



# **Banner Components for INGRESS**

## **Georgia Enhanced Banner Student and Financial Aid Systems User Documentation**

Version 8.15.1

Information Technology Services

November 2012

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## Using the *Banner Components for INGRESS*

### Introduction to the *Banner Components for INGRESS*

#### Purpose

The Intra-Georgia Registration Sharing System (INGRESS) is a multi-institutional registration tool developed by the University System of Georgia. It allows USG institutions offering collaborative online courses to leverage the Banner system for registration, while distributing available seats in shared course sections across multiple institutions sharing those course sections. It also provides the ability for participating institutions to define course sections and enrollment to the USG collaborative Learning Management System (LMS).

Transmission of data between each institution's Banner system and the INGRESS tool is necessary to achieve accurate balancing of available seats and creation of LMS data. The Banner INGRESS components have been developed in order to extract enrollment data from Banner and make it available to the INGRESS tool, and to transfer data from INGRESS back to Banner. Components have also been developed to allow attendance verification and grade data collected through the INGRESS tool to be transferred to each institution's Banner system.

#### Target Audience

This document is used by the functional user that will be setting up and coordinating the exchange of data between Banner and INGRESS.

#### Purpose and Scope of Document

This document describes the Banner components developed to facilitate integration with the INGRESS tool.

This chapter includes the following topics:

- Setting up Rules and Codes
- Defining Sections, Persons, and Memberships to INGRESS
- Loading Attendance Verification Data
- Loading Grade Data
- Clearing Log Table Entries

#### Graphics

Graphic cues used in this document assist with labeling of steps and items that are particularly important.



Steps for recovery or support.



For additional information, see references.



Exercise caution.



Warning: an error here is critical.

## Support

For additional ITS resources and support, contact the ITS Helpdesk:

- Web support request self-service:  
[http://www.usg.edu/customer\\_services](http://www.usg.edu/customer_services)
- E-mail: [Helpdesk@usg.edu](mailto:Helpdesk@usg.edu)

For emergency, business interruptions, or production down situations, call the ITS Helpdesk immediately

- 706-583-2001
- Toll free within Georgia: 1-888-875-3697

## **INGRESS Process Flow**

**Description** The Banner components for INGRESS are used in conjunction with each other to extract data from Banner and make it available to INGRESS, and to transfer data from INGRESS back to Banner. Most day-to-day processes will be executed automatically at timed intervals and do not require manual intervention, but manual execution of some processes is required.

Students will register for collaborative online courses by utilizing the normal registration processes within Banner at their home institutions. Identification of students who are eligible to register for these courses is handled individually at the institutions. All registration activities, including drops and withdrawals, will take place within Banner. The institution will run a data extraction process to make course section, student, and instructor data available to INGRESS for automatic processing.

Enrollment counts for shared course sections will be processed by the INGRESS tool at regular intervals throughout the day. INGRESS will calculate the total available seats in a shared course section and allocate equal numbers of those available seats to each of the participating institutions. Available seat counts will be updated in Banner after they are calculated by INGRESS.

Student and instructor data for shared course sections will be processed by the INGRESS tool at regular intervals throughout the day. INGRESS will utilize these data to create class rosters in INGRESS.

INGRESS will utilize the course section, student, and instructor data to create xml data files once per day. These files are uploaded into the USG collaborative LMS and used to create or update course sections and enrollments.

Attendance verification is recorded through the INGRESS Faculty Console by faculty members instructing the collaborative online courses. The attendance verification data are made available automatically to each student's home institution. The institutions will load these data into Banner to update the student registration records.

Grades are entered through the INGRESS Faculty Console by faculty members for the collaborative online course sections they are teaching. These grades are made available automatically to each student's home institution. The institutions will load these data into Banner to update the student registration records.

This document details the set up of Banner to allow data to be successfully shared between Banner and INGRESS.

**Overview**

Complete the following steps to set up Banner to allow data to be successfully shared between Banner and INGRESS.

<b>I. Setting Up Rules and Codes</b>		
1.	Set up term codes and part of term codes	SOATERM
2.	Translate term codes	SOAXREF
3.	Establish enrollment status codes	SFAESTS
4.	Establish registration status codes	STVRSTS SFARSTS
5.	Establish the integration configuration settings	GORICCR
6.	Create an integration partner system code	GTVINTP
7.	Create integration partner system rules	GORINTG
8.	Create a cross reference label	STVXLBL
9.	Translate the integration partner codes	SOAXREF
10.	Build grade codes	SHAGRDE
11.	Register/drop/withdraw students from course sections	SFAREGS Self Service



<b>II. Defining sections, Persons, and Memberships to INGRESS</b>		
1.	Execute ZSRGDIS	ZSRGDIS
2.	INGRESS Processing	



<b>III. Loading Attendance Verification Data</b>		
1.	Faculty enters attendance verification data through INGRESS	
2.	Execute ZSRIAVR	ZSRIAVR
3.	Execute ZHRNOSH	ZHRNOSH





<b>IV. Loading Grade Data</b>	
1.	Faculty enters grade data through INGRESS
2.	Execute ZSRGRLD <span style="float: right;">ZSRGRLD</span>



<b>V. Clearing Log Table Entries</b>	
1.	Execute ZSRCLRL <span style="float: right;">ZSRCLRL</span>

## Implementing the *Banner Components of INGRESS*

### I. Setting Up Rules and Codes

#### Overview

Institutions need to set up codes and rules in Banner before extracting data to load into INGRESS. The extraction process will select data for submission to INGRESS based on the codes and rules established in this section.

