDEN_CHANGE_IND_IS_NULL).

The rules on each sequence are mutually exclusive, so any ID meets the criteria of only one sequence. You have created fewer variables, which results in simpler letter definitions for determining whether a person or an organization is being processed.

Creation of a variable with ID information other than the ID receiving the letter

Some variables have ID information other than the ID receiving the letter.

Examples of this type of variable include:

- · Spouse ID information
- · Roommate ID information
- Employer ID information

· Advisor ID information

Rules for these variables are defined differently because they involve multiple IDs (PIDMs). Two conditions must exist:

- The variable **Type** must be defined on the Variable Rules Definition (GLRVRBL) page as Manual. This means that all joins must be entered in the Rules section, including PIDM joins that automatically take place in other variable types.
- The first table in the **From** field must be the table that contains the column from the Rules section that references the PIDM receiving the letter. This is necessary for the Letter Extract Process (GLBLSEL) to correctly extract the data for the variable.

Sort variables

When you use the Letter Generation Print Report (GLRLETR) to produce letters directly in Banner, not through the download option, you may want to sort the letters by a variable such as name, ZIP code, or postal code. The GLRLETR process uses a sort parameter.

About this task

Note: Use a sort variable that returns a single value. If the sort variable returns more than one value, the process will generate duplicate letters.

Sometimes you may want to sort on a variable that is not being printed in the letter by itself. For example, the variable for name might concatenate first and last name. You want to sort the letter by last name, which is not a variable being printed in the letter. Because the name variable is a concatenation of fields, it cannot be used as the sort variable. Here's how you can accomplish the task:

- 1. Use the **Variable Rules Definition (GLRVRBL)** page to create a variable that is always NULL. This is a simple variable to create, and it controls logic flow in the letter:
 - Enter *NULL VAR in the Variable field.
 - Enter Null Variable in the Description field.
 - Enter two single quotes ('') in the Select field.
 - Enter DUAL in the From field.
 - Don't enter any rules for the variable.
- 2. Use the Paragraph (GUAPARA) page to create a paragraph that includes:
 - An ^IFNULL check on the *NULL VAR variable.
 - A branch around the sort variable. This branch prevents the variable from being printed but allows its value to be extracted by the Letter Extract Process (GLBLSEL) and used as a sort value by the Letter Generation Print Report (GLRLETR).
 - The sort variable on a line by itself, between the check on the *NULL_VAR and the location to which the logic branches.
- 3. Use the Letter Process (GUALETR) page to build a letter that includes the paragraph.

Results

Example:

This sample paragraph checks to see if a null variable is null (which it will always be) and branches to another location, preventing the lines following the check from being printed:

- ^IFNULL*NULL VAR &END PARA
- *NULL VAR
- *BAMT
- *CAMT
- *ORES AMT
- *ERES_AMT
- *CRES AMT
- *RESOURCES
- *TERM01 TOTAL
- *TERM02 TOTAL
- *TERM03 TOTAL
- &END PARA

This paragraph checks the value of *NULL_VAR, and if it is null, branches to the line that starts with &END_PARA. The variables between the ^IFNULL check and the &END_ PARA line are not printed in the letter. These variables must be listed because their values are used for other purposes (other variables have these variables in their Select statements).

Note: The *NULL_VAR must be listed even though it is in the <code>^IFNULL</code> line. This is because the GLBLSEL process extracts data only for variables that start in position 1. To correctly process the <code>^IFNULL</code> check on the *NULL_VAR, GLBLSEL must know the value of *NULL_VAR. The only way it can know the value is if it is on a line by itself like all other variables.

Creation of a hidden variable

The Letter Extract Process (GLBLSEL) only extracts variables starting in column 1 and appearing on a separate line in the letter. To extract variables found within another variable's Select clause, or variables only referenced in <code>^IFNULL</code> statements, the variables must be hidden on the letter.

- · Define a variable that will always be null.
- Enter this variable on the letter just before all other variables to be hidden.
- Place an ^IFNULL condition above the dummy null variable. This causes the logic to skip around the null variable and hidden variables.

Definition of a variable with a first variable type

When the Letter Extract Process (GLBLSEL) is run, it must identify the variable it will process first to determine whether the ID should receive the letter.

The first processed variable must return only one value for an ID, because it becomes the key of extracting the values of the other variables in this letter. If the first variable returns more than one value for an ID, then all other variables in the letter have that many values multiplied by the number of values it should have returned. Also, if the first variable returns no value for an ID, no other variable in the letter returns a value for that ID, and the ID does not receive a letter.

There are two ways to identify the first variable:

- · Using the default first variable
- · Defining the first variable on GLRVRBL

Warning! If there is no default first variable and no first variable defined on GLRVRBL, the first variable that GLBSLEL processes is unpredictable. The output of the variables in the letter can cause unexpected results.

Use of the the default first variable

The default first variable that GLBLSEL uses is a variable that defines an address using the SPVADDS view. This view contains one address per ID based on the address hierarchy entered for the address type parameters on GLBLSEL.

This means that every ID receiving the letter being processed needs to have an effective address with an address type that matches one of the address parameter values entered during processing. If it does, then the SPVADDS variable returns one value per ID and the other variables in the letter return the correct number of values. If the ID does not have an effective address with an address type that matches one of the address parameter values entered during processing, no value will be in the SPVADDS view for the ID. The SPVADDS variable returns no value, and the ID does not receive a letter.

On the Variable Definition Rules (GLRVRBL) page, an SPVADDS_NAME variable is defined like this:

Sequence	1 of 1
Select	SPVADDS_LAST_NAME
From	SPVADDS

This variable retrieves the last name of the ID if the ID has an address of one of the address types entered for the address type (parameter 10) when you run GLBLSEL.

Definition of the first variable on GLRVRBL

Another way to identify the first variable that GLBLSEL processes is to define the variable type as First on the Variable Definition Rules (GLRVRBL) page. This variable, when used in a letter

not containing SPVADDS - related variables, indicates that it is the first variable GLBLSEL should process.

Using a first type variable allows you to specify an address not necessarily found in the SPVADDS view. Some of the Banner products have specific address types that are to be used for a letter, and the first-type variable allows those addresses to be used. (Those address variables are probably defined using SPRADDR field names.)

In defining a first-type variable, two important items must be considered:

- The variable must be ID-related. That is, it must be a table where the ID has a record and it cannot be a variable that uses a non-PIDM table like DUAL or GUBINST.
- The variable must return only one value per ID. If more than one value is returned, all other variables in the letter will have multiple values. If no value is returned, the ID will not receive a letter.

If more than one variable in a letter is defined as first-type, there is no way to determine which one GLBLSEL will process first. However, if all first-type variables follow these two guidelines, it is not a problem to have multiple first-type variables in a letter.

Warning! Even if a first-type variable is used and no SPVADDS variable is used, the address type parameter on GLBLSEL must be entered with at least one value.

Example:

Sequence	1 of 1
Select	SPRIDEN_LAST_NAME
From	SPRIDEN
Data Element	SPRIDEN_CHANGE_IND
Operator	IS NULL
Value	

SPRIDEN_CHANGE_IND IS NULL ensures that the current name record is accessed, not any previous last names. This guarantees that only one value per ID is selected.

Build letters

You can use the Letter Code Validation (GTVLETR) page to build letters.

- 1. Use the **Letter Code Validation (GTVLETR)** page to create a letter code and description for the letter. You can identify whether duplicate letters are allowed.
- 2. Use the **Paragraph Code Validation (GTVPARA)** page to create a paragraph code and description for each paragraph in the letter.

 Use the Variable Definition Rules (GLRVRBL) page to define the variables used in the paragraphs and build their associated selection rules. Examples include name, address, and salutations.

Note: The GLBLSEL process can handle up to about 2500 variables per letter. The exact number depends on the length of the variable name; if you use shorter names you may be able to use more variables. This is controlled by the WS-PARM-LIST value in GLBLSEL.pco. If you exceed the limit, an error message "***ERROR* Length of variables has exceeded max limit**" is displayed and GLBLSEL stops responding, value in GLBLSEL.pco.

- 4. Use the **Paragraph (GUAPARA)** page to build individual paragraphs that can be used in letters. Paragraphs contain user-defined text, variables, and formatting commands (for example, underline and center). Whenever possible, build paragraphs that can be used in multiple letters.
- 5. Use the **Letter Process (GUALETR)** page to build the letter. Identify the paragraphs in the letter and the sequence in which the paragraphs should appear.

Task notes

Remember the following while performing this task.

- Letter Generation does not support the GOTO command. You can simulate this command by using the <code>^IFNULL</code> condition on a variable that is always null.
- Variables whose data can contain a pound sign (#), such as the street line of an address, should be preceded by a #CL formatting command and followed by a pound sign. This prevents Letter Generation from treating the pound sign in the variable as a formatting command.
- A page break should exist at the top of each letter (after any table definitions) so that each copy of the letter starts on a new page. The page break should be in a paragraph by itself.
- If the letter will be created from a download file, the letter only needs to contain one paragraph.
 This paragraph must contain a list of the variables used in the letter. Text and formatting commands are ignored.
- If additional table definitions need to be used in a letter, all table definitions must be defined in a paragraph by themselves. This must be the first paragraph in the letter.
- Use caution if you use the Ellucian-delivered variable names in your own letters. The delivered variables have been created specifically for the Ellucian-supported letters and may need modifications in other letter extract selections.

Facility Oracle Report formatting emulation commands

The following formatting commands can be used when building paragraphs on the Paragraph (GUAPARA) page. Formatting commands must appear on a line by themselves.

These conventions are used in following table:

• The word closed indicates that the command must be terminated by a pound sign (#) after the information about the command. For example, you must identify the last character of the text to be underlined by inserting a pound sign (#) after the last character to be underlined. The pound sign does not have to appear on a line by itself.

- The character \mathbf{x} indicates text or variable information.
- The character n indicates a numeric value.

Code	Description
#B	Blank — Insert one blank line in the output text.
#CEN xxx#	Center Text — Center the text or variable "xxx" in the current column. Closed.
#CL xxx#	Column Literal — Suspend formatting for all text or variables in the current column for #CL through #. Closed.
	Variables containing multiple sequence numbers will not format properly using the column literal. If you want this type of formatting, each sequence number must be a separate variable.
#CONCAT x	Concatenate — Place x next to the preceding word without inserting a space between them. Frequently used to place punctuation after a variable.
	A backslash (\) is required to concatenate a period (.), for example:
	*VARIABLE#CONCAT ,*VARIABLE#CONCAT !*VARIABLE#CONCAT \.
	A trailing space is required after the #CONCAT command and before the $\ensuremath{\mathtt{x}}$ string.
#CS n	Column Skip — Skip n lines in the current column.
#CUL xxx#	Center with Underline — Center and underline the text or variable xxx following the #CUL command within the current column. Closed.
#DT n s1 e1 s2 e2sn en #	Define Table — Define the column boundaries for the specified table where n is the unique table number, $s1$ is the starting position of column 1, $e1$ is the ending position of column 1, and $s2$ through en are the starting and ending positions of other columns.
	Table numbers must be within the range of 1 through 25.
	The #DT command is similar to setting formatting lines and section stops in word processing. Multiple tables can be defined within the same letter, but must be placed as the first paragraphs in the letter. They must be in a paragraph by themselves. #DT commands are the only commands that should precede the #NP command at the top of the letter.
	Make sure the first paragraph has only #DT commands. You will not receive an error message if the first paragraph is not a #DT paragraph, but the letter will not process.
	A #DT, seq#1 paragraph is necessary when the letter contains a #T command. You do not need the #DT if the #T is not present.
	#DT is <i>not</i> required if the GLRLETR parameter 02, Word Processor Extract Option is 1 (Word) or 2 (WordPerfect). #DT is required if the GLRLETR parameter 02 is 0 (Banner).

Code	Description
	IFNULL only works when you run GLRLETR for a Banner extracted letter (Word Processor Extract Option = 0). In addition, the download file will not contain paragraph text or literals.
#FR	Flush Right — Justify both left and right margins. This is the default setting.
	When using #FR, large gaps may appear between words so that both margins align properly.
#I n	Indent — Indents all the following text or variables by n number of spaces in the current column. This is different from #P which only indents the first line. To terminate the indent command, use the #TE command at the end of last line of text to be indented.
#N	New Line — Advance to the next line in the current column.
#NC	New Column — Advance to the next column.
#NP	New Page — End the current page and start a new page. To prevent page creep, the #NP command should be placed as the first command in a letter and should be the only command in a paragraph. It is preceded only by a paragraph with #DT commands.
#PAGE t b	Page Boundary — Define the top and bottom page boundaries where ${\tt t}$ is the top line and ${\tt b}$ is the bottom line.
#P	Paragraph — Start a new line within the current column. Indent five spaces at the beginning of the line.
#R	Right Justify — Set or reset the switch to right justify all text or variables in the current column.
#RR	Ragged Right — Left justify all text or variables, but leave the right margin unjustified.
#S n	Line Skip — Skip n lines.
#SPN t p sl bn sn #	Start Page Numbering — Define page numbering where t is the type of numbering:
	1 = Section Page Numbering [m-n]
	2 = Letter Page Numbering [n - from page 2 onward]
	3 = Period Page Numbering [n]
	4 = Plain Page Numbering [n]
	p is the character position where the number is printed; sl is the number of lines to skip after printing the number; bn is the number of the first output page; and sn is the section number if type 1 was selected. Closed.
#T n	Table — Use the column rules for table n previously defined in the #DT command.

Code	Description
	Tables do not close when a new table is invoked. Remember to use the #TE command before invoking a new table.
#TE	Table End — End one table before invoking another.
#TTL y xxx #	Title —Underline a specific title at the top of each page. ${\bf y}$ is the length of line to center. Closed.
	If a new page formatting command (for example, #NP) is in the same letter as a title command, place the new page marker directly after the title command in the letter.
#UL CLOSED	#UL Underline. Closed.
^IFNULL *VARIABLE &BRANCH	If *VARIABLE returns a null value, skip all actions (text, variables, and formatting commands) up to &BRANCH. &BRANCH must be a label that begins with an ampersand(&), starts in the first position of a line in a paragraph, and is the only item on that line.
	*VARIABLE is the variable to be checked for null values. *VARIABLE must also be identified elsewhere in the letter on a line by itself.

Extraction of variables with GLBLSEL

The Letter Extract Process (GLBLSEL) extracts values from the database for the variables that appear in a specified letter. The extracted data is inserted into the Letter Collector Table (GLRCOLR).

You can run GLBLSEL from the Process Submission Control (GJAPCTL) page or from the operating system.

Use Job Submission

You can process all pending letters (those waiting to be printed) for a specific letter code, or you can process the letter code for a specific population.

About this task

Note: If you process the letter code for a specific population, the population must be extracted with the Population Selection Extract Process (GLBDATA) before you run GLBLSEL.

- 1. If you are extracting variables for a specific population, make sure the population has been extracted with the Population Selection Extract Process (GLBDATA).
- 2. Access the Process Submission Control (GJAPCTL) page.
- 3. Enter GLBLSEL in the Process field.

- 4. If the process has more than one job parameter set, enter the name of the set in the **Parameter Set** field. You can click the down arrow icon to access the Job Parameter Set Rule (GJRJPRM) page to search for a job parameter set.
- 5. Optional: If you want to view, save, or print online, enter DATABASE in the Printer field.
- 6. Go to the Parameter Values section. Parameters defined for the process appear. Default parameter values appear, if they have been defined.
- 7. Enter the following parameter values:

	Parameter Value		
1	Application	Application associated with the letter being processed. This must be a valid application defined on the Application Definition Rules (GLRAPPL) page. This must be the same application associated with the population selection (if being used) and all variables in the letter. One application can be processed per run.	
2	Process Pending	Code that determines how the letter code is processed:	
	Letters	Y Process all pending letters for the letter code. See Pending letters on page 105 for more information. Pending letters on page 105	
		$\rm N$ Process the letter code for a specific population. The population must have been previously extracted with the Population Selection Extract Process (GLBDATA).	
		If you are running GLBLSEL from the operating system, system prompts give you the ability to process all pending letters for the application or all pending letters for a specific letter code. If you are running online from GJAPCTL, you can only process pending letters for a specific letter code.	
3	Letter Code	Code of the letter being processed. This must be a valid letter defined on the Letter Code Validation (GTVLETR) page. One letter can be processed per run.	
4	Selection ID	ID of the population selection for which the letter is being processed. This must be a valid population selection defined on the Population Selection Definition Rules (GLRSLCT) page and must be associated with the application entered in parameter 1. A population selection is required if parameter 2 is set to \mathbb{N} .	
5	Creator ID	Oracle ID of the user who created the population selection. A creator ID is required if you entered a population selection in parameter 4.	
6	User ID	Oracle ID of the user who extracted the population with the Population Selection Extract Process (GLBDATA). A user ID is required if you entered a population selection in parameter 4.	

Paramet Number	Parameter	Value
		A population must exist for the combination of application, selection ID, creator ID, and user ID.
7	Term Code	Code of the term for which you want to process pending letters. This must be a valid code on the Term Code Validation (STVTERM) page. This parameter is used only if you are processing pending letters in the Student System. One term can be processed per run.
8	Aid Year	Aid year for which you want to process pending letters. This parameter is used only if you are processing pending letters in the Financial Aid System. One aid year can be processed per run.
9	Address Selection Date	Address date for which the address of choice must be effective. If blank, the current date is used.
10	Address Type	Type codes of the addresses you want to process, prefixed by the priority of each type code. The first character is the priority, and the second and third characters are the address type code from the Address Type Validation (STVATYP) page. For example, 1MA means the mailing address (MA) is the first choice; 2PR means the permanent address (PR) is the second choice. Enter each choice on a separate line.
		You can have up to 9 entries, and the valid priority numbers are 1 - 9. More than one entry can have the same priority.
11	Detailed Error Report	Y Write error messages to the glblsel.log file for IDs for which variable data could not be extracted.
		N Do not write error messages to the log file.
12	Detailed Execution Report	 S = Display SQL statements. I = Display SQL statements and inserts. Y = Display paragraphs.

- 8. Go to the Submission section.
- 9. Select the **Hold** option button or the **Submit** option button.
- 10. Select the Save function.
- 11. **Optional:** If the letter contains variables with dynamic parameters, the cursor returns to the Parameter Values section. Enter values for the dynamic parameters in parameter 88. Select the Save function again.

Note: You must enter a non-blank value for each 88 level prompt.

Use of the operating system

Check with your technical personnel for the appropriate command to use at your institution.

For example:

UNIX:	glblsel.shl username password
OpenVMS:	@glblsel username password\

is that you can process pending letters for all letter codes within an application. With GJAPCTL you are limited to processing pending letters for a specific letter code.

Note: Interactively entering job parameters from the host is no longer supported. Parameters for all jobs must be entered on the Process Submission Controls (GJAPCTL) page.

Task notes

Remember the following while performing this task.

- GLBLSEL does not write a record to the Letter Collector Table (GLRCOLR) if the value of the
 variable selected is blank. For example, if the variable is a birthdate (*BDATE) and the person's
 birthdate is not on the system, no record is written for this person for birthdate. Only variables
 requested in the paragraphs contained in the letter are written to GLRCOLR.
- If you are processing pending letters and multiple applications are associated with the system indicator, GLBLSEL extracts the variables for the application entered as parameter 1 and not necessarily the application associated with the variables in the letters.
- If different pending letters use the same format table definitions (for example, DT #1), the formatting of the letters causes errors and indicates that the table is defined multiple times.
- Letters are not extracted unless an effective address is found for the person which meets one
 of the address types entered in GLBLSEL and a first type variable is not used. This applies to
 both pending and nonpending letters. If a letter could not be created because no address existed
 in SPRADDR for that ID or because an address was found, but it was inactive, Banner lists that
 person's name and ID in the log file for GLBLSEL.
- When DATABASE is specified in the **Printer** field, GLBLSEL creates a .log for reviewing output, but not a .lis.

Pending letters

Pending letters are letters that were created on the system-specific Mail (xUAMAIL) page or created through a process but not yet printed. You can filter pending letters or all letters for an ID, regardless of the Banner system, on the Mail Query (GUIMAIL) page.

Check the appropriate Banner system documentation to determine which processes may create a pending letter.

GLBLSEL identifies pending letters as those letters on GUIMAIL that meet all of the following conditions:

- The Letter code on GUIMAIL matches the letter code entered as parameter 3 for GLBLSEL.
- The Term on GUIMAIL matches the term in parameter 7 for GLBLSEL (Student System only).
- The Initiated plus the Wait days on GUIMAIL is less than or equal to the current date.
- The Printed date on GUIMAIL is blank.

If you are running GLBLSEL from the operating system, you can also process pending letters for all letter codes within an application. Rather than checking for a match of the Letter code, GLBLSEL checks to make sure the System indicator on GUIMAIL matches the system indicator of the application in parameter 1.

Letter Generation from Banner with GLRLETR

The Letter Generation Print Report (GLRLETR) can generate letters directly from Banner. The system reads the paragraphs within a letter in the sequence specified. Text is formatted and printed.

When a variable is encountered (identified by an asterisk and a variable name), the value of the variable name is extracted from the Letter Collector Table (GLRCOLR) and merged into the letter. When an RPF command is read, the letter is formatted as specified. The General Mail (GURMAIL) table is updated.

Note: GLRLETR can also create a download file that can be merged with a word processing text file. See Create a download file with GLRLETR on page 111 for more details.

GLRLETR can be run through Job Submission or through the operating system.

Note: Interactively entering job parameters from the host is no longer supported. Parameters for all jobs must be entered on the Process Submission Controls (GJAPCTL) page.

Use Job Submission

You can run GLRLETR through Job Submission.

- 1. Make sure the letter was built on the **Letter Process (GUALETR)** page.
- 2. If a population is being used, make sure the population was selected with the Population Selection Extract (GLBDATA) process.
- 3. Make sure variable data was extracted from the database with the Letter Extract (GLBLSEL) process.
- 4. Access the **Process Submission Control (GJAPCTL)** page.
- 5. Enter GLRLETR in the Process field.
- 6. If the process has more than one job parameter set, enter the name of the set in the **Parameter Set** field. You can click the down arrow icon to access the **Job Parameter Set Rule** (**GJRJPRM**) page to search for a job parameter set.
- 7. Optional: If you want to view, save, or print online, enter DATABASE in the Printer field.

- 8. Go to the Parameter Values section. Parameters defined for the process appear. Default parameter values appear, if they have been defined.
- 9. Enter the following parameter values:

Paramet Number	Parameter	Value
1	Application Code	Application associated with the letter being processed. This must be a valid application defined on the Application Definition Rules (GLRAPPL) page. One application can be processed per run.
2	Word Processor Extract Option	Code that indicates whether letters are generated directly from Process or created from a download file. Enter the value 0 to generate letters directly from Banner.
		If this option is 1 (Word) or 2 (WordPerfect), you do not need a #DT paragraph.
3	Process ALL Pending Letters	Code that determines what letters are printed:
		Y Print all pending letters extracted for the application code. See Pending letters on page 105 for more information.Pending letters on page 105
		${\tt N}$ Print a specific letter code. This is the default value.
		Process ALL Pending Letters only works when the Word Processor Extract Option is 0 (extracted directly from Banner)
4	Letter Code	Code of the letter being printed. This must be a valid letter code defined on the Letter Code Validation (GTVLETR) page. One letter can be processed per run.
5	Sort Variable	Name of the variable used to sort letters in a specific order. The variable name must start with an asterisk (*). Use uppercase. Examples of sort variables are ZIP/postal code and name.
		If the variable is not in the letter, no letters are printed and the Control Report indicates the sort variable is not valid.
		Use a sort variable that returns a single value. If the sort variable returns more than one value, the process will generate duplicate letters.
6	Term Code	Code of the term for which you want to print letters. This must be a valid code on the Term Code Validation (STVTERM) page. One term code can be processed per run. This code is required if you are processing letters in the Student System.

Paramete Number	Parameter	Value
		Warning! Warning! If you are processing GLRLETR through Job Submission, this parameter is required regardless of the system. However, it is used only to process letters in the Student System.
7	Module Code	One-character code that identifies the module associated with the letter being printed. Examples include $\mathbb A$ (Admissions), $\mathbb G$ (Gift/Pledge), $\mathbb C$ (Constituent), $\mathbb R$ (Recruiting), $\mathbb B$ (Billing), $\mathbb H$ (History), and $\mathbb F$ (Registration). This parameter is not validated.
		Module codes vary by Banner product. For a complete list of module codes, see the "Module Identifier" table in Chapter 1 of the <i>Banner Getting Started Guide</i> .
		GLRLETR updates the print date in the GURMAIL Table for published materials that match this module code. A list of the recipients and their materials is included in the report control information. Published materials are items that are sent to individuals, but are not printed by Letter Generation. Examples include college catalogs, sports brochures, and pre-printed pages.
		Warning! Warning! This parameter is not required if you are processing from the operating system. A value is required, however, if you are processing from Job Submission. If updates should not be made for published materials, enter a module code that is not currently used.
8	Audit Indicator	Y Print one sample letter for each letter code extracted. No updates occur.Pending letters on page 105
		$\tt N$ Generate letters, generate a summary report, update the print dates for generated letters on the Mail Query (GUIMAIL) page, and delete all data in the Letter Collector Table (GLRCOLR) for the letters selected to print.
9	Free Format Date 1	Free-page date that is printed on the requested letter for variable *DATE1. *DATE1 can be a variable on a letter that is not built on the Variable Definition Rules (GLRVRBL) page; the value of this parameter becomes the variable value. The maximum length of this date is 30 characters.
10	Free Format Date 2	Free-page date that is printed on the requested letter for variable *DATE2. *DATE2 can be a variable on a letter that is not built on the Variable Definition Rules (GLRVRBL) page; the value of this parameter becomes the variable value. The maximum length of this date is 30 characters.

Paramet Number	Parameter	Value
11	Free Format Date 3	Free-page date that is printed on the requested letter for variable *DATE3. *DATE3 can be a variable on a letter that is not built on the Variable Definition Rules (GLRVRBL) page; the value of this parameter becomes the variable value. The maximum length of this date is 30 characters.
12	Aid Year Code	Aid year for which you want to print letters. This must be a valid code on the Institution Financial Aid Options (ROAINST) page. This parameter is required if the application code in parameter 1 is associated with the Financial Aid System.

- 10. Go to the Submission section.
- 11. Select the **Hold** option button or the **Submit** option button.
- 12. Save your changes.
- 13. Print the letter using the operating system's print command.

Use the operating system

The Letter Generation Print Report (GLRLETR) can generate letters directly from Banner. The system reads the paragraphs within a letter in the sequence specified. Text is formatted and printed.

Procedure

1. Use the appropriate command for your institution. For example:

UNIX:	glrletr -r userid/password
OpenVMS:	runproc glrletr -r userid/password

The resulting output file (glrletr.rpf) contains formatting commands and instructions, boilerplate text, and variable text that will be substituted in each letter.

2. Enter this command to format the results:

UNIX:	guaprpf -f glrletr
OpenVMS:	runproc guaprpf -f glrletr

The resulting output file is named glrletr.lis. If you want to specify a different name for the output file, format the command like this:

UNIX:	guaprpf -f -o outputfilename glrletr
OpenVMS:	runproc guaprpf -f -o outputfilename glrletr

3. Print the letter using the operating system's print command.

Note: Interactively entering job parameters from the host is no longer supported. Parameters for all jobs must be entered on the Process Submission Controls (GJAPCTL) page.

Task notes

Remember the following while performing this task.

- A letter is not generated for an ID if the letter code has a duplicate indicator of N on the Letter Code Validation (GTVLETR) page and the ID already has an entry on the Mail Query (GUIMAIL) page for the letter.
- A letter is not generated for an ID if **Date Printed** is not blank.
- If a checklist variable is used in a letter, the request dates and request count on the Admissions Checklist section of the Admissions Application (SAAADMS) page are updated.
- If a variable name is found in a letter but does not exist on the extract file, nothing is printed. For example, if the letter is requesting some action by the person as of a certain date and the date parameters are not entered in the extract program, the text appears but the date does not. In this example, the date should appear after the word "by," but the date does not exist:

Please send your transcript to my office by or you will be unable to register.

- Only one letter is created in a run for a letter code and person.
- If multiple items for a variable are extracted, the first value is printed and a line is skipped before the next value is printed. If there is a single value variable, no line is skipped.

In the following example, there is a single date and a single term. Multiple *CHKL variables have been extracted. The paragraph reads as follows:

```
Line 1: The following items are requested by
Line 2: *DATE1
Line 3: in order for you to register by
Line 4: *TERM
Line 5: #CONCAT \.
Line 6: #8 2
Line 7: *CHKL
Line 8: #8 2
Line 9: Thank you.

The result is:
The following items are requested by August 1, 2002 in order for you to register by Fall 2003.

0001 High School Transcript
0004 Tuition Deposit
Thank you.
```

Create a download file with GLRLETR

The Letter Generation Print Report (GLRLETR) can create a download file that can be merged with a text file created by certain word processors. Supported tools are Microsoft Word for Windows (version 2.0 or higher) and WordPerfect (version 4.2 or higher).

About this task

This download option allows you to print letters using all available formatting, styles, and fonts of your word processor.

Note: Ellucian does not support WordPerfect 8.0 and higher.

GLRLETR can also generate a letter directly in Banner. See Letter Generation from Banner with GLRLETR on page 106 for more details.

The download option of GLRLETR creates two files:

- The download file contains a "header record" with all of the variables used in the letter and records for each ID in the population. The name of the download file depends on the run sequence number produced by job submission and ends with a .DOC extension. For example, GLRLETR 1234.DOC is a valid name, where 1234 is the run sequence number.
- A control report contains information about the letters that were processed. This information includes the number of "letters" produced, referring to the number of IDs that had data extracted.

Note: IFNULL only works when you run GLRLETR for a Banner extracted letter (Word Processor Extract Option = 0). In addition, the download file will not contain paragraph text or literals.

Use these steps to create a download file:

Procedure

1. Make sure the letter was built on the Letter Process (GUALETR) page.

Note: The letter only needs to contain one paragraph. This paragraph must contain a list of the variables used in the letter. (Text and formatting commands are ignored.) Variables must be defined on the Variable Definition Rules (GLRVRBL) page. Each variable must be entered on a separate line. The order of the variables does not matter.

- 2. If a population is being used, make sure the population was selected with the Population Selection Extract Process (GLBDATA).
- 3. Make sure variable data was extracted from the database with the Letter Extract Process (GLBLSEL).
- 4. Access the Process Submission Control (GJAPCTL) page.
- 5. Enter GLRLETR in the Process field.
- 6. If the process has more than one job parameter set, enter the name of the set in the **Parameter Set** field. You can click the down arrow icon to access the Job Parameter Set Rule (GJRJPRM) page to search for a job parameter set.

- 7. Optional: If you want to view, save, or print online, enter DATABASE in the Printer field.
- 8. Go to the Parameter Values section. Parameters defined for the process appear. Default parameter values appear, if they have been defined.
- 9. Enter the following parameter values:

Paramet Number Parameter		Value	
1	Application Code	Application associated with the letter being processed. This must be a valid application defined on the Application Definition Rules (GLRAPPL) page. One application can be processed per run.	
2	Word Processor Extract Option	Code that indicates whether letters are generated directly from Banner or created from a download file. Enter one of these values:	
		 0 = Letters are generated directly from Banner.Pending letters on page 105 	
		 1 = Produce an output file for Word.Pending letters on page 105 	
		• 2 = Produce an output file for WordPerfect.	
3	Process ALL Pending	Code that determines what letters are printed:	
	Letters	 Y = Print all pending letters for the application code. See Pending letters on page 105 for more information.Pending letters on page 105 	
		 N = Print a specific letter code (default). 	
		Process ALL Pending Letters is only valid when the Word Processor Extract Option is 0 (letters produced directly from Banner).	
4	Letter Code	Code of the letter being printed. This must be a valid letter code defined on the Letter Code Validation (GTVLETR) page. One letter can be processed per run.	
6	Term Code	Code of the term for which you want to print letters. This must be a valid code on the Term Code Validation (STVTERM) page. This parameter is required if the application code in parameter 1 is associated with the Student System.	
7	Module Code	One-character code that identifies the module associated with the letter being printed. This code updates pending published letter codes in the GURMAIL Table with a print date and lists the information in the report control information. Examples include:	
		• A = Admissions	

Para	Paramet	
Num	ber Parameter	Value
		G = Gift/Pledge
		• C = Constituent
		R = Recruiting
		B = Billing
		• H = History
		• F = Registration.
		This parameter is not validated.
		Module codes vary by Banner product. For a complete list of module codes, see the "Module Identifier" table in Chapter 1 of the <i>Banner Getting Started Guide</i> .
8	Audit Indicator	Y = Print one sample letter for each letter code extracted. No updates occur.Pending letters on page 105
		 N = Generate letters, generate a summary report, update the print dates for generated letters on the Mail Query (GUIMAIL) page, and delete all the data in the Letter Collector Table (GLRCOLR) for the letters selected to print.
12	Aid Year Code	Aid year for which you want to print letters. This must be a valid code on the Institution Financial Aid Options (ROAINST) page. This parameter is required if the application code in parameter 1 is associated with the Financial Aid System.

- 10. Go to the Submission section.
- 11. Select the **Hold** option button or the **Submit** option button.
- 12. Save your changes.

This creates a download file.

13. Use your institution's procedures to merge the letter into your word processing environment.

Check your word processor's documentation for instructions on using the "mail merge" feature.

Note: The WordPerfect download file is a binary file. Make sure you indicate in your communication software that a binary file is being downloaded.

Task notes

Remember the following while performing this task.

• When you produce a download file, you can produce only one letter (that is, one letter code) for a single run of GLRLETR. Each letter needs its own unique header record and, therefore, its own data file.

- The three date parameters (*DATE1, *DATE2, and *DATE3) are ignored if they are defined in the letter. The feature of entering dates dynamically can be accomplished in MS Word for Windows and WordPerfect (DOS version).
- The Mail Table (pages *UAMAIL) is updated when you use the extract option.
- Other GLRLETR processing performed when creating a letter in Banner (option 0) still occurs (such as signature variables and duplicate letter checking).
- IFNULL only works when you run GLRLETR for a Banner extracted letter (Word Processor Extract Option = 0). In addition, the download file will not contain paragraph text or literals.

Letter generation messages

As you work with the Letter Generation programs, Banner provides diagnostic messages to alert you to problem that might occur along the way and gives you directions to remedy the situation. Messages may indicate a data entry mistake, such as a not valid or missing value, or other problem.

If an Oracle error occurs during the running of the GLBLSEL process, the message usually ends with the word "Aborting." To help you diagnose and correct these situations, the system displays an error number in the glblsel.log file as "SQLCODE=####." Refer to your *Oracle Error Messages Manual* for help.

Listed below are some of the common Banner diagnostic messages you may see, with their corrective actions.

<address type> is not valid

The address type entered as a parameter is not defined on the Address Type Code Validation (STVATYP) page.

Define the address type on STVATYP, or enter the correct address type for the parameter.

Application <application> does not exist

The application entered as a parameter is not defined on the Application Definition Rules (GLRAPPL) page.

Define the application on GLRAPPL, or enter the correct application for the parameter.

CANNOT PROCESS ALL VARIABLES

No compiled variables (GLRCMPL records) were found for any variables in the letter.

Recompile all variables, and re-run GLBLSEL. (Recompiling requires running GLBPARM and GLOLETT. See the *Banner General Technical Reference Manual* for details.)

Letter < letter > does not exist

The letter code entered as a parameter is not defined on the Letter Code Validation (GTVLETR) page.

Define the letter code on GTVLETR, or enter the correct letter code for the parameter.

Program must be run using Pending Letters or Selection

Running GLBLSEL requires either choosing pending letters or entering a population. Pending letters were not chosen, and a population was not entered.

Run GLBLSEL again, either choosing pending letters or entering a population.

Term <term> does not exist

The term code entered as a parameter is not defined on the Term Code Validation (STVTERM) page.

Define the term code on STVTERM, or enter the correct term code for the parameter.

Variable <variable> on letter <letter> is not owned by application <application>

A variable defined in the letter does not belong to the application entered as the parameter.

Use the Variable Definition (GLRVRBL) page to copy the variable from the application that does own the variable to the one entered for the parameter.

In a letter generated directly by the Letter Generation module (rather than by downloading), a variable's name, rather than the translation value for the variable, appears in the text of the letter. For example, the variable "*freestone" rather than the value "John" appears.

Either the generated letter has multiple tables defined (that is, #DT commands) and the #DT commands are not the first paragraph of the letter, or the #DT command paragraphs have commands other than #DT (for example, #NP).

Use the Letter Process (GUALETR) page to review the first paragraph of the letter. Make sure the first paragraph has only #DT commands. Use the Paragraph (GUAPARA) page to make any modifications. Rerun the Letter Extract Process (GLBLSEL) and the Letter Generation Print Report (GLRLETR).

Note: If you ran GLRLETR in audit mode when you determined the error, you only need to run GLRLETR. There's no need to run GLBLSEL again.

General International Management

The General International Management module lets you store information about foreign students attending your institution and create reports with that information. It has been designed to help institutions meet the requirements of the United States Bureau of Citizenship and Immigration Services (BCIS).

If your institution is not located in the USA, you may not need this module.

Some of the functions you can perform in the General International Management module are:

- · Store and maintain visa information for students, applicants, and employees
- · Track visas for students, applicants and employees
- · Create reports to track expiring visa documents
- Create SEVIS records to be sent to the Bureau
- · Collect and report on race/ethnicity codes

Validation pages

International Management pages use the following validation pages.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
GTVCELG	GOAINTL
Certification of Eligibility Validation page	Visa International Information page
GTVDOCM	GOAINTL
Documentation Code Validation page	Visa International Information page
GTVSRCE	GOAINTL
Source Code Validation page	Visa International Information page
GTVSVCC	GOASEVS
SEVIS Category Code Validation page	SEVIS Information page
GTVSVCP	GOASEVS
	SEVIS Information page

Validation page	
SEVIS Consular Post	Used By
Validation page	
GTVSVCR	GOASEVS
SEVIS Creation Reason Code Validation page	SEVIS Information page
GTVSVDT	GOASEVS
SEVIS Dependent Termination Code Validation page	SEVIS Information page
GTVSVEL	GOASEVS
SEVIS Education Level Code Validation page	SEVIS Information page
GTVSVEP	GOASEVS
SEVIS EV End Program Reason Code Validation page	SEVIS Information page
GTVSVFT	GOASEVS
SEVIS Drop Below Full Time Reason Code Validation page	SEVIS Information page
GTVSVGO	GOASEVS
SEVIS Governmental Organization Code Validation page	SEVIS Information page
GTVSVIO	GOASEVS
SEVIS International Organization Code Validation page	SEVIS Information page
GTVSVIT	GOASEVS
SEVIS Infraction Type Code Validation page	SEVIS Information page
GTVSVPC	GOASEVS
SEVIS Exchange Visitor	SEVIS Information page
Position Code Validation page	
GTVSVFT SEVIS Drop Below Full Time Reason Code Validation page GTVSVGO SEVIS Governmental Organization Code Validation page GTVSVIO SEVIS International Organization Code Validation page GTVSVIT SEVIS Infraction Type Code Validation page GTVSVPC SEVIS Exchange Visitor	SEVIS Information page GOASEVS SEVIS Information page GOASEVS SEVIS Information page GOASEVS SEVIS Information page

Validation page	Used By
SEVIS Request for page Reprint Code Validation page	SEVIS Information page
GTVSVTR	GOASEVS
SEVIS Termination Reason Code Validation page	SEVIS Information page
GTVSVTS	GOASEVR
SEVIS Transmittal Status Code Validation page	SEVIS Transmittal History page
GTVSVAP	GORSVSQ
SEVIS Auto-populate Code Validation page	SEVIS Business Rules page
GTVSVBA	GORSVSQ
SEVIS Business Action Code Validation page	SEVIS Business Rules page
GTVVISS	GOAINTL
Visa Issuing Authority Validation page	Visa International Information page
GTVRRAC	GORRACE
Regulatory Race Validation page	Race Rules page

Menu navigation Table

Pages in the General International Management module can be accessed from the following menus.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
*GENMVISA	General Multi Visa Menu
	Contains the menus that help you track visa information for students, applicants, and employees
*GENSEVIS	General SEVIS Menu

Menu	Description
	Contains the menus that help you manage your institution's relationship with the Bureau.
GOAINTL	Visa International Information page
	Allows you to store and display information about the visas held by students, applicants, and employees.
GTVCELG	Certification of Eligibility Validation page
	Provides a list of certifications of eligibility for employment. Some examples, in the United States, are the I-20 and IAP-66.
GTVDOCM	Documentation Code Validation page
	Provides a list of documents that could be used to validate a visa request.
GTVSRCE	Visa Source Code Validation page
	Provides a list of documents that could be used to validate a visa request.
GTVVISS	Visa Issuing Authority Validation page
	Lists the codes representing the agencies that may issue visas.
GOASEVR	SEVIS Transmittal History page
	Displays the student's or exchange visitor's completed record, ready for transmittal to the Bureau. It will also display historical records.
GOASEVS	SEVIS Information page
	Allows you to store information about students and exchange visitors so it can be sent to the Bureau using the Internet. It contains SEVIS-specific data elements and dependent relationship information.
GOISEVS	SEVIS Transmittal Status Query page
	Allows you to view records that have been created from the SEVIS Batch Export Process (GORSEVE).
GTVSVCC	SEVIS Category Code Validation page
	Allows you to store data for the valid SEVIS exchange visitor category codes.
GTVSVCP	SEVIS Consular Post Code Validation page
	Allows you to store data for the valid SEVIS consular post codes.
GTVSVCR	SEVIS Creation Reason Code Validation page
	Contains the codes that represent why the student or exchange visitor records were created, such as initial attendance or transfer.
GTVSVDT	SEVIS Dependent Termination Code Validation page

Menu	Description
	Stores codes representing the reasons a person's dependent is no longer included on the record. For example, the dependent may have left the United States.
GTVSVEL	SEVIS Education Level Code Validation page
	Provides codes representing education levels, for example, associate, bachelor, and other university-obtained degrees.
GTVSVEP	SEVIS EV End Program Reason Code Validation page
	Stores codes representing the reasons an exchange visitor's program could be ended.
GTVSVFT	SEVIS Drop Below Full Time Reason Code Validation page
	Stores SEVIS drop below full time reason codes. They describe why the student did not carry enough credits to be considered a full-time student. Examples include illness and difficulty learning English.
GTVSVGO	SEVIS Governmental Organization Code Validation page
	Stores SEVIS governmental organization codes. They describe the government organization that allowed the EV to enter the United States. An example would be the Department of State.
GTVSVIO	SEVIS International Organization Code Validation page
	Stores SEVIS EV infraction codes. They describe the international organization that is sponsoring the EV while in the United States. An example would be the World Health Organization.
GTVSVIT	SEVIS Infraction Type Code Validation page
	Stores SEVIS EV infraction type codes. An example would be the failure to extend a DS-2019 in a timely manner.
GTVSVRP	SEVIS Request for page Reprint Code Validation page
	Stores codes representing reasons for reprinting Visa request pages. The student may have lost the original, or it may have been damaged.
GTVSVTR	SEVIS Termination Reason Code Validation page
	Stores SEVIS termination reason codes. They indicate why the student or exchange visitor was terminated from the school (expulsion, delinquency, and so on.).
GTVSVTS	SEVIS Transmittal Status Code Validation page
	These codes are not defined by the Bureau. These codes are used by Extraction™ to process your institution's SEVIS transactions. They represent the status of a transaction, for example, Processing Complete.
GTVSVAP	SEVIS Auto-populate Code Validation page

Menu	Description
	Stores the fields in the GOBSEVS table that will be populated automatically (auto-populated) from other Extraction tables. Column names from the GOBSEVS table have been delivered.
GTVSVBA	SEVIS Business Action Code Validation page
	Allows you to define business action codes and the procedures they will execute. Two business actions are delivered as seed data; CREATE_STUDENT and CREATE_EV.
GORSVSQ	SEVIS Business Rules page
	Allows you to associate business actions or auto-populations with process code/rule code combinations.
GOISVBH	SEVIS Batch Header Query page
	Allows you to review the header information for batches that have been sent to the Bureau.

General international management procedures

General international management procedures include visa tracking.

Visa tracking

The International Information (GOAINTL) page is used to track Visa information. Details about this page are located in the General International Management chapter of this guide.

Setup of supporting pages

You can begin by entering information in the following validation pages.

- · Nation Code Validation (STVNATN) page
- Visa Type Code Validation (STVVTYP) page
- · Port of Entry Code Validation (STVPENT) page
- Language Code Validation (STVLANG) page
- International Student Sponsor Code Validation (STVSPON) page
- Employment Type Validation (STVEMPT) page
- Admission Request Checklist Code Validation (STVADMR) page
- Visa Issuing Authority Validation (GTVVISS) page
- · Visa Source Code Validation (GTVSRCE) page

- · Visa Document Code Validation (GTVDOCM) page
- · Certification of Eligibility Validation (GTVCELG) page

Enter visa information

Visa tracking information is stored on the Visa International Information (GOAINTL) page. To enter visa information about an international student.

About this task

Note: A student, prospect, or employee must exist in Banner (have a Banner ID) before you can enter information about them into GOAINTL.

Procedure

- 1. Enter the person's ID in the key block, or search for it by selecting the pull-down arrow.
- 2. Use <Ctrl><PgDn> to move into the Visa Information section on the Visa section.
- 3. Enter the data into the Visa Information section.
- 4. Save your changes.
- 5. Navigate to the Document section.
- 6. Enter information about the person's supporting documents.
- 7. Save your changes.
- 8. Navigate to the Passport Information section.
- 9. Enter information about the person's passport, and their admission and departure.
- 10. Save your changes.
- 11. Navigate to the Certification of Eligibility section.
- 12. Enter information about the documents that prove the person's eligibility.
- 13. Save your changes.
- 14. Navigate to the Nationality section.
- 15. Enter information about the person's Nationality and about family members who have accompanied them to the United States.
- 16. Save your changes.

Deletion of records

Previously, you could not delete GOAINTL records; they were all stored as history. Now you can delete visa information from the Visa Information section. You cannot change the visa type, you can only delete the record.

Note: You cannot delete a record if there are supporting documents for it. You will receive an error message, and you will not be able to save your change. You must first go to the Document section and delete all the items listed there.

Overlap visa dates

GOAINTL has always supported multiple visas for one person, but none of the dates could overlap. If they did, you would receive an error message and you could not save the record.

Now people can have visas with overlapping dates. Banner will display an informational message, but you do not need to take any special actions as a result of it.

Display multiple visas

GOAINTL had displayed multiple visas sorted by the date, now it displays them by sequence number. The lowest number (the visa added earliest) appears on the page first, and you can scroll down to see the rest, sorted lowest to highest.

Student and Exchange Visitors Information System (SEVIS)

The Bureau of Citizenship and Immigration Services (BCIS), part of the U.S. Department of Homeland Security, is asking institutions in the United States to provide information about non-immigrant students and exchange visitors using the Internet.

The Student and Exchange Visitors Information System (SEVIS) provides tracking, monitoring, and access to accurate and current information on non-immigrant students (those with an F or M visa) and exchange visitors (those with a J visa), and on their dependents. Using SEVIS ensures that information is collected in a usable, shareable electronic format from the beginning, before the State Department issues the visa, and provides current, accurate data throughout the person's course of study or program.

All institutions must be certified by the Bureau of Citizenship and Immigration Services to participate in SEVIS. The certification process will provide each institution with the appropriate login IDs and passwords.

For more information about SEVIS, please refer to the Bureau of Citizenship and Immigration Service's web site.

Note: The Bureau of Citizenship and Immigration Services was formerly known as the Immigration and Naturalization Service (INS).

Banner currently supports:

- Fields in which you can enter the SEVIS-required data
- · Conversion of Banner data into the codes required by the Bureau
- Storage of responses from the Bureau
- Storage and maintenance of historic SEVIS data
- An inquiry page to view and filter records
- A batch process to prepare your data for transmittal to the Bureau and help you load the results of the transactions into Banner databases
- Interfaces with an external tool, the SEVIS Transfer Adaptor (SEVISTA), to send your files to the Bureau's web site and import the response data into Banner tables.

You enter information into the SEVIS Information (GOASEVS) page, and create a student or exchange visitor history record. You can do this by:

- Selecting Create Student or Create Exchange Visitor from the Options menu
- Executing the SEVIS Batch Extract Process (GORSEVE)

Either method will create a Student or Exchange Visitor history record, respectively, and will convert certain Banner codes into SEVIS codes. The Bureau will only accept SEVIS codes. You can view the final record on the SEVIS Transmittal History (GOASEVR) page.

Any time there is a change for the student or exchange visitor that must be reported to the Bureau, you will update the information on the GOASEVS page, select the appropriate option or run GORSEVE, view the information on the GOASEVR page, and send it to the Bureau. You cannot change data on GOASEVR.

What is SEVISTA?

The SEVIS Transfer Adaptor (SEVISTA) is a Java tool that will reside on the platform that has the VeriSign Certificate. It takes data from Banner temporary table entries created by GORSEVE, converts it to XML, validates the XML and transmits it to the Bureau's web site.

Note: If SEVISTA finds errors in certain records when it validates the XML, it rejects those records. They are not included in the batch that SEVISTA transmits to the Bureau. The **Status Code** field on GOASEVR will be set to R (Returned with error).

SEVISTA will relay the Bureau's responses, sending an e-mail to the designated person. That information can be used to check the status of the batch and resubmit any records that were rejected.

Note: To receive e-mails from SEVISTA, you must have subscribed to it. For more information, please refer to the *SEVIS Transfer Adaptor Installation & Implementation Guide*.

When the batch has been processed by the Bureau, SEVISTA returns the information to your institution, loading it directly into the Banner tables by updating the **Status Code** and **SEVIS Result Code Message** fields on GOASEVR.

SEVISTA relies on the school code to transmit student records and the program code to transmit exchange visitor records. The school code and the program code must be unique for each instance of SEVISTA.

Note: GORSEVE does not validate the school or program code. If you enter a code that does not exist in a SEVISTA instance, either as a parameter to GORSEVE or on an individual record, GORSEVE will still select the records to send to the Bureau. It will create a batch ID and header information, but the header data will remain in GORSVBH and the transaction data will remain in GOTSVBT with no SEVISTA activity.

Note: When you check on your batches you will see that the transmittal status code never changed. To get the batch to process, you must correct the school or program code on GOASEVS and re-create the records.

Structures

The Bureau has grouped related pieces of information together in a structure. A structure can contain other structures.

A record is created whenever any data element within that structure is changed. Each changed structure is included in a separate record. Because the INS requires this, you will probably find that your institution sends a larger number of records than you might have expected.

In Banner, the name of the structure is included in the GOASEVR record, and is displayed on the SEVIS Transmittal Status Query (GOISEVS) page and on the SEVIS Transmittal History (GOASEVR) page.

Set up SEVIS features

You can set up SEVIS features.

Procedure

- 1. Determine the address codes to be used to populate the US and Foreign Address fields.
- 2. Use GTVSDAX to identify the address types to the SEVIS process. The codes are SVSUADDR and SVSFADDR

Note: A hierarchy of address types can be used to identify multiple address types.

3. The Bureau requires you to provide certain pieces of information about each student and exchange visitor. In some cases, the information (for example, Nation) is already captured in Banner with a Banner code. You must map the SEVIS codes to the existing Banner ones because the Bureau will only accept SEVIS codes. You can find the SEVIS codes on the Bureau's web site.

Add SEVIS equivalent codes to the corresponding Banner codes on the following validation pages:

- Major, Minor, Concentration Code Validation (STVMAJR) page
- Nation Code Validation (STVNATN) page
- · Relation Code Validation (STVRELT) page
- Visa Type Code Validation (STVVTYP) page

- · Port of Entry Code Validation (STVPENT) page
- 4. Enter both the US and foreign addresses for each student or exchange visitor on the Address Information window on the **Identification (SPAIDEN)** page.
- 5. Enter all information into the **SEVIS Information (GOASEVS)** page. Information will default in from SPAIDEN and SPAPERS.

Note: If the people and their dependents are set up on SPAIDEN and SPAPERS, their names, birthdates, and genders will be automatically populated on GOASEVS. You cannot enter this information into GOASEVS; it must be populated from SPAIDEN or SPAPERS.

- 6. Create population selection rules, if necessary.
- 7. Run the SEVIS Batch Export Process (GORSEVE).

Creation of student and exchange visitor records

You can create student and exchange visitor records either manually or automatically.

Create records manually

The student or exchange visitor must already exist in Banner before information can be added for them. They must have been created on the Identification (SPAIDEN) page.

Procedure

- Access the SEVIS Information (GOASEVS) page through Direct Access or through the Banner Menus.
- 2. Enter the person's Banner ID in the key block, or search for it by selecting the pull-down arrow then selecting Person Search (SOAIDEN) or Alternate ID Search (GUIALTI) from the Options.
- 3. Use <Ctrl><PgDn> to navigate to the SEVIS Common Data section, or select it from the Options pull-down menu.
- 4. Enter information into the section and save your changes.

Note: Some Creation Reason codes are valid for students and some for exchange visitors. When you select Create Student or Create Exchange Visitor from the Options pull-down menu, Banner verifies that you have an appropriate Creation Reason code. If you don't, Banner displays an error message.

- 5. Navigate to the SEVIS Student Data section (if the person is a student) or to the Exchange Visitor Data section (if the person is an exchange visitor).
- 6. Enter information into the section and save your changes.
- 7. Enter information in the Activity Site Data section (if the person is an exchange visitor).
- 8. Access the SEVIS Dependent Data section if the person has dependents in the United States. If the dependent exists in Banner, enter the Banner ID to automatically populate some of data from SPAIDEN. Otherwise, enter the dependent's name and biographical information manually.

- 9. If you want to verify or change the person's personal information, select Name, Address, and Telephone Information from the Options pull-down menu. The link will take you directly to the Identification (SPAIDEN) page. Exit the page to return to GOASEVS.
- 10. When you are sure the data is complete and accurate, select Create Student or Create Exchange Visitor from the Options pull-down menu, depending on whether the person is a student or an exchange visitor. This invokes the scripts that convert various Banner codes to SEVIS codes and populate the SEVIS Transmittal History (GOASEVR) page. The scripts will verify that there is a SEVIS equivalent code for the Banner codes you entered for Visa Type, Primary Major, Birth Nation, Legal Nation, and Port of Entry for the person and their dependents.

The process that creates these records will verify that there is information in all of the required fields.

Note: GOASEVS will always contain the current information. You can view the history of your transactions on GOASEVR.

Note: You can enter data into all the fields on GOASEVS. You can only enter status information on GOASEVR - all the other fields are display only.

Note: GOASEVS contains Banner codes. GOASEVR contains the corresponding SEVIS codes.

11. Select View SEVIS Record from the Options pull-down menu. GOASEVR is displayed, and you can see that the SEVIS codes have been substituted for the Banner codes.

Creation of records automatically

The SEVIS Batch Extract Process (GORSEVE) creates records, too.

When you run GORSEVE in audit or update mode, it compares GORSEVS records (present) to the most current GORSEVS record (history) to see if there is a change. If there is, it automatically creates the student and exchange visitor records as if you had selected Create Student or Create Exchange Visitor for them individually.

As part of its processing, GORSEVS will verify that there is information in all of the required fields.

After it creates the records, GORSEVS transmits them to the SEVIS Transfer Adaptor (SEVISTA), which converts them to an XML file and send them to the Bureau.

For more information about GORSEVE, refer to the Reports and Processes chapter in this document.

View records

This process involves filtering records and seeing the records that will go to the Bureau before they are sent.

Filter records

You can use the SEVIS Transmittal Status Query (GOISEVS) page to filter records.

Procedure

- 1. Go to the SEVIS Transmittal Status Query (GOISEVS) page.
- 2. Enter the criteria by which you want to search and submit the To determine whether records currently exist for a particular bank code, . The records that match your criteria will be listed in the Record section. You can also issue queries from the Record section itself.

Run GORSEVE in audit mode

If you want to see the records that will go to the Bureau before they are sent, you can run GORSEVE in audit mode.

- If the records can be transmitted through normal processing, GORSEVE creates the record for GOASEVR with a transmittal status code of w
- If the records contain adjudicated information and, therefore, must be transmitted manually, GORSEVE changes the transmittal status code to ${\tt M}$

It will create the records as if it were going to send them, but it will print them on a report. You can use the report and the GOISEVS page to review the records. If you find a record that should not be sent to the Bureau, change the transmittal status code to x, and it will not be sent the next time GORSEVE is run (update mode).

Adjudicated information handling

The Bureau has determined that some information is so critical that it must be transmitted manually through the SEVIS RTI.

Therefore, it is possible that a change to one person's information could result in more than one record; you could have some records with adjudicated information that you must send manually and some with information that can be sent as XML files.

The SEVIS Batch Extract Process (GORSEVE) is designed to know which events for students are adjudicated and which are not. It will take the information you enter on the SEVIS Information (GOASEVS) page and will divide it into multiple records, as necessary. It will list the adjudicated records on the GORSEVE report, and give them the transmittal status code ${\tt M}$. You must enter the information manually on the Bureau's web site.

Adjudicated events for exchange visitors must be handled manually at this time. GORSEVE will not identify them.

The response records from the Bureau will be uploaded into Banner using SEVISTA.

Send records to the bureau

There are two ways to send records to the Bureau.

Procedure

- 1. You can provide the information to the Bureau manually through the SEVIS RTI.
- 2. You can use the batch process GORSEVE and the external tool SEVISTA.

Results

It is the responsibility of your institution to make sure the proper information is sent to the Bureau. For example, when you terminate a dependent, you cannot request an I-20 for that dependent. Banner will not prevent you from making this request, but the record will be rejected by the Bureau.

Transmit data through the RTI

You can access the SEVIS Transmittal History (GOASEVR) page and transmit data through the RTI.

Procedure

- 1. Access the SEVIS Transmittal History (GOASEVR) page.
- 2. Access the Bureau web site.
- 3 Transfer the information in the Banner fields to fields on the web site
- 4. Save your changes.
- 5. Check to see the record's status:
 - a) If the record was accepted, access GOASEVR, display the person's record, and enter the Status Code and any SEVIS Result Code Message. The Creation Date is populated automatically. Save your changes.

Access GOASEVS. Enter the SEVIS IDs for the person and for any dependents. Save your changes.

Note: After the SEVIS ID has been entered for this person, it will not have to be entered again, even if the information about that person changes.

b) If the record was rejected, see If the Record is Rejected in this document.

Send data to the bureau through the batch process

You can use the batch process to send data to the bureau.

About this task

Note: Ellucian recommends that you set up the GORSEVE process and SEVISTA to run automatically each night.

Procedure

- 1. Create a directory on the server/pc with the VeriSign certificate, and name it SEVIS. After GORSEVE has run, SEVISTA will send the XML file to the SEVIS directory.
- SEVISTA will verify that the data is formatted correctly. It will also make sure that all the codes are accepted values. SEVISTA will send back a message indicating if the file has passed this check.

Results

For details about GORSEVE, please refer to the Reports and Processes chapter in this document.

All the records that come from GORSEVE that have a transmittal status of P will be sent to the Bureau by SEVISTA. SEVISTA formats the data into an XML file and validates it against the SEVIS XML schemas to make sure it is in the proper format for transmission.

All the valid records are then uploaded to the Bureau's web site.

When the records are sent to the Bureau, the transmittal status code remains \mathbb{P} , because no response has yet come from the Bureau. When the Bureau responds, the code is changed to \mathbb{C} if the Bureau approved the batch or \mathbb{R} if the Bureau rejected it.

Multiple school/program codes

If your institution has multiple campuses, you must install multiple instances of SEVISTA. Each instance uniquely identifies the campus with a school and program code, and will process records for that school and program code only.

For more information about installing multiple instances of SEVISTA on the same server, please refer to the SEVIS Transfer Adaptor Installation & Implementation Guide.

Record submission is triggered by the SEVIS Batch Export Process (GORSEVE). You should run GORSEVE for a single school code or program code at a time, each with its own SEVIS Officer IDs for the Batch Approver and Transaction Approver.

Warning! Do not try to submit GORSEVE with both a school code and a program code as parameters; the program checks for one or the other, and will issue an error message if it finds both.

Note: Ellucian recommends that you use population selections or Banner IDs as parameter values for GORSEVE if you have more than one school or program code.

If you set up new Student or EV records without assigning them a school or program code and create the actual records using GORSEVE, they will be given the school or program code for which GORSEVE was run.

Note: The SEVIS Approver ID needs to be correct for the school or program code or the Bureau will reject the transmission.

If you want to make sure student or exchange visitor records are associated with a specific school or program code, you can assign the code directly on GOASEVS.

All records with a transmittal status code of W (waiting) will be selected by GORSEVE for transmission to the Bureau, no matter what the school or program code is:

- If the school or program code stored on the record is the same as the one you entered as a
 parameter for GORSEVE, that school or program code will be included in the batch
- If a different school or program code is stored in the record, the stored code will be included in a new batch
- If there is no school or program code stored in the record, GORSEVE will use the one you entered as a parameter for GORSEVE, including it in the batch

Note: The school or program code must be unique for each batch. If one execution of GORSEVE finds records with more than one school or program code, GORSEVE will separate them into different batches.

If records are rejected by SEVISTA

SEVISTA validates your data against the SEVIS XML schemas. If any records are rejected, SEVISTA sends an e-mail to the SEVISTA subscriber. It also populates the **Error Code** field with SEVISTA. This is the field that usually contains any error codes from the Bureau.

The e-mail includes the batch number and lists the rejected records. You can review batch header information on the SEVIS Batch Header Inquiry (GOISVBH) page.

After the records are corrected, GORSEVE will select the records and pass them to SEVISTA, as usual. SEVISTA will convert them to XML, validate the XML and send them to the Bureau. The new batch header will have different information than the original. The Bureau considers the original batch to have been processed completely and the updated records are part of a new batch. The rejection is stored as part of the records' history and cannot be changed.

Responses from the Bureau

The Bureau will respond to a batch in one of three ways.

- 1. It will reject the entire batch
- 2. It will accept some records and reject the others
- 3. It will accept all the records

In all of these cases, the designated person (a subscriber) will receive an e-mail from SEVISTA. It will provide the batch number and the number of records that have been accepted and rejected.

SEVISTA will automatically take the file from the Bureau and update the **Trans. Status** field with:

- C if the record was accepted
- · R if it was rejected

If the record was accepted and the person did not already have a SEVIS ID, SEVISTA enters the SEVIS ID into the GOBSEVS and GORSEVD tables, too.

If the record was rejected, SEVISTA enters the **Status Code** and **SEVIS Result Code Message** provided by the Bureau into the Banner tables.

Note: If you have requested student or exchange visitor pages, SEVISTA places them in one of its directories. For more information, please refer to the *SEVIS Transfer Adaptor Installation & Implementation Guide*.

Reception of data from the Bureau

SEVISTA files, including the uploaded XML files and the downloaded files from the Bureau (including the .pdf files), are stored in directories on the SEVISTA server.

Note: Before SEVISTA was available, the now-obsolete SEVIS Batch Import Process (GORSEVI) required you to set up the directory where you would place the XML files, XMLSEVIS. If you had created this directory previously, you should drop it now.

If a record is rejected

If a record is rejected, the result code (an error code), the result code message, and the transmittal status code (R) are automatically entered into the SEVIS Transmittal History (GOASEVR) page.

About this task

Note: You cannot correct a record and resend it. You must store the information about the rejection and create a new record. Only the new record can be sent. The rejected record is locked. The transmittal status code \mathbb{R} indicates that it was returned with error.

Procedure

- 1. You must go into the **SEVIS Information (GOASEVS)** page, the **Identification (SPAIDEN)** page, or **General Person (SPAPERS)** page to make the changes.
- 2. Save your changes.
- 3. **Optional:** From GOASEVS, select Create a Student or Create an Exchange Visitor from the Options pull-down menu. GOASEVR appears. w appears in the **Transmittal Status Code** field automatically. This will ensure that the next run of GORSEVE includes the record in the batch file.

Interface with fsaATLAS

The SEVIS Batch Export Process (GORSEVE) can create a comma-separated value (CSV) file that can be imported by the fsaATLAS Campus DataLink. You can use the CSV file as you wish, but it was designed for fsaATLAS. fsaATLAS is an application specifically designed for Visa, Case Management, and SEVIS tracking.

About this task

Note: You will not need this feature if your institute does not perform SEVIS processing, or if you use SEVISTA to process SEVIS records.

Note: If you use fsaATLAS, you will not use the SEVIS Transfer Adaptor (SEVISTA) to transmit your records to the United States Bureau of Citizenship and Immigration Services (BCIS).

This differs from existing SEVIS processing in the following ways:

- No history records are created, so you cannot see the record on the SEVIS Transmittal History (GOASEVR) page.
- You will not use SEVISTA to validate and transmit your data.
- The CSV file will reside in your Job Submission directory and will have the same one-up name as the GORSEVE.lis file. You cannot view this file on the Saved Output Review (GJIREVO) page. You can download the file to fsaATLAS using the process in place at your institution.

If you do not specify individual Banner IDs or a population selection, the CSV file will contain an extract of all the records in SEVIS Data Table (GOBSEVS) and the associated views.

Note: If you do not have fsaATLAS, you can continue to use SEVISTA. There has been no change to SEVIS reporting when GORSEVE is run it Audit or Update mode for SEVISTA.

To create a CSV file of SEVIS data:

Procedure

- Specify individual Banner IDs or create a population selection for entry on GORSEVE. If no
 population selection or individual IDs have been entered on GORSEVE, all the records on the
 SEVIS Data Table (GOBSEVS) will be selected to be part of the extract/CSV file.
- 2. Enter the following parameters:
 - a) For parameter 02, enter the SEVIS User ID (Batch Approver). GORSEVE requires the Batch Approver to execute in Extract mode, but it is not required by fsaATLAS. You can enter any value for Batch Approver; it cannot be left blank (be null).
 - b) For parameter 05, enter Y if you use Business Actions to create records. Otherwise enter N.
 - c) For parameter 06, enter Y if you use Auto-population to create records. Otherwise enter N.
 - d) For parameter 07, enter the Term Code if you use Auto-population. Otherwise, do not enter anything for parameter 07.
 - e) For parameter 08, enter the Banner IDs you want to process. Optional.
 - f) For parameters 09 12, enter population selection values. Optional.

- g) For parameter 13, enter Y if you want to print records that have had no activity in the GORSEVE.lis file. Otherwise enter N.
- h) For parameter 14, enter \mathbb{E} .

Note: Parameter 14 is required if you are creating the CSV file.

i) For parameter 15, enter the Department Owner ID for fsaATLAS.

Note: Parameter 15 is required if you are creating the CSV file. It is also required by fsaATLAS.

- fsaATLAS Campus DataLink will insert the Banner ID into the Admissions ID field in fsaATLAS.
 This will help you cross-reference the data in the two systems. Admissions ID is not SEVIS-specific information.
- 4. The CSV file resides in your Job Submission directory, just like the results of any other job. You can view the CSV file in any editor you choose. It will not be available on GJIREVO; it is only written to the Job Submission directory.

Note: If you do not specify individual Banner IDs or create a population selection, all the records in the SEVIS Data Table (GOBSEVS) will be selected and written to the CSV file. You can run GORSEVE with the extract parameters as many times as you want; all it does is create another CSV file. It will not adversely affect Banner.

Results

You can set up and use Business Rules (Business Actions and Auto-population) with the extract option.

Warning! The minimum data required by GORSEVE for each record Extracted is a creation reason or termination reason code. Records that do not have one or the other will not be processed by GORSEVE and included in the CSV file, but the records will appear on the .lis file.

Note: Records that have both a creation reason code and a termination reason code will not be processed by GORSEVE, too.

EducationLevel/change and EducationLevel/cancel processing

The new SEVIS 5.0 data structures are straightforward, but two of them (EducationLevel/Change Program and EducationLevel/Cancel) deserve mention regarding the handling of the data by SEVIS versus by Banner.

EducationLevel/change

The EducationLevel/Change program structure submits a new program request with the same SEVIS ID.

For example, students in a BS program want to continue at the institution in a master's program, so an Education Level/Change program would be submitted for these students while they were still considered ACTIVE and currently attending the institution at the B.S. level.

As of SEVIS 5.0, when the new EducationLevel/Change program structure is processed by SEVIS, it is very important to note that SEVIS will begin to maintain two separate records for the individual: one record in ACTIVE (for example, BS) status and one record in INITIAL (for example, MS) status.

Banner/GOASEVS maintains only the most recent SEVIS record, which after the <code>EducationLevel/Change</code> program structure is submitted and processed by SEVIS, would be considered the <code>INITIAL</code> (MS, for example) record at SEVIS and not the <code>ACTIVE</code> (BS, for example) record. Certain structures can be submitted at this point that may update the <code>ACTIVE</code> and <code>INITIAL</code> record. Please refer to the <code>EXHIBIT 5: SEVIS Batch - RTI Event Matrix for Students and <code>Dependents</code> section of the ICD/API. It is important for you to know which record you intend to update versus the record that is actually updated at SEVIS when you submit structures where two different records exist at SEVIS.</code>

It is suggested that you do not send the Education Level/Change program structure to SEVIS until you have no more structures to submit against the ACTIVE record, and move forward at that point with the understanding that you are maintaining the INITIAL record only.

In order to ACTIVATE the students in the new program, a REGISTRATION structure would be applied to the students in the new program. When SEVIS processes that transaction, the students would become ACTIVE in their new program.

EducationLevel/cancel

If the student has no intention of registering in the new program, or if there is reason to cancel the request, the <code>EducationLevel/Cancel</code> can be submitted to SEVIS.

When SEVIS processes this request, the INITIAL record at SEVIS will be deactivated and SEVIS will revert to allow maintenance of the original ACTIVE record only.

When Banner submits the EducationLevel/Cancel structure, it looks for a Completed EducationLevel/Change structure in GORSEVS/GOASEVR. If it finds the structure 'C'omplete, it will find the structure submitted just before the EducationLevel/Change and backfill previous program information to GOBSEVS/GOASEVS.

A new history record in GOASEVR will be created representing this backfill called RevertHistory.

Note: Structures submitted to SEVIS between the EducationLevel/ Change and *EducationLevel/Cancel* will need careful review. You may not have been aware of the record that got updated at SEVIS. You may want to log into the SEVIS RTI and review the SEVIS data and GOASEVS data for the student to be sure it is not out of sync.

The program fields that will be re-populated/backfilled upon EducationLevel/Cancel are listed in the following table:

GORSEVS Field	Description	Backfilled to GOBSEVS
GORSEVS_SVEL_CODE	LEVEL	GOBSEVS_SVEL_CODE
GORSEVS_SVEL_COMMENT	OTHER REMARKS	GOBSEVS_SVEL_COMMENT
GORSEVS_MAJR_CODE	PRIMARY MAJOR	GOBSEVS_MAJR_CODE*
GORSEVS_MAJR_CDE_2	SECOND MAJOR	GOBSEVS_MAJR_CDE_2*
GORSEVS_MAJR_CDE_MINR	MINOR	GOBSEVS_MAJR_CDE_MINR*
GORSEVS_STUDY_LENGTH	LENGTH OF STUDY	GOBSEVS_STUDY_LENGTH
GORSEVS_PROGRAM_BEGIN_ DATE	PROGRAM START DATE	GOBSEVS_PROGRAM_BEGIN_DATE
GORSEVS_PROGRAM_END_ DATE	PROGRAM END DATE	GOBSEVS_PROGRAM_END_DATE
GORSEVS_ENG_PROF_REQ_ IND	ENGLISH REQUIRED	GOBSEVS_ENG_PROF_REQ_IND
GORSEVS_ENG_PROF_MET_ IND	ENGLISH REQUIREMENTS MET	GOBSEVS_ENG_PROF_MET_IND
GORSEVS_ENG_PROF_REASON	NOT REQUIRED REASON	GOBSEVS_ENG_PROF_REASON
GORSEVS_ACADEMIC_TERM_ MONTHS	ACADEMIC TERM	GOBSEVS_ACADEMIC_TERM_ MONTHS
GORSEVS_TUITION_EXPENSE	TUITION	GOBSEVS_TUITION_EXPENSE
GORSEVS_LIVING_EXPENSES	LIVING EXPENSES	GOBSEVS_LIVING_EXPENSES
GORSEVS_DEPENDENT_ EXPENSES	DEPENDENT EXPENSES	GOBSEVS_DEPENDENT_EXPENSES
GORSEVS_OTHER_EXPENSES	AMOUNT	GOBSEVS_OTHER_EXPENSES
GORSEVS_OTHER_EXP_ COMMENT	REMARKS	GOBSEVS_OTHER_EXP_COMMENT
GORSEVS_PERSONAL_FUNDS	PERSONAL	GOBSEVS_PERSONAL_FUNDS
GORSEVS_SCHOOL_FUNDS	AMOUNT	GOBSEVS_SCHOOL_FUNDS
GORSEVS_SCHOOL_FUNDS_ COMMENT	REMARKS	GOBSEVS_SCHOOL_FUNDS_ COMMENT

GORSEVS Field	Description	Backfilled to GOBSEVS
GORSEVS_OTHER_FUNDS	AMOUNT	GOBSEVS_OTHER_FUNDS
GORSEVS_OTHER_FUNDS_ COMMENT	REMARKS	GOBSEVS_OTHER_FUNDS_COMMENT
GORSEVS_EMPLOYMENT_ FUNDS	EMPLOYMENT (FUNDS)	GOBSEVS_EMPLOYMENT_FUNDS

System Functions/Administration

The System Functions/Administration module allows you to set up, operate, and monitor Banner™. Many pages in this module are used primarily by members of your data center to define and monitor the ongoing use of the system. Other pages are useful to end users.

Some of the functions you can perform in the System Functions/Administration module are:

- Define the currency codes used in the system
- · Define bank codes, bank routing information, and direct deposit information
- Display and maintain information used with EDI (Electronic Data Interchange)
- Define the codes and rules used by the Desktop Tools application to access data from a PC application
- Define the codes and rules used by the Event Queue Maintenance module to define and track events as they occur in the Banner database
- · Create and maintain custom menus for your institution
- · Create or copy personal menus
- Establish personal preferences for the logged in user ID
- Create new objects
- · Define and submit QuickFlows
- Extend the Banner data model with the Supplemental Data Engine.
- Set up VBS (Value-Based Security)
- Track changes to a Social Security Number (SSN), Social Insurance Number (SIN), or Tax Filing Number (TFN)
- · Cross-reference institution-defined codes with valid integration partner system codes

Validation pages

Systems Functions/Administration pages use the following validation pages.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
FTVACCT	GXRBANK
Account Code Validation page	Bank Code Rule page
FTVCOAS	GXRBANK
Chart of Accounts Validation page	Bank Code Rule page

Validation page	Used By
FTVFUND	GXRBANK
Fund Code Validation page	Bank Code Rule page
GTVCURR	GUACURR
Currency Codes Validation page	Currency Code Maintenance page
page	GUAINST
	Installation Control page
	GXRBANK
	Bank Code Rule page
GTVDADD	GOADADD
Desktop Tools - Add-In Validation page	Desktop Tools - Add-In Application page
GTVDPRP	GORDPRP
Desktop Tools - Step Property	Desktop Tools - Step Property Values Rule page
Validation page	GORDSTP
	Desktop Tools - Step Type Properties Rule page
GTVDSTP	GOADSTE
Desktop Tools - Step Type	Desktop Tools - Wizard Steps Setup Application page
Validation page	GORDSTP
	Desktop Tools - Step Type Properties Rule page
GTVEQNM	GOAEQRM
Event Queue Code Validation	Event Queue Record Maintenance page
page	GOREQNM
	Event Queue Name Definition page
GTVEQPG	GOREQNM
Parameter Group Code	Event Queue Name Definition page
Validation page	GOREQPG
	Parameter Group Rule page
GTVEQPM	GOREQPG
Parameter Code Validation page	Parameter Group Rule page
GTVEQTS	GOAEQRM

Validation page	Used By
	Event Queue Record Maintenance page
page	GOREQNM
	Event Queue Name Definition page
GTVINTP	GORINTG
Integration Partner System Code Validation page	Integration Partner System Rules page
GTVOBJT	GUAOBJS
Object Code Validation page	Object Maintenance page
	GUTGMNU
	Menu Maintenance page
GTVQUIK	GUAQUIK
QuickFlow Code Validation page	QuickFlow Definition page
GTVSCOD	GUACURR
EDI/ISO Standard Code Validation page	Currency Codes Validation page
GTVSYSI	GUAOBJS
System Indicator Validation	Object Maintenance page
page	GUTGMNU
	Menu Maintenance page
	GUTMENU
	General Menu Maintenance page
GTVVAPP	GOABACR
Value-Based Security	Value-Based Security Access Rules page
Application Codes page	GOAVUSR
	Value-Based Security Restricted Users page
GTVVBTY	GTVVAPP
Value-Based Security Object Types page	Value-Based Security Application Codes page
GTVVOBJ	GOABACR
Value-Based Security Objects	Value-Based Security Access Rules page
page	GOAPCRL

Validation page	Used By
	Value-Based Security Pattern Control Rules page
GXVDIRD	GXADIRD
Bank Routing Number Validation page	Direct Deposit Recipient page
STVCAMP	GOABACR
Campus Code Validation page	Value-Based Security Access Rules page
STVCOLL	GOABACR
College Code Validation page	Value-Based Security Access Rules page
STVDEPT	GOABACR
Department Code Validation page	Value-Based Security Access Rules page
STVLEVL	GOABACR
Level Code Validation page	Value-Based Security Access Rules page
STVNATN	GTVZIPC
Nation Code Validation page	ZIP/Postal Code Validation page
	GUACURR
	Currency Code Maintenance page
	GUAINST
	Installation Control page

Related process

The Print Dynamic Help for a page Process (GURHELP) prints Dynamic Help for selected pages. You can print page-level, section-level, and field-level help.

Menu navigation table

Pages in the System Functions/Administration module can be accessed from the following menus.

Further information on the pages in this module can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
*GENCURR	Banking and Currency Menu
	Provides access to the pages used to define currency codes, bank codes, bank routing information, and direct deposit information.
*GENEDI	Electronic Data Interchange Menu
	Provides access to the pages used to maintain EDI information.
*GENDTOOLS	Desktop Tools Menu
	Provides access to the pages used to define the codes and rules used by the Desktop Tools application.
*GENEQS	Event Queue Maintenance Menu
	Provides access to the pages used to define the codes and rules used by the Event Queue Maintenance module.
*GENMENU	Menu/Preference Maintenance Menu
	Provides access to the pages used to customize menus for your institution, change an Oracle password, establish personal preferences for the logged in user ID, create personal menus, and copy personal menus.
	Note: The Main Menu (GUAGMNU) page is not available in Banner 9x administrative applications and is replaced by the Application Navigator home page. Items such as (but not limited to) personalized links and general messaging are not included in Banner 9x administrative application functionality.
*GENOBJS	Object Maintenance Menu
	Provides access to the pages used to create Banner objects.
*GENQUIK	QuickFlow Process Menu
	Provides access to the pages used to define and submit QuickFlows.
*GENMISC	Miscellaneous General Pages
	Provides access to miscellaneous General pages.
*GENMSSG	Messaging
	Provides access to messaging functions.
*GENFGAC	Fine-Grained Access Control Menu
	Provides access to pages to set up Value-Based Security, PII Security, and Masking.
*GENMATCH	Common Matching Menu
	Provides access to pages for setting up Common Matching.

Menu	Description
*GENINTCOMP	Integration Component Management Menu
	Provides access to Integration Components pages.
*GENSDE	Supplemental Data Engine Menu
	Provides access to pages for setting up Banner supplemental data.
*GENMDUU	Mass Data Update Utility Menu
	Provides access to pages for mass data updates.
*GENPROXY	Proxy Access Pages Menu
	Provides access to pages for setting up Proxy Access.

System Functions/Administration also uses some pages that cannot be called from a menu:

- The About Banner (GUAABOT) page displays information about Banner, including the name and version number of the page from which GUAABOT was called, your session ID, the 8x installed version for each installation with the most current version, and the 9x installed version for each application (baseline and localized) with the most current version, sorted alphabetically by application.
- The Calculator (GUACALC) page displays a calculator. You can access this page by doubleclicking any numeric field on a page, using a button on the Banner tool bar, or using Direct Access.
- The Calendar (GUACALN) page displays a calendar. You can access this page by doubleclicking any date field on a page, using a button on the Banner tool bar, or using Direct Access.
- The Direct Access (GUAPARM) page is used to directly access pages, jobs, menus, and QuickFlows by name. You can access this page from the File pull-down menu.
- The Display Banner Versions and Patches (GUIVERS) page is used to display Banner versions and patches by product and the 8x installed version for each product with the most current version. This page allows you to easily check your installed product versions and patches.

You can access this page directly, but it is not found on a menu. It is also accessible through the About Banner (GUAABOT) page or the Installation Controls (GUAINST) page. On either page, click the **Display Installed Patch Information** button to display the GUIVERS page.

System Functions/Administration procedures

The System Functions/Administration module lets you set up, operate, and monitor Banner.

With this module you can:

- · Establish currency conversions.
- Set up events in the Event Queue Maintenance module.
- Customize menus.

- Manage the Data Extract feature.
- · Create and use QuickFlows.
- Set up Value-Based Security with Fined-Grained Access Controls. See the Banner Data Security Handbook for more information.
- Set up and use Common Matching. See the Banner Common Matching Handbook for more information.
- · Manage integration components for your institution.
- · Set up Electronic Data Interchange (EDI).
- · Manage Banner objects.
- Set up Supplemental Data. See Chapter 14, "Supplemental Data Engine."

Establish currency conversions

Banner can process foreign currencies. The base currency for your institution, referenced on the Institutional Description Table (GUBINST), is used in all foreign currency calculations. The currency codes, with daily or periodic rates, are maintained on the Currency Code Maintenance (GUACURR) page.

About this task

Currency conversions are used in the Purchasing and Procurement, Accounts Payable, and General Ledger modules of the Finance System. Unless otherwise specified, amounts are entered in the installation's base currency that is referenced on the Installation Control (GUAINST) page. When dealing with a foreign currency, you can enter a currency code in the **Currency Code** field. The system automatically calculates the converted amount (entered amount divided by the exchange rate). Refer to the *Banner Finance User Guide* for additional information.

To process transactions in a foreign currency, the associated currency code (for example, EUR for Euros) must be defined on the Currency Conversion Validation Table (GTVCURR). You can produce statements or invoices in foreign currencies.

Procedure

- 1. Determine which foreign currencies are used at your institution.
- 2. Use the Currency **Code Maintenance (GUACURR)** page to create your currency records. This updates the Currency Conversion Validation Table (GTVCURR).

Creation of bank information

The Bank Code Rule (GXRBANK) page is used to do the following.

- · Define bank codes for you institution's bank accounts
- · Link bank funds and bank accounts with your cash accounts
- Define Automatic Clearing House (ACH) information for your institution's bank accounts

The first two actions are performed on the main window of GXRBANK. ACH information is entered on the ACH Rules window of the page.

You can create several records for a particular bank code. Only one record per bank code is valid for a defined effective date range. Each record, however, can be distinguished by a different bank name.

As illustrated in the procedures below, new bank codes are defined in data entry mode; and additional records for a previously defined bank code are accessible in filter mode. Any modifications to existing bank records must be done after executing a filter.

Define a new bank code

You can use the Bank Code Rule (GXRBANK) page to define new bank codes.

Procedure

- 1. Access the **Bank Code Rule (GXRBANK)** page. The system displays a message indicating that the page is in filter mode. Select **OK**.
- 2. Enter the bank code in the Bank field.

You can use the down arrow icon to access a list of previously defined bank codes. If more than one bank name exists for the same bank code, use the down arrow to view other bank names with that code.

- 3. Enter the name to be associated with the bank code in the **Name** field.
- 4. Select the **Active Status** check box if the bank is available for use within Banner. Clear this check box if the bank is not active.
- 5. Enter the effective date of the bank record in the **Effective Date** field. The default value of this field is today's date. This value can be changed.
- 6. **Optional:** Enter the date that the bank code record is no longer valid in the **Termination Date** field. You can enter a past or future date.

Note: If you want a bank code to be valid for only a certain length of time, you can enter an effective date (when you can start using the bank code) and a termination date (when the bank code can no longer be used).

- 7. (Used only by Banner Finance) Enter the currency code for this bank in the **Base Currency** field, for example, USD may represent U.S. dollars. You can double-click in the field to access the Currency Code Validation (GTVCURR) page and search for a currency code.
- 8. Enter the identification number for the bank in the **Bank ID** field. You can select the down arrow icon to access the Non-Person Search (SOACOMP) page and search for a bank ID.

Note: When you save a bank code, Banner creates an identification record in the Identification Table (spriden) for the bank ID and bank name. Use the Identification (FOAIDEN) page for Finance or PPAIDEN for Human Resources) to update existing bank names.

9. Enter the bank account number in the Bank Account Number field.

If the bank code you're defining is to be used with the Banner Finance System, identify the Banner bank funds and bank accounts associated with your cash account. (See the Linking

Bank Funds and Bank Accounts with Cash Accounts sub-procedure below for instructions on providing this information.)

10. Select the **ACH Status** check box if the ACH functionality is active for the bank. Clear this check box if it is not.

If you selected the check box, you must specify the information required for sending direct deposit tapes from your bank to the Automatic Clearing House (ACH). (See the Creating ACH Information for a Bank Account sub-procedure below for instructions on providing this information.)

If you did not select it, continue to step 11.

11. Save the record.

Link bank funds and bank accounts with cash accounts (for finance only)

This sub-procedure of the Defining a New Bank Code procedure is used to identify the Banner Finance bank funds and bank accounts to be associated with the bank code.

You must perform all the steps in this sub-procedures if the bank code you are defining will be used with the Banner Finance System.

Note: The fields referenced in the sub-procedure are active and navigable only if the Banner Finance System is installed at your site.

Sub-procedure

Perform these steps after performing step 9 of the main procedure.

- Enter the code identifying the Chart of Accounts (COA) for the Banner accounts in the Chart
 of Accounts field. You can double click in the field to access the Chart of Accounts List
 (FTVCOAS) and search for a COA code.
- 2. Enter the code identifying the bank fund (that is, the account that represents the accumulation, or total, of all your institution's cash accounts) in the **Bank Fund** field. You can double click in the field to access the **Fund Code Validation (FTVFUND)** page and search for a bank fund.
- 3. Enter the code identifying the account used for cash transactions in the **Cash Account** field. You can double-click in the field to access the Account Code Validation (FTVACCT) page and search for an account code.
- 4. Enter the code identifying the interfund account in the **Interfund Account** field. The interfund account acts as an intermediate account that can hold money temporarily before the money is sent to the final destination accounts.
- 5. Go to step 10 of the Defining a New Bank Code procedure.

Creation ACH Information for a bank account

This sub-procedure of the Defining a New Bank Code procedure is used to specify the information required for sending direct deposit tapes from your bank to the Automatic Clearing House (ACH).

This information must be defined for a bank account if funds are to be transferred from that account to another account. It is sent with the direct deposit tapes submitted to your bank. The information is available from your bank or clearing house.

Sub-procedure

Performs the steps in this sub-procedure after performing step 9 in the main procedure.

Procedure

- 1. Access the ACH Rules window of GXRBANK by selecting ACH Rules from the Options menu.
- 2. Enter the routing number of the ACH operator or receiving point to which the direct deposit files are sent in the **Destination ID** field.
- 3. Enter the name associated with the destination ID in the **Destination Name** field.
- 4. Enter the routing number of the ACH operator or sending point that is sending the direct deposit files in the **Origin ID** field.
- 5. Enter the name associated with the origin ID in the **Origin Name** field.
- 6. Enter the short name to be associated with the origin ID in **Short Name** field. The default short name comes from the **Origin Name** field; it matches the first 16 characters in this field. This value can be overridden.

Note: The name entered in this field will be used as the origin name for a Canadian magnetic tape deposit.

- 7. Enter the routing number of the Deposit Finance Institution originating entries in the **Originating Bank Routing Number** field.
- 8. Complete the **Organization Number Type** field by selecting the radio group entry identifying the type of identification number that your institution uses for direct deposit processing.
- 9. Enter your institution's identification number for direct deposit processing in the **Organization ID Number** field. Enter a number of the type specified in the **Organization Number Type** field.
- 10. Save the record.

Update bank code records

Any updates to bank code records (i.e., the creation of new records or modifications to existing records) must be done upon executing a filter.

Procedure

1. Access the **Bank Code Rule (GXRBANK)** page. The system displays a message indicating that the page is in data entry mode. Select **OK** and go to step 2.

Note: To determine whether records currently exist for a particular bank code, use the down arrow icon for the **Bank** field to access a list of previously defined bank codes. If more than one bank name exists for the same bank code, use the down arrow to view other bank names with that code. Do this before performing step 2.

- 2. Enter filter mode.
- 3. Enter the bank code for the record you want to modify or duplicate.
- 4. Execute the filter.
- 5. If additional records have previously been created for the bank code, scroll through the records until the version that you want to modify or duplicate is displayed.

Note: If a more recent record exists, its date is displayed in the **Next Change Date** field.

If you want to modify the displayed record, go to step 7. If you want to create a new record, go to step 6.

- 6. Duplicate the displayed record.
- 7. Make your changes on the original or duplicated record.
- 8. Save the record.

Direct deposit email notification

Beginning with Release 8.8.4, the system supports sending email notifications to the preferred email address of any Banner ID (e.g. Employees, Students, Vendors, Alumni, etc.) each time their direct deposit bank account information is entered, updated, or deleted.

Three types of transactions can trigger an email notification; they are: the creation of a new record, the deletion of an exiting record and the modification of the bank routing number or account number of an existing record. Changes to the Priority, Status and Account Type do not trigger an email notification. Because email notifications are initiated by changes in the database, all possible sources of these changes (e.g. INB, Self-Service, batch processes, etc.) can result in an email notification being sent.

Previously, when users updated their direct deposit information using Self-Service, no email notifications were generated. Receiving email notifications helps users to be aware of any potentially unauthorized changes.

Additionally, email notifications will be sent when email address changes occur. This is another way to help users to be aware of any potentially unauthorized changes to their information. When the Email Address, Status or Preferred Indicator of an email address record is changed or deleted, an email notification is sent to the email address as it was before the update or deletion occurred. Email notifications are not sent when a new email address is created.

Oracle Job Scheduler

The Oracle Job Scheduler, GXBEJOB_EMAIL_JOB, processes requests to send email notifications resulting from changes made to the Direct Deposit (GXRDIRD) and Email Address (GOREMAL) tables. The gemail scheduler 080804 01.sql script delivers the Job Scheduler.

For GXRDIRD, email notifications are sent after insert/delete/update of GXRDIRD_BANK_ROUT_NUM and GXRDIRD_BANK_ACCT_NUM fields. For GOREMAL, email notifications are sent after every delete or update of GOREMAL_EMAIL_ADDRESS, GOREMAL_STATUS_IND, and GOREMAL_PREFERRED_IND fields.

The default interval at which the Oracle Job Scheduler processes requests for email notification is set to 30 seconds. For example, repeat interval => 'freq=SECONDLY; interval=30',.

If it needs to be changed, the DBA has to update the repeat_interval parameter as mentioned below and apply it in the database under the General schema.

- If this needs to be changed to 60 seconds, repeat_interval => 'freq=SECONDLY; interval=60',
- If this needs to be changed to 20 minutes, repeat_interval => 'freq=MINUTELY;
 interval=20',
- If this needs to be changed for every 4 hours, repeat_interval => 'FREQ=HOURLY;
 INTERVAL=4',

For more information on updating the repeat_interval parameter, refer to *Oracle Database Administrator's Guide*.

Errors from email notification

The Email Job Table (GXBEJOB) maintains any error text that may occur during email notification. When an error occurs, the error text gets created in the GXBEJOB_ERROR_TEXT column, and the status of the GXBEJOB record is set to E.

For example, if a change is made to a record in GXRDIRD and the person associated with that GXRDIRD record does not have an email address defined as "preferred", then the error Recipient Address is not available gets logged into this column for the job that failed.

When the error condition is corrected, the Oracle Job Scheduler re-processes this email job automatically.

The following SQL can be used to look at the error text for the jobs that may have failed for various reasons:

```
SELECT GXBEJOB_REFERENCE_ID,

GXBEJOB_MODULE_CODE,

GXBEJOB_ERROR_TEXT

FROM GXBEJOB
WHERE GXBEJOB_STATUS = 'E'
ORDER BY GXBEJOB ACTIVITY DATE
```

Email job removal

As mentioned before, the GXBEJOB table maintains the jobs for email notifications.

Over a period of time, this table accumulates a large number of job records. In addition to processing the notification, the Job Scheduler also cleans up the successfully processed records that are 30 days old or older. It uses the GXBEJOB_ACTIVITY_DATE to calculate the number of days.

This can be customized in the <code>gemail_scheduler_080804_01.sql</code> script and applied in the database under the General schema.

If you need to change the time period, you have to change 30 to the number of days after which the job record should be removed.

For example, if you change the time period to 16, the Job Scheduler keeps the job record for 15 days after its successful completion and removes it on the 16th day.

Sender address configuration

For email notifications, the sender address must be configured through Web Tailor in the Web Tailor Parameter section. If an email message does not have the sender address, it fails and the error text is logged into the GXBEJOB table.

A user with the Web Tailor Administrator role can configure the Sender Address in Web Tailor Parameters. By default, Ellucian ships the following seed data for sender address, but institutions need to update that. They have to locate the DIRD_SENDER_EMAIL parameter and update the default sender address from admin@institution.edu to the desired sender address for GXRDIRD email notification. The same should be done for the EMAL_SENDER_EMAIL parameter for GOREMAL email notification.

Customization of email message and subject

Institutions can customize the email message and the subject for both GXRDIRD and GOREMAL email notifications under Web Tailor Information Text. Ellucian ships seed data for email message and the subject.

The following four information text updates are shipped under the XeDirectDeposit procedure name. Each one of them can be customized.

Field	Description
DIRD_EMAIL_SUBJECT	This defines the subject line for GXRDIRD email notification.
DIRD_EMAIL_MESSAGE	This defines the email message for GXRDIRD email notification.
EMAL_EMAIL_SUBJECT	This defines the subject line for GOREMAL email notification.

Field	Description
EMAL_EMAIL_MESSAGE	This defines the email message for GOREMAL email notification.

The email message contains two data variables: << RECIPIENT_NAME>> and << UPDATED_DATE>>. They can be placed anywhere within the message. They are evaluated at run time and the actual values are printed in the email message.

Email notification turn on

Email notification for GXRDIRD and GOREMAL is turned off by default. If you need to turn this on for your institution, the DBA has to run the following commands in the database under the General schema.

Table	Command	
GXRDIRD	ALTER TRIGGER GT_GXRDIRD_EMAIL_TRG ENABLE;	
GOREMAL	ALTER TRIGGER GT_GOREMAL_EMAIL_TRG ENABLE;	

Set up events in the Event Queue Maintenance module

An event is a Banner database change that potentially triggers another action in an external system. For example, a clerk in the Registrar's Office cancels a class using a Banner page. This triggers an event for each student registered for that class.

About this task

The same cancellation event could also be sent to Workflow, which might initiate a workflow that cancels the faculty member's teaching contract and removes any job records associated with that contract.

The Event Queue Maintenance module within Banner General supports the event queue processing required by Luminis®, Workflow, and potentially other external systems.

Use these steps to set up an event:

- 1. Use the **Target System Code Validation (GTVEQTS)** page to define the external systems that require notification when an event occurs.
- Use the Event Queue Code Validation (GTVEQNM) page to define the events that will be captured and sent to external systems.
- 3. Use the **Parameter Code Validation (GTVEQPM)** page to define the parameters that are associated with events.
- 4. Use the **Parameter Group Code Validation (GTVEQPG)** page to define the parameter groups that can be associated with events.

- 5. Use the **Parameter Group Rule (GOREQPG)** page to assign defined parameters to a groups.
- 6. Use the **Event Queue Name Definition (GOREQNM)** page to define specific events for the target systems. This definition includes associating a parameter group with each event.

Results

Refer to Integrating Banner or Plus With Partner Systems for more details on event processing for Luminis

Refer to Workflow Functional Integration Guide for more details on event processing for Workflow.

Customization of menus

Your institution can create new menus and customize the contents of the menus delivered with Banner. In addition, each user can create a customized, personal menu tied to the Oracle user ID and make minor changes to the appearance of the main menu.

Note: All menus must be placed on an existing menu structure that branches out from *MAIN.

Creation and maintenance of menus for your institution

Banner is delivered with a set of menus to provide access to Banner pages. You can use the Menu Maintenance (GUTGMNU) page to create new menus and customize the contents of menus for your institution. A menu can contain any combination of pages, jobs, other menus, and QuickFlows.

Create a new menu using the list of objects

Use these steps to create a menu by choosing objects from a displayed list of objects.

About this task

Note: Menu objects must first be properly added to GUAOBJS before they can be used on GUTGMNU.

- 1. Access the Menu Maintenance (GUTGMNU) page.
- 2. Enter the new menu name (created on GUAOBJS), press the tab key, and then click the **Go** button. Remember that a menu name must start with an asterisk (*).
- 3. Use the pull-down list above the left pane to select the object type you want to display. The left pane lists the objects of the selected type that can be added to the menu.
- 4. Optional: To filter for specific objects:
 - a) Click in the left pane.
 - b) Select the Enter Query function. The object list disappears.

c) Enter the search criteria for the object description.

You can use the Oracle wildcards % and _. Capitalization matters. Data is matched against the search criteria exactly as you enter them.

- d) Select the Filter function. The left pane lists the matching objects.
- 5. To add all objects displayed in the left pane to the menu (if there are 20 objects or less), select the **Insert All** button in the middle of the page
- 6. To add selected objects to the menu:
 - a) In the left pane, select each object you want to add to the menu. When you select an object, the name is highlighted.

As you move the cursor over an object description, its seven-character name is displayed.

- You can highlight a menu name or QuickFlow name and Key-Next-Block to list the items associated with that object.
- b) **Optional:** Use the pull-down list above the left pane to select another object type. Select additional objects for the menu. (You can select objects from multiple object types and insert them together.)
- c) Click in the right pane where you want to place the new menu items.
- Select the **Insert** button in the middle of the page . The selected objects are added to the right pane below the place you clicked.
- 7. **Optional:** Customize object descriptions.
- 8. Save your changes.

Note: All menus must be placed on an existing menu structure that branches out from *MAIN.

Create a menu using object names

Use these steps to create a menu if you know the object names you want to appear on the menu.

- 1. Access the **Menu Maintenance (GUTGMNU)** page.
- 2. Enter the new menu name (created on GUAOBJS), press the tab key, and then click the **Go** button. Remember that a menu name must start with an asterisk (*).
- 3. Place the cursor in a blank **Name** field in the right pane.
- 4. Enter the object's seven-character name.
- 5. Press Enter. The object's type, description, and name appear in the right pane.
- 6. Repeat steps 3 through 5 for each object you want to add to the menu.
- 7. **Optional:** Customize the object descriptions.
- 8. Save your changes.

Note: All menus must be placed on an existing menu structure that branches out from *MAIN.

Maintain an existing menu (additions, deletions, and changed sequence)

You can use the Menu Maintenance (GUTGMNU) page to maintain an existing menu.

- 1. Access the Menu Maintenance (GUTGMNU) page.
- 2. Enter the menu name in the left-most field above the right pane (field to the left of the down arrow icon). You can click the down arrow icon to access the Object Search (GUIOBJS) page to search for a menu name.
- 3. Click in the right pane. All existing menu items appear.
- 4. Click the selected menu item so it is no longer selected.
- 5. To add objects to the menu:
 - a) Use the pull-down list above the left pane to select the object type you want to display. The left pane lists the objects of the selected type.
 - b) Optional: To filter for specific objects, click in the left pane. Select the Enter Query function. The object list disappears. Enter the search criteria for the object description. (You can use the Oracle wildcards % and _. Capitalization matters. Data is matched against the search criteria exactly as you enter them.) Select the Filter function. The left pane lists the matching objects.
 - c) In the left pane, select each object you want to add to the menu. When you select an object, the name is highlighted.
 - As you move the cursor over an object description, its seven-character name is displayed.
 - You can highlight a menu name or QuickFlow name and Key-Next-Block to list the items associated with that object.
 - d) Repeat steps a through c for each object type you want to add to the menu. (You can select objects from multiple object types and insert them together.)
 - e) Click in the right pane where you want to place the new menu items.
 - Select the **Insert** button in the middle of the page The selected objects are added to the right pane below the place you clicked.
 - g) Optional: Customize the object descriptions.
- 6. To delete selected objects from the menu:
 - a) In the right pane, select each object you want to delete from the menu. When you select an object, the name is highlighted.
 - Select the **Delete** button in the middle of the page The selected objects are deleted.
- 7. To delete all objects from the menu, click the **Delete All** button in the middle of the page

- 8. To change the order of objects on the menu:
 - a) Use the tasks in step 5 to add the object to its new location.
 - b) Use the tasks in step 6 to delete the object from the old location.
- 9. Save your changes.

Note: If you add an object to a menu, all objects on the menu are processed, not just the new ones. The transaction count on the status line includes all menu items.

Delete a menu

You can use the Menu Maintenance (GUTGMNU) page to delete a menu.

Procedure

- 1. Access the Menu Maintenance (GUTGMNU) page.
- 2. Enter the menu name in the left-most field above the right pane (field to the left of the down arrow icon). You can select the down arrow icon to access the **Object Search (GUIOBJS)** page to search for a menu name.
- 3. Select the Delete Record function. A dialog box asks if you really want to delete the menu. Alternatively, you can click the right pane. All existing menu items appear. Select the **Delete**All button in the middle of the page _____. Save your changes. A dialog box asks if you want to delete the menu.
- 4. Select the Yes button.
- 5. Save your changes.

Creation and maintenance personal menus

Individual users can create personal menus that include the pages, jobs, menus, and QuickFlows that are most important in their daily work. A personal menu is tied to the user's Oracle user ID and can be accessed from the main menu (under My Banner).

Note: Objects must be added to GUAOBJS properly before they can be used on any of the menus.

You can use these pages to create and copy personal menus:

- Personal Menu Maintenance (GUAPMNU) page—Lets a user create and change a personal menu.
- Personal Menu Maintenance and Copy (GUTPMNU) page—Lets a user copy a personal menu to or from another user.

Note: All menus must be placed on an existing menu structure that branches out from *MAIN.

Main menu appearance change

Individual users can make the following changes to the main menu.

- · Sizes of the left and right panes
- Show or hide the 7- or 8-character page mnemonics
- · Order of items in the right pane

Data extract feature management

Banner is delivered with the Data Extract feature enabled on most validation pages. With this feature, you can extract data from a Banner page to a spreadsheet. You can extract detail data from the current section with or without data from the key block.

Ellucian also supports the extract feature on a limited number of rule, application, and inquiry pages where the feature has been tested. The system administrator at your institution can enable the extract feature on any page that has been tested. For a list of tested pages, refer to chapter 3 of the *Banner Getting Started Guide*.

Extract results are unpredictable on pages that have not been tested with this feature. If you want to extract data on an untested page, you can consider enabling the extract feature on GUAOBJS. Ellucian does not support this feature on untested pages.

WebUtil offers another way to save extracted data in Banner. Information about configuring WebUtil is contained in the *Banner Middle Tier Implementation Guide*.

Enable the data extract feature for a page

You can use the Object Maintenance (GUAOBJS) page to enable the data extract feature for a page.

About this task

Warning! If you want to enable the extract feature on local pages, you must test the extract feature on them before you enable the feature on GUAOBJS.

Procedure

- 1. Access the **Object Maintenance (GUAOBJS)** page.
- 2. Select a value from the pull-down list in the **Data Extract Option** field.

Key and Data Block Enable the extract feature for both key and data blocks. Data Block Only Enable the extract feature for data blocks only.

Change the default directory location for extract files

Ellucian delivers Banner with C:\temp as the default directory for extract files. The system administrator at your institution can use the General User Preferences Maintenance (GUAUPRF)

page to change this default value to meet your institutional needs. Only those staff members with appropriate security can perform this task.

In addition, individual users can set their own default directory for extract files. Chapter 3 of the *Banner Getting Started Guide* contains instructions for how to change the default directory.

Creation and use of QuickFlows

A QuickFlow is a technique that lets you access a set of pages in a specific sequence.

QuickFlow processing uses the following pages:

- QuickFlow Validation (GTVQUIK) page—Defines a QuickFlow code and description.
- QuickFlow Definition (GUAQUIK) page—Specifies the sequence of pages and assigns a fourcharacter identifier for executing the flow of pages.
- QuickFlow (GUAQFLW) page—Lets you enter the identifier and access the first page in the
 QuickFlow. When you exit the first page, the next page in the sequence is automatically
 accessed. This process continues until all pages in the QuickFlow have been accessed and
 exited. At this point, you can execute the QuickFlow again or exit to the location where you called
 the QuickFlow.

Create a QuickFlow

Any page, except the following, can be added to a QuickFlow.

About this task

- Main Menu (GUAGMNU) page
- Welcome to Banner (GUAINIT) page
- QuickFlow (GUAQFLW) page
- Security Maintenance (GSASECR) page
- Any query page (Q is the third character of the page name)

Use these steps to create a QuickFlow:

Procedure

1. Determine the purpose of your QuickFlow, and identify all pages that must be accessed for the tasks you want to perform. For example:

Purpose:	Add jobs to Job Submission
Pages needed:	GJAJOBS
	GJAPDEF
	GJAPVAL
	GJAPDEF

2. Use the QuickFlow Validation (GTVQUIK) page to create a code and description for the QuickFlow. For example:

Code:	JOB
Description:	Job Submission

- 3. Access the QuickFlow Definition (GUAQUIK) page.
- 4. Enter the QuickFlow code (defined in step 2) in the **QuickFlow** field. If you want to search for a QuickFlow code, click the **Lookup** button to select the QuickFlow Codes option, which accesses the QuickFlow Validation (GTVCALL) list.
- 5. Go to the next section. All existing object names appear in the left pane.
- 6. Select the objects you want to add, and then use the arrow buttons to move the objects from the left pane to the right pane. Be sure to list them in the order they are to be accessed in the QuickFlow.

OR

Enter the seven-character name of each object you want in the QuickFlow. Be sure to list them in the order they are to be accessed in the QuickFlow. You can use the List function to access the Object Search (GUIOBJS) page to search for an object.

7. When all the desired objects are entered in the right pane, save your changes.

Use a QuickFlow

You can access the QuickFlow (GUAQFLW) page to use QuickFlow.

Procedure

- 1. Access the QuickFlow (GUAQFLW) page.
- 2. Enter the QuickFlow code in the QuickFlow field.

You can select the down arrow icon to access the **QuickFlow Query (GUQQUIK)** page to search for a QuickFlow code.

3. Select the **Start** button or select the **Go** button.

The first page in the QuickFlow appears.

4. Select the button or select the **Go** button.

The first page in the QuickFlow appears.

- 5. Enter data on the page.
- 6. Exit the page.

The next page in the QuickFlow appears.

7. Repeat steps 4 and 5 for all the pages in the QuickFlow. After you pass through all the pages in the QuickFlow, the **QuickFlow** (**GUAQFLW**) page reappears.

A page in a QuickFlow cannot be bypassed. If you do not have any data to enter on a page, exit the page. If the message DO YOU WANT TO QUIT? appears, answer Y. (The message is page-dependent.)

If you want to exit the QuickFlow before all the pages are accessed, select the Exit QuickFlow option on the File pull-down menu.

8. If you are finished, select the **Cancel** button.

OR

To execute the QuickFlow again, select the **Start** button.

Name Display Rules (GUANDSP) page

Beginning with release 8.8.5, there are functions and an Oracle page that support the requirements for various Banner XE Self-Service applications to configure how a person's name is displayed in those pages.

The functionality delivered with this release:

- Will initially be used by Banner Student XE self-service and the General-Event Management XE applications only
- Does not change any name searching, formatting or masking capabilities in Banner 8.x (neither INB nor SSB)
- Will be adopted by the various XE self-service applications in a phased approach as new releases provide the capability to use it

As more XE applications adopt the ability to reference the rules built in the new Name Display Rules page, those applications will provide additional instructions about how to enter the correct data in the page.

Single section

This section allows you to define a set of rules with up to 99 steps per usage to return a single format for a person's name.

Inactivate a delivered or existing single Usage rule

You can use the Name Display Rules (GUANDSP) page to inactivate a delivered or existing single Usage rule.

- 1. Access the Name Display Rules (GUANDSP) page.
- 2. In the Single section, filter for or scroll to the Usage rule to be inactivated.
- 3. Deselect the Active check box.
- 4. Save the record.

Update a delivered or existing single Usage rule

You can use the Name Display Rules (GUANDSP) page to update a delivered or existing single Usage rule.

Procedure

- 1. Access the Name Display Rules (GUANDSP) page.
- 2. In the Single section, filter for or scroll to the Usage rule to be modified.
- 3. Update the desired data field(s).
- 4. Save the record.

Create a new single Usage rule

You can use the Name Display Rules (GUANDSP) page to create a new single Usage rule.

Procedure

- 1. Access the Name Display Rules (GUANDSP) page.
- 2. In the Single section, insert a new record.
- 3. **Required:** Enter a new formatting rule name in the **Usage** field.
- 4. Required: Enter a numeric value in the Priority field.

The number will determine the order in which the Usage rule is evaluated relative to the other Usage rules.

- 5. **Required:** Enter ****, !!!! or a valid value in the **Name Type** field.
 - a. **** indicates that only the current name record in the SPRIDEN table (where the SPRIDEN CHANGE IND is null) will be evaluated.
 - b. !!!! indicates that an error message should be returned.
 - c. A valid value in the Name Type field indicates that only SPRIDEN records with that value in the SPRIDEN_NTYP_CODE will be evaluated.
- 6. **Required:** Enter a numeric value in the **Maximum Length** field.

The value specifies the overall length of the formatted name that is returned by the Usage rule.

- 7. Click the **Active** check box if you want the new Usage rule to be available for the name formatting function and procedure.
- 8. Optional: In the Sequence fields associated with the Name Prefix, First Name, Middle Name, Surname Prefix, Last Name, Name Suffix, Legal Name and Preferred First Name fields, enter a numeric value to specify the order in which the name part should be displayed. For example:
 - a. Preferred First Name = 1
 - b. First Name = 2
 - c. Middle Name = 3

d. Last Name = 4

Note: If the name record does not contain a Preferred First name, then the name format returned by this rule would start with First Name.

- Optional: In the Length fields associated with the Name Prefix, First Name, Middle Name, Surname Prefix, Last Name, Name Suffix, Legal Name and Preferred First Name fields, enter a numeric value to specify the number of characters from the name part that should be displayed.
 - If no value is entered, the entire length of the name part will be displayed.
- 10. If !!!! was entered in the **Name Type** field, enter an error message that should be displayed for this Usage rule. You may use <PIDM>, <USAGE> or <ID> for substitution parameters in your message.
- 11. In the **Sequence** fields associated with the **Literal 1**, **Literal 2**, **Literal 3**, **Literal 4**, **Literal 5** and **Literal 6** fields, enter a numeric value to specify the order in which punctuation instead of a space should be inserted between name parts specified for the Usage rule.
- 12. In the Value fields associated with the Literal 1, Literal 2, Literal 3, Literal 4, Literal 5 and Literal 6 fields, enter a value enclosed by [and] to specify punctuation that should display instead of a space between name parts defined for the Usage rule. Insert < before [if the value should display only if the preceding name part is null. Insert > before [if the value should display only if the following name part is not null.
 - a. Example: your usage rule includes a middle initial, and you want to insert a period (.) after it, but only if there is a value in the middle name field. If you have not already defined another Literal for your Usage rule, the value in the **Sequence** field for **Literal 1** would be one number higher than the **Sequence** for the **Middle Name**, and in the **Value** field for **Literal 1** would be <[.].
 - b. Example: your usage rule includes the value from **Name Suffix**, if it exists, and you want to insert a comma after the last name. If you have not already defined another Literal for your Usage rule, the value in the **Sequence** field for **Literal 1** would be one number higher than the **Sequence** for the **Last Name**, and the **Value** field for **Literal 1** would be >[,].
- 13. Optional: Enter a description of the Usage rule in the Comment field.
- 14. Save the record.

Multiple section

This section allows you to define a rule that enables an array of names to be returned instead of just one.

Create a new multiple Usage rule

You can use the Name Display Rules (GUANDSP) page to create a new multiple Usage rule.

Procedure

1. Access the Name Display Rules (GUANDSP) page.

- 2. Select the Multiple section.
- 3. Insert a new record.
- 4. Required: Enter a value in the Multiple Usage Name field.
- 5. Required: Enter a numeric value in the Sequence field.
 - The number will determine the order in which the Usage rule is evaluated relative to the other Usage rules.
- 6. Click the **Active** box if you want the new Usage rule to be available for the name formatting function and procedure.
- 7. **Required:** Enter the name of a usage rule previously defined on the Single tab.
- Required: Enter a numeric value in the Maximum Length field.
 The value specifies the overall length of the formatted name that is returned by the Usage rule.
- 9. Save the record.

Hierarchy section

This section allows you to define a set of hierarchy rules that should be followed to get a USAGE rule to be used on a certain set of pages as defined by Product, Application, Page, and Section.

Create a Hierarchy rule to determine Usage rule

You can use the Name Display Rules (GUANDSP) page to create a Hierarchy rule to determine a Usage rule.

- 1. Access the Name Display Rules (GUANDSP) page.
- 2. Select the Hierarchy section.
- 3. **Required:** In the **Product** field, enter the name of the product (for example, GENERAL, STUDENT etc.) for which the Usage rule is being created.
- 4. **Optional:** In the **Application** field, enter the name of the application or module (for example, Event Self-Service, Advising, Faculty Grading etc.) for which the Usage rule is being created.
- 5. **Optional:** In the **Page** field, enter the name of the page (for example, Event Details, Advising List, Final Grades, Midterm Grades etc.) for which the Usage rule is being created.
- 6. **Optional:** In the **Section** field, enter the section of the page (for example, Body, HEADER, My Events, Class Roster etc.) for which the Usage rule is being created.
- 7. **Required:** In the **Usage** field, enter the Usage Name from a rule defined on the Single tab.
- 8. **Required:** In the **Maximum** Length field, enter a numeric value.
 - The value specifies the overall length of the formatted name that is returned by the Usage rule.
- 9. Save the record.

Test Rules section

This section allows you to test the rules as you are creating them.

Test a single Usage rule

You can test a single Usage rule and view the results of the entered Usage rule name in the Formatted Name Results window.

Procedure

- 1. Access the Name Display Rules (GUANDSP) page.
- 2. Select the Test Rules section.
- 3. In the **Usage** field, enter a Usage rule name defined on the Single tab.
- 4. Do not select the **Multiple** check box.
- 5. Enter the ID of the name to be tested.
- 6. Click the **Test** button.
- 7. View the results of the entered Usage rule name in the Formatted Name Results window.

Test a multiple Usage rule

You can test a multiple Usage rule and view the results of the entered Usage rule name in the Formatted Name Results window.

Procedure

- 1. Access the Name Display Rules (GUANDSP) page.
- 2. Select the Test Rules section.
- 3. In the **Usage** field, enter a Multiple Usage Name rule defined on the Multiple tab.
- 4. Select the Multiple check box.
- 5. Enter the ID of the name to be tested.
- 6. Click the **Test** button.
- 7. View the results of the entered Usage rule name in the Formatted Name Results window.

Note: A Multiple Usage Name rule of TEST ALL with the **Multiple** check box selected will display all defined name formats.

For more information on GUANDSP, see the Banner General Online Help.

Flexible Workweek (GUAFWWK) page

You can use this page to define a Flexible Workweek definition to be used with time sheet presentation and data capture. The ability to define these values by campus is also available.

Define workweek

You can use the Flexible Workweek (GUAFWWK) page to define your local workweek used within the institution.

Procedure

- 1. Access the Flexible Workweek (GUAFWWK) page.
- 2. Enter the reference for the workweek in the **Workweek Reference** field. You can enter a value between 1 and 9999.
- 3. Enter a description for the workweek in the **Description** field.
- 4. Select the first weekend day in the First Weekend Day field.
- 5. Select the first weekend day in the **Second Weekend Day** field.
- 6. Select the **Institution Default** check box to set the default local workweek for the institution.

Note: You can define only one default workweek for your institution.

- 7. Select the campus code associated with the workweek in the Campus Code field.
- 8. Save the record.

Event Management

The Banner™ Event Management module helps you manage an event and the functions, tasks, and participants associated with the event.

You can perform these kinds of activities:

- · Schedule dates and date ranges, times, buildings, and rooms.
- Organize administrative tasks associated with functions.
- Determine financial requirements, including fee and rate structures, budgets, costs, anticipated income, and actual income.
- Arrange for speakers, entertainment, ticketing, invitations, and mailings.
- Track anticipated attendance and actual attendance.

Keeping track of this information not only helps you manage the current event, but provides information that can be used to plan future events.

Validation pages

Event Management pages use the following validation pages.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page		Used By	
GTVDICD	District Division Code Validation page	SLAEVNT	Event page
		STVCAMP	Campus Code Validation page
GTVEMPH	Emphasis Code Validation page	SLAEVNT	Event page
GTVEXPN	Expense Code Validation page	SLAEVNT	Event page
GTVFEES	Fee Status Code Validation page	GEAATID	Event Registration page
		GEAATTD	Attendance page
GTVFSTA	Function Status Code Validation page	SLAEVNT	Event page
GTVFTYP	Fee Type Code Validation page	SLAEVNT	Event page
GTVFUNC	Function Code Validation page	SLAEVNT	Event page
		SSAMATX	

Validation page		Used By	
			Building/Room Schedule page
GTVLETR	Letter Code Validation page	SLAEVNT	Event page
GTVMAIL	Mail Code Validation page	SLAEVNT	Event page
GTVMENU	Menu Code Validation page	GEAATID	Event Registration page
		GEAATTD	Attendance page
GTVPTYP	Participant Type Code Validation page	GEAPART	Function Participant page
GTVPURP	Purpose Code Validation page	SLAEVNT	Event page
GTVRATE	Fee Rate Code Validation page	SLAEVNT	Event page
GTVREVN	Revenue Code Validation page	SLAEVNT	Event page
GTVRSVP	RSVP Code Validation page	GEAATID	Event Registration page
		GEAATTD	Attendance page
GTVRTNG	Rating Code Validation page	GEAPART	Function Participant page
GTVSUBJ	Subject Index Validation page	GEAFCOM	Function Comment page
GTVSYSI	System Indicator Validation page	SLAEVNT	Event page
GTVTARG	Target Audience Code Validation page	SLAEVNT	Event page
GTVTASK	Task Code Validation page	GEATASK	Function Task page
GTVTSTA	Task Status Code Validation page	GEATASK	Function Task page
GTVTTYP	Task Type Code Validation	GEATASK	Function Task page
	page	GTVTASK	Task Code Validation page
GTVZIPC	ZIP/Postal Code Validation	SLABLDG	Building Definition page
	page	STVSITE	Site Code Validation page
STVBLDG	Building Code Validation page	SLABLDG	Building Definition page
STVCAMP	Campus Code Validation	GTVPARS	Scheduling Partition
	page	SLABLDG	Validation page

Validation page		Used By	
		SLAEVNT	Building Definition page
			Event page
STVCNTY	County Code Validation	SLABLDG	Building Definition page
	page	GTVZIPC	ZIP/Postal Code Validation page
STVCOLL	College Code Validation	GTVEMPH	Emphasis Code Validation
	page	SLABLDG	page
		SLAEVNT	Building Definition page
		SLARDEF	Event page
			Room Definition page
STVDEPT	Department Code Validation	GTVEMPH	Emphasis Code Validation
	page	SLABLDG	page Ruilding Definition page
		SLAEVNT	Building Definition page
		SLARDEF	Event page
			Room Definition page
STVETYP	Event/Function Type Code Validation page	SLAEVNT	Event page
		GTVFUNC	Function Code Validation page
STVNATN	Nation Code Validation page	STVSITE	Site Code Validation page
		GTVZIPC	ZIP/Postal Code Validation page
STVPRCD	Phone Rate Code Validation	SLABLDG	Building Definition page
	page	SLARDEF	Room Definition page
STVRDEF	Building/Room Attribute Code Validation page	SLABLDG	Building Definition page
		SLARDEF	Room Definition page
STVRMST	Room Status Code Validation page	SLARDEF	Room Definition page
STVRRCD	Room Rate Code Validation	SLABLDG	Building Definition page
	page	SLARDEF	Room Definition page
STVSITE	Site Code Validation page	SLABLDG	Building Definition page
		SLAEVNT	Event page
STVSTAT	State/Province Code Validation page	SLABLDG	Building Definition page

Validation page		Used By	
		STVSITE	Site Code Validation page
		GTVZIPC	ZIP/Postal Code Validation page
STVTERM	Term Code Validation page	SLARDEF	Room Definition page

Menu navigation table

Pages in the Event Management module can be accessed from the following menus.

- Event/Function Processing Menu (*GENEVPROC)
- Event/Function Inquiry Menu (*GENEVQRY)
- Event/Function Control Menu (*GENEVCONT)

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- Event/Function Processing Menu (*GENEVPROC)
- Event/Function Inquiry Menu (*GENEVQRY)
- Event/Function Control Menu (*GENEVCONT)

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
SLAEVNT	Event page
	Defines the various events that your institution offers or sponsors.
GEATASK	Function Task page
	Defines the tasks associated with a function.
GEAPART	Function Participant page
	Defines the participants associated with a function.
GEAFCOM	Function Comment page
	Allows you to enter freeform comments for a function and associate keywords or subject indexes with the comments.
GEAATID	Event Registration page
	Creates and maintains attendance information by ID.
GEAATTD	Attendance page
	Creates and maintains attendance information by function.

Menu	Description
SLABLDG	Building Definition page
	Describes the buildings at your institution.
SLARDEF	Room Definition page
	Describes the rooms within a building.
GEIATTD	Function Attendance Inquiry page
	Displays information about invitees and their guests.
GEIFUNC	Event Function Inquiry page
	Displays information about all the functions associated with an event.
GEIIDFN	Individual Function Inquiry page
	Displays information about all events and their functions that an ID has attended or in which the ID has participated.
GEISUBJ	Function Subject Index Query page
	Displays all subject index codes associated with comments for a function.
SLABQRY	Building Query page
	Selects a subset of the buildings at your institution based on a set of criteria.
SSAMATX	Building Room Schedule page
	Displays information for all scheduled buildings and rooms at your institution.
*GENEVVAL1	Validation Pages (STV)
	Provides access to the pages that build, maintain, and display the Student System validation tables used by the Event Management module.
*GENEVVAL2	Validation Pages (GTVEMPH - GTVPURP)
	Provides access to the pages that build, maintain, and display the General System validation tables used by the Event Management module (GTVEMPH through GTVPURP).
*GENEVVAL3	Validation Pages (GTVRATE - GTVZIPC)
	Provides access to the pages that build, maintain, and display the General System validation tables used by the Event Management module (GTVRATE through GTVZIPC).
STVBLDG	Building Code Validation page
	Defines codes for the buildings and facilities associated with events and functions.

Menu	Description
STVCAMP	Campus Code Validation page
	Defines codes for the campuses associated with buildings and events.
STVCNTY	County Code Validation page
	Defines codes for the counties associated with buildings.
STVCOLL	College Code Validation page
	Defines codes for the schools and colleges associated with buildings and events.
STVDEPT	Department Code Validation page
	Defines codes for the departments and other organizational subdivisions associated with buildings, rooms, and events.
STVETYP	Event/Function Type Code Validation page
	Defines type codes associated with events and functions.
STVPRCD	Phone Rate Code Validation page
	Defines codes for the different kinds of telephone service associated with rooms and buildings and the billing frequency for each service.
	The Banner Student System also uses codes defined here in Housing and Location Management processing. If the Banner Student System is not installed, these values are for information only.
STVRDEF	Building/Room Attribute Code Validation page
	Defines codes for the attributes or features associated with buildings and rooms.
STVRMST	Room Status Code Validation page
	Defines status codes associated with rooms.
STVRRCD	Room Rate Code Validation page
	Defines codes for the different kinds of rates associated with rooms and buildings and the billing frequency for each rate.
	The Banner Student System also uses codes defined here in Housing and Location Management processing. If the Banner Student System is not installed, these values are for information only.
STVSITE	Site Code Validation page
	Defines codes for sites and addresses associated with buildings and events.
GTVEMPH	Emphasis Code Validation page

Menu	Description
	Defines codes that identify the emphasis of functions.
GTVEXPN	Expense Code Validation page
	Defines codes for expenses associated with functions.
GTVFEES	Fee Status Code Validation page
	Defines codes for the payment status of fees associated with functions.
GTVFSTA	Function Status Code Validation page
	Defines status codes associated with functions.
GTVFTYP	Fee Type Code Validation page
	Defines codes for the types of fees associated with functions.
GTVFUNC	Function Code Validation page
	Defines codes for the types of functions.
GTVLETR	Letter Code Validation page
	Defines codes for the letters associated with functions.
GTVMAIL	Mail Code Validation page
	Defines codes for mailings associated with functions.
GTVMENU	Menu Code Validation page
	Defines codes for the food and beverage items associated with functions.
GTVNTYP	Name Type Validation page
	Defines codes for the name types associated with IDs.
GTVPARS	Partition Code Validation page
	Defines codes for categories or groupings of rooms.
GTVPTYP	Participant Type Code Validation page
	Defines codes for the types of participants associated with functions.
GTVPURP	Purpose Code Validation page
	Defines codes that describe the purposes of functions.
GTVRATE	Fee Rate Code Validation page
	Defines codes for the types of rates associated with functions.
GTVREVN	Revenue Code Validation page
	Defines codes for revenues associated with functions.

Menu	Description
GTVRSVP	RSVP Code Validation page
	Defines codes for the responses invitees can give to function invitations.
GTVRTNG	Rating Code Validation page
	Defines codes for ratings that can be assigned to function participants.
GTVSCHS	Scheduling Partition Validation page
	Defines Schedule25 status codes, which are used in the interface between Banner schedule processing and the third party scheduling products Schedule 25/Model25 to control whether a section is to be scheduled and listed.
GTVSUBJ	Subject Index Validation page
	Defines codes for indexes (keywords) that describe the subject matter of function comments.
GTVTARG	Target Audience Code Validation page
	Defines codes for groups of people who can be invited to a function.
GTVTASK	Task Code Validation page
	Defines codes for the tasks required to plan or carry out functions.
GTVTSTA	Task Status Code Validation page
	Defines status codes for tasks associated with functions.
GTVTTYP	Task Type Code Validation page
	Defines type codes for tasks associated with functions.
GTVZIPC	ZIP/Postal Code Validation page
	Defines codes for ZIP codes and postal codes associated with buildings.

Event Management also uses the following inquiry and query pages that are not called from a menu:

- The Event Available Room Query (SLIAEVN) page displays a list of rooms available in a date and time range.
- The Building Category Query (SLQBCAT) page displays a list of categories in a building. A
 category is a physical area of a building (for example, specific wings and floors). The only way to
 access SLQBCAT is from the Category field on specific pages.
- The Room Query (SLQROOM) page displays summary information about the rooms in your institution's buildings for an indicated term. The only way to access SLQROOM is from the Room field on specific pages.
- The Event Query (SLQEVNT) page displays summary information about the events at your institution. The only way to access SLQEVNT is from the **Event** field on specific pages.

Event Management procedures

The Event Management module helps you manage an event and the functions, tasks, and participants associated with the event. You can schedule functions, organize administrative tasks, determine financial requirements, and track attendance.

Keeping track of this information not only allows you to manage the current event, but provides information that can be used to plan future events.

With the Event Management module, you can manage:

- · Buildings and rooms
- Events
- Functions
- Tasks
- Participants

Definitions

The following definitions are useful for understanding the functions of the Event Management module.

Term	Definition
Event	Any occasion that your institution offers or sponsors. Examples include a meeting, conference, and graduation ceremony.
Function	An activity associated with an event and scheduled for a specific date, time, and place. An event can have several functions. Examples include reception, dinner, and lecture.
Task	A specific activity required to plan or carry out a function.
Participant	An ID who assists with a function and may or may not attend.

Manage buildings and rooms

Data must be set up for every building and room that is a potential site for an event. Event Management uses the same pages used by the Banner Student System to schedule classes and housing.

About this task

If your institution uses Banner Student, buildings and rooms may already be set up. If not, you need to set up buildings and rooms.

Procedure

- 1. Use the **Building Code Validation (STVBLDG)** page to set up building codes for each building at your institution.
- Use the Building Definition (SLABLDG) page to enter data for each building where functions can be scheduled.
- 3. Use the **Room Definition (SLARDEF)** page to enter data for each room in a building. Values default from SLABLDG but can be overwritten.

Note: A room can be inactivated for a period of time by defining a **Start Date** and **End Date** in the Room Inactivation section of SLARDEF. For example, a room can be inactivated for scheduled maintenance.

Manage events

The Event Management module helps you manage an event.

Procedure

- 1. Use the Event/Function Type Code Validation (STVETYP) page to set up codes for each type of event sponsored or offered by your institution (such as alumni gathering, social gathering, and conference).
- 2. Use the **Event (SLAEVNT)** page to enter data for the event. The system assigns a five-character ID beginning with the letter A.
- 3. **Optional:** To create and schedule functions, select Schedule from the Options menu. The Meeting Times window appears. Schedule the functions.
- 4. **Optional:** To add comments about the event, select Comments from the Options menu. The Event Comments window appears. Enter free-page comments.

Note: You can use the SLAEVNT page to schedule functions.

Manage functions

The Event Management module helps you manage a function associated with the event.

- 1. Use the **Event/Function Type Code Validation (STVETYP)** page to set up codes for each type of function sponsored or offered by your institution (such as meal, break, and sporting function).
- Use the Function Code Validation (GTVFUNC) page to set up codes for each function sponsored or offered by your institution (such as breakfast, football game, and basketball game).
- 3. Make sure that the event has been created with the **Event (SLAEVNT)** page.
- 4. **Optional:** To create and schedule functions using SLAEVNT, select Schedule from the Options menu. The Meeting Times window appears. Enter the schedule.

5. Use the **Event (SLAEVNT)** page to enter details for each function.

Note: You can use the SLAEVNT page to track function details such as revenue, expenses, fee structure, target audience codes, mailings, and meal selections.

6. **Optional:** To schedule functions using the SLAEVNT page, select Meeting Time from the Options menu. The Meeting Time window appears. Enter the schedule.

Note: You can use the SLAEVNT page to schedule a function.

Results

You can also enter information on the following optional pages to manage additional function details:

- Attendance (GEAATTD) page—Lets you record attendance information for a specific function.
 You can track information for each ID invited to the function and the ID's guests.
- Event Registration (GEAATID) page—Lets you record attendance information for an ID who is invited to multiple functions within an event. You can also track information for the ID's guests.
- Function Comment (GEAFCOM) page—Lets you enter, display, and edit freeform comments about a function. You can assign subject indexes (key words) to a comment to help you search for the comment at a later time.
- Function Affiliation (AEAAFIL) page—If Banner Alumni/Development is installed, this page lets you affiliate a function with campaigns, designations, and prospect management projects.

Manage tasks

The Event Management module helps you manage a task associated with the event.

Procedure

- 1. **Optional:** Use the **Task Type Code Validation (GTVTTYP)** page to define each type of task (such as administrative, maintenance, and security) that can be associated with a function.
- 2. Use the **Task Code Validation (GTVTASK)** page to set up codes for the tasks (such as check room availability, reserve space, and clean up) that can be associated with functions.
- 3. Use the **Function Task (GEATASK)** page to identify the specific tasks associated with a function. Tasks are automatically displayed in chronological order, based on the **From** date.
- 4. **Optional:** To create a message, select Detail from the Options menu. Task details appear. Enter the **Recipient** ID and the **Message**. You can select the down arrow icon to access the User Identification Control (GUAIDEN) page to search for an ID.

Note: The message is sent to the recipient on the message date. The recipient can use the General Message (GUAMESG) page to read the message. This page identifies the source of the message as GEATASK and shows the task's function code, but does not link the message to a specific task. To make the message more useful, you should refer to the task in the text of the message.

Note: Banner 8x INB provided the ability to send broadcast messages directly to users through a functionality in the General Message (GUAMESG) page. The Banner 9x administrative architecture, along with the incorporation of Application Navigator, supported our decision to not carry forward broadcast messaging functionality at this time. The General Message (GUAMESG) page currently remains active for use by institutions running a hybrid Banner 9x/8x deployment model.

5. **Optional:** To assign a task to a person, select Detail from the Options menu. Task details appear. Enter the ID of the assigned person in the **ID** field in the ID Assigned to Task section. To assign more persons to the task, go to the next record and enter another ID. You can use the ID/name search feature to search for a name or ID.

Note: Each person assigned to a task must have a Banner ID. These IDs are set up with the ID maintenance page of the appropriate Banner system.

Manage participants

The Event Management module helps you manage the participants associated with the event.

Procedure

- 1. Use the **Participant Type Code Validation (GTVPTYP)** page to define each type of participant (such as speaker or caterer) that can be associated with a function.
- 2. Use the **Function Participant (GEAPART)** page to identify the participants associated with a function.

Note: Each participant must have a Banner ID. These IDs are set up with the ID maintenance page of the appropriate Banner system.

General Web Management

The General Web Management module supports the integrated processing between Banner™ and your Web applications (Student Self-Service, Faculty/Advisor Self-Service, Employee Self-Service, Advancement Self-Service, Finance Self-Service, and Executive Self-Service).

Some of the functions you can perform in the General Web Management module are:

- · Associate address type codes with user roles and access privileges.
- · Display addresses added or changed within Banner or through the Web.
- Define PINs and other user parameters for third-party access products.
- Define controls for Banner interfaces with third-party products.
- Identify the kinds of information that are included in your student, employee, and alumni directories.
- Define the profile information that appears on the Web directory for an ID.
- · Record one or more e-mail addresses for any Banner ID.
- · Set up and track surveys.

Refer to the Banner Middle Tier Implementation Guide for more information.

Validation pages

General Web Management pages use the following validation pages.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
GTVDIRO	GOADPRF
Directory Item Validation page	Web User Directory Profile page
GTVEMAL	GOAEMAL
E-mail Address Type Validation page	E-mail Address page
GTVSYSI	GORTCTL
System Indicator Validation page	Third Party Electronic Control Rules page
STVASRC	GOAADDR
Address Source Validation page	Address Review and Verification page
STVATYP	GOAADDR

Validation page	Used By
Address Type Code Validation	Address Review and Verification page
page	GOAADRL
	Address Role Privileges page
	GOADIRO
	Directory Options Rule page
STVCNTY	GOAADDR
County Code Validation page	Address Review and Verification page
STVNATN	GOAADDR
Nation Code Validation page	Address Review and Verification page
STVSTAT	GOAADDR
State/Province Code Validation page	Address Review and Verification page
STVTELE	GOADIRO
Telephone Type Validation page	Directory Options Rule page

Menu navigation table

Pages in the General Web Management module can be accessed from the following menu.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
GOATPAC	Third Party Access page
	Updates PIN information and provides mechanism for resetting a PIN.
GOATPAD	Third Party Access Audit page
	Establishes PINs and PIN information for accessing third party products.
GOAQSTN	PIN Questions page
	Maintains the list of institution-defined security questions.
GOAEMAL	E-mail Address page
	Records one or more e-mail addresses for any Banner ID.
GOAADRL	Address Role Privileges page

Menu	Description
	Associates address type codes from the Address Type Code Validation (STVATYP) page with user roles and access privileges.
GOAADDR	Address Review and Verification page
	Displays addresses added or changed within Banner or through the Web.
GOADIRO	Directory Options Rule page
	Identifies the kinds of information that are included in your student, employee, and advancement Web directories.
GOADPRF	Web User Directory Profile page
	Defines the profile information that appears on the Web directory for an ID.
GOISRVY	Survey Response Query page
	Displays responses to surveys, by person.
GUASRVY	Survey Definition page
	Defines a survey.
GUISRVS	Survey Summary Query page
	Displays responses to surveys, by survey.
GOAFNXR	Third Party Procedures and Parameters (GOAFNXR) page
	Allows you to view functions and transactions used by third-party products.
GORTCTL	Third Party Electronic Control Rules page
	Defines controls for Banner interfaces with third-party products.
GUAPPRF	Enterprise PIN Preferences page
	Defines institutional preferences for handling PINs.
GTVDIRO	Directory Item Validation page
	Defines codes for the types of information included in directory profiles.
GTVEMAL	E-mail Address Type Validation page
	Defines e-mail address type codes (for example, business, personal, and school).
GUAAPPL	Banner Applications page
	Defines Application IDs for use by Banner Self-Service 9x application pages.
GUACONF	Banner Applications Configurations page

Menu	Description	
	Creates, modifies, and deletes configurations for use by Banner Self-Service 9x application pages.	

User PINs management

The General Web Management Module is used to manage PINs (passwords) for Banner Self-Service products.

PIN is an abbreviation for personal identification number, a term that is usually used to refer to a numeric password. Although passwords can now be alphanumeric, they are still referred to as PINs.

Beginning with Release 8.0, PINs are stored in the database in encrypted page. A cryptographic hash is used to transform the PIN before it is stored, so that the unencrypted page of the PIN can never be retrieved from the database.

The cryptographic transformation is a one-way process, so that even if someone were able to retrieve the encrypted PIN from the database and learned the details of the encryption process, they still would not be able to decode the original, unencrypted page of the password.

Note: One-way encryption means that even the security administrator cannot retrieve the PIN. If a user forgets a PIN, you cannot look up the PIN for the user. The only recourse in that situation is to reset the user's PIN.

For additional security, the PIN is "salted" before it is encrypted. Salt, in this context, refers to a randomly generated string that is added to the PIN before encryption. This adds another layer of complexity to the encryption.

When a user enters a PIN to gain access to the system, the user's entered PIN is transformed using the same cryptographic function. The transformed string entered by the user is then compared to the hashed PIN stored in the database. If the values match, the user is allowed to proceed.

Strong passwords

If a password can be easily guessed by another person, it does not provide much protection. Security experts recommend using "strong passwords," ones which are long and complex enough that it would be nearly impossible for someone to guess them.

Banner provides support for strong password standards for Self-Service PINs. Because there are varying standards for strong passwords, Banner offers a flexible approach based on institutional preferences. Your institution can enforce its own strong password standards for Banner PINs. The institution's rules are set up on the GUAPPRF page and are stored on the GUBPPRF table.

- You can specify a minimum and maximum permissible length for your users' PINs.
- You can require that PINs include letters, digits, or both letters and digits.
- You can restrict a user's re-use of PINs. Specifically, you can set a number of days during which a user's previous PIN cannot be reused.

PIN reset

For occasions when a user forgets a PIN, the user can request a PIN reset by answering a series of security questions with answers that the user previously provided.

Your institution can decide how many questions a user must answer for a PIN reset. You can also decide whether users can generate their own security questions, or whether they must use standard questions established by the institution.

The user's answers to security questions are stored in encrypted page, just as the PIN is.

PINs can be reset on the GOATPAD page by typing in the new PIN and then retyping the new PIN in the Confirm PIN field.

PINs can also be reset by clicking the **Reset** button on GOATPAD or GOATPAC. The PIN will be reset based on the settings on GUAPPRF. If the reset format is set to Random, you will not be able to determine what the PIN is.

Warning! U.S.-based institutions should not use GUAPPRF's Birthdate option for PIN resets. According to the U.S. Family Policy Compliance Office (FPCO), using a student's birthdate when assigning PINs is a violation of the Family Educational Rights and Policy Act (FERPA).

To extract a clear text PIN, you would need to run letter generation and create a letter using the *PINRESET variable to reset the PIN again and display the PIN before encrypting it.

Web Management procedures

Web Management procedures include creating a set of security questions, verifying a user's answers to security questions, resetting a user's PIN, and using letter generation to notify a user of a new PIN.

Create a set of security questions

Security questions are used as part of the Self-Service PIN reset process. You can allow users to create their own security questions, or you can specify standard security questions that all users at your institution must use—or you can use a combination of institution-defined questions and user-defined questions.

About this task

To create a set of standard security questions:

Procedure

- 1. Navigate to the PIN Questions (GOAQSTN) page.
- 2. For each question, create a new record with the text of the question.
- 3. Check the **Display** check box for each question that you want to be visible to Self-Service end users.

Verify a user's answers to security questions

A security administrator can use the GOATPAD page to verify a user's identity by checking the user's answers to security questions. The answers should match the user's previously stored answers to the questions.

About this task

Because the user's stored answers are encrypted, you cannot view them directly. Instead, the user's new answers are encrypted using the same hashing process and the two encrypted values are compared.

To verify a user's answers to security questions:

Procedure

- 1. Navigate to the Third Party Access Audit (GOATPAD) page.
- 2. In the key block, enter or select the user's ID.
- 3. Navigate to the Verify Answers section. The user's security questions are displayed.
- 4. For each question
 - a) Ask the user the question.
 - b) Type the user's answer into the Verify Answer field.
- Click Verify. For each new answer that matches the user's stored answer, the Verified check box will be checked.

Reset a user's PIN

You can reset a PIN by assigning a new PIN in GOATPAD.

Procedure

- 1. Navigate to the **Third Party Access Audit (GOATPAD)** page.
- 2. In the key block, enter or select the user's ID.
- 3. Change the PIN using either of these methods:
 - Type a new PIN in the PIN and Confirm New PIN fields.
 - Click the reset button to the right of the PIN field.

Note: If you use the reset button, the value of the new PIN depends on the institution's PIN reset value preferences (as established on the GUAPPRF page).

4. Save the record.

Use Letter Generation to notify a user of a new PIN

User PINs are encrypted using a one-way process and cannot be retrieved from the database. If the institution's PIN reset value (selected on the GUAPPRF page) is Random, the only way to see the new PIN value in clear text (unencrypted) is to obtain it from the API before hashing.

About this task

You can do this using the Banner Letter Generation process.

To reset PINs and notify users through Letter Generation:

Procedure

- 1. Select the single user or group of users who will have their PINs reset.
- 2. Create a letter which contains the variable *PINRESET.

The *PINRESET variable is delivered with Release 8.0. It selects GB_THIRD_PARTY_ACCESS.F_PROC_PIN(GOBTPAC_PIDM) from GENERAL.GOBTPAC. This variable calls a function which resets the PIN and delivers the clear text PIN to the .doc file when GLRLETR is run

- 3. Run GLBDATA for your Population selection to populate it, or manually add people to the Population Selection through GLAEXTR.
- 4. Run GLBLSEL for your letter that contains the *PINRESET variable.
- 5. Run GLRLETR for your letter which contains the *PINRESET variable. The reset variable will reset the PINs for the population selection and will insert the value of each new PIN in the .doc file
- 6. Forward the notification letters to the affected users.

Note: PINs can be generated for users that do not yet have a PIN by running the GURTPAC process. In addition, PINs will be generated when a record is created for that user in any of the tables selected in the Table PIN Creation Controls section on GUAPPRF.

Voice Response Management

Voice Response is a Banner software option available for Banner™ Student and Banner Financial Aid Systems that supports touch-tone telephone data entry and inquiry for student information. Voice Response includes Registration, Grade Reporting, Billing, Financial Aid, and Admissions modules.

All Banner Voice Response modules provide your institution with the following:

- Direct student access to online registration, billing, admissions, financial aid, and grade information from a touch-tone telephone through a series of simple entries — student ID, Personal Identification Number (PIN), menu selections, and course request numbers.
- · Modifiable voice response system messages.
- Easy-to-use Oracle tables for modification of system responses.

Refer to the *Banner Voice Response Implementation Guide* for detailed information about setting up Voice Response.

Menu navigation table

Pages in the General Voice Response Management module can be accessed from the following menu.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
GORMENU	VR Menu Control Rules page
	Maintains all menu records, regardless of the Voice Response modules to which they apply.
GORFLAG	Voice Response Duty Flag Rules page
	Maintains all duty flags, regardless of the Voice Response modules to which they pertain.
GORPARM	VR Operator Availability /System Parameter Rules page
	Maintains all system parameters and operator availability information, regardless of the Voice Response module to which they pertain.
GORADMS	VR Admissions Term Based Rules page
	Maintains basic information about the VR Admissions module.
GORBILL	Voice Response Billing Term Based Rules page

Menu	Description
	Maintains information about billing terms and dates, and billing deadline dates.
GORAWPD	Voice Response Financial Aid Award Year/Term Based Rules page
	Maintains basic information about the VR Financial Aid module.
GORRGTM	Voice Response Registration & Grading Term Based Rules page
	Maintains basic registration and grading information.
GORRSTS	Voice Response Registration Status Rules page
	Maintains the status information for the VR Registration module.
GORVCTL	Voice Response Control Rules page
	Creates and maintains the group, function and control number combinations.

Business Rule Builder

To help you manage your Banner™ data for SEVIS processing, Multi-Institution Functionality (MIF), and Banner Integration Components, General includes pages you can use to build business rules.

The rules you create can be used to populate columns in Banner tables with values from other columns. Your rules can also create student and exchange visitor records automatically.

Validation pages

Business Rule Builder pages use the following validation pages.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Validation page	Used By
GTVSQRU	GORSVSQ
Business Rule Code Validation page	SEVIS Business Rules page
	GORRSQL
	Business Rules page
	GOIRSQL
	Business Rule Inquiry page
GTVSQPR	GORSVSQ
Business Rule Process Code Validation page	SEVIS Business Rules page
	GORRSQL
	Business Rules page
	GOIRSQL
	Business Rule Inquiry page
GTVSQPA	GORRSQL
Business Rule Parameter Code Validation page	Business Rules page

Menu navigation table

Pages in the Business Rule Builder module can be accessed from the following menu.

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description
GTVSQRU	Business Rule Code Validation page
	Maintains the rule codes that will be used in your dynamic SQL statements. For SEVIS reporting, you might want to set up rule codes such as Create Student, Update Major, and so on.
GTVSQPR	Business Rule Process Code Validation page
	Maintains the process codes that are valid for dynamic filter processing. The delivered value is ${\tt SEVIS}.$
GTVSQPA	Business Rule Parameter Code Validation page
	Maintains the parameters or variables you will use to build your process rules on the Business Rules (GORRSQL) page. You will use the codes you define on this page in the dynamic SQL statements on GORRSQL.
GORSQPA	Business Rule Process Parameters page
	Associates a process code with the parameter codes it will use on GORRSQL. The valid parameter codes are defined on the Business Rule Parameter Code Validation (GTVSQPA) page.
GORRSQL	Business Rules page
	Allows you to build SQL statements that will perform certain functions when they are executed from the SEVIS Batch Extract Process (GORSEVE).
GOIRSQL	Business Rule Inquiry page
	Allows you to inquire for existing Business rules. A filter can be performed with a process code or rule code or with no filter criteria (to return the set of all business rules).

Business Rule Builder procedures

Business Rule Builder procedures include establishing the Rule Builder, building business actions, and building auto-population rules.

Establish the Rule Builder

The general process is as follows.

Procedure

1. Set up Process Codes using the Business Rule Process Code Validation (GTVSQPR) page. The code SEVIS has been delivered.

- 2. Save your changes.
- 3. Establish substitution parameters on the **Business Rule Parameter Code Validation** (GTVSQPA) page. The codes TERM and PIDM have been delivered.
 - a) TERM allows you to ask the user for a value for the term, which will be used as a parameter in your rule.
 - b) PIDM allows you to ask the user to enter a specific PIDM, which will be processed in your rule.

Note: The PIDM and TERM bind variables can only be used in GORRSQL for SEVIS, these 2 bind variables are not recognized in SDE. Refer to Supplemental Data Engine on page 230 for the list of 5 bind variables that are acceptable for SDE.

- 4. Save your changes.
- On the Business Rule Process Parameters (GORSQPA) page, associate process codes
 defined on GTVSQPR with substitution parameters defined on GTVSQPA. The number of
 substitution parameters a process code can have is restricted by the coding associated with the
 process. As delivered, the SEVIS Information (GOASEVS) page will only prompt users to enter
 TERM or PIDM.

Note: The PIDM and TERM bind variables can only be used in GORRSQL for SEVIS, these 2 bind variables are not recognized in SDE. Refer to Supplemental Data Engine on page 230 for the list of 5 bind variables that are acceptable for SDE.

Note: The package that processes parameters, GOKSVSQ, is only set up to handle TERM and PIDM at present. If you want to add other parameters, you must modify GOKSVSQ.

- 6. Save your changes.
- 7. Set up codes and descriptions for all the Business Rules you plan to use on the **Business Rule Code Validation (GTVSQRU)** page.
- 8. Save your changes.
- 9. On the SEVIS Business Rules (GORSVSQ) page, associate your process code/rule code combinations with an auto-population field or business action. If you select Business Action from the Process Type pull-down menu, you can only enter information in the SEVIS Business Action field (from GTVSVBA). If you select Auto-populate from the pull-down menu, you can only enter information in the SEVIS Auto-populate Code field (from GTVSVAP).
- 10. Save your changes.
- 11. You will define the Business Rules themselves on the **Business Rules (GORRSQL)** page by linking a Process Code (defined in Step 1) with a Rule Code (defined in Steps 4 and 7). Then you must create the dynamic SQL statements that will be executed when the SEVIS Batch Extract Process (GORSEVE) is executed, or when Business Action or Auto-populate is selected from the Options pull-down menu on GOASEVS. Be sure to save your changes.

Note: Be careful to enter your statements on GORRSQL in the correct order. GORSEVE and GOASEVS (when you select Create Student SEVIS Transaction or Create Exchange Visitor SEVIS Transaction from the Options menu) will execute each rule until they receive the Boolean value True for Business Actions or a single valid value for autopopulation. It does not process any rules after that.

Results

You can build two types of Business Rules without changing Banner programming logic: rules that initiate business actions and rules that auto-populate Banner columns from other Banner columns. If you want to make other kinds of rules, you must change the code.

Build business actions

A rule that initiates Business Actions will return a true/false condition.

Procedure

- On the SEVIS Business Action Code Validation (GTVSVBA) page, create a code and description for the package/procedure that will perform the tasks for your business action. Ellucian has delivered CREATE_STUDENT and CREATE_EV to be used with your SEVIS reporting.
- 2. Save your changes.
- 3. On the **SEVIS Business Rules (GORSVSQ)** page, associate an existing Rule Code (from GTVSQRU) with a Process Code (from GTVSQPR).
- 4. Select Business Rule from the Process Type pull-down menu on GORSVSQ.
- Enter the name of the Business Action you created on GTVSVBA in the SEVIS Business Action field.
- 6. Provide additional information about how it will be used, as necessary. For example, you can specify an effective date and end date for your rule with the **Start Date** and **End Date** fields.
- 7. Save your changes.

Results

Your Business Action can be triggered in two ways:

- When you execute GORSEVE with Y as Parameter 05 Process Business Action. You must enter a term code as Parameter 07.
- When you select Business Action from the Options pull-down menu from GOASEVS. You will be prompted to enter a term code.

The package GOKSVSQ executes the specific process associated with the Business Rule, sending the person's PIDM and Term as parameters.

Note: The package that processes parameters, GOKSVSQ, is only set up to handle Term and PIDM at present. If you want to add other parameters, you must modify GOKSVSQ.

In either case, all Business Actions with a process code of SEVIS are executed. If this results in the creation of any student or exchange visitor SEVIS records, any auto-population rules where the process code is SEVIS will be executed, too.

Warning! If you create a Business Action and it does not apply to anyone in the population selection, Banner will not provide you with an error message. This is also the case if there are no active Business Actions at all. As far as the Banner logic is concerned, it has processed all valid, active Business Actions for all the applicable people.

Build auto-population rules

A rule that initiates the auto-population of columns with other Banner data will return a single value. For auto-population, you have to perform the following as described in the Establish the Rule Builder section of this document.

Procedure

 Create a process code on the Business Rule Process Code Validation (GTVSQPR) page. SEVIS has been delivered.

Then you must perform a few additional steps:

- 2. On the **SEVIS Auto-populate Code Validation (GTVSVAP)** page, create a code and description for your auto-population. The code is the column name that you want to populate from another source. The column names from the GOBSEVS table have been delivered.
- 3. Save your changes.
- 4. On the SEVIS Business Rules (GORSVSQ) page, associate an existing Rule Code (from GTVSQRU) with a Process Code (from GTVSQPR).
- 5. Select Auto-populate from the Process Type pull-down menu on GORSVSQ.
- 6. Enter the name of the auto-population code you created on GTVSVAP in the **SEVIS Auto- populate Code** field.
- 7. Provide additional information about how it will be used, as necessary. For example, you can specify an effective date and end date for your rule with the **Start Date** and **End Date** fields.
- 8. Save your changes.

Results

Your Auto-population can be triggered in two ways:

- When you execute GORSEVE with Y as Parameter 06 Auto-population. You must enter a term code as Parameter 07.
- When you select Auto-populate from the Options pull-down menu from GOASEVS. You will be prompted to enter a term code.

Note: You cannot access Auto-populate from the Options pull-down menu if you are in the Key block.

The value returned in the auto-populate rule will update the field associated with the rule on GORSVSQ.

The package GOKSVSQ executes the specific process associated with the Auto-population, sending the person's PIDM and Term as parameters.

Note: The package that processes parameters, GOKSVSQ, is only set up to handle Term and PIDM at present. If you want to add other parameters, you must modify GOKSVSQ.

When you use the Auto-population feature, the value returned in the Auto-populate rule will update the field associated with it on GORSVSQ.

Basic Person

Basic Person identification pages (pages that follow the naming convention %IDEN, such as APAIDEN, SPAIDEN, and PPAIDEN) are used throughout Banner™ to capture biographic/demographic information for all persons/non-persons associated with the institution.

Persons/non-persons may belong to any or all of the installed applications (Student, Finance, and so on.). All persons/non-persons are first entered into the database using an identification page. The information maintained in this page is specific to the person/non-person and does not relate to the person's/non-person's involvement at the institution. All other modules/applications are dependent on the information captured and maintained in this page. Any changes or additions to a person's/non-person's biographic/demographic information must be made in this page.

To maintain consistency in Banner, the identification pages all reference a Banner library called the Common Pages Object Library (GOQCLIB). This library is a page object, just like other pages, but it is used to store common page elements that are used by many other pages.

The common elements that support Basic Person are stored in GOQCLIB, and are described in this chapter. Familiarizing yourself with these elements will help you understand Basic Person processing, and troubleshoot errors that may occur during your work with Basic Person functionality.

Common Pages Object Library (GOQCLIB)

This library contains the sections that display in the %IDEN pages and other pages in Banner.

The following table lists the pages which display the sections that exist in the library. The purpose of the sections that exist in the library is for creating basic information about a person or non-person. The data that is collected through the pages includes Identification number, Name information, Address, Telephone, Biographical information such as age and birth date, E-mail, and Emergency Contact information.

Further information on the pages supported by GOQCLIB can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

			-					
page	ID	Alt. ID	Addl. ID	Address	Teleph	none E-mail	Bio	Emergency contact
APAIDEN	Ves	Yes	Yes	Yes	Yes	Yes	Yes	
APANAM	ΙE	Yes						
FOAIDEN	V Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FTMVEN	ID			Yes				
FTMFMG	€R			Yes				
FTMCUS	ST			Yes				
FTMAGC	Υ			Yes				

page	ID	Alt. ID	Addl. ID	Address	Telephon	E-mail	Bio	Emergency contact
GOAEMA	\L					Yes		
PPAIDEN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PPATELE	:				Yes			
PEA1PAY	,						Yes	
PEAHIRE							Yes	
SAAQUIK	(Yes			Yes	
SPAEMR	G							Yes
SPAIDEN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SPAPERS	6						Yes	
SPATELE					Yes			
SRAQUI	(Yes			Yes	

Section-level security

On the APAIDEN, FOAIDEN, PPAIDEN and SPAIDEN pages, section-level security can be used to restrict users from seeing or changing data in specific sections.

If you don't see all of the sections used by a specific page, as listed in the table above, it could be because section-level security is in place, preventing you from seeing some of the sections.

The Banner General Security Administration Handbook describes how to set up section-level security.

Key block

Use the Key block to enter the ID of the person or non-person.

If the ID already exists, the person/non-person's name information will display in the name field in the key block. If the ID does not exist, the user can move to the current Identification window to create the new ID and related name information. The user has the option of generating an ID or entering a new ID when creating a new person/non-person.

Field	Description
Confidential (Confidential Message)	Displays when the Confidential check box is checked on the General Person (SPAPERS) page. Confidentiality may be requested by the student or determined by institution policy.
	Column: Not a base table item

Field	Description
	The confidential warning message is displayed for a user when the GUAUPRF Alert Option Display Additional Confidential Warning check box is checked.
Deceased (Deceased Message)	Displays when the Deceased check box is checked on the General Person (SPAPERS) page. You may process data for a person who is deceased.
	Column: Not a base table item
	The deceased warning message is displayed for a user when the GUAUPRF Alert Option Display Additional Deceased Warning check box is selected.
ID	ID and name of the person or non-person. Choices differ by page. For example, choices on SPAIDEN are: the Person Search (SOAIDEN) page, the Non-Person Search (SOACOMP) page, or the Alternate ID Search (GUIALTI) page. Use the Options Menu to access the pages, use List for SOAIDEN or Count Query Hits for SOACOMP, or use Duplicate Record from for GUIALTI.
	Column: Not base table items (ID and name)

Current Identification window

The Current Identification window is used to insert or update name information.

If the record being added is a person, the first and last names are required. All other fields in the Person section are not required but can be entered for a person. If the record being added is a company or other non-person entity, the non-person name should be added in the non-person section. The fields in the person section cannot be entered for a non-person. The name that displays on this window is a person/non-person's current name and the one that will display on pages through the Banner system. This record can be updated but cannot be deleted. When the name is changed, the old name will become an alternate record. The user ID of the Banner user who originally created the ID will always display in the in the Original creation user field on the current ID window, regardless of whether subsequent name or ID changes have been made.

Field	Description
ID	This field defines the identification number used to access person online.
	The ID field is used to create or update a current identification number for a person associated with a record. To change information, the user can type over the current information.
	Column: SPRIDEN_ID
	Length: 9

Field	Description
Name Type	Use this field to enter a type for the name in the key block. For example, name types could be preferred name, legal name, maiden name, formal name, and so on.
	Column:SPRIDEN_NTYP_CODE
	Length: 4
	List: Name Type (GTVNTYP)
SSN/SIN/TIN	This field maintains person social security number, social insurance number, or tax identification number.
	Column: SPBPERS_SSN
	Length: 15
	The SSN data entry length might be as short as 9 or as long as 15 depending on the value set for the institution on the Installation Controls (GUAINST) page.
Last Name Prefix	The prefix that appears before the person's last name.
	Column: SPRIDEN_SURNAME_PREFIX
	Length: 60
	Depending on your institution's settings, this field might be hidden.
Last Name	This field defines the last name of person.
	Column: SPRIDEN_LAST_NAME
	Length: 60
First Name	This field identifies the first name of person.
	Column: SPRIDEN_FIRST_NAME
	Length: 60
Middle Initial	This field identifies the middle name of person.
	Column: SPRIDEN_MI
	Length: 60
Prefix	This field maintains the prefix (Mr., Mrs., and so on.) used before person name.
	Column: SPBPERS_NAME_PREFIX
	Length: 20
Suffix	This field maintains the suffix (Jr., Sr., and so on.) used after person name.
	Column: SPBPERS_NAME_SUFFIX

Field	Description
	Length: 20
Preferred First Name	This field maintains the preferred first name associated with person.
	Column: SPBPERS_PREF_FIRST_NAME
	Length: 60
Full Legal Name	This field maintains legal name associated with person.
	Column: SPBPERS_LEGAL_NAME
	Length: 500
Marital Status	This field maintains martial status associated with person.
	Column: SPBPERS_MRTL_CODE
	Length: 1
Non-Person Name	The Non-Person Name field is used to create or change the current name of a non-person associated with the identification number. To change information, the user can type over the current information. Full name of non-person must be entered.
	Column: SPRIDEN_LAST_NAME
	Length: 60
Last Update User	The ID for the user that most recently updated the record.
	Column: SPRIDEN_USER
	Length: 30
Last Update Activity	This field defines the most current date record is created or changed.
Date	Column: SPRIDEN_ACTIVITY_DATE
	Length: 7
Last Update Origin	The name of the Banner object that was used most recently to update the row in the SPRIDEN table.
	Column: SPRIDEN_ORIGIN
	Length: 30
Original Creation User	This field contains the ID of the Banner user who created the new identification record. When a new identification record is created, the user's ID is stored in this field. When the name or ID is changed for a particular Identification record, the ID of the original user, not the user who made the change will continue to display on the current ID window. The ID of the user who made the name or ID change will be reflected on the Alternate ID window on the record that gets inserted when the change is made on the Current ID window. Column: SPRIDEN_CREATE_USER

Field	Description
	Length: 30
Original Creation Create Date	This field contains the date on which Banner user created the new identification record. When a new identification record is created, the date is stored in this field. When the name or ID is changed for a particular Identification record, the date of the original record creation, not date of the change will continue to display in this field on the Current ID window. The date the change was made will be reflected on the Alternate ID window on the record that gets inserted when the change is made on the Current ID window.
	Column: SPRIDEN_CREATE_DATE
	Length: 7

Alternate ID window

The purpose of the Alternate ID window is to record a persons/non-persons alternate names. Alternate names can be inserted on this window without changing the person's current name.

Field	Description
Name Type	Use the Name Type field to enter a type for the name in the key. For example, name types could be preferred name, legal name, maiden name, formal name, and so on.
	Column: SPRIDEN_NTYP_CODE
	Length: 4
	List: Name Type (GTVNTYP)
Change Type	This field is used to display the type of change which occurred. The letter ${\tt I}$ indicates an identification number change, while the letter ${\tt N}$ indicates a name change.
	Column: SPRIDEN_CHANGE_IND
ID	The person/non-person's alternate ID. This could represent a previous ID, if the person ID changed, or it could represent an alternate ID associate with the person/non-person.
	Column: SPRIDEN_ID
	Length: 8
Last Name Prefix	The prefix that appears before the person's last name.
	Column: SPRIDEN_SURNAME_PREFIX
	Length: 60
	Depending on your institution's settings, this field might be hidden.

Field	Description
Last Name	This field defines the last name of person.
	Column: SPRIDEN_LAST_NAME
	Length: 60
First Name	This field identifies the first name of person.
	Column: SPRIDEN_FIRST_NAME
	Length: 60
Middle Initial	This field identifies the middle name of person.
	Column: SPRIDEN_MI
	Length: 60
Origin	The name of the Banner object that was used most recently to update the row in the SPRIDEN table.
	Column: SPRIDEN_ORIGIN
User	The ID for the user that most recently updated the record.
	Column: SPRIDEN_USER
Activity Date	This field defines the most current date record is created or changed.
	Column: SPRIDEN_ACTIVITY_DATE
Create User	This field contains the ID of the Banner user who created the alternate identification record. When a new alternate record is created, the user's ID is stored in this field. When the name or ID is changed for a particular identification record on the Current ID window, the ID of the user who is making the change will be reflected in the create user on the Alternate ID window. See "The Original Creation User" topic, below.
Create Date	This field contains the date on which the alternate identification record was created. When a new alternate record is created, the date is stored in this field. When the name or ID is changed for a particular identification record on the Current ID window, the date on which the change took place will be reflected in the create date on the Alternate ID window.

The original creation user of an identification record

Each identification record includes a field for the **Original Creation User** (SPRIDEN_CREATE_USER). The purpose of this field is to retain a record of the Banner user who "created the PIDM."

Each identification record's unique PIDM is assigned when the record is initially created, and the **Original Creation User** is the Banner user who entered the data that originally created the ID record.

There is also a **Last Update User** field (SPRIDEN_USER) to record the Banner user who made the most recent change to an identification record.

If you consider only a person's current identification record, the relationship between these two fields is easy to grasp: the **Original Creation User** field always stays the same, while the **Last Update User** field may change several times as the record is updated over a period of time. But a person may also have alternate identification records which also have **Original Creation User** fields. If the alternate record was created directly on the Alternate ID section, then the **Original Creation User** of the record is the person who entered the data to create the new record.

But alternate records can also be created automatically by the system when the primary, current identification record is changed. In these cases, the **Original Creation User** on the alternate record will reflect the Banner user who made the change in the primary record. And this new alternate record will contain the person's original name, which is now considered to be an alternate name associated with the person's PIDM.

To understand how this works, consider what happens in a typical example when a student's name is changed. First, Banner user AADAMS creates an identification record for a new student, Stacy Kanner.

Row ID	PIDM	Name	Original Creation User		Change Indicator
1	5678	Stacy Kanner	AADAMS	AADAMS	

Later, Banner user BBARRY learns that the name was misspelled; it should be Staci Kanner. BBARRY enters the corrected name. The system saves the correction in the primary record (Row 1) but also copies the record to create a new record (Row 2), which retains the old spelling of the name as an alternate name for the student.

Row ID	PIDM	Name	Original Creation User	Last Update User	Change Indicator
1	5678	Staci Kanner	AADAMS	BBARRY	
2	5678	Stacy Kanner	BBARRY	BBARRY	N

The **Change Indicator** value of $\mathbb N$ in Row 2 indicates that this row is not a current record. Row 1 has a null **Change Indicator**, showing that Row 1 is the current identification record for this person.

BBARRY is correctly shown as the **Original Creation User** of Row 2, because BBARRY's spelling correction caused the name <code>Stacy Kramer</code> to become an alternate name for this student. A new alternate record gets inserted into the SPRIDEN table to capture this as an alternate name for Staci and it will reflect BBARRY as the user who created it.

Address window

Addresses (for both persons and non-persons) are maintained on this window. A person (or non-person) can have different types of addresses (for example, a mailing address, parent's address, and so on.); however, only one address may be designated as active for each address type.

Note: A limited number of entities can have more than one active address per address type:

- Vendors (entered on FTMVEND)
- Financial Managers (entered on FTMFMRG)
- Agencies (entered on FTMAGCY)
- Customers (entered on FTMCUST)

Telephone numbers can also be maintained on this window. When you enter a telephone number, it automatically becomes the primary telephone number for the selected address type and sequence number. You can designate as many telephone numbers as active as you want, but if you make an address inactive by checking the **Inactivate** check box, then the telephone number for that address will also be designated as inactive. If you want to keep the telephone number active, do one of the following:

- On the Telephone window, clear the **Inactivate** check box for the telephone number.
- On the Address window, choose **To** and **From Dates** to specify the active dates for the address, instead of selecting the **Inactivate** check box for the address.
- On the Telephone window, do not associate an address type with the telephone number. If an address type is already specified, then delete it.

Note: For telephone numbers entered on the Address window of Banner Self-Service, the address type and sequence number specified on the window are always automatically associated with the telephone number in Banner.

Field	Description
From Date	Specifies the effective start date of the address associated with a person.
	Column: SPRADDR_FROM_DATE
	Length: 7
To Date	Specifies the date until which the address is effective. If this field is left blank, then the address is always effective.
	Column: SPRADDR_TO_DATE
	Length: 7
Inactivate	Check box that indicates if the address information is active (current) or inactive.
	If you check this box for an address, then the telephone numbers associated with it will automatically become inactive.

Field	Description
	Column: SPRADDR_STATUS_IND
	Length: 1
Address Type	The Address Type field is used to enter code for address type (for example permanent residence, mailing). Click on the Type button to display an Options list from which you can select either a list of valid address codes (STVATYP) or an address summary page. The user can use LIST to display the Address Type Validation (STVATYP) page, from which address type search/selection may be conducted.
	Column: SPRADDR_ATYP_CODE
	Length: 2
Sequence Number	The Sequence Number field is used to assign an internal sequence number to each address. There is a separate sequencing by address type for each person/non-person.
	Column: SPRADDR_SEQNO
	Length:2
House Number	A code used in some countries to uniquely identify a house.
	Column: SPRADDR_HOUSE_NUMBER
	Length: 10
	Depending on your institution's settings, this field might be hidden.
Street Line 1	The first line of the address associated with person/non-person.
	Do not put a "#"(pound sign) in the address. This will cause problems with commands in the page GUALETR.
	Column: SPRADDR_STREET_LINE1
	Length: 75
Street Line 2	The second line of the address associated with person/non-person.
	Column: SPRADDR_STREET_LINE2
	Length: 75
Street Line 3	The third line of the address associated with person/non-person.
	Column: SPRADDR_STREET_LINE3
	Length: 75
Street Line 4	The fourth line of the address associated with person/non-person.
	Column: SPRADDR_STREET_LINE4
	Length: 75
	Depending on your institution's settings, this field might be hidden.

Field	Description
City	The City field is used to identify the city associated with the person/non-person's address.
	Column: SPRADDR_STREET_LINE2
	Length: 50
State or Province	The State or Province field is used to identify the state or province associated with the person/non-person's address. Click the button or use LIST to display the State/Province Validation (STVSTAT) page from which search/selection may be conducted by entering state abbreviation in the field.
	Column: SPRADDR_STAT_CODE
	Length: 3
ZIP/Postal Code	The ZIP or Postal Code field is used to enter the ZIP or postal code associated with person/non-person's address. Click the ZIP/PC button or use LIST to display a list of valid codes from the ZIP/Postal Code Validation (GTVZIPC) page. If an existing ZIP/postal code is entered before the city and state are entered on the address window, the city and state will default from GTVZIPC.
	Column: SPRADDR_ZIP
	Length: 30
County	The County Code field is used to enter the code assigned to the county associated with person/non-person's address. Click the County button or use LIST to display valid codes from the County Code Validation (STVCNTY) page from which search/selection may be conducted by entering county name.
	Column: spraddr_cnty_code
	Length: 5
Nation	The Nation Code field is used to identify the nation/country associated with person/non-person's address. Click the Nation/ Country button or use LIST to display valid codes from the Nation Code Validation (STVNATN) page which search/selection may be conducted by entering name of nation/country in the field.
	Column: SPRADDR_NATN_CODE
	Length: 5
Telephone Type	The Telephone Type field is used to enter code for phone type (for example permanent residence, mailing). Click on the Type button or use LIST to display the Phone Type Validation (STVTELE) page from which phone type codes can be selected.
	Column: SPRTELE_TELE_CODE

Field	Description
	Length: 4
Telephone	Specifies the telephone number of the person/non-person in the key block.
	Click on the Telephone button to display the Telephone window, where you can create an unlimited number of telephone numbers associated with a person. The telephone number can be associated with an address type and sequence number. The primary indicator must be ${\tt Y}$ to display with the address information.
	Column: SPRTELE_CTRY_CODE_PHONE
	Length: 4
	Column: SPRTELE_PHONE_AREA
	Length: 6
	Column: SPRTELE_PHONE_NUMBER
	Length: 12
	Column: SPRTELE_PHONE_EXT
	Length: 10
	Depending on your institution's settings, Country Code (SPRTELE_CTRY_CODE_PHONE) might be hidden.
Source	The Source field is used to identify how the address information was created or updated. Click the Source button or use LIST to display valid codes from the Address Source Code Validation (STVASRC) page.
	Column: spraddr_asrc_code
	Length: 4
Delivery Point	This field is used to designate the delivery point for mail as established by the Postal Service.
	Column: SPRADDR_DELIVERY_POINT
	Length: 2
Correction Digit	The Correction Digit field is defined by the Postal Service and is used to determine the digits used for delivery related to the ZIP code.
	Column: Spraddr_correction_digit
	Length: 1
Carrier Route	The addresses to which a carrier delivers mail. In common usage, carrier route includes city routes, rural routes, highway contract routes, post office box sections, and general delivery units.
	Column: SPRADDR CARRIER ROUTE

Field	Description
	Length: 4
Last Update User	The ID for the user that most recently updated the record.
	Column: SPRADDR_USER
	Length: 30
Last Update Activity	This field defines the most current date record is created or changed.
Date	Column: SPRADDR_ACTIVITY_DATE
	Length: 7
Preferred Address	The preferred address displays on APAIDEN only. It is a calculated value which depends on the preferred address type that is set on APACONS for the person. The preferred address check box on the Address window will be 'checked' on the current active address having the same address type as the preferred address type designated on APACONS.
Preferred Region	The preferred region displays in APAIDEN only. The Preferred Region Address Type is the address type that identifies the address to which you want to send information that has a geographical orientation. For instance, if an advancement individual wants to receive, at a business address, notifications of alumni events that are being held near that business, you would enter the address type for that business address as the Preferred Region Address Type.
	The Preferred Region Address Type is optional; it defaults based on the Preferred Address Type defined on APACONS. Although it isn't used by any processes or reports, it can be incorporated into correspondence by using Banner Letter Generation. For more information, see the "Letter Generation" chapter of the <i>Banner General User Guide</i> .
Combined Mailing	The Combined Mailing Address Type is used in conjunction with the Combined Mailing Name in creating labels. This address type determines which address is used when one piece of mail is to be sent jointly to two IDs. The combined mailing information Address type is set on APANAME.
Employment Details	This indicator is checked if the address displaying is associated with an employment record on APAEHIS. The button navigates to APAEHIS to display the related employment history record.
	This field only displays on APAIDEN.

Telephone window

Telephone numbers (for a person or non-person) are maintained on this window. When entering a telephone number, you must always choose a **Telephone Type**. You can then enter a number in the **Telephone** fields.

Telephone numbers can be associated with an address by entering the address type and sequence number. The telephone number will display on the Address window if the primary indicator is checked.

Selecting the **Inactivate** check box makes a telephone number inactive. You can have as many active telephone numbers as you want. When a telephone number is associated with an address, then it will become inactive if the address is designated as inactive.

Field	Description
Telephone Type	Telephone type code.
	Column: SPRTELE_TELE_CODE
	Length: 3
Telephone Number	The telephone country code, area code, number, and extension.
	Column: SPRTELE_CTRY_CODE_PHONE
	Length: 4
	Column: SPRTELE_PHONE_AREA
	Length: 6
	Column: SPRTELE_PHONE_NUMBER
	Length: 12
	Column: SPRTELE_PHONE_EXT
	Length: 10
	Depending on your institution's settings, Country Code (SPRTELE_CTRY_CODE_PHONE) might be hidden.
Primary	Primary indicator to denote primary telephone numbers based on telephone types.
	Column: SPRTELE_PRIMARY_IND
	Length: 1
Unlisted	Unlisted telephone number indicator.
	Column: SPRTELE_UNLIST_IND
	Length: 1
Inactivate	Indicates whether the status of the telephone number is active or inactive. Check the box to inactivate the telephone number.

Field	Description
	Column: SPRTELE_STATUS_IND
	Length: 1
International Access	Free-format international access code for telephone number including country and city code and telephone number.
	In earlier Banner releases, this field was the only place where you could enter telephone numbers that did not match US formats. It is recommended that you now use the Telephone Number fields, which have been expanded to allow numbers of varying lengths and formats, instead of this field.
	Column: SPRTELE_INTL_ACCESS
	Length: 16
Comment	Comment relating to telephone number.
	Column: SPRTELE_COMMENT
	Length: 60
Address Type	Optional address type code associated with telephone number.
	The telephone number will display on the address window on the address that has the same address type and sequence number as entered on the telephone window, if the primary check box is checked.
	Column: SPRTELE_ATYP_CODE
	Length: 2
Sequence	Optional address sequence associated with telephone number.
	The telephone number will display on the address window on the address that has the same address type and sequence number as entered on the telephone window, if the primary check box is checked.
	Column: SPRTELE_ADDR_SEQNO
	Length: 2
Activity Date	This field defines the most current date record is created or changed.
	Column: SPRTELE_ACTIVITY_DATE
	Length: 7
User	The ID for the user that most recently updated the record.
	Column: SPRTELE_USER_ID
	Length: 30

Biographical window

A person's biographical information is maintained on the Biographical window.

Field	Description
Gender	The person's gender. Select Male or Female, or Not Available if the gender is unknown.
	Column: SPBPERS_SEX
	Length: 1
Birth Date	The person's birth date. You may not enter a future birth date, i.e., one which is greater than the system date.
	Column: SPBPERS_BIRTH_DATE
	Length: 7
Age	The person's age. Calculated by the system based on the date of birth. The age is not stored in the database, but is calculated each time the page is called.
SSN/SIN/TIN	The person's Social Security Number, Social Insurance Number (Canada), or Tax Identification Number (non-person) as applicable. Institutions in other countries can use this field to store another identifier, such as a TFN (Tax page Number) for Australia.
	SSN/SIN/TIN is used by some reports and processes, instead of the ID, such as tax documents (W-20, T2202A, and so on.). Tape loads can match against either ID or SSN/SIN/TIN.
	Column: SPBPERS_SSN
	Length: 15
Confidential	Confidential indicator. To indicate that information about this person should remain confidential, select the check box. If the box is checked, then the message Confidential displays on any pages with the ID in the key information.
	The Confidential indicator does not control any other system processing.
	Column: SPBPERS_CONFID_IND
	Length: 1
Deceased	Select if the person is deceased. Online processing is not prevented for deceased IDs; however, the message Deceased displays on any pages with the ID in the key information. You may request and run a transcript for a student who is deceased. However, the Grade Mailer Report (SHRGRDE) and associated processing are prohibited for a deceased person.

Field	Description
	Column: SPBPERS_DEAD_IND
	Length: 1
Deceased Date	Date of death if deceased. If you enter the deceased date, then the system automatically checks the Deceased check box.
	Column: SPBPERS_DEAD_DATE
	Length: 7
Citizenship	The person's citizenship.
	Column: SPBPERS_CITZ_CODE
	Length: 1
	List: Citizen Type Validation list
Marital Status	The person's marital status.
	Column: SPBPERS_MRTL_CODE
	Length: 1
	List: Marital Status Validation List
Religion	The person's religion.
	Column: SPBPERS_RELG_CODE
	Length: 2
	List: Religion Code Validation list
Legacy	The person's relationship to alumni of the institution.
	Column: SPBPERS_LGCY_CODE
	Length: 1
	List: Legacy Code Validation list
Ethnicity	The person's ethnic background. This is critical for IPEDs and additional reports.
	Column: SPBPERS_ETHN_CODE
	Length: 1
	List: Ethnic Code Validation list
New Ethnicity	This field identifies the ethnic code defined by the U.S. government. The valid values are 1 - Not Hispanic or Latino, 2 - Hispanic or Latino, or null.
	Column: SPBPERS_ETHN_CDE
	Length: 1

Field	Description
Ethnicity and Race Confirmed	This field identifies the race and ethnicity has been confirmed. Valid values are (Y) es, (N) \circ and null.
	Column: SPBPERS_CONFIRMED_RE_CDE
	Length: 1
Confirmed Date	This field identifies when the race and ethnicity has been confirmed.
	Column: SPBPERS_CONFIRMED_RE_DATE
	Length: 7
Veteran File Number	The person's Vietnam file number.
	Column: SPBPERS_VETC_FILE_NUMBER
	Length: 10
Veteran Category	If the ID is associated with one of the categories in the pulldown list, they may be eligible for Veteran-related programs, if applicable. This field is also used in Banner Human Resources VETS-100 reporting. The values for the pulldown list are:
	CategoryEmployees Included in
	NoneNon-veterans
	Other Protected Veteran OnlyOther protected veterans who did not serve in Vietnam
	Vietnam Veteran OnlyVietnam veterans who do not meet the criterion for other protected veteran only
	Both Vietnam and Other Eligible VeteranVietnam veterans who meet the criterion for other protected veteran only
	Column: SPBPERS_VERA_IND
	Length: 1
Active Duty Separation	This is the date the person was separated from active duty. Enter in DD-MON-YYYY format.
	Column: SPBPERS_ACTIVE_DUTY_SEPR_DATE
	Length: 7
Special Disabled Veteran	Indicator to identify an individual as a special disabled veteran.
	Column: SPBPERS_SDVET_IND
	Length: 1
Armed Forces Service	Identifies armed forces veterans who are medal recipients.
Medal Indicator	Column: SPBPERS_MEDAL_IND
	Length: 1

Field	Description
Last Update User	This is the ID of the user who created or updated the record.
	Column: SPBPERS_USER_ID
	Length: 30
Last Update Activity Date	This is the date the record was created or updated.
	Column: SPBPERS_ACTIVITY_DATE
	Length: 7

Race section

The Race section is used to record the race of the person. Multiple races can be added for a person.

The U.S. 2000 Census was collected using new race and ethnicity categories, and the EEOC has mandated that Affirmation Action reports for 2005 use this census data for comparison purposes. Not all U.S. government departments have adopted this requirement. Ellucian anticipates that the National Center for Education Statistics (NCES) will eventually release new IPEDS reporting parameters that require institutions to provide information based on the new OMB categories. Thus, institutions should begin the process of collecting the information based on the new categories.

Field	Description
Race	This field identifies the person's institution race code as defined on GORRACE.
	Column: GORPRAC_RACE_CDE
	Length: 3
User	User who inserted or last updated the data.
	Column: GORPRAC_USER_ID
	Length: 30
Activity Date	This field defines the most current date a record is added or changed.
	Column: GORPRAC_ACTIVITY_DATE
	Length: 7

E-mail window

The E-mail window allows you to set up one or more e-mail addresses or URLs for any Banner ID.

A person/non-person can have multiple addresses of the same e-mail address type (for example, personal and professional). Only one however, can be designated as the preferred address. This window will also allow you to specify if an e-mail address should appear on the web.

Field	Description
E-mail Type	The type of e-mail address.
	Column: GOREMAL_EMAL_CODE
	Length: 4
E-mail Address	The E-mail address.
	Column: GOREMAL_EMAIL_ADDRESS
	Length: 128
Preferred	This column indicates if the e-mail address is the preferred contact address.
	Column: GOREMAL_PREFERRED_IND
	Length: 1
Inactivate	The status of the e-mail address: (A) ctive, or (I) nactive.
	Column: GOREMAL_STATUS_IND
	Length: 1
Display on Web	Indicates whether a e-mail address should appear on the Web.
	Column: GOREMAL_DISP_WEB_IND
	Length: 1
URL	This field is display-only on the E-mail window. If the check box is checked, it indicates that the e-mail type entered is a URL.
	Column: GTVEMAL_URL_IND
	Length: 1
Comment	This is a free-format comment regarding the e-mail information.
	Column: GOREMAL_COMMENT
	Length: 60
Activity Date	The date on which the row was added or modified.
	Column: GOREMAL_ACTIVITY_DATE
	Length: 7
User	The user ID when the row was added or modified.
	Column: GOREMAL_USER_ID
	Length: 30

Emergency Contact window

The Emergency Contact window is used to capture emergency contact information for persons. The information you can enter here includes: contact name, relationship to the person with the emergency, and address and phone information for the person to be contacted.

Field	Description
Priority	Priority indicator associated with emergency address of person record.
	Column: SPREMRG_PRIORITY
	Length: 1
Last Name Prefix	The prefix that appears before the last name of the person associated with emergency address information.
	Column: SPREMRG_SURNAME_PREFIX
	Length: 60
	Depending on your institution's settings, this field might be hidden.
Contact Last Name	Last name of person associated with emergency address information.
	Column: SPREMRG_LAST_NAME
	Length: 60
First Name	First name of person associated with emergency address information.
	Column: SPREMRG_FIRST_NAME
	Length: 60
Middle Initial	Middle initial of person associated with emergency address information.
	Column: SPREMRG_MI
	Length: 60
Relationship	This field identifies the relationship between emergency contact person and the person record.
	Column: SPREMRG_RELT_CODE
Address Type	The address type associated with the emergency address. The purpose of this field on the emergency contact window is to allow the user to choose an address from the persons list of address to associate with the emergency contact. For example the emergency contact person maybe the parent of a student and when creating the emergency contact record, you can choose from the students list of existing address's. The address chosen will default into the emergency contact record. If a change is made to an address on the emergency contact window, the emergency contact's address will be updated but the person's (i.e., student's) address will not be updated.

Field	Description
	Column: SPREMRG_ATYP_CODE
	Length: 2
House Number	A code used in some countries to uniquely identify a house.
	Column: SPREMRG_HOUSE_NUMBER
	Length: 10
	Depending on your institution's settings, this field might be hidden.
Street Line 1	Line one of emergency address.
	Column: SPREMRG_STREET_LINE1
	Length: 75
Street Line 2	Line two of emergency address.
	Column: SPREMRG_STREET_LINE2
	Length: 75
Street Line 3	Line three of emergency address.
	Column: SPREMRG_STREET_LINE3
	Length: 75
Street Line 4	Line four of emergency address.
	Column: SPREMRG_STREET_LINE4
	Length: 75
	Depending on your institution's settings, this field might be hidden.
City	City associated with emergency address.
	Column: SPREMRG_CITY
	Length: 50
State	State associated with emergency address.
	Column: SPREMRG_STAT_CODE
	Length: 3
Zip or Postal Code	Zip code associated with emergency address.
	Column: SPREMRG_ZIP
	Length: 30
Nation	Nation/country associated with emergency address.
	Column: SPREMRG_NATN_CODE

Field	Description
	Length: 5
Telephone	Phone number associated with emergency address.
	Column: SPREMRG_CTRY_CODE_PHONE
	Length: 4
	Column: SPREMRG_PHONE_AREA
	Length: 6
	Column: SPREMRG_PHONE_NUMBER
	Length: 12
	Column: SPREMRG_PHONE_EXT
	Length: 10
	Depending on your institution's settings, Country Code (SPRTELE_CTRY_CODE_PHONE) might be hidden.
Last Update User	User who inserted or last update the data.
	Column: SPREMRG_USER_ID
	Length: 30
Last Update Activity	Most current date that the record was created or changed.
Date	Column: SPREMRG_ACTIVITY_DATE
	Length: 7

Additional ID window

This window is used to enter extra IDs for a person. Each additional ID must be assigned an ID type. You can set up additional ID types using the Additional Identification Type Validation (GTVADID) page. Use the Additional Identification section to access this window.

Field	Description
ID Type	Type of additional ID.
	Column: GORADID_ADID_CODE
	List of Values/Search: Additional Identification Type Validation (GTVADID)
Description	Description of additional ID.
	Column: GORADID_DESC
Additional Identification	Enter the Additional ID in this field.

Field	Description
	Column: GORADID_ADDITIONAL_ID
Activity Date	Date on which the record was last updated. Display only.
	Column: GORADID_ACTIVITY_DATE
User	ID of the user who last updated the record. Display only.
	Column: GORADID_USER_ID

Basic person procedures

Basic person is a generic term that refers to people (persons) and companies (non-persons). Basic person information includes:

- Name/ID
- Address
- Telephone
- E-mail
- · Biographical information
- Emergency contact information

The basic person identification pages (pages whose seven-character names end with IDEN, such as SPAIDEN or PPAIDEN) are used throughout the Banner applications to capture information for all persons (and non-persons) associated with the institution. All persons/non-persons are first entered into the database using one of these pages. Information maintained on these pages is specific to the person/non-person, and does not relate to their involvement at the institution. All other modules and applications depend on the information captured and maintained on these pages. Any changes to a person's/non-person's biographic or demographic information must be made on one of them.

Common Matching and basic person

Common Matching is a feature in Banner that helps your institution avoid duplicate PIDMs, or storing the same information for a person under several different IDs. The Common Matching process checks for existing identification records before a new one is added to the database.

You can access the Common Matching Entry (GOAMTCH) page from an identification page to enter information for a new ID, and then execute the matching process before a new PIDM is created in Banner. Common Matching also provides a mechanism to add new records to the Banner database and update existing ones.

For information about setting up and using Common Matching, refer to the *Common Matching Handbook*.

Access GOAMTCH from an identification page

You can access GOAMTCH from an identification page.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter GENERATED in the ID field.

Or, you can instead do either of the following:

- · Select the Generate ID button.
- Enter an ID in the ID field that does not exist in Banner.
- 3. The GOAMTCH page appears.

Note: If a person record is created using the GOAMTCH page, then the **Origin** field (on SPAIDEN and SPRIDEN) is set to GOAMTCH. If the person record is created using SRRSRIN or SRIPREL, then the **Origin** field is set to SRKPREL.

Results

You can search on last names, first names, and non-person names by text to see if similar names exist. Use the Search feature from the **Last Name** and **First Name** fields to view similar names on the Person Search (SOAIDEN) page. Use the Search feature from the Non-Person Name Information Name field to view similar names on the Non-Person Search (SOACOMP) page.

Note: The current identification information on the main window is accessed by the Current Identification section, if you want to return to the main window from a secondary window.

Use of ID and Name extended search

The Extended Search feature provides advanced filtering capabilities to help you maintain identification information for persons and non-persons.

Note: Users must be granted access to the SSN_SEARCH special security object to see and use the SSN field on the Extended Search window. The SSN field on this window is not affected by field-level rules for masking, hiding, or concealing. Use SSN_SEARCH, not masking rules, to control access to this field.

Use the Extended Search window

This procedure explains how to use the Extended Search window.

Procedure

1. In a key block **ID** field, enter a partial ID and a wildcard (% and _), or enter a partial name in the **Name** field. Wildcards can also be used in the **Name** field, but are not required for searching.

For example, if an entire last name is entered, with no first name or wildcards, the Extended Search window will open and the search results will include all persons/non-persons that have that last name.

Note: The underscore () wildcard cannot be used to search in the Name fields.

- 2. The ID and Name Extended Search window appears. The person/non-person count displays the number of persons/non-persons returned by the search.
- 3. Click the **Search Results** pull-down list to see the ID and name of the person/non-persons returned from the filter.

Note: A person/non-person may be listed multiple times in the results list if the person has alternate names or IDs. However, each person/non-person is only included in the count once.

Review additional information about the persons in the search result set

You can review additional information about the persons in the search result set.

Procedure

- 1. Click the Person Search Detail icon.
- 2. The Person Search page opens. The page that appears will vary by Banner product. For example, if the searching is being performed on a Student page such as SPAIDEN, the SOAIDEN page will open. An ID can be selected on this page. If the ID is selected, you will be returned to the original page and this ID will display in the key block. If no ID is selected, when you exit this page, you will return to the key block of the original page. The Extended Search window will not redisplay automatically.

Review additional information about the non-persons in the search result set

You can review additional information about the non-persons in the search result set.

Procedure

- 1. Click the Non-Person Search Detail icon.
- 2. The Non-Person Search page opens. The page that is called will vary by Banner product. For example, if the searching is being performed on a Student page such as SPAIDEN, the SOACOMP page will open. An ID can be selected on this page. If the ID is selected, you will be returned to the original page and this ID will display in the key block. If no ID is selected, when you exit this page, you will return to the key block of the original page. The Extended Search window will not redisplay automatically.

Reduce the search to person or non-person

You can reduce the search to person or non-person.

Procedure

- 1. Click the option button for the person or non-person.
- 2. The results will be updated to included only persons or non-persons, depending on your selection.
- 3. To reset the results to include persons and non-persons, select the **Both** option button.

Reduce the search based on additional criteria

You can also reduce the search based on additional criteria.

Procedure

- 1. Add additional search criteria in any combination of the fields: City, State or Province, ZIP or Postal Code, Name Type, SSN/SIN/TIN, Birth Date, Gender.
- 2. Click the Reduce Search button.

Clear the data from a previous search, or to enter a new filter

You can clear the data from a previous search, or to enter a new filter.

Procedure

Click the Clear Search button.

Close the Extended Search window

You can use the Clear page function to close the Extended Search window.

Procedure

Click the \mathbf{x} in the upper right hand corner of the window, or use keystrokes to perform a Clear page function.

Determine who entered the current name/ID of a non-person and the page on which the data was entered

You can determine who entered the current name/ID of a non-person and the page on which the data was entered.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter the ID of the non-person you are identifying.
- 3. Verify that the non-person's name has been entered on the main window on the Current Identification window.
- 4. Review the data in the ID and Name Source section.

Determine who entered the alternate name/ID of a non-person and the page on which the data was entered

You can determine who entered the alternate name/ID of a non-person and the page on which the data was entered.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter the ID of the non-person you are identifying.
- 3. Verify that the non-person's name has been entered on the main window on the Current Identification window.
- 4. Go to the Alternate Identification window.
- 5. Review the data in the Origin, User, Activity Date, Create User, and Create Date fields.

Search for names that include accented characters

Extended ID/name search supports searching for names that include accented characters and other special characters. This feature applies to extended Latin characters that are considered altered pages of baseline Latin characters, as, for example, Á and à are considered altered pages of A.

Names that include extended characters are returned in search results when you search for names with the related baseline character. For example, if you search the for the last name <code>Adams</code>, the search would return records containing <code>Adams</code> and <code>Ádams</code>.

If your search criteria include extended characters, names with related baseline characters are also returned. For example, if you search the for the last name ${\tt Adams}$, typing the extended character ${\tt A}$, the search would return records containing ${\tt Adams}$ and ${\tt Adams}$.

The table below lists the capital versions of the characters that are treated as extended characters for this feature. Extended search is not case-sensitive in Banner, so the lower-case version of each of these extended characters corresponds to a baseline character in just the same way.

Extended Character	Description	CHR(x)	Baseline Character
À	LATIN CAPITAL LETTER A WITH GRAVE	50048	A
Á	LATIN CAPITAL LETTER A WITH ACUTE	50049	A
Â	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	50050	A
Ã	LATIN CAPITAL LETTER A WITH TILDE	50051	A
Ä	LATIN CAPITAL LETTER A WITH DIAERESIS	50052	A
Å	LATIN CAPITAL LETTER A WITH RING ABOVE	50053	A
Æ	LATIN CAPITAL LETTER AE	50054	A
Ç	LATIN CAPITAL LETTER C WITH CEDILLA	50055	С
È	LATIN CAPITAL LETTER E WITH GRAVE	50056	Е
É	LATIN CAPITAL LETTER E WITH ACUTE	50057	Е
Ê	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	50058	E
Ë	LATIN CAPITAL LETTER E WITH DIAERESIS	50059	Е
ì	LATIN CAPITAL LETTER I WITH GRAVE	50060	I
ĺ	LATIN CAPITAL LETTER I WITH ACUTE	50061	I
Î	LATIN CAPITAL LETTER I WITH CIRCUMFLEX	50062	I
Ϊ	LATIN CAPITAL LETTER I WITH DIAERESIS	50063	I
Ñ	LATIN CAPITAL LETTER N WITH TILDE	50065	N
Ò	LATIN CAPITAL LETTER O WITH GRAVE	50066	0
Ó	LATIN CAPITAL LETTER O WITH ACUTE	50067	0
Ô	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	50068	0
Õ	LATIN CAPITAL LETTER O WITH TILDE	50069	0
Ö	LATIN CAPITAL LETTER O WITH DIAERESIS	50070	0
Ø	LATIN CAPITAL LETTER O WITH STROKE	50072	0
Ù	LATIN CAPITAL LETTER U WITH GRAVE	50073	U
Ú	LATIN CAPITAL LETTER U WITH ACUTE	50074	U
Û	LATIN CAPITAL LETTER U WITH CIRCUMFLEX	50075	U
Ü	LATIN CAPITAL LETTER U WITH DIAERESIS	50076	U
Ý	LATIN CAPITAL LETTER Y WITH ACUTE	50077	Υ
			-1

Search by SSN in an ID field

You might be able to enter a Social Security Number (SSN) in an ID field when filtering for a person record. When you search by ID, the system first checks for an ID record that matches the number you entered.

If no matching ID is found, the system then checks for a matching SSN.

SSN searching is available only if all of the following conditions are met:

- The SSN Search feature is enabled for the institution. The feature is controlled by the Enable SSN Lookup check box on the Installation Controls (GUAINST) page.
- Your own Banner security setup includes permission to use the SSN search feature. A security
 administrator can give you permission by adding the SSN_SEARCH security object to the list of
 Banner objects for which you have access.
- The ID field has extended ID/name search capability build into the field.

Find a person record by Social Security Number (SSN)

You can find a person record by Social Security Number (SSN).

Procedure

- 1. Type the SSN in an ID field that has extended search capability.
- 2. Press Enter.

When the matching record is found, the person's name is displayed in the **Name** field, and the person's ID (not the SSN you entered) is displayed in the **ID** field.

Search by Telephone, Email, and Additional ID

There are several search pages in Banner system, but most of them relied upon having a name, ID, or SSN.

Banner General 8.4 has been enhanced to enable searching by using an e-mail address, telephone number, or the additional ID. This new functionality is available on the new page, General Search (GUISRCH).

- You can enter only one search criteria at a time additional id, e-mail, or phone (but may be limited by masking).
- · Searches are always case insensitive.
- If the telephone is used for searching then any null phone entry (country, area code, phone) will be assumed to be %.
- There may be uses of the **Additional Id** that should not be available for searching (i.e. blind grading) and therefore a new option, **GUISRCH Bypass**, has been added to GTVADID. If this indicator is set, then those records will not be included in the search results.
- The search results are limited to 1000 unless a GTVSDAX entry (SEARCH_MAX/GUISRCH) is changed to allow more/less.

- The result line will indicate the matching type and the code and value.
- Double clicking the ID field will place the ID in the global.key_idno so that when you go to the next page (i.e. SPAIDEN) that id will be in context.

Common matching has also been modified to enable the primary search to be done on the e-mail or telephone instead of the name or SSN. This matching process does not require the entry of a name or SSN in to process the match request. However, this requires the e-mail address or telephone because that is now the primary search field.

In order to enable common matching to use the e-mail address as the primary search, you must first create a GTVSDAX entry with <code>GROUP=CM_SOURCE_CODE</code> and <code>CODE=EMAIL_PRIM</code> and then set the EXTERNAL CODE=<common matching source code used for primary e-mail searching>. You can use the **Sequence** field to specify multiple source codes used for primary e-mail matching.

In order to enable common matching to use the telephone number as the primary search, you must first create a GTVSDAX entry with <code>GROUP=CM_SOURCE_CODE</code> and <code>CODE=PHONE_PRIM</code> and then set the EXTERNAL CODE=<common matching source code used for primary telephone searching>. You can use the **Sequence** field to specify multiple source codes used for primary telephone matching.

Entry of basic person information

This process includes entering current identification data for a person, entering alternate identification data for a person, viewing alternate identification data for a person, entering current identification data for a non-person, update an organization's and a person's name or ID, and delete an organization's and person's alternate name or ID.

Enter current identification data for a person

You can use the identification pages such as SPAIDEN or APAIDEN to enter current identification data for a person.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter the ID.

Note: If Common Matching is enabled for you, you will be directed to the Common Matching Entry (GOAMTCH) page, where you can enter information for the new ID and check for matches. Save the record. The ID and associated name are displayed in the key block.

3. Go to the Current Identification window.

Note: If the person currently has a record in Banner, the system copies the identification information and automatically places it into the fields in the current identification section. Complete the remaining fields, following the directions below.

- 4. Enter the person's **Name Type**.
- 5. Enter the person's **SSN/TIN/SIN**. This field is available on FOAIDEN and PPAIDEN.

- 6. Enter the person's **First Name**, **Last Name**, and any other applicable parts of the name.
- 7. Enter the person's Marital Status. This field is available on APAIDEN and FOAIDEN.
- 8. Save.

Enter alternate identification data for a person

You can use the identification pages such as SPAIDEN or APAIDEN to enter alternate identification data for a person.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Verify the **ID** and the **First Name**, **Last Name**, and **Middle Initial** information on the Current Identification window.

Note: If the ID is generated, you must save the record before accessing the Alternate Identification section.

Note: If Common Matching is enabled for you, you will be directed to the Common Matching Entry (GOAMTCH) page where you can enter information for the new ID and check for matches. Save the record. The ID and associated name are displayed in the key block.

- 3. Go to the Alternate Identification window.
- 4. Enter the Change of Name or ID.

Note: The Duplicate Record function will copy the ID or name information into the appropriate fields on the Alternate Identification window depending on what type of change you enter.

5. Enter the person's alternate ID.

OR

Enter the person's alternate Last Name.

- 6. Enter the person's alternate **First Name**.
- 7. Enter the person's alternate Middle Name.
- 8. Save your changes.

View alternate identification data for a person

You can use the identification pages such as SPAIDEN or APAIDEN to view alternate identification data for a person.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Verify the **ID** and the **First Name**, **Last Name**, and **Middle Name** information on the Current Identification window.

3. Go to the Alternate Identification window.

Enter current identification data for a non-person

You can use the identification pages such as SPAIDEN or APAIDEN to enter current identification data for a non-person.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter an ID.

Note: If Common Matching is enabled for you, you will be directed to the Common Matching Entry (GOAMTCH) page where you can enter information for the new ID and check for matches. Save the record. The ID and associated name are displayed in the key block.

- 3. Go to the Current Identification window.
- 4. Enter the name of the non-person in the **Non-Person Information** field.
- 5. Save.

Update an organization's and a person's name or ID

You can use the identification pages such as SPAIDEN or APAIDEN to update an organization's and a person's name or ID.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Go to the Current Identification window.
- 3. Enter the new data over the existing data.
- 4. Save.
- 5. Go to the Alternate Identification window to see the changes.

Note: For updated IDs, the ID appears in the **Change** field. For updated names, the name appears in the **Change** field.

6. Go to the next record to view alternate names or IDs.

Delete an organization's and person's alternate name or ID

You can use the identification pages such as SPAIDEN or APAIDEN to delete an organization's and person's alternate name or ID.

Procedure

1. Go to an identification page such as SPAIDEN or APAIDEN.

- 2. Move to the next records until the desired name or ID appears.
- 3. Select Remove Record.
- 4. Save. The record is no longer displayed, and it no longer exists on either the **Person Search** (SOAIDEN) page or the **Non-Person Search** (SOACOMP) page.

Maintenance of address and telephone information

This process includes entering address information for a person, entering address information for a non-person, entering a primary telephone number with a new address, adding a primary telephone number to an existing address, entering a telephone number without an address, and make an address inactive.

Enter address information for a person

You can use the identification pages such as SPAIDEN or APAIDEN to enter address information for a person.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter the ID.
- 3. Verify that the person's **First Name** and **Last Name** have been entered on the main window in the Current Identification section.
- 4. Go to the Address window.

Note: If the person currently has a record in Banner, the system displays the address information on the Address window. You can insert new information by selecting Insert Record. Complete the remaining fields, following the directions below.

- 5. Enter the **Type** code for a new address.
 - Or, you can select an address to be modified from the group of addresses previously entered for the person.
- 6. Enter the street address portion of the address in the **Address** fields.
- 7. Enter the City (required), State or Province, and ZIP or Postal Code portion of the address.

Or, you can search to select a **City**, **ZIP or Postal Code**, and **State or Province** from the ZIP or Postal Code Validation (GTVZIPC) page.

Note: If the city and state are both blank and a ZIP or postal code is entered, the city and state will default into those fields from GTVZIPC.

8. Enter the **Nation** code portion of the address.

Note: You must enter either the **State /Province** code or the **Nation** code.

9. **Optional:** Enter all available delivery information.

- 10. Optional: Enter the Phone number associated with the Address.
- 11. Save.

Note: A person must have at least one complete address.

Enter address information for a non-person

You can use the identification pages such as SPAIDEN or APAIDEN to enter address information for a non-person.

Procedure

- 1. Access an Identification page (%IDEN).
- 2. Enter the ID of the non-person you are identifying.
- 3. Verify the non-person's **Name** field entry have been entered on the Current Identification window.
- 4. Go to the Address window.
- 5. Enter the **Type** code for a new address.
 - Or, you can select an address to be modified from the group of addresses previously entered for the person.
- 6. Enter the street address portion of the address in the **Address** fields.
- 7. Enter the City (required), State or Province, and ZIP or Postal Code portion of the address.

Or, you can search to select a **City**, **ZIP or Postal Code**, and **State or Province** from the ZIP or Postal Code Validation (GTVZIPC) page.

Note: If the city and state are both blank and a ZIP or postal code is entered, the city and state will default into those fields from GTVZIPC.

8. Enter the **Nation** code portion of the address.

Note: You must enter either the State/Province code or the Nation code.

- 9. If you do not want to create bar codes for the address, go to step 13.
 - Or, if you want to create bar codes for the addresses, go to step 10.
- 10. Select the **ZIP/Postal Code** field, and go to the Delivery Information window.
- 11. Enter all available delivery information.
- 12. Return to the Address window.
- 13. **Optional:** Enter the Telephone number associated with the address.
- 14. Save.

Enter a primary telephone number with a new address

You can use the identification pages such as SPAIDEN or APAIDEN to enter a primary telephone number with a new address.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter the ID.
- 3. Go to the Address window.
- 4. Enter the **Type** code for the new address.
- 5. Enter the street address portion of the address in the **Address** fields.
- 6. Enter the City (required), State or Province, and ZIP or Postal Code portion of the address.

Or, you can search to select a **City**, **ZIP or Postal Code**, and **State or Province** from the ZIP or Postal Code Validation (GTVZIPC) page.

Note: If the city and state are both blank and a ZIP or postal code is entered, the city and state will default into those fields from GTVZIPC.

7. Enter the **Nation Code** portion of the address.

Note: You must enter either the State/Province code or the Nation code.

- 8. Enter the country code (if applicable), area code, basic number, and the extension in the **Telephone** fields.
- 9. Enter the **Telephone Type**.

Note: Telephone types are associated with address types on the Address Type Code Validation (STVATYP) page. The telephone type associated with the address type defaults, but can be overwritten.

10. Save.

Note: Telephone numbers entered on the Address window are automatically associated with an address.

Addition of a primary telephone number to an existing address

You can associate a primary telephone number with an address by using either the Address window or the Telephone window. Keep in mind that when you associate a telephone number with an

address, the telephone number will become inactive if you designate the address inactive at some point

Use the Address window

You can associate a primary telephone number with an address by using the Address window.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter an ID in the ID field.
- 3. Go to the Address window.
- 4. Enter an address and address type, or filter for an existing one that you want to use.
- 5. Choose the **Telephone Type**.

Note: Telephone types are associated with address types on the Address Type Code Validation (STVATYP) page. The telephone type associated with the address type defaults, but can be overwritten.

- 6. Enter the telephone number in the **Telephone** field.
- 7. Save.

Use the Telephone window

You can associate a primary telephone number with an address by using the Telephone window.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter an ID in the ID field.
- 3. Go to the Telephone window.
- 4. Choose a **Telephone Type**.

Note: Telephone types are associated with address types on the Address Type Code Validation (STVATYP) page. The telephone type associated with the address type defaults, but can be overwritten.

- 5. Enter the telephone number in the **Telephone** fields.
- 6. Choose an **Address Type** and **Sequence Number**. You can filter to find the address type and sequence number that identifies the address you want to use.
- 7. Save.

Enter a telephone number without an address

You can use the identification pages such as SPAIDEN or APAIDEN to enter a telephone number without an address.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter an ID in the ID field.
- 3. Go to the Telephone window.
- 4. Choose a **Telephone Type**.
- 5. Enter the telephone number in the **Telephone** fields.
- 6. Save.

Make an address inactive

You can use the identification pages such as SPAIDEN or APAIDEN to make an address inactive.

Procedure

- 1. Go to an identification page such as SPAIDEN or APAIDEN.
- 2. Enter an ID in the **ID** field.
- 3. Go to the Address window.
- 4. Choose the address you want to inactivate.
- 5. Select the **Inactivate** check box.
- 6. Save.

Note: When you inactivate an address, then the telephone number for that address will also be designated as inactive. If you want to keep the telephone number active, do one of the following:

- On the Telephone window, clear the **Inactivate** check box for the telephone number.
- On the Address window, choose **To** and **From Dates** to specify the active dates for the address, instead of checking the **Inactivate** check box for the address.
- On the Telephone window, do not associate an address type with the telephone number. If an address type is already specified, then delete it.

Note: For telephone numbers entered on the Address window of Banner Self-Service, the address type and sequence number specified on the window are always automatically associated with the telephone number in Banner.

Supplemental Data Engine

This chapter provides an overview of Supplemental Data Engine and describe the Supplemental Data Engine processes.

Overview

Supplemental Data Engine (SDE) is a simple way to add data fields to Banner[™] pages. SDE allows you to store data that is not part of the existing Banner data model.

No customization of Banner pages or tables is needed to capture and use additional data with SDE. The new data is displayed in a popup window, the Supplemental Data Window, and is stored in a supplemental data table. Because no customization is needed, supplemental data is generally not impacted by Banner upgrades.

The structure of SDE

Each supplemental data record created through SDE is tied to a specific Banner table. The Banner table's unique key enables a specific record on the source table to be linked to a specific record on the Supplemental Data table.

Through SDE you can create additional fields associated with a specific Banner table but stored in a separate table, the Supplemental Data Table.

Although it is natural to think of supplemental data in terms of extra fields on Banner pages, SDE is tied to pages only indirectly.

If the same table is used by two or more pages, supplemental data associated with the table will automatically be viewable on all of those pages.

When you are setting up SDE for a page with multiple data blocks, each associated with a different table, each data section's SDE must be set up separately by setting up the table that supplies the data for each section.

Limitations of SDE

SDE has the following limitations.

Not all tables, blocks, and pages work with SDE

Supplemental data is not guaranteed to work in every instance. There may be some pages and blocks where SDE cannot be used.

Supplemental data can only be associated with tables; therefore, any page that relies on a view to display data cannot use SDE. For example, the AOAIDEN page displays data from a view and, as a result, SDE cannot be displayed on that page.

SDE is not intended to work on temporary tables or on tables or pages that treat data as temporary, such as the TSAMASS and TFAMASS pages.

The security tables owned by BANSECR cannot be used with supplemental data. Because SDE's architecture is incompatible with the security requirements of the BANSECR-owned security pages, these pages will not be SDE-enabled in future releases.

Because of technical limitations, there are certain Banner pages where SDE does not work at all or does not function correctly. At the time of Release 8.0, SDE could not be used in the pages listed below.

Banner General pages

GOAFBPI	GOIFBPR	GSAVPDI
GOAFBPR	GORFEOB	GTVADID
GOAFPUD	GORVPDI	GTVLFST
GOAFPUD	GSADSEC	GTVPARS
GOAINTL	GSASECR	GTVSVCA
GOAQSTN		

Banner Student pages

SAAETBL	SHARTYP	STVCACT
SAARRFT	SHATATC	STVCSTS
SAAWADF	SOACTRL	STVELMT
SAAWATR	SOAMAUD	STVGCMT
SAQOLIB	SOIHCUR	STVLMOD
SCARRES	SORCACT	STVMECL
SFAEPRT	SORCSTS	STVWPYO
SHAGCOM	SORLCDF	STVWSCF
SHAGRUL	SRAPREL	STVWSSO
SHARPAR	SSARRES	
SHARQTS	SSASCHW	
	-	

Multi-Entity Processing

The combination of SDE with Virtual Private Database (VPD) is currently not supported. If you use VPD to implement Multi-Entity Processing (MEP), you should be aware the SDE does not work automatically with VPD.

If you want to apply VPD rules to the SDE table, this must be planned for and set up as part of your VPD implementation.

Masking

Masking is not currently supported with SDE. Supplemental data fields cannot be masked, concealed, or hidden.

Menu Navigation Table

The Supplemental Data Engine (*GENSDE) menu can be accessed from the System Functions/ Administration menu (*GENSYS).

Further information on these pages can be found in Online Help. See Online Help: Banner page and Field Reference on page 14.

Menu	Description	
GTVSDTB	Tables with Existing Supplemental Data Attributes page	
	Lists Banner tables that are enabled for SDE.	
GOASDMD	Supplemental Data Attributes Definition page	
	Defines the attributes for supplemental data fields that will be displayed on the Supplemental Data window.	
GOADISC	Supplemental Data Discriminators page	
	Identifies discriminator codes for SDE, and defines the discriminator methods that will dynamically handle supplemental data.	

In addition to these pages, SDE uses the Supplemental Data Window, which does not appear on any menu.

Supplemental Data Engine Processes

This sections describes the Supplemental Data Engine processes such as Using the Supplemental Data window, setting up Supplemental Data attributes, and creating delete triggers for Supplemental Data.

Use of the Supplemental Data window

Supplemental data columns, after they have been set up for your institution, are displayed in the Supplemental Data window.

If you have the appropriate permissions, you can add or edit data on this window. Your permissions in the Supplemental Data window match your permissions in the page displayed in the main Banner window.

Interpretation of the SDE More Information icon

The More Information icon on the section header bar lets you know when there is supplemental data to be seen.

More Information	A grayed-out More Information icon indicates that there is no Supplemental Data window for the database table in the current section.
More Information	An active More Information icon indicates that there is a Supplemental Data window for the current section, but it does not contain any data. You can click the More Information icon to open the Supplemental Data window and enter data.
More Information	An active More Information icon with horizontal lines indicates that supplemental data exists for the current record. You can click the More Information icon to open the Supplemental Data window and view or edit the data.

Entery of Supplemental Data

The Supplemental Data window is accessed by clicking the More Information icon in the section header bar. The window will display one or more fields where you can enter data related to the data in the current main Banner window.

Any fields you see in the Supplemental Data window have been specifically set up for your institution. Look for hint text that provides guidance on what to enter in the supplemental data fields.

If you see an existing set of numbered fields (for example, labeled **Comment 1** and **Comment 2**), you can open the next available field in the series by clicking one of the fields and then clicking the **Copy** button in the Supplemental Data window.

If a supplemental data field is marked with an asterisk (*), that means it is a required field. You must enter a value for it before you close the Supplemental Data window.

When you are done viewing or editing supplemental data, you can close the Supplemental Data window.

You can move the Supplemental Data window as needed, by dragging the window by its title bar.

Supplemental data is saved automatically when you save the record in the main Banner window, or you can save while in the Supplemental Data Window.

Administrative setup for SDE

Users can set up SDE.

Things to remember before you start your SDE setup:

- The page(s) where you want the data to be viewed/edited
- The name(s) of the underlying table(s)
- · Whether you want the SDE fields to add to or replace baseline fields in views that use the data
- Do you want to add a single SDE field or multiple fields? If multiple, how do you want to differentiate them?
- What labels should end users see on the SDE window? What hint text will help your users enter data correctly?
- Where else in the system do you want the SDE data to be visible? What views might you need to create to use the data? Do you want the SDE data to be available in Self-Service?

Set up a Supplemental Data attribute

Following is an overview of the setup process. See Online Help for each of the pages for more information.

Procedure

- 1. Enable the underlying table for SDE processing. Before you can create supplemental data for a Banner table, the table must be added in the GTVSDTB page.
- 2. Create discriminators, if necessary. If you want to add multiple, related supplemental data fields under a single SDE attribute, you must use a discriminator to differentiate the fields. You can use an existing discriminator, if a suitable one has been previously created. If not, you can set up a new discriminator in the Supplemental Data Discriminators (GOADISC) page.
 - There are different kinds of discriminators that give you different options. If you are creating a single SDE field, no discriminator is necessary, and you can skip this step.
- 3. Set up the attribute on the **Supplemental Data Attribute Definition (GOASDMD)** page. You must specify the field's data type and how it will appear to users.

- 4. Generate DDL and create a view if necessary. If you plan to use this SDE attribute in Banner Self-Service or in some other context that requires a view, you can generate DDL code for the view in GOASDMD.
- 5. Modify Self-Service if necessary. To make full use of supplemental data in Self-Service, custom modifications must be made in Banner Self-Service packages. This step should be undertaken by a programmer experienced with SQL.
 - See the GOASDMD security on page 235 section for more information.

GOASDMD security

With Banner General 8.8 release, there is tighter security surrounding the generation and application of views related to the Supplemental Data Engine (SDE) on the Supplemental Data Attributes Definition (GOASDMD) page. Previously, users with access to the GOASDMD page could create SDE attributes and generate and apply new views.

However, with this release, users can only generate and apply views if they are granted the new Banner security object BAN_GOASDMD_DDL and have a maintenance access (i.e. BAN_DEFAULT_M) to GOASDMD. A user with filter only access (i.e. BAN_DEFAULT_Q) will not be able to generate or apply views even if they are granted BAN_GOASDMD_DDL.

Typically, the GOASDMD page should only be granted to a small set of power users with a technical background. You can use the following SQL to find out the users that currently have access to GOASDMD:

```
SELECT guvuacc_user,

g$_security.g$_get_username_name(guvuacc_user) "Name",

guvuacc_role, guvuacc_type, guvuacc_class,

guvuacc_group, guvuacc_rank

FROM bansecr.guvuacc

WHERE guvuacc_object = 'GOASDMD'

ORDER BY guvuacc user, guvuacc rank;
```

After you have identified the users and verified that they should have the ability to generate and apply the new SDE view, you should grant BAN_GOASDMD_DDL to this group. Because it should be a small number of users, granting this to them directly is recommended instead of through a CLASS or SECURITY GROUP.

Note: The granting of access to this object is done by your local Banner Security Administration using the Security Maintenance (GSASECR) page.

Create delete triggers for Supplemental Data

The delete trigger script contains code that can be applied to the database table so that if a base record is removed, the associated supplemental data will also be removed.

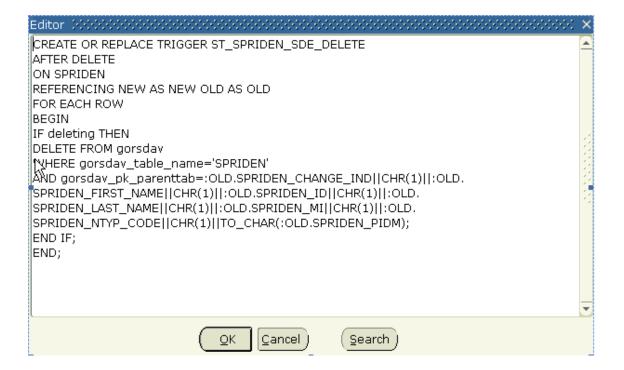
Procedure

- 1. Go to the GOASDMD page.
- 2. Select the Generate DDL section.

- 3. Select the Delete Trigger Script check box.
- 4. Click the Generate DDL button.

Note: The delete trigger script cannot be applied through the GOASDMD page. It must be manually copied and applied to the database by a DBA.

5. The DBA clicks **Edit** with the cursor positioned in the **Generated DDL** field for the trigger script. A screen similar to the following will appear.



- 6. The DBA copies this source to their local source library.
- 7. Compile it and apply the trigger to the database as the correct owner.

Results

The owner of the trigger should be the same as the owner of the table to which the trigger is being applied. If you try to apply a trigger by clicking the **apply ddl** button in the lower right hand corner of GOASDMD, a pop-up message will be displayed indicating that the trigger must be applied by a DBA.

The delete trigger will be named <application>T__SDE_DELETE (i.e. GT_GTVZIPC_SDE_DELETE). The delete trigger code will be generated as a standalone trigger and will not be merged with any other trigger.

Supplemental Data Engine (SDE) data validation

Banner released the Supplemental Data Engine (SDE) as part of General 8.0, which enabled the addition of user defined columns to the database and pages without requiring user maintained modifications to the system.

The ability to store, edit, view, and report upon user defined data was an important addition to Banner. However, there was no validation of the data that was entered (other than data type, that is, date, character, or numeric). With the release of General 8.4 validation has now been added to SDE.

Value validation may now be specified on the modified GOASDMD page, if desired, with several different methods:

- · Simple low-high value checking
- Validation against an existing code validation table
- Validation using the same rules as used for GJAPCTL value validation
- Validation using a SDE specific code validation table (values maintained on the new GTVSDLV page)
- · Validation using user defined SQL entered on GORRSQL

In cases where a code validation table is being used, an optional LOV button can be specified to appear on the SDE window for ease in the entering of the data.

In addition to the validation checking upon the entry of SDE data, a new script (gchecksde.sql) is being delivered to enable the validation of SDE data that already exists.

Due to the flexibility of the SDE validation rules, additional special security objects have been added to enable as much (or little) access to the setup. By default, access is denied to the validation rule setup.

Data setup on GOASDMD

The LOV page (similar to List on GJAPDEF) indicates an existing LOV page which would pass back a specific value just as it does on GJAPCTL. If it is equal to GTQSDLV, then the SDE LOV table will be used.

Note: GTQSDLV is used to prevent direct navigation to the page (i.e. Q in the 3rd position).

The value entered here will dynamically execute the page indicated if the drop-down is selected upon data input and then pass back the selected value. There is no edit check (other than ensuring that it is a valid page name) on this field because it is really not known until execution time whether or not it is valid validation page.

If the value entered is GTQSDLV, then the **Table OVRD** and **Attr OVRD** fields can be entered if required. The GTQSDLV page is a generic validation page that uses the **Table Name** (from the key block) and the **Attribute Name** as a key. However, there may be cases where a generic validation is required (or even a validation set up associated with another table/attribute) and in those cases you could use a **Table OVRD** value of DEFAULT and an **Attr OVRD** reflecting the generic field validation.

Note: You can only use table/attribute overrides for columns that have a Data Type of VARCHAR2. If you need edits on NUMBER or DATE (other than the Low/High range), then you will have to use the GORRSQL process/rule.

If you are using GTQSDLV, then you can also override the standard Code and Description labels for the column titles on the LOV.

You can use the **Table OVRD** field to override the table name if you are using the GTQSDLV in the LOV page. The value of DEFAULT can be used to define generic validations. The **Attr OVRD** field can be used to override the attribute name if using the GTQSDLV in the LOV page.

LOV Title Code can be used as an override for Code for the title of the Value field on GTQSDLV. **LOV Title Desc** can be used as an override for Description for the title of the **Description** field on GTQSDLV.

Low/High Ranges (similar to Low/High on GJAPDEF) can be used for a range check. To do this:

- The values entered must match the Data Type, including length / precision (if applicable).
- If the field is a data type of DATE, then the value "t" may be used to represent today.

Note: You can enter any single, non-numeric character into the **Date** field and Banner will automatically convert it to today's date. For example, if you enter a or g and go to the next field, Banner will enter today's date as the default.

• You do not have to enter both fields, but if you do then the low value must be less than or equal to the high value.

Validation GJAPDEF (similar to the validation field on the GJAPDEF page) can be used for validation in the same way that GJAPCTL validates values. These routines are all hard coded and will work the exact way that they work on GJAPCTL. If a value of LOV_VALIDATION is used, then the validation will validate the value against the xxx_CODE column in the table with the same name as the LOV page.

Note: The validation will always fail, if the LOV table does not have an xxx_CODE column defined.

If this validation is not adequate (i.e. the page and table names are different), then you can always use the GORRSQL Process/Rule).

Note: There is no validation until execution time.

You can use LOV page and Validation GJAPDEF independently of each other. In other words, you can use a LOV page to enable drop-down values to be entered, but then bypass actual validation of values (i.e. GTVZIPC). The reverse is also true; you can have validation, but no LOV for data value selection.

GORRSQL Process/Rule can be used for free page dynamic validation of values. The Process and Rule codes from GORRSQL are used to indicate these rules.

- Several bind variables are available and will be substituted in the dynamic call if found.
 - SDE VALUE represents the value passed in from the SDE field
 - SDE_FORM_OR_PROCESS represents the page name that the validation is being performed from
 - SDE TABLE represents the root table with which the SDE value is associated with

- SDE ATTRIBUTE represents the attribute name that is being validated
- SDE PK represents the primary key of the record with which the SDE value is associated with
- In order to be considered a valid rule on GORRSQL, it must be active, validated, and the execution date must be between the start/end dates, and at least one of the 5 SDE_xxx bind variables must be used.
- The result returned must be equal Y if the validation is successful. Otherwise, it is assumed that the return value is an error message.
- A user must have the special security object of SDE_SQL_VALIDATION set up on GSASECR to be able to update these fields on GOASDMD. See the Security Setup Requirements section for additional information.
- A user must have the special security object of 'SDE_SQL_TESTING' set up on GSSECR to be
 able to actually execute this procedure as part of the 'Test Data' process. No special security is
 needed to execute the procedure during normal LOV validation at SDE value data entry.

See Chapter 12, Business Rule Builder of the *Banner General User Guide* for information related to the building of business rules.

The following example shows how the statements can be coded in several different formats.

Example

The following example shows how the statements can be coded in several different formats.

GORRSQL setup using a SELECT with a list of values

```
-- Using a SELECT statement with a predefined list of values. NOTE: all SDE values are passed as character strings
-- Since the SELECT 'Y' will only occur if a match is found and we want to display an error message as well, we will
-- use a DECODE with an outer SELECT COUNT(*) to either pass back a 'Y' if the edit passed or an error message using
-- G$_NLS.Get if it did not
SELECT decode(count(*),0,G$_NLS.Get('x','x','*ERROR* Code %01% not found in list of valid values',:SDE_VALUE) ,'Y')
FROM ( SELECT 'Y' FOUND_IT
FROM DUAL
WHERE :sde_value IN ('1','2'))
```

GORRSQL setup using a FUNCTION

```
-- Use of a function that returns a 'Y' if a code exists in the table, otherwise it returns an 'N'.
-- Since we want an error message returned, we use a DECODE and the G$_NLS.Get to build an error message
SELECT decode(f_code_exists('GTVZIPC', :SDE_VALUE),
'Y','Y',
G$_NLS.Get('x','x','*ERROR* Code %01% not found in GTVZIPC',:SDE_VALUE))
FROM dual
```

GORRSQL setup using a SELECT against a table

```
-- Using a SELECT statement with a check against a table.

NOTE: all SDE values are passed as character strings
-- Since the SELECT 'Y' will only occur if a match is found and we want to display an error message as well, we

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-- will use a DECODE with an outer SELECT COUNT(*) to either pass back a 'Y' if the edit passed or an error message
-- using G$_NLS.Get if it did not.

SELECT decode(count(*),0,G$_NLS.Get('x','x','*ERROR* Code %01% not found in the GTVZIPC table',:SDE_VALUE) ,'Y')

FROM (SELECT 'Y' FOUND_IT

FROM GTVZIPC

WHERE gtvzipc code = :sde value)
```

GORRSQL setup using DATE checking

```
-- Using a SELECT statement to check for a valid fiscal year in a specific chart of accounts.
-- NOTE: all SDE values are passed as character strings
-- Since the SELECT 'Y' will only occur if a match is found and we want to display an error message as well, we will
-- use a DECODE with an outer SELECT COUNT(*) to either pass back a 'Y' if the edit passed or an error message
-- using G$_NLS.Get if it did not
SELECT decode(count(*),0,G$_NLS.Get('x','x','*ERROR* Date %01% not valid for COAS "W".',:SDE_VALUE) ,'Y')
FROM (SELECT *
FROM FTVFSYR
WHERE ftvfsyr_start_date <= to_date(:sde_value)
AND ftvfsyr_end_date >= to_date(:sde_value)
AND ftvfsyr_coas code = 'W')
```

GORRSQL Setup using multiple SELECTs and conditions for 'extra' error checking

In certain cases, you may have to create multiple rules. Each test will be validated in order until one fails and then the checking will stop.

Rule #1

```
-- Using a SELECT statement with a check against a table.

NOTE: all SDE values are passed as character strings
-- Since the SELECT 'Y' will only occur if a match is found and we want to display an error message as well, we will
-- use a DECODE with an outer SELECT COUNT(*) to either pass back a 'Y' if the edit passed or an error message using
-- G$_NLS.Get if it did not
SELECT decode(count(*),0,G$_NLS.Get('x','x','*ERROR* Code %01% not found in the GTVZIPC table',:SDE_VALUE) ,'Y')
FROM (SELECT 'Y' FOUND_IT
FROM GTVZIPC
Banner General User Guide | Supplemental Data Engine 235
WHERE gtvzipc code = :sde value)
```

Rule #2

```
NOTE: all SDE values are passed as character strings
-- Since the SELECT 'Y' will only occur if a match is found
and we want to display an error message as well, we
-- will use a DECODE with an outer SELECT COUNT(*) to either
pass back a 'Y' if the edit passed or an error message
-- using G$_NLS.Get if it did not
SELECT decode(count(*),0,G$_NLS.Get('x','x','*ERROR* Code
%01% found in the GTVZIPC table but the STATE was
NULL',:SDE_VALUE) ,'Y')
FROM (SELECT 'Y' FOUND_IT
FROM GTVZIPC
WHERE gtvzipc_code = :sde_value
AND gtvzipc stat code is not NULL)
```

Test of the data validation rules

The **Test Data** option displays a pop-up where the user can test out the validation routines that have been saved without having to actually go to a page and enter SDE data.

To ensure security for testing, a user must have special security objects enabled. See Security Setup Requirements section below for additional information. If security is not granted, and a LOV or SQL process exists, the user will be denied access and an error will be generated when attempting to validate. No special security objects are required for standard SDE data validation from an application data entry page or batch process.

Confirmation of data validation rules for existing data

A new standalone validation routine (gchksde.sql) will verify existing SDE data that was entered before the rules were put into place. The process should be run, preferably, after the orphan purge (GUSMDID) process.

The gchksde will accept a table name (wild cards available), a maximum number of records to validate, and a maximum number of errors to locate. It will then display any SDE Data values that do not pass the validation processing which will then have to be corrected manually.

```
Processing SDE validation for GORSDAV entries for table % ...Output format is :<attribute> <SDE Primary key> [<SDE value] <error message> GORCMSC:SDE_ATT_24 key=103345 [test2] *ERROR* Invalid date value or format. Entry format is MDY. GTVCURR:NEWTEST key=ACT / 20030101000000 / 20991231000000 [111] *Error* Invalid Number. Expected format: D9999 GTVZIPC:TEST_DATE key=00LES / Test for SDE Validation [01-JAN-10] *ERROR* Date 01-JAN-2010 not valid for COAS "W". GTVZIPC:TEST_NUM_4_5 key=00LES / Test for SDE Validation [125] *ERROR* Code 125 not found in the GTVZIPC table GURSRVQ:NEWONE key=CMS TEST2 / 1 [cms test2] *Error* Value too long, maximum length is 3 GURSRVQ:SDE_ATT_163 key=SDE TEST / 1 [12345678901234567892123] *Error* Value too long, maximum
```

```
length is 2
Processed 2533 entries and found 74 errors (with a maximum of 9999 rows)
```

Security setup requirements

Typically, page level security is used to control which users are able to update an LOV page. However, with the generic LOV page used for SDE validation, it is not possible that FGAC could always be used and can be a bit too complicated for this purpose.

The solution was the use of special security objects in the page of SDE_LOV_ (assumes all table names are less than 23 characters in length).

Because of the nature of the values that can be seen during a testing process of the LOV's or GORRSQL validations, the user must have the special security access for any of the following:

* SDE SQL TESTING - Allows the 'Test Data' process to test any GJAPDEF or GORRSQL

Note: If a user has SDE_SQL_VALIDATION to allow maintenance of the GORRSQL fields then they can also test.

- * SDE_LOV_ Allows the user to modify data on GTVSDLV for the specified table
 - The table may be DEFAULT to modify the generic tables if applicable
 - The table may be ALL to indicate they can update any table on GTVSDLV. For example, SDE_LOV_ALL, SDE_LOV_SPRIDEN, SDE_LOV_DEFAULT

Note: Because the users y can modify the LOVs, they can also test them.

- * SDE_TEST_- Allows the user to test LOVs for the specified table with the 'Test Data' button
 - The table may be DEFAULT to test the generic tables if applicable
 - The table may be ALL to indicate they can test any table on GTVSDLV. For example, SDE_TEST_ALL, SDE_TEST_SPRIDEN, SDE_TEST_DEFAULT

Note: In order to allow everyone to update and test all fields of GOASDMD, you should create SDE_SQL_VALIDATION and SDE_LOV_ALL and assign them to the BAN_GENERAL_C class. Needless to say security can be set up as fine grained as needed (i.e. by table, class, or user). This assumes that the user already has update access to GOASDMD.

The description, [1-100] on the GTVSDLV page, indicates the minimum and maximum length of this attribute in all of the places that it is used. Typically, they should be the same and if so, only one value will be displayed. The code will be validated against the maximum length.

Batch loading of SDE data

In order to mass load values into SDE fields, you only need to call a few API routines assuming the SDE columns have already been defined.

Mass load SDE data

You can mass load SDE data into SDE fields.

Procedure

- 1. Get the rowid of the parent record that you want to update.
- 2. Get the SDE primary key based upon the rowid from #1.
- 3. Validate the value you are entering by calling gp goksdif.f validate value.

Note: This is only available with General 8.4.

- 4. Insert the value that you are adding by calling <code>gp_goksdif.p_set_attribute</code>.
- 5. Save your changes.
- 6. Retrieve your new values using the <table_name>_ADD view.

Results

- -- This script is an example of how to mass load SDE values
- -- In this test case the lv_value is a ethnic code in the Cn range
- -- and we are going to load an SDE element related to the spriden record
- -- named 'MASS LOAD'

```
DECLARE
lv pidm spriden.spriden pidm%TYPE;
lv value spbpers.spbpers ethn code%TYPE;
lv disc GORSDAV.GORSDAV DISC%TYPE := '1';
lv date VARCHAR2(20);
lv rowid VARCHAR2(18);
lv pk GORSDAV.GORSDAV PK PARENTTAB%TYPE;
lv msg VARCHAR2(2000);
CURSOR c1 IS
SELECT spbpers pidm, spbpers ethn code
FROM spbpers
WHERE spbpers ethn code IN ('C2', 'C3', 'C4');
CURSOR c2 IS
SELECT ROWID
FROM spriden
WHERE spriden pidm = lv pidm
AND spriden change ind IS NULL;
BEGIN
OPEN c1;
<<START LOAD>>
LOOP
```

```
-- Get the pidm and value that we are going to update
-- This data could be retrieved / computed from any location.
FETCH c1 INTO lv pidm, lv value;
EXIT WHEN c1%NOTFOUND;
OPEN c2;
-- We need to find the root record with which the SDE data will be
associated.
-- We need the ROWID so that we can determine the SDE primary root key
FETCH c2 INTO lv rowid;
CLOSE c2;
-- In order to load into SDE, the primary key of the root table must be
-- determined. This can be retrieved once the root table ROWID is
lv pk := gp goksdif.f get pk('SPRIDEN', lv rowid);
dbms output.put line('Loading ' || lv value || ' into '
|| lv pk);
-- We can optionally validate the data being loaded. Whether or not
validation
-- rules have been defined or not, the validation routines can be
called.
-- The result of the validation is either 'Y' indicating a successful
validation
-- or an error message returned from the validation.
-- Make sure to set row id to NULL to enforce insert
lv_msg := gp_goksdif.f_validate_value(p table name =>
'SPRIDEN'
,p attr name =>
'MASS LOAD'
,p disc =>
lv_disc
,p_pk_parenttab =>
lv pk
,p form or process=>
'Mass load'
,p attr data type =>
'VARCHAR2'
,p value as char =>
lv_value
);
IF lv msg != 'Y' THEN
dbms output.put line(lv msg);
GOTO start load;
END IF;
lv date := to char(SYSDATE);
lv msg := gp goksdif.f validate value(p table name => 'SPRIDEN'
,p attr name =>
'MASS LOAD DATE'
,p disc =>
lv_disc
,p pk parenttab =>
lv pk
,p form_or_process=>
'Mass load'
,p attr_data_type =>
'DATE'
,p value as char =>
lv date
```

```
);
IF lv msg != 'Y' THEN
dbms output.put line(lv msg);
GOTO start load;
END IF;
-- Validation has passed, now update the values
-- make sure to set row id to NULL to enforce insert
lv rowid := NULL;
gp_goksdif.p_set_attribute(p_table_name => 'SPRIDEN'
,p_attr_name => 'MASS_LOAD'
,p disc => lv disc
,p pk parenttab => lv pk
,p gorsdav rowid \Rightarrow lv rowid
,p attr data type => 'VARCHAR2'
,p value as char => lv value
);
lv rowid := NULL;
gp goksdif.p set attribute(p table name => 'SPRIDEN'
,p attr name =>
'MASS_LOAD_DATE'
,p disc => lv_disc
,p pk parenttab => lv pk
,p gorsdav rowid \Rightarrow lv rowid
,p_attr_data_type => 'DATE'
,p value as \overline{char} \Rightarrow 1v date
);
COMMIT;
END LOOP;
CLOSE c1;
dbms output.put line('SDE MASS load process completed');
EXCEPTION
WHEN OTHERS THEN
lv msg := SQLERRM;
dbms_output.put_line('Error loading '|| lv_value || ' for
' || lv_pk || '-- ' || lv_msg);
END:
Loading C2 into ?ID 4?A00037105?Race Ethnicity????66073
Loading C2 into ?ID 6?A00037108?Race Ethnicity???66076
Loading C3 into ?ID 11?A00037109?Race Ethnicity????66077
Loading C4 into ?ID 7?A00037110?Race Ethnicity????66078
*Error* Value C4 not found in validation table SPRIDEN.
Loading C3 into ?ID 9?A00037112 Race Ethnicity????66080
```

SDE MASS load process completed.

You can view the loaded data using the SDE view of _ADD.

Use of Supplemental Data in Self-Service

Supplemental data can be used in Banner Self-Service with a limited amount of custom programming. Note that if you modify a Self-Service package to incorporate SDE Views on a Self-Service page, the page is then considered modified and is not longer supported by the Action Line.

The following narrative illustrates the steps of the process in a typical example.

Setup of SDE attributes

SDE attributes have been created for table GTVCELG to add three SDE fields: an **Active Indicator**, a **From Date**, and a **To Date**.

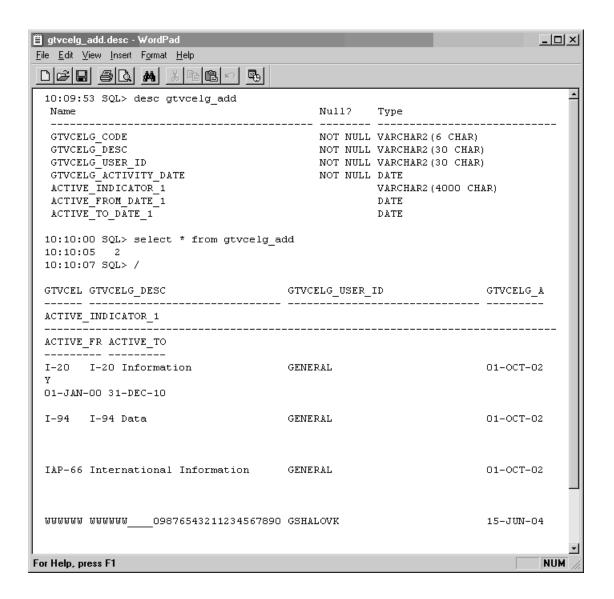
DDL generation

In the Generate DDL section of GOASDMD, **DDL Type** is set to Additional Attributes View, and the **Generate** (hourglass) button is clicked. A script is generated. The script is copied from GOASDMD and pasted into the text editor window shown below.

```
🗒 gtvcelg_add.sql - WordPad
                                                           그미의
File Edit View Insert Format Help
CREATE OR REPLACE VIEW GTVCELG ADD AS
 SELECT
 t.*
 ,a1 1.gorsdav value.accessVARCHAR2() ACTIVE INDICATOR 1
 ,a2 1.gorsdav value.accessDATE() ACTIVE FROM DATE 1
 ,a3 1.gorsdav value.accessDATE() ACTIVE TO DATE 1
 FROM GTVCELG t
 , gorsdav al 1, gorsdav al 1, gorsdav al 1
 WHERE
 a1_1.gorsdav_table_name(+) = 'GTVCELG'
 AND a1_1.gorsdav_attr_name(+) = 'ACTIVE_INDICATOR'
 AND a1 1.gorsdav pk parenttab(+)=GTVCELG CODE
 AND a2_1.gorsdav_table_name(+) = 'GTVCELG'
 AND a2 1.gorsdav attr name(+) = 'ACTIVE FROM DATE'
 AND a2_1.gorsdav_pk_parenttab(+)=GTVCELG_CODE
 AND a3_1.gorsdav_table_name(+) = 'GTVCELG'
 AND a3_1.gorsdav_attr_name(+) = 'ACTIVE TO DATE'
 AND a3 1.gorsdav_pk_parenttab(+)=GTVCELG_CODE
For Help, press F1
                                                            NUM
```

View generation

The Apply button is clicked, and the view shown below is created in the database.



Backup copy of packages

Before making any changes to a Self-Service package, save a copy of the baseline version of the package.

For example, a copy of the Self-Service package header bwgkoprf.sql is saved as bwgkoprf_baseline.sql, and a copy of package body bwgkopr1.sql is saved as bwgkopr1 baseline.sql.

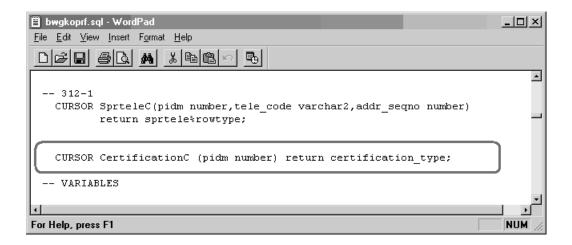
Modification of the record type in the Self-Service package

The code from the view is inserted into the Self-Service package header bwgkoprf.sql. First, the record type is modified to include new columns from the view.



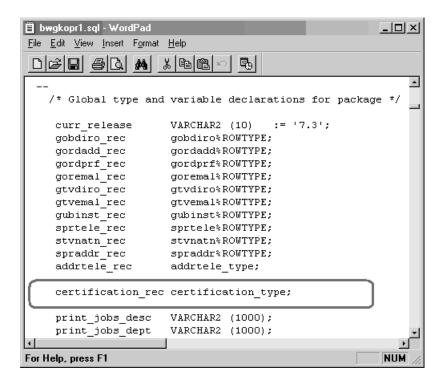
Addition of cursor type

A cursor type for the new columns is added.



Addition of record reference

In the Self-Service package body, bwgkopr1.sql, a record reference is added.



Addition of cursor body

In the Self-Service package body, the cursor body is added.

```
📕 bwgkopr1.sql - WordPad
                                                                           __U×
<u>File Edit View Insert Format Help</u>
 CURSOR sprtelec (pidm NUMBER, tele_code VARCHAR2, addr_seqno NUMBER) RETU
        SELECT *
          FROM sprtele
         WHERE sprtele_addr_seqno = addr_seqno
          AND sprtele_status_ind IS NULL
           AND sprtele_tele_code = tele_code
           AND sprtele_pidm = pidm
         ORDER BY DECODE (NVL (sprtele primary ind, 'N'), 'Y', 1, 2),
                  sprtele seqno;
     CURSOR CertificationC (pidm NUMBER) RETURN certification type
        SELECT gobintl celg code,
               gobintl_cert_number,
               gobintl_cert_date_issue,
gobintl_cert_date_receipt,
               gobintl admr code,
               A.gtvcelg desc,
               A.active_indicator_1,
               A.active_from_date_1,
               A.active_to_date_1
          FROM gtvcelg_add A, gobintl
         WHERE A.gtvcelg_code = gobintl_celg_code
           AND gobintl pidm = pidm ;
    FUNCTION f_check_class_yr (pidm NUMBER, diro_code VARCHAR2)
        RETURN BOOLEAN
For Help, press F1
                                                                           NUM
```

Addition of cursor open and fetch

The cursor open and fetch is added, along with data display statements.

```
bwgkopr1.sql - WordPad
                                                                                              File Edit View Insert Format Help
 ₽9
                                                                                                   •
        twbkfrmt.p_tableclose;
       HTP.nl;
       HTP.nl;
        OPEN CertificationC(pidm);
       FETCH CertificationC INTO certification rec;
        IF CertificationC%NoTFOUND
       THEN
           CLOSE CertificationC;
          twbkfrmt.p_printmessage ( G$_NLS.Get('x', 'SQL',
        'Currently there are no Eligibility Items available for you to update.'
       ),2);
        -- RETURN;
       END IF;
        twbkfrmt.p_tableOpen('DATADISPLAY');
           twbkfrmt.p_tablerowopen;
           twbkfrmt.p\_table dataheader(G\$\_NLS.Get('x','SQL','Certification\ Item'),
                      cattributes => 'valign=middle abbr="Certification Item"');
            twbkfrmt.p_tabledataheader(G$_NLS.Get('x','SQL','Certification Data'),
                      cattributes => 'valign=middle abbr="Certification Data"');
       twbkfrmt.p_tableRowClose;
       twbkfrmt.p_tablerowopen;
            twbkfrmt.p_tabledatalabel(twbkfrmt.f_formlabel('Certfication Code:'),cnowrap=>'N');
            twbkfrmt.p tabledata(certification rec.certification celg code);
       twbkfrmt.p tableRowClose;
       twbkfrmt.p_tablerowopen;
       twbkfrmt.p_tabledatalabel(twbkfrmt.f_formlabel('Certfication Number:'),cnowrap=>'N');
       twbkfrmt.p_tabledata(certification_rec.certification_cert_number);
       twbkfrmt.p tableRowClose;
       twbkfrmt.p_tablerowopen;
       twbkfrmt.p_tabledatalabel(twbkfrmt.f_formlabel('Certfication Issue Date:'),cnowrap=>'N')
        twbkfrmt.p tabledata(certification rec.certification cert date issue);
        tublifimt n tobloDouCloso.
For Help, press F1
                                                                                               NUM
```

Rebuilding of the modified packages

The modified packages are rebuilt by running bwgkoprf.sql and bwgkopr1.sql.

The resulting new section can be seen on the existing Directory Profile page, which is displayed by the BWGKOPRF package.



Reports & Processes

This section describes the reports and processes in the generation™ General System. A description, list of parameters, and sample report are given where appropriate.

General Reports and Processes		Cobol Processes
Purge Report Output (GJPJLIS) process on page 254	Insert Output Program (GURINSO) on page 289	Automatic Letter Compilation (GLOLETT) process on page 266
Import File JobSub Server (GJRJFLU) process on page 257	Institution Role Maintenance (GURIROL) process on page 290	Population Selection Extract (GLBDATA) process on page 261
Saved Job Report Output (GJRJLIS) process on page 259	Print Dynamic Help for a page (GURHELP) on page 288	Letter Extract (GLBLSEL) process on page 263
List of Reports and Parameters (GJRRPTS) on page 260	Data Element Dictionary (GURPDED) on page 291	Parameter Selection Compile (GLBPARM) process on page 266
Letter Generation Print Report (GLRLETR) on page 267	Condensed Table Listing (GURTABL) on page 293	User ID/Password Verification (GUAVRFY) process on page 296
Person Geo Region/Divisions Report (GORPGEO) on page 271	Document Code Report (GURTEXT) on page 294	Import OraDirFile JobSub Server (GURJSDN) process on page 296
SEVIS Batch Export (GORSEVE) process on page 276	PIN Create (GURTPAC) process on page 295	
SBGI Geo Region/Divisions Report (GORSGEO) on page 282	SDE Inquiry and Delete (GUSMDID) process on page 298	
Address Purge (GPPADDR) on page 284		
Document Code Delete (GUPDELT) process on page 286		
Document Detail Report (GURDETL) on page 287		

Purge Report Output (GJPJLIS) process

This process allows you to purge saved report output from the Job Submission server.

Parameter Name	Required?	Description	Values
Override storage days	N	If an override storage day is entered, all options consider the number age of file compared to the override. For example, a GJRJLIS row and file are two years old with Delete After Days equals to 4 days. The override days is set to 360 days or one year. The GJRJLIS example row will be selected and purged because it is over one year old.	O-999 Note: Null/blank is the default value. You can leave it blank and it will use the Delete date in the GJAJLIS table.
		Particular caution should be exercised when the override storage day is set to 0. No jobs should be running at the time the purge is run, otherwise the output for the jobs in progress will be removed before being viewed by the user.	
Purge output files	N	Delete records from GJAJLIS and their files from the Job Submission server. Defaults to N if no value is provided.	 Y = Purge rows on GJAJLIS along with the file uploaded to create the record N = Do not purge files and
			rows on GJAJLIS
Purge all log files	N	Delete GJIREVO records from the GUBOUTP and GUROUTP tables along with their files from the Job Submission server. Defaults to N if no value is provided.	 Y = Purge all files with log suffix and purge corresponding GJIREVO N = Do not purge

Parameter Name	Required?	Description	Values
Purge uploaded files	N	Delete records from GJAJFLU and their files from the Job Submission server. Defaults to N if no value is provided.	Y = Purge rows on GJAJFLU along with file on the Job Submission Server
			• N = Do not purge GJAJFLU files and rows
File name filter	N	If a value is entered in the Filter (param 5), only files like that file name are selected. The filter is case sensitive and applies to all options including listing files in the report.	File name substring. For example, gjr would find files gjrrpts_1234.lis, gjrrpts_1234.log, gjrjlis_1234.log.
List all server files	N	Users can optionally list all files on the server. Files are sorted in alphabetical order. The report displays the size and timestamp on the file.	Y = List all the filesN = Do not list the files
Run mode	N	If a user runs the process with run mode value U, files will be purged. If the option A is chosen, the files are listed, but not removed from the table and file server. Defaults to A if no value provided.	A = Run in audit modeU = Run in update mode

This process is delivered in the BAN_ADMIN_C Banner security class. The system administrator schedules the GJPJLIS process nightly or on regular basis. This process always purges files from the Job Submission server, GJRJLIS, GJRJFLU, GUROUTP, and GUBOUTP based on the input parameters.

GJRJLIS rows and files are purged if the parameter Purge output files is Y.

- Output report file (.lis) has entry in GJRJLIS with Print Date, and the Delete After Date on the GJRJLIS row is less than the current date. The GJRJLIS row and the physical file on the Job Submission server are deleted.
- Output report file (.lis) has entry in GJRJLIS without Print Date, the printer is null, and the Delete After Date on the GJRJLIS row is less than the current date. The GJRJLIS row and the physical file on the Job Submission server are deleted.
- Output report file (.lis) does not have entry in GJRJLIS, but the entry for the job on GJRJBMO exists and is active. The physical file on the Job Submission server is deleted.

If the parameter to Purge uploaded files is Y, any file that has entry in GJRJFLU and the delete after date is less than the current date. The GJRJFLU entry and the physical file are removed.

GUROUTP and GUBOUTP are deleted when the parameter Purge log files is Y.

The parameter to Purge all log files is Y, log files older than 14 days are deleted from GUROUTP, GUBOUTP and the Job Submission server. These are the files created by GURINSO and viewable on GJIREVO. Purge the data in these tables if the file name has .log as suffix.

```
September 13, 2017 8:47:23 AM
                                                                                                                                        gjpjlis
                                                                                banner database
                                                                      Purge Saved Report Output
                                                                                                                                        Page 1
* * REPORT CONTROL INFORMATION * *
Process Start Date and Time: September 13, 2017 8:47:23 AM
PROGRAM NAME: GJPJLIS
PROGRAM VERSION: 8.9.3
User: SAISUSER
Override storage days (0-999): 1
Purge output files (Y/N): Y
Purge log files (Y/N): Y
Purge files uploaded via GJRJFLU (Y/N): Y
Filter by file name: saradms
List all files (Y/N): Y
Run mode (U or A): A
** List of All Files **
List of All Files in Path: /home/oracle
User(s): HOME
                                                                      Size (kB)
File Name
                                                        Date

      Sep 8, 2017 7:55:51 AM
      9.349

      Sep 8, 2017 7:55:52 AM
      0.148

      Sep 8, 2017 7:55:52 AM
      3.340

saradms 6239.lis
saradms 6239.log
saradms 6239.pdf
** Files Selected **
Files Selected for Deletion from Path: /home/oracle
                                                                                                            Size (kB) File Deleted Record Deleted
File Name
saradms 6239.lis

        Sep 8, 2017 7:55:51 AM
        9.349
        Yes
        No

        SAISUSER
        Sep 8, 2017 7:55:52 AM
        3.340
        Yes
        Yes

saradms 6239.pdf
Files Selected for Deletion from Path: File not found; GJAJLIS data:
```

File Name	User	Date	Deleted
saradms_6257.lis	SAISUSER	Sep 8, 2017 12:00:00 AM	Yes
Number of files deleted would be: 118 Number of database records deleted would be: 89			

Import File JobSub Server (GJRJFLU) process

This process is executed from the Import File to JobSub Server (GJAJFLU) page after the user has selected and saved a file. This process imports the file stored as a BLOB in the GJRJFLU table to the Job Submission server.

The process can be run from Job Submission with the following GJRJFLU key columns.

Parameter Name	Required?	Description	Values
Job Name	Υ	Name of the job to be submitted.	Job name from GJAJFLU.
File Name	Υ	Name of the file.	Name of the file uploaded to GJAJFLU.
One Up Number	Y	Displays the next available number for Job Submission.	One up number from GJAJFLU.
JobSub Server File Name	Y	Name of the file as saved in the Job Submission server.	The file name can be different from the name specified on the GJAJFLU record. The file will be written with the new name.

The process displays a warning if the file name already exists for a file. The process has no option to know which user ID submitted the job to write the file because the GJRJFLU record may have been removed. The process is submitted automatically when the user saves the imported files on GJAJFLU. If the file needs to be imported to the Job Submission server for a second time, the user can submit the GJRJFLU process from GJAPCTL.

Files are imported into the user's preference directory defined on the **Job Submission Profile Maintenance (GJAJPRF)** page for Job Submission directory. Both the .lis and .log file for GJRFJLU are written to the **Saved Output Review (GJIREVO)** page. After the file is saved on GJAJFLU, the user can navigate to GJIREVO using the option in the related list.

The process notifies users if the file they import to the Job Submission server is written or read only. If the process is run for a read only file, the user receives an advanced notification of a read only file.

```
August 29, 2017 1:51:45 PM sample database
                                                                    gjrjflu
                        Import File JobSub Server
                                                                    Page 1
* * REPORT CONTROL INFORMATION * *
_____
Process Start Date and Time : Tue Aug 29 13:51:45 EDT 2017
PROGRAM NAME : GJRJFLU
PROGRAM VERSION: 8.9.3
User : SAISUSER
Job : SAR189U
File name : test.txt
Job Number: 6150
Exported Path and File Name : /home/oracle/test.txt
File Size : 28209
Creation Date : Tue Aug 29 13:51:45 EDT 2017
Last Modified : Tue Aug 29 13:51:45 EDT 2017
Connected.
```

Saved Job Report Output (GJRJLIS) process

This process converts the output to PDF based on the MIME type submitted with the job, and imports it to the Oracle table GJRJLIS as a BLOB file. Users can view and download the report output from the GJAJLIS page.

This process has an an optional 11th parameter to the gjrjlis.shl file for log file unique identifier. Users can use this 11th parameter to submit gjrjlis.shl for multiple files for the same job and one up number.

Administrators must first enable the jobs to be included in the upload process using the GJAJBMO page while defining the file attributes.

Parameter Name	Required?	Description	Values
Job Name	Υ	Name of the job to be submitted.	The job name from GJAJOBS.
MIME Type	Υ	Format in which the file should be saved: plain text	1 = PDF
		or PDF.	2 = Plain Text
PDF Font	N	The PDF font used if the MIME type is PDF. The font is Courier by default.	Courier
PDF Font Size	N	Size of the PDF font. The font size is 8 by default.	8
Days to keep	Υ	The number of days the file should be saved on the Job Submission server. It is 999 days by default.	999
File name	Υ	Name of the file.	
Printer code	N	Code for the printer.	

List of Reports and Parameters (GJRRPTS)

This report lists all reports/batch processes and their associated parameters.

A single job name may be specified, or a wildcard may be used to print all jobs that begin with a specified string of characters. Parameter information that is printed includes parameter number, description, length, type, required/optional indicator, single/multiple occurrence indicator, low range, high range, validation label, system default, and validation values. User defaults for all parameters may optionally be printed.

Parameter Name	Required?	Description	Values
Jobs to be Selected	No	Wildcard that determines what reports are listed. Enter % to list all reports and their parameters. Other wildcard selections may also be used; for example, G% lists only the General reports and their parameters.	
Print User Level Defaults	No	Code that determines whether user-level defaults for the parameters are printed.	 Y = Print default values N = Do not print default values

```
08-JAN-2001 16:04:41 Banner University PAGE 1
List of reports and parameters

JOB
NAME TITLE/DESCRIPTION VALIDATION LABEL

GJRRPTS list of reports and parameters
PARAMETER
NO DESCRIPTION LENGTH TYPE R/O S/M LOW RANGE HIGH RANGE VALIDATION LABEL

01 Jobs to be Selected 30 Char O S
```

```
System Default:
    Validation Values:
 User Defaults: FAISMNT

02 Print User Level Defaults 1 Char O S
System Default V
     System Default: Y
    Validation Values: N
     User Defaults: FIMSUSR
FIMSUSR
SATSUSR
                                              Y
                   SAISUSR
GLBLSEL Letter Extract
  PARAMETER
 NO DESCRIPTION LENGTH TYPE R/O S/M LOW RANGE HIGH RANGE VALIDATION LABEL
 01 Application 30 Char R S
   System Default:

Validation Values:
User Defaults:

2 Selection date
System Default:
 02 Selection date
    Validation Values:
       User Defaults:
```

Population Selection Extract (GLBDATA) process

This process selects a population based on the rules entered on the Population Selection Definition Rules (GLRSLCT) page. It can also create a population based on either the union, intersection, or difference of the rules in two existing population selections.

A log file called glbdata NUMBER.log is created, where NUMBER is the one-up sequence number created at runtime.

Parameter Name	Required?	Description	Values
Selection Identifier 1	Yes	ID of the first existing population selection that will be used to create a new population selection.	
		Note: Any dynamic parameters for this population selection are entered after the standard parameters. You must enter a non-blank value for each 88 level prompt.	

Parameter Name	Required?	Description	Values
Selection Identifier 2	No	ID of the second existing population that will be used to create a new population selection.	
New Selection Identifier	No	ID of the new population selection that will be created from the two existing population selections.	
Description for New Selection	No	Free-page description of the new population selection.	
Union/Intersection/Minus	No	Code that determines the contents of the resulting population.	 I = Include only those IDs that are extracted by both populations selections.
			 M = Include all IDs extracted by the first population selection except those IDs extracted by the second population selection.
			 U = Include all IDs extracted by the first population selection and all IDs extracted by the second population selection. If an ID is selected by both, include only once.
Application Code	Yes	Application associated with the two existing population selections. This becomes the application associated with the new population selection.	Application Inquiry (GLIAPPL) page
Creator ID of Selection ID	Yes	Oracle ID of the user who created the two existing population selections.	

Parameter Name	Required?	Description	Values
Detail Execution Report	No	Code that determines the contents of the detail execution report.	 S = Displays no debug information for selected parameters.
			 I = Displays no debug information for selected parameters.
			 Y = Shows debug information for SQL, inserts, and paragraphs.

Letter Extract (GLBLSEL) process

This process extracts values from the database for the variables that appear in a specified letter.

These variable values are merged into letters with the Letter Generation Print Report (GLRLETR). An error list is created on request. A log file called <code>glblsel NUMBER.log</code> is created, where *NUMBER* is the one-up sequence number created at runtime.

There is a limit on the number of variables that can be added to a letter (about 121 variables). This limit is controlled by the WS-PARM-LIST value in GLBLSEL.pco.

Beginning with Release 8.1, the control report for GLBLSEL includes a count of

- · number of IDs processed
- · number of letters inserted into the collector table
- · number of IDs not processed

Note: In most cases, the number of IDs processed and number of letters inserted will be the same, but there are some situations where there could be more than one letter for a given ID.

Parameter Name	Required?	Description	Values
Application	Yes	Application associated with the letter being processed.	
Process Pending Letters	Yes	Code that determines how the letter code is processed.	Y = Process all pending letters for the letter code
			 N = Process the letter code for a specific population
Letter Code	Yes	Code of the letter being processed.	Letter Code Validation (GTVLETR) page
		Note: Any dynamic parameters for variables in this letter code are entered after the standard parameters. You must enter a non-blank value for each 88 level prompt.	
Selection ID	Yes	ID of the population selection for which the letter is being processed.	Population Selection Inquiry (GLISLCT) page
Creator ID	Yes	Oracle ID of the user who created the population selection.	
User ID	Yes	Oracle ID of the user who extracted the population with the Population Selection Extract Process (GLBDATA).	
Term Code	No ¹	Code of the term for which you want to process pending letters.	Term Code Validation (STVTERM) page
Aid Year	No ²	Aid year for which you want to process pending letters.	Aid Year Inquiry (ROIAIDY) page

¹ For Student applications only.

² For Financial Aid letters only.

Parameter Name	Required?	Description	Values	
Address Selection Date	No	Address date for which the address of choice must be effective.		
		You can define a system-level parameter default on the Parameter Definition (GJAPDEF) page to use the system date as this date. However, any user-level defaults would override it.		
		If the job is executed with a null value for this parameter, the current system date is used. If the users save their parameters, the null would be saved.		
		If users want some other value than the current system date, they must enter a not-null value on GJAPCTL.		
Address Type	Yes	Type codes of the addresses you want to process, prefixed by the priority of each type code.	Address Type Code Validation (STVATYP) page	
Detailed Error Report	No	Code that determines the contents of the glblsel file.	Y = Write error messages for IDs for which variable data could not be extracted.	
			• N = Do not write error messages.	
Detailed Execution Report	No	·		S = Show SQL statements.
		detail execution report.	 I = Show SQL statements and inserts. 	
			• Y = Show paragraphs.	

Parameter Selection Compile (GLBPARM) process

This process identifies population selections and variables that need to be recompiled by the Automatic Letter Compilation Process (GLOLETT) in certain situations, such as when you change application rules. For each variable/population selection, a record is inserted into the list of records awaiting compilation.

The list of population selections and variables appears on the report. A log file called <code>glbparm_NUMBER.log</code> is created, where NUMBER is the one-up sequence number created at runtime.

Parameter Name	Required?	Description	Values		
Application Code	Yes	Application you want to compile.	Application Inquiry (GLIAPPL) page		
Extract Variables Indicator	Yes	Code that determines whether variables are extracted for the application.	Y = Extract variableN = Do not extract variable		

Automatic Letter Compilation (GLOLETT) process

This process compiles variables and population selection rules in the generation database. A log file called <code>glolett_NUMBER.log</code> is created, where <code>NUMBER</code> is the one-up sequence number created at runtime.

When you run GLOLETT, the variables and population selection rules waiting to be compiled (determined by records existing in GJBPRUN) are compiled. Running the GLBPARM process can identify variables and population selection rules to be compiled.

Note: You can model a more complex filter on the following example:

```
Example where the same table is used in both the query and the subquery:

SELECT DISTINCT(SPRIDEN_PIDM), SYSDATE

FROM SATURN.SPBPERS A, SATURN.SPRIDEN

WHERE SPBPERS_PIDM = SPRIDEN_PIDM

AND SPRIDEN_LAST_NAME = 'Smith'

AND SPRIDEN CHANGE IND IS NULL
```

AND SPRIDEN_PIDM NOT IN

(SELECT SPBPERS_PIDM

FROM SATURN.SPBPERS

WHERE SPBPERS_DEAD_IND = 'Y'

AND SPBPERS_PIDM = A.SPBPERS_PIDM)

Parameter Name	Required?	Description	Values			
Type Indicator	Yes	Record type to be compiled.	%V = Variable%S = Population selection			
Application Name	Yes	Application code of the variable or population selection to be compiled.				
Selection ID or Variable Name	No	Code that identifies the population selection or variable.				
Creator ID of Selection ID	Yes	User ID of the Oracle user who created the population selection or variable.				

Letter Generation Print Report (GLRLETR)

This report prints letters with data extracted by the GLBLSEL process. It can also be used to produce a download file for Microsoft Word for Windows.

Parameter Name	Required?	Description	Values
Application Code	Yes	Application code for the letters being printed. One code may be entered per run.	Application Inquiry (GLIAPPL) page
Word Processor Extract Option	Yes Type of output file to be created.		• 0 = None
			• 1 = Word

Parameter Name	Required?	Description	Values
Process ALL Pending Letters	No	Code that determines which letters are printed for the application code.	Y = All pending letters extracted for the application code
			• N = Specific letter code
Letter Code	No	Code of the letter to be printed. Letter code is only requested if all pending letters are not selected.	Letter Code Validation (GTVLETR) page
Sort Variable	No	Name of the variable used to sort letters in a specific order (for example, the ZIP/postal code or name). The variable name must start with an asterisk (*) and must be entered in all capital letters.	Use a sort variable that returns a single value. If the sort variable returns more than one value, the process will generate duplicate letters.
Term Code	Yes ³	Term code for which letters are being printed. One term code must be specified per run.	Term Code Validation (STVTERM) page
Module Code	Yes	Code that identifies the module associated	Examples include:
		with the letters being printed. This code updates the Mail Table.	• A = Admissions
		updates the Mail Table.	• G = Gift/Pledge
			• C = Constituent
			• R = Recruiting
			• B = Billing
			• H = History
			• F = Registration
			This parameter is not validated.
			Module codes vary by Banner product. For a complete list of module codes, see

Parameter Name	Required?	Description	Values
			the "Module Identifier" table in Chapter 1 of the <i>Banner Getting Started Guide</i> .
Audit Indicator	No	Code that determines whether a sample letter	Y = Print sample letter
		is printed.	• N = Do not print sample letter
Free Format Date 1	No	Freeform date (up to 30 characters) that is printed on letters where the *DATE1 variable is referenced.	
Free Format Date 2	No	Freeform date (up to 30 characters) that is printed on letters where the *DATE2 variable is referenced.	
Free Format Date 3	No	Freeform date (up to 30 characters) that is printed on letters where the *DATE3 variable is referenced.	
Aid Year Code	Yes ⁴	Aid year code for Financial Aid letters.	Aid Year Inquiry (ROIAIDY) page

Sample letter

April 11, 2002

Richard Scott
312 Bridle Rd.
Villanova PA 19101
Dear Richard,
It's a pleasure to send the information you requested. Take your time reading it to find out more about the Institute of Technology.
I invite you to learn firsthand about us by visiting the campus. We'll be glad to welcome you for a personal visit between 8:00 a.m. and 5:00

⁴ For Financial Aid letters only

```
p.m. Monday through Friday. Just stop by or, better yet, write or call for an appointment. Our Preview provides another good way to see and learn about the Institute of Technology. It takes place MAY 30, 2002, so mark your calendar now. We will send you more information after APRIL 30,2002.

We appreciate each opportunity to serve you as you make your college choice. Of course, we hope that you'll agree with us that the Institute of Technology can be for you.

Sincerely,
B. Andrew Stevens III
University President
S.C.T. Institute of Technology
```

```
08-JAN- 2001 16:30:32 Banner University PAGE 1
199301 Letter Generation Print Report GLRLETR
AUDIT MODE, SAMPLE LETTERS, NO UPDATES
```

```
* * * REPORT CONTROL INFORMATION * * *
                    RUN SEQUENCE NUMBER:
                        APPLICATION CODE: RECRUITING
EXTRACT FOR 1=WORD, 2=WORD PERFECT, 0=NONE: 0
                      PRINT ALL PENDING: y
                             LETTER CODE:
                         SORT BY VARIABLE:
                               TERM CODE: 199301
                             MODULE CODE: R
                              AUDIT MODE: Y
                                  DATE 1: APRIL 11, 2002
Parameter entered but not used by letter
                                  DATE 2: APRIL 30,2001
Parameter entered but not used by letter
                                  DATE 3:
                              LINE COUNT: 45
                            LETTER COUNT: 35
```

Person Geo Region/Divisions Report (GORPGEO)

This process assigns regions to individuals using the data in the GORCGEO collector table in combination with the rules defined on the Geographic Region Rules (SOAGEOR) page. These regions are then stored with the GORPGEO table.

Parameter Name	Required?	Description	Values
Use Collector File	Yes	Code that determines what IDs are used to run the process.	 C = Use all IDs in collector table GORCGEO I = Use individual ID in collector table P = Use population selection
ID	No	ID of the person for whom you want to create geographic region/division records.	
Application Code			Application Inquiry (GLIAPPL) page
		You can use the Population Selection Extract Inquiry (GLIEXTR) page to review the people who will be processed in the load based on the selection identifier and application code entered.	
Selection Identifier	No	ID of the population selection with which you want to work. The selection identifier must be defined on the Population	Population Selection Inquiry (GLISLCT) page

Parameter Name	Required?	Description	Values
		Selection Inquiry (GLISLCT) page. All or none of the population selection parameters must be entered.	
Creator ID	No	User ID of the person who created the population selection. The creator ID must have been specified when defining the selection identifier. All or none of the population selection parameters must be entered.	
Address Type	No	Address type for the ID or population selection.	Address Type Code Validation (STVATYP) page
Run in Sleep/Wake Mode	No	Code that determines whether the process is run in sleep/wake mode.	Y = Run in sleep/wake mode.N = Do not run in sleep/wake mode
Sleep/Wake Time	No	Number of seconds to sleep, if the sleep/wake parameter is Y.	The default is 60 seconds.
Sleep/Wake Printer	No	Printer used in the Sleep/Wake process, if the sleep/wake parameter is Y.	Printer Validation (GTVPRNT) page
Audit Indicator	Yes		A = Run in audit mode
			• U = Run in update mode
Report Indicator	Yes		Y = Print all details
			N = Suppress details and print summary totals only

Report sample

LO-NOV-2000 10:11:56	ATY SEQ	Ellucian			PAGE 1				
		Person Geo Reg	10n/Div	isions					PGEO
ID - NAME 589446377 Skinner, Daniel C	PR 1	N Charleston	SC	294182122	NATN	CNTY	GEOR BALT/WASH BALT/WASH SOUTHEAST TRISTATE	GEOD ALUM ALURECRUIT DEVEL ALUM	ACT
162796830 Rangel, Cecilia A	PR 1	Pomfret Center	CT	06259			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
A00006488 Emilio, Emily	PR 1	Pomfret	CT	06259			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
	PR 1			06259			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
-		Pomfret		06259			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
701000050 Adams, Aretha L	MA 1	Petterson	AL	359012626			BALT/WASH BALT/WASH SOUTH TRISTATE	ALUM ALURECRUIT DEVEL ALUM	
701000050 Adams, Aretha L	MA 2	Gadsden	AL	359012626			BALT/WASH BALT/WASH SOUTH TRISTATE	ALUM ALURECRUIT DEVEL ALUM	
725497210 Zaurtskie, Tom				02134			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
	PR 1			02134			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
A00006496 Endicott, Joe		-		25841			BALT/WASH BALT/WASH TRISTATE	ALUM ALURECRUIT ALUM	
A00006497 Lusa, Jill				06259			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
375555511 Ramon, Else	PR 1	LLLL	MD	222222			BALT/WASH BALT/WASH MIDATLANTC TRISTATE	ALUM ALURECRUIT RECR ALUM	

10-NOV-2000 10:11:56 Ellucian University PAGE 2
Person Geo Region/Divisions GORPGEO

ID - NAME 875555511 Ramon, Else A00006498 Lusa, Jack	ATY PR PR	1	CITY LLLL Pomfret	MD	ZIP 222222 06259	NATN	CNTY	GEOR TRISTATE MINIEAST NEWENGLAND RECRDZK	GEOD ALURECRUIT ADMISSIONS RECR RECR	ACT
A00006499 Lemon, Jane	PR :	1	Pomfret	CT	06259			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
A00006500 Langley, William	PR :	1	Fairfax	VA	20891			BALT/WASH BALT/WASH TRISTATE	ALUM ALURECRUIT ALUM	
A00006501 Foster, Janice Annette	PR :	1	11111	MD	20901			TRISTATE BALT/WASH BALT/WASH MIDATLANTC TRISTATE TRISTATE	ALURECRUIT ALUM ALURECRUIT RECR ALUM ALURECRUIT	
A00006502 Hall, Mary Ann	PR	1	Boston	MA	02134			MINIEAST NEWENGLAND RECRDZK	ADMISSIONS RECR RECR	
A00006503 Hall, John	PR :	1	San Francisco	CA	97123			RECRDMF WESTCOAST WESTCOAST	RECRUITER ALURECRUIT DEVEL	
A00006504 Foster, William	PR :	1	xxxxxx	MD	2222222			BALT/WASH BALT/WASH MIDATLANTC TRISTATE TRISTATE	ALUM ALURECRUIT RECR ALUM ALURECRUIT	
A00006505 Foster, Heather	PR :	1	uuuuu	MD	20904			BALT/WASH BALT/WASH MIDATLANTC TRISTATE TRISTATE	ALUM ALURECRUIT RECR ALUM ALURECRUIT	
A00006506 Evan, Lee	PR	1	Lonestar	TX	7079			RECRDMF SOUTH	RECRUITER DEVEL	
A00006507 Evan, Lisa	PR	1	Lonestar	TX	78099			RECRDMF SOUTH	RECRUITER DEVEL	
A00006508 Evan, Matilda Ruth	PR	1	Lonestar	TX	77809			RECRDMF SOUTH	RECRUITER DEVEL	
A00006509 Evans, Ruth Ann	PR	1	LL	TX	78099			RECRDMF	RECRUITER	

10-NOV-2000 10:11:56		Elluc	ian Univer	sity					PAGE 3
		Person Geo	Region/Div	isions				G	GORPGEO
ID - NAME	ATY SEQ	CITY	ST	ZIP	NATN	CNTY	GEOR	GEOD	ACT
A00006509 Evans, Ruth Ann	PR 1	LL	TX	78099			SOUTH	DEVEL	
A00006510 Wilson, Dennis	PR 1	Brooklyn	MA	06810			MINIEAST	ADMISSION	1S
							NEWENGLAND	RECR	
454579689 Gray, Katrina M	PR 1	Boston	MA	02134			MINIEAST	ADMISSION	NS .
							NEWENGLAND	RECR	
							RECRDZK	RECR	
876559000 Long, Harriet	MA 1	Washington	DC	20052			BALT/WASH	ALUM	
							BALT/WASH	ALURECRUI	IT
							TRISTATE	ALUM	

817119991 Isaacs, Alexandra M	PR 1	Boston	MA	02134	TRISTATE MINIEAST NEWENGLAND RECRDZK	ALURECRUIT ADMISSIONS RECR RECR
459616156 Mckenzie, Jacqueline	PR 1	Provo	UT	58744	SOUTHWEST	DEVEL
112233445 Jones, Meghan M	MA 1	Malvern	PA	12345	BALT/WASH	ALUM
					NYMETRO PHILAMETRO	ALUM RECR
A00006515 Howard, Fran	PR 1	Pomfert	CT	06259	MINIEAST	ADMISSIONS
					NEWENGLAND	RECR
					RECRDZK	RECR
500674111 Kloss, Wilma	MA 1	Lonestar	TX	78099	RECRDMF	RECRUITER
					SOUTH	DEVEL
500674111 Kloss, Wilma	MA 2	Sandy	UT	84093	SOUTHWEST	DEVEL
078994444 Flowers, Sophie	PR 1	Houston	TX	78099	RECRDMF	RECRUITER
					SOUTH	DEVEL
A00000685 Chaves, Tom	MA 3	Charlotte	NC	28211	BALT/WASH	ALUM
					BALT/WASH	ALURECRUIT
					SOUTHEAST	DEVEL
					TRISTATE	ALUM
058643010 Geiling, Grant	PR 1	San Bernardino	CA	92407	RECRDMF	RECRUITER
3,					WESTCOAST	ALURECRUIT
					WESTCOAST	DEVEL

10-NOV-2000 10:11:56 Ellucian University PAGE 4
Person Geo Region/Divisions GORPGEO
* * * REPORT CONTROL INFORMATION * * *

RPTNAME: GORPGEO
VERSION: 4.1
SOURCE IS COLLECTOR TABLE

SLEEP WAKE MODE: NO AUDIT OR UPDATE INDICATOR: U

AUDIT OR UPDATE INDICATOR:
REPORT INDICATOR: Y

LINE COUNT : 55 RECORD COUNT: 111

SEVIS Batch Export (GORSEVE) process

This process allows you to extract information about students and exchange visitors so it can be sent to the U.S. Government for SEVIS reporting in a batch transaction using the Internet. All dependent data is extracted as well.

If you have created the appropriate rules, and if you have selected the parameters Business Action = Y and Auto-populate = Y, GORSEVE will create the student and exchange visitor records (Business Actions), and it will automatically populate columns in the GOBSEVS table for that person with data that exists in other generation tables (Auto-population).

Note: When either of these parameters is set to Y, you must run GORSEVE with IDs or with a population selection.

Note: When you are on the SEVIS Information (GOASEVS) page, you can also select Auto-populate and Business Action from the Options menu. You cannot select them when your cursor is in the key block, however.

GORSEVE uses the **Transmittal Status Code** field to determine if the record should be sent in the next batch update. It appears on GOASEVR, and can contain one of the following valid values:

- P = Pending a response after the transmittal was created
- E = Transmittal was created manually through the SEVIS RTI, pending response
- W = Needs batch transmittal
- C = Received the acceptance response from the U.S. Government, processing is completed
- N = No action was taken
- M = Must be entered manually on the U.S. Government's website
- R = Returned with error, either by the SEVIS Transfer Adaptor (SEVISTA) or by the Bureau
- X = Disregard, record that is not valid

Note: As you move from processing your SEVIS records manually to using the new batch interface, you must run the install script to make sure the Transmittal Status Code contains N.

GORSEVE creates a record with the transmittal status code P for each structure updated (a structure is a combination of like data elements), and changes the submit date. Then it hands the records off to SEVISTA, which converts them to XML and sends them to the Bureau.

GORSEVE converts special characters (ampersand, quotation mark, and so on.) into their ASCII equivalents. The files cannot be transmitted without this conversion.

GORSEVE has three modes, audit, update and extract. In audit and update mode, the process compares data on GOASEVS to the last transaction for the person on GOASEVR. If there are differences, GORSEVE will create a GOASEVR record. In extract mode, GORSEVE will not create a SEVIS transmittal history record but will, instead, create a file of SEVIS data in comma-separated value (CSV) format. This file can be used for your own purposes or it can be imported into fsaATLAS.

- If GORSEVE is running in audit mode, the records are created with a transmittal status code of W (or M for student adjudicated events). You can review the records and change the transmittal status code from W to X for any records you do not want to send to the U.S. Government. When you run GORSEVE in update mode, it will change the transmittal status code from W to P and will populate a temporary table that allows transmittal to SEVISTA.
- If GORSEVE is running in update mode, the records are created with a transmittal status code of W (or M for student adjudicated events). You are not given the opportunity to review the records. Instead, GORSEVE populates a temporary table that allows transmittals to SEVISTA and changes the transmittal status code to P. Also, if you run GORSEVE in update mode and use parameter #8 to print accounts with no activity, anyone who has changes pending but no SEVIS ID will be included on the report. (A Create record can be sent for a person with no SEVIS ID, but an Update record cannot.)

Note: GORSEVE will not transmit records to SEVISTA if they have adjudicated fields. You must enter that data directly into the SEVIS RTI on the U.S. Government's website.

The process will look at GOBSEVS_SVCR_CODE for each record so determine if the record applies to a student or to an exchange visitor. Different information is sent to the U.S. Government, depending on whether the person is a student or an exchange visitor. If the usage indicator associated with the creation code on the SEVIS Creation Reason Code Validation Table (GTVSVCR) contains 1, the person is a student, and the process will extract student data. If it contains 2, GORSEVE will extract exchange visitor data.

GORSEVE is a two-step process.

- 1. GORSEVE creates GORSEVS records (either student or exchange visitor) with the transmittal status code of W (or M for an adjudicated event for a student). It is affected by the parameters for the Banner ID or what was set up in a population selection.
- 2. GORSEVE looks for records with a transmittal status code of W in the GORSEVE table, and then hands them off to SEVISTA to be converted to XML for the U.S. Government. Then it changes the transmittal status code to P to indicate that the response from SEVIS is pending. If Banner IDs or a population selection was entered for processing, only those students or exchange visitors will be processed.

GORSEVE creates separate batches for student and exchange visitor records. Because each batch can contain a maximum of 250 records, you may have a number of files to transmit to the U.S. Government in a batch.

Batch IDs are in the following format:

yymmddhhmissxx.XML

The batch ID is the date and timestamp, followed by a 2-digit sequence number. You must send them in ascending order, otherwise they will be rejected by the U.S. Government.

At the time specified for transmission to the U.S. Government, GORSEVE:

- 1. Assigns a batch ID to the set of records being transmitted
- 2. Creates SEVIS History Table (GORSEVS), SEVIS Dependent History Table (GORSEVH), SEVIS Employment History Table (GORSVEH) and SEVIS Activity Site History Table (GORSVAH) records where changes to the person's information have been detected in the SEVIS Data Table (GOBSEVS), SEVIS Dependent Data Table (GORSEVD), SEVIS Employment Information Table (GORSVEI), and SEVIS Activity Site Table (GORSVAS).
- 3. Creates rows in temporary tables for each batch (GOTSVBH) and each transaction within each batch (GOTSVBT). The creation of the Batch Header row signals SEVISTA to transmit the records to SEVIS.
- 4. Uses the processing parameters, where necessary, to create the SEVIS data.
- 5. Changes the transmittal status code to P (pending response from SEVIS) for all the records
- 6. Prints the SEVIS Record Extract Report, including all records transmitted in that batch.

Note: It is recommended that you schedule GORSEVE to run every night.

SEVIS Batch Export Process (GORSEVE) fields

This process has the following fields.

Parameter Name	Required?	Description	Value
School Code	Yes	Your institution's code as defined by the U.S. Government.	
SEVIS User ID (Batch Approver)	Yes	Administrative user ID assigned by SEVIS for the batch approve.	
SEVIS User ID (Transaction App)	Yes	Administrative user ID assigned by SEVIS for the transaction approve.	

Parameter Name	Required?	Description	Value
Program Number	Yes	The 9-character number the U.S. Government assigned to your institution's exchange visitor program.	
Process Business Actions	ess Business Actions Yes Choose whether to process business actions.		Y = yesN = no
Process Auto-population Yes Cho		Choose whether to process column auto-population.	Y = yesN = no
Term Code No		Term code for business action processing or autopopulation processing.	
Banner ID No		If you are running in update mode or audit mode and you want to include a few people, list the Banner IDs and the process will process only those IDs.	
Application No		The application code for population selection, an optional field used when creating a batch through population selection.	
Selection ID No		The selection identifier for population selection.	
		The generation ID for the person who created the population selection.	
User ID No The User ID associated with the population so		The User ID associated with the population selection.	
Print No Activity	No	Determines if a warning message is displayed in the LIS file, Updates cannot be sent until SEVIS ID has been assigned.	 Y = The message will be displayed for all IDs that do not have a SEVIS ID N = The message will not be displayed

Parameter Name	Required?	Description	Value
			The U.S. Government differentiates between create records (information about a person they do not have in their database yet) and update records (a change for a person they have in their database). Create records will never have a SEVIS ID; all update records must have one.
			If this parameter is Y, you will not receive the warning message for create records, but you will receive it for update records.
Mode	Yes	The mode the process will run under.	A = Audit mode
			• U = Update mode
			• E = Extract mode
Department Owner ID for Extract	Yes, if using fsaATLAS	Used by fsaATLAS. If you are creating the CSV file for another purpose, this parameter is optional.	Determined by fsaATLAS.
		The minimum data required by GORSEVE for each record extracted is a creation reason or termination reason code. Records that do not have one or the other will not be processed by GORSEVE and included in the CSV file, but the records will appear on the .lis file.Records that have both a creation reason code and a termination reason code will not be processed by GORSEVE.GORSEVE requires the 02 = Batch Approver parameter to execute in Extract mode, but it is not required by fsaATLAS. You can	

Parameter Name	Required?	Description	Value
		enter any value for Batch Approver; it cannot be left blank (be null).	

Report sample

The GORSEVE process generates a report, the SEVIS Record Extract Report, using the parameters listed above. The records are listed in Banner ID order.

30-MAR-2003 Stu/EV ID	08:16:54 AM Name	Ellucian SEVIS Extract Process Tran Result/Comment	1 GORSEVE
429887341 429887341 429887341 123456987 181489814 181489814 181489815 210009307 A00006417 ZYB000000 A00006831 A00006786 A00006786 A000067306 A000067306 A000067309 A00006339	No Last Name, Othello No Last Name, Othello	Cannot update - Required EditPersonal field(s) missing. Cannot update - EditProgramInfo Major Code missing. Cannot update-EditStudentFinancial Term mos or exp. missing. Cannot create transmittal-US addr field(s) missing. Cannot update - Required EditPersonal field(s) missing. Cannot update - EditProgramInfo Study Length missing. Cannot update-EditStudentFinancial Term mos or exp. missing. Cannot create transmittal-Create comment required. Cannot create transmittal-Session dates required. UAddr info not updated - Required field(s) missing. Cannot update - EditProgramInfo Study Length missing. Cannot update - Required US Address field(s) missing. Cannot update-StudentReg Session date or Addr Info missing. Cannot update-StudentReg Session date or Addr Info missing. Student create Student create Student create Student create	Contd2
Stu/EV ID		SEVIS Extract Process Tran Result/Comment	GORSEVE
Program	One up N Print Rej		

***** END OF REPORT *****

SBGI Geo Region/Divisions Report (GORSGEO)

This process assigns regions to high schools and colleges using the high school address in combination with the region rules set up on the Geographic Region Rule (SOAGEOR) page.

This process will also assign regions to colleges if the college meets the SOAGEOR rule. These regions are then stored in the GORSGEO table.

Parameter Name	Required?	Description	Values
Audit Indicator	Yes		A = Run in audit modeU = Run in update mode
Report Indicator	Yes		 Y = Print all details N = Suppress details and pring summary totals only
Source/Background Inst Code	No	Source/background institution code for which you want to assign region records. Leave blank to select all codes.	Source/Background Institution Validation (STVSBGI) page
Activity Date	No	Beginning date for selecting all changed records on SOBSBGI.	
		For example, if the activity date equals 10-MAY-2006, the process runs against all SOBSBGI records having an	

Parameter Name	Required?	Description	Values
		activity date greater than (or equal to) 10-MAY-2006.	

```
11-NOV-2000 17:11:41
                                                             Ellucian University
                                                                                                                                        PAGE 1
                                                        Source/Background Summary
                                                                                                                                  GORSGEO
                                                        ST ZIP NATION COUNTY GEOR CODE GEOD CODE I DATE phia PA 19101 MIDATLANTC ALUM N 11-NOV-00
SBGI Name of Institution
                                               Philadelphia
002000 Ellucian High School
                                                                                                  MIDATLANTC ALURECRUIT N 11-NOV-00
                                                                                                  MIDATLANTC DEVEL N 11-NOV-00 NORTHEAST ALURECRUIT N 11-NOV-00
                                                                                                  PHILAMETRO ALURECRUIT N 11-NOV-00
                                                                                                  MIDATLANTC RECR
                                                                                                                               22-OCT-00
                                                                                                  PHILAMETRO RECR
                                                                                                                               11-NOV-00
```

```
11-NOV- 2000 17:11:41
                                                              Ellucian University
                                                                                                                                        PAGE 2
                                                                                                                                 GORSGEO
                                                       Source/Background Summary
                                                * * * REPORT CONTROL INFORMATION * * *
RPTNAME: GORSGEO
VERSION: 4.1
AUDIT - UPDATE INDICATOR: U REPORT INDICATOR : Y
SBGI CODE : 002000
ACTIVITY DATE :
LINE COUNT : 55
NUMBER SBGI PROCESSED : 1
NUMBER SBGI INSERTED : 2
NUMBER SBGI UPDATED : 5
NUMBER PRINTED: 7
```

Address Purge (GPPADDR)

This process purges address information for people. You can purge by address expiration date (date must exist to be purged), or you can purge all inactive addresses (regardless of date).

Note: The Address API (gb_address) maintains the deletion of associated telephone records. It only deletes phone records if there is exactly one phone number associated with the address. If there is more than one telephone number, then the API raises an exception. When an exception is raised, GPPADDR simply reports the error, skips that address, and continues processing.

Note: In audit mode, the API is called to delete the address, and then that transaction is rolled back. This allows the user to view any addresses in the .lis file that the API cannot delete because multiple phone records exist.

Parameter Name	Required?	Description	Values		
Purge Option Yes		Criteria by which address information should be purged.	1 = Purge by address expiration date. (Date must exist to be purged.)		
			• 2 = Purge inactive addresses. (Purge occurs regardless of expiration date.)		
Address Selection Date Yes ⁵		Date used with option 1 to purge addresses. Addresses with an expiration date on or before this date are purged.	Date format of DD-MMM-YYYY		
Address Types to be No Bypassed		Address types to be excluded from the purge process. Multiple types are permitted.	Address Type Code Validation (STVATYP page		
		Code that indicates the mode for running the process.	 A = Audit mode (no addresses purged) U = Update mode (addresses purged) 		

⁵ If option 1 chosen

```
24-MAY-2006 09:12:42
                                                BANNER University
                                                                                                        PAGE 1
                                                 Address Purge
                                                                                                        GPPADDR
                                                Audit Report Only
2821smithx Rachel, A2051385
                                  A00020705
   MA I Greenwood Po Box 169 Montego B Y, R710750 76
ACheck Vendor With A Nice Long Name for T VCHECK
  AP I PO BOX 247 Fall River, MA 02720
AT&T new name 10/26/04,
                       V9
  MA I 888 Pacific Ave San Francisco, CA 98773
Adams, Adam
                                  A00023291
  MA 29-NOV-2004 I 56 Crandall Cranford, RI 43222 133
     29-NOV-2004 I 8685 Moody St Cypress, CA 90630
Adams, April
                                  CD0000002
                 I 315 Maple Glen Malvern, PA 19355
 BU
Adams, Cindy
                                  A00027108
                I 1st address Malvern, PA 11111
  MA
                  Address cannot be deleted, more than one phone number is associated.
Adams, Jennifer
                 I 3 Broomall, PA 19008
  MA
                   Address cannot be deleted, more than one phone number is associated.
Adams, John
                                  A00027110
                 I 1 Malvern, PA 19355
 MA
                   Address cannot be deleted, more than one phone number is associated.
Adams, Julie
                                 A00027115
                   I 2 Broomall, PA 19008
                       Address cannot be deleted, more than one phone number is associated.
```

```
24-MAY-2006 09:12:42
                                                                                               PAGE 19
                                            BANNER University
                                             Address Purge
                                                                                               GPPADDR
                                            Audit Report Only
                                    * * * REPORT CONTROL INFORMATION * * *
Report Name..... GPPADDR
Current Release..... 7.3
Purge Option..... 2
Address Selection Date..... 24-MAY-2006
Excluded Address Type(s)....:
Audit Mode..... A
Entities Selected..... 197
Number of Potential Address Deletes: 421
Number of errors encountered..... 94
```

Document Code Delete (GUPDELT) process

This new process is used to delete inappropriate documents from the GURFEED and GURTEXT tables. Job parameters allow specification of multiple document numbers.

Note: It is recommended that access to the Document Code Delete Process (GUPDELT) be restricted to staff members responsible for maintenance of data in the GURFEED and GURTEXT tables. Caution should be exercised when selecting a document for removal. This process can be used for any document in GURFEED (not just those from FUPLOAD). As such, AR, Advancement, and HR information could be deleted without chance of recovery.

To enter multiple Document Codes, enter the first document to be deleted. Use the Insert Record Function. Enter the parameter value "01" in the parameter number column and enter the next document to be deleted in the parameter value column. The Insert Record/Duplicate Record Function can also be used if document numbers are similar and only requires changing a few values for each.

Some sub-systems may not be able to recreate transactions that have been fed to GURFEED and GURTEXT.

Delete operations are not performed in Audit Mode.

Parameter Name Required? Desc		Description	Values
Enter Document Number Yes		Alpha, 8 characters, allow multiple numbers.	
		Code that indicates the mode for running the process.	A = AuditU = Update
Enter System ID	ter System ID Yes Specify SYSTEM_ID for the document(s) to be deleted.		

Document Detail Report (GURDETL)

This report is used to list transaction data for any document stored in the Banner General Interface to Finance Table (GURFEED).

Parameter Name	Required?	Description	Values
Document Number	Yes	Alpha, 8 characters, allow multiple numbers.	

GURDET	ENT#	SUB#	TRANS	SACTION	DOCUMENT	r TOTAL	Elluciar ument Det USER II	ail rep			Page	26-APR-2002 01 : 1	:46:05	
СМ000			26-MZ		20.00		JWILDER	R COM	PUP					
SEQ:	# RUL DOCUM	E	CHART	INDEX	FUND	ORG	ACCOUNT	PROGRA	M ACTIVITY	LOCATION	PROJECT	TRANSACTION	DB/CR NUMBER	ITEM SEQ# TYPE ACTION
	CLAS EF NO										CODE	AMOUNT		
1 J1	JE16 DOCRE				JFUNDA	JORGA	JACTA	JPROGA		JLOCNA		10.00	D	
2 J1	JE16 DOCRE	1 F			JFUNDA	JORGA	JACTA	JPROGA	JACTVA			10.00	С	
OCUME	ENT#	SUB#	TRANS DATE	SACTION	DOCUMEN!	r TOTAL	USER II) Sys	tem ID					
CM0000			26-MA	AR-02	20.01		JWILDER	R COM	PUP					
SEQ:	# RULE DOCUM	C		INDEX		ORG	ACCOUNT	PROGRAM	ACTIVITY	LOCATION	PROJECT	TRANSACTION	DB/CR NUMBER	ITEM SEQ# TYPE ACTION
	CLAS EF NO										CODE	AMOUNT		
1 Л	JE16 DOCRE				JFUNDA	JORGA	JACTA	JPROGA	JACTVA			10.01	D	
2	JE16 DOCRE	1			JFUNDA	JORGA	JACTA	JPROGA		JLOCNA		10.00	С	
URDET		-			* * *]	REPORT C	ONTROL IN Elluciar		ON - GURDE oment	TL Releas		* * * 26-APR-2002 01	:46:05	

Document Detail report

Page: 2

Print Dynamic Help for a page (GURHELP)

This report lists all the Dynamic Help for a selected system, module, or page. This report should be run only by your data center.

To print Help for a single page, specify the page name (for example, GJAPDEF).

To print Help for the pages in a single module, specify the first two characters of the pages with a wildcard indicator (for example, GJ% for all pages in the Job Submission module).

To print Help for all pages in a system, use the system designation followed by the wildcard indicator (for example, G%).

Parameter Name	Required?	Description	Values
Page Name	Yes	page(s) for which help is to be printed. Wildcards are acceptable.	
Level	Yes	Level of help to be printed.	• 1 = page help
			 2 = page and section help
			 3 = page, section, and field help

Report sample

PROCESS SUBMISSION CONTROL FORM

(GJAPCTL)

The purpose of the Job Submission page is to define parameter values, for specific processes, and to submit the report using these parameter values. The characteristics defined in the Parameter Definition page (GJAPDEF) are used to validate the values for each parameter entered in this page.

FORM DEPENDENCIES

A process must first be created and then defined to the system using the Process Maintenance (GJAJOBS) page. The parameters for the report must also be defined using the Parameter Definition (GJAPDEF) page. PARAMETER DEFINITION FORM (GJAPDEF) The purpose of the Parameter Definition page is to define the parameters, and their validation characteristics, for specific processes. The characteristics defined in this page will be used to validate the parameter values entered on the Job Submission page (GJAPCTL). This insures parameter values are validated before a report is submitted. FORM DEPENDENCIES The process must first be created and then defined/assigned to the system using the Process Maintenance (GJAJOBS) page before it can be accessed by the Parameter Definition page. *NOTE* This page is a control page. Only the person who designed and/or created the specific report/process should enter or edit the parameter definitions.

Insert Output Program (GURINSO)

This program reads a file from the file system and loads it into the database. You can then use the Saved Output Review (GJIREVO) page to access the file on the database.

This program is run from the operating system with the following command line switches:

Switch	Required?	Description
-j <job name="" process=""></job>	Yes	Job or process that generated the file.
-i <input file=""/>	Yes	File to be loaded into the database.
-n <number></number>	Yes	One-up number created when the batch program was executed.

Switch	Required?	Description
-w <username></username>	Yes	User who ran the job.
-o <output file="" name=""></output>	No	New name of the file after it is loaded into the database.
-t	No	Switch that turns on sql_trace.
-X	No	Switch that turns on extended debugging; notifies entry to each function.

Institution Role Maintenance (GURIROL) process

The Institution Role Maintenance Process (GURIROL) is used to maintain institution role information in the GORIROL table.

This process uses the rules that are set up on the Business Rules (GORRSQL) page to determine users' roles, and then calls the gb_institution_role.p_maintain_roles procedure in the Institution Role API to insert, update, or delete those roles from GORIROL.

Note: Institution roles are created from Banner data (PIDMs) only for individuals who are defined as Person Entities (spriden_entity_ind = P), are not dead (spbpers dead ind = N), and meet the criteria defined to create their role.

You can use Population Selection to limit the number of users processed. This process can be run at any time to update the GORIROL table. This process is used to support Integration for e-Learning. The person role information stored in the GORIROL table is used by Integration for e-Learning's extract and event process for partner data synchronization.

Note: This process is designed to be run through the Job Submission (GJAPCTL) page. Running it from the host is not supported by Ellucian, and should only be used for troubleshooting purposes.

Parameter Name	Required?	Description	Value
Application Code	No	Application code of the Population Selection.	Choices come from the Application Inquiry (GLIAPPL) page.

Parameter Name	Required?	Description	Value
Selection ID	No	ID of the Population Selection.	Choices come from the Population Selection Inquiry (GLISLCT) page.
Creator ID	No	ID that created the Population Selection rules.	
User ID	No	ID of user who selected the population.	
Role Group	Yes	The Institution Role group is the same as the Process Code used on the Business Rules (GORRSQL) page.	-
Role	No	Person Institution role(s) that you want to process. You can specify one role and population selection per individual job run.	For Integration for e-Learning clients, all valid institution and custom roles are supported.
		If you leave this parameter blank, then all institution and custom roles will be processed.	

Data Element Dictionary (GURPDED)

This report shows information for all the database columns, including type, scale, and column comments.

Note: Tables in the Oracle recycle bin (a feature introduced in Oracle 10gR2) are excluded from the report.

Parameter Name	Required?	Description	Values
USERID of Table Creator	Yes	Oracle account under which the table was created (owner of the table). For example, a General table is owned by GENERAL.	

Parameter Name	Required?	Description	Values
Table(s) to be Reported	Yes	Name of a specific table to be printed. Wildcards are allowed.	
USERID of View Creator	No	Oracle account under which the view was created (owner of the view).	
View(s) to be Reported	No	Name of a specific view to be printed. Wildcards are allowed.	
Binding Margin Option	Yes	Code that indicates whether an extra binding margin is required.	N = Do not increase the top margin
			 Y = Increase the top margin (default)
Heading Underline Option	Yes	Code that indicates whether report and page headings are underlined.	Y = UnderlineN = Do not underline (default)

e: 01/08/2000 Page: 1			TABLE: GJ CREATOR: G rameter Co	
Column Name	Type	Width Scale	Nulls	Column Comments
GJBCOLR_JOB	CHAR	30	NOT NULL	JOB: Job name used along with One Up Number and Number to uniquely identify records.
GJBCOLR_ONE_UP_NO	NUMBER		NOT NULL	
GJBCOLR_NUMBER	CHAR	2	NOT NULL	NUMBER: Parameter number used along with Job and One Up Number to uniquely identify records.
GJBCOLR VALUE	CHAR	30	NOT NULL	VALUE: Actual value being stored for this parameter.
GJBCOLR ACTIVITY DATE	DATE	7	NOT NULL	ACTIVITY DATE: Actual date this record was created.
GJBCOLR_MISC_VALUE	CHAR	30	NULL	MISCELLANEOUS VALUE: Miscellaneous field for optional use.

Condensed Table Listing (GURTABL)

This report lists selected system tables.

Note: Tables in the Oracle recycle bin (a feature introduced in Oracle 10gR2) are excluded from the report.

Parameter Name	Required?	Description
Table Owner	Yes	Owner of the tables you want to list, such as GENERAL.
Table Name	Yes	Name of the tables you want to list. Wildcards are allowed. For example, to list all General validation tables enter gtv %.

```
TABLE FIELD SIZE D TYPE NULL

MAXIMUM RECORD LENGTH

SPRIDEN Person Identification/Name Repeating Table

SPRIDEN_PIDM 8 NUMBER N
SPRIDEN_ID 9 VARCHA N
SPRIDEN_LAST NAME 60 VARCHA N
SPRIDEN_FIRST_NAME 15 VARCHA Y
SPRIDEN_MI 15 VARCHA Y
SPRIDEN_CHANGE_IND 1 VARCHA Y
SPRIDEN_CHANGE_IND 1 VARCHA Y
SPRIDEN_ENTITY_IND 1 VARCHA Y
SPRIDEN_CATIVITY_DATE 7 DATE N
SPRIDEN_CRIGIN 30 VARCHA Y
SPRIDEN_ORIGIN 30 VARCHA Y
```

```
SPRIDEN_SEARCH_LAST_NAME 60 VARCHA Y
SPRIDEN_SEARCH_FIRST_NAME 15 VARCHA Y
SPRIDEN_SEARCH_MI 15 VARCHA Y
SPRIDEN_SOUNDEX_LAST_NAME 4 CHAR Y
SPRIDEN_SOUNDEX_FIRST_NAME 4 CHAR Y
SPRIDEN_SOUNDEX_FIRST_NAME 4 CHAR Y
SPRIDEN_NTYP_CODE 4 VARCHA Y
MAXIMUM_RECORD_LENGTH 278
```

Document Code Report (GURTEXT)

This report is used to list document numbers currently stored in the External Feed Document Text (GURTEXT) table. There are no parameters for this report.

```
GURTEXT
                                            Ellucian Development
                                                                          Page : 1
                                                                                  24-JUN-2002 03:59:05
                                         GURTEXT Document List
Document Code
BK000104
BK000107
BK000109
BK000114
                              * * * REPORT CONTROL INFORMATION - GURTEXT Release: 5.4.1 * * * ^{\star}
GURTEXT
                                           Ellucian Development
                                                                                 24-JUN-2002 03:59:05
                                         GURTEXT Document List
                                                                            Page : 2
```

PIN Create (GURTPAC) process

This process will take a population selection (list of PIDMs) and will assign Third Party Access PIN records and external user IDs based on settings in the Enterprise PIN Preferences (GUAPPRF) page.

Parameter Name	Required?	Description	Values
Application	Yes	Application for the population selection.	Application Inquiry (GUIAPPL) page
Selection ID	Yes	Selection identifier for the population selection.	Population Selection Inquiry (GLISLCT) page
Creator ID	Yes	Creator of the Selection ID rules.	
User ID	Yes	ID of the person who performed the population selection.	
Print Detail Report?	Yes	Specifies if the detail report should be printed.	 Y = Print a detailed listing of results N = Print the control report

```
24-OCT-2002 14:18:00
                             Ellucian DEVELOPMENT
                                                                      PAGE 1
                          PIN Creation Process
                                                              GURTPAC
                                                      Result
         NAME
211119506 Abbe, Anthony
                                                        PIN Already Exists
610009604 Abernathy, Holister Sheraz
610009109 Adason, Marlene T
                                                        PIN Already Exists
                                                      PIN Generated
210009306 Charles, Corey
                                                      PIN Already Exists
                                                      PIN Generated
610009508 Charles, Henry
215630492 Charter, Clifford
                                                        PIN Already Exists
210009604 Childress, Nancy
                                                       PIN Already Exists
610009613 Clark, Donald James
                                                       PIN Generated
210392871 Clark, Lindsay
                                                        PIN Already Exists
```

```
610009517 Clark, Susan
                                                  PIN Generated
210493827 Compin, Shantay
                                                  PIN Already Exists
210009622 Cooper, Carla
                                                 PIN Generated
210009110 Jackson, James Jarvis
                                                PIN Generated
710000014 Zevan, David J.
                                                 PIN Already Exists
710000014 Zevan, 1
24-OCT-2002 14:18:00 EIIucian Process
PIN Creation Process
                             Ellucian DEVELOPMENT
                                                       GURTPAC
     * * * REPORT CONTROL INFORMATION - GURTPAC - RELEASE 5.5 * * *
    RPTNAME: GURTPAC
    APPLICATION ID:.....BANSTU SAMPLE
    SELECTION ID:.....MEN
    CREATOR ID:.....SAISUSR
    USER ID:.....SAISUSR
    PRINT DETAIL:....Y
    Number in Population:.....16
    Number of PINs Generated:.....6
```

User ID/Password Verification (GUAVRFY) process

This process verifies the correct user ID and password. A log file called <code>guavrfy_NUMBER.log</code> is created, where <code>NUMBER</code> is the one-up sequence number created at runtime.

This process contains no parameters.

Import OraDirFile JobSub Server (GURJSDN) process

This process allows the users to transfer the files that have been uploaded to Oracle directory using the **File Upload Utility (GUAUPLP)** page to the Job Submission server.

Parameter Name	Required?	Description	Values
Oracle Directory	Υ	Name of the Oracle directory where the file is uploaded.	The name of the Oracle Directory specified on GUAUPLP.

Parameter Name	Required?	Description	Values
File Name	Y	Name of the file.	The name of the file specified on GUAUPLP.
JobSub Server File Name	Y	Name of the file as saved in the Job Submission server.	New name for when the file is saved on the Job Submission Server.

```
August 29, 2017 1:48:58 PM
                            sample database
                                                                        gurjsdn
                           Import OraDirFile JobSub
                                                                        Page 1
* * REPORT CONTROL INFORMATION * *
_____
Process Start Date and Time : Tue Aug 29 13:48:58 EDT 2017
PROGRAM NAME : gurjsdn
PROGRAM VERSION: 8.9.3
User : SAISUSER
Export file from Oracle Directory
Oracle Directory : BAN_GUAUPLP_DTSTUDENT_DIR File name : buttons.txt
Exported Path and File Name : /home/oracle/sample.txt
Number of lines written : 1910
File Size : 341305
Creation Date : Tue Aug 29 13:48:58 EDT 2017
Last Modified : Tue Aug 29 13:48:58 EDT 2017
Connected.
```

SDE Inquiry and Delete (GUSMDID) process

This process allows you to review and delete orphaned supplemental data records. Supplemental data records can become orphaned when their corresponding "parent" records in base Banner tables are deleted.

Although the supplemental data record cannot be viewed after the parent record is deleted it still exists in the Supplemental Data Table. The GUSMDID process gives you an optional way to clean up these orphaned records.

The Supplemental Data Engine (SDE), introduced in Release 8.0, is a way to add new data elements without changing the baseline Banner data model.

The report output shows, for each record found, the table name, attribute name, primary key, and parent status.

Note: The GUSMDID report does not show the actual values for each supplemental data record. To review the actual data, you can use supplemental data views for each attribute. Code to create these views can be generated in the Generate DDL section of the Supplemental Data Attributes Definition (GOASDMD) page.

Parameter Name	Required?	Description	Values
Audit/Update	Yes	Choose whether to report only (to view orphaned records) or to actually delete	A = (Audit): report only; no data will be changed
		orphaned records.	 U = (Update): SDE records selected by the process with a parent status of No Parent will be deleted
Table	Yes	The base Banner table(s) for which you want to find orphaned supplemental data records	Enter the short table name. You can use wildcards.
			For example, enter G% for all General tables.
Attribute Name	Yes	The SDE attribute for which you want to find orphaned supplemental data records.	Enter the attribute name. You can use wildcards to select multiple attributes.

Parameter Name	Required?	Description	Values
			Enter % by itself to select all attributes for the tables selected in parameter 02.