#### 1. Set up term and part of term codes for the reporting term

Set up term codes on the Term Control form (SOATERM).

Define the part of term code(s) for the reporting term on the Part of Term and Web Registration Controls block. No special part of term value is required to be defined for use with INGRESS.

Part of Term	Description	Start Date	End Date	Number of Weeks	Census One Date	Census Two Date	Incomplete Extension Date	Section Override	Faculty Web Midterm Grades	Faculty Web Final Grades	Faculty Web Wait List
1	Full Term	05-AUG-2012	15-DEC-2012	18	10-OCT-2012	10-DEC-2012		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*\* Dates and codes shown here are for example only and are not an indicator of the codes and dates your institution utilizes.

**2. Translate term codes**

Translate the Banner term code for the reporting term to its equivalent Regents term code value on the EDI Cross Reference Rules form (SOAXREF) using Cross-Reference Label value "RGTTTERM". The "Banner Value" is the value the institution uses in Banner; the "Electronic Value" is the Regents Term Code equivalent.

Electronic Label	Electronic Qualifier	Electronic Value	EDI	Web	XML	Banner Value	Description
RGTTTERM		20082	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200708	Fall 2007
RGTTTERM		20084	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200802	Spring 2008
RGTTTERM		20091	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200805	Summer 2008
RGTTTERM		20092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200808	Fall 2008
RGTTTERM		20094	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200902	Spring 2009
RGTTTERM		20101	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200905	Summer 2009
RGTTTERM		20102	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200908	Fall 2009
RGTTTERM		20104	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201002	Spring 2010
RGTTTERM		20111	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201005	Summer 2010
RGTTTERM		20112	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201008	Fall 2010
RGTTTERM		20114	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201102	Spring 2011
RGTTTERM		20121	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201105	Summer 2011
RGTTTERM		20122	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201108	Fall 2011
RGTTTERM		20124	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201202	Spring 2012
RGTTTERM		20131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201205	Summer 2012
RGTTTERM		20132	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	201208	Fall 2012
RGTTTERM		20134	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201302	Spring 2013
RGTTTERM		20141	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	201305	Summer 2013

**3. Establish enrollment status codes**

Define enrollment status rules in the Enrollment Status Control Form (SFAESTS), if needed. No special enrollment status codes have been established for integration with INGRESS.

Status	Description	Start Date	End Date
AW	Administrative Withdrawal	15-AUG-2012	15-DEC-2012
EL	Eligible to Register	10-MAY-2012	15-DEC-2012
WS	Withdraw Student-W	15-AUG-2012	15-DEC-2012

\*\*\* ESTS codes and dates shown here are for example only and are not an indicator of the codes and dates your institution utilizes.

**4. Establish registration status codes**

Define registration status codes on the Course Registration Status Code Validation form (STVRSTS), if needed. No special registration status codes have been established for integration with INGRESS. Be sure that values for the Status Type field have been defined for all codes.

Status Code	Description	Auto Grade	Print on Schedule	Status Type	Web Indicator	Extension Indicator	System Required	Activity Date
HW	Hardship Withdrawal	W	<input type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
LH	LS Hardship Withdrawal	W*	<input type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
MW	Military Withdrawal	MW	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
NP	WD Paymnt Pln/Fis Afrs - W	W	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
NQ	WD Paymnt Pln/Fis Afrs - W*	W*	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
PP	Do not use		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	04-MAY-2000
RE	**Registered**		<input checked="" type="checkbox"/>	Registered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	08-JUN-2006
RG	Register - GOML		<input checked="" type="checkbox"/>	Registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-SEP-2009
RS	Reinstated Student		<input checked="" type="checkbox"/>	Registered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-MAR-2005
RW	**Web Registered**		<input checked="" type="checkbox"/>	Registered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22-AUG-2006
WA	WD Before Mid-Term - W*	W*	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WB	WD After Mid-Term - WF*	WF*	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WC	WD All Before MT- W*	W*	<input type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WD	WD All After MT - WF*	WF*	<input type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WE	WD Before Mid-Term - W	W	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WF	WD After Mid-Term - WF	WF	<input checked="" type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WL	Wait List		<input type="checkbox"/>	Withdrawn	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	27-FEB-2007
WS	WD All Courses Before - W	W	<input type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WT	WD All Courses After - WF	WF	<input type="checkbox"/>	Withdrawn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
WW	**Web Withdrawal**	W	<input checked="" type="checkbox"/>	Withdrawn	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27-FEB-2007
XR	Cancel Registration		<input type="checkbox"/>	Dropped	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12-SEP-1997

\*\*\* RSTS codes and settings shown here are for example only and are not an indicator of the codes and settings your institution utilizes.

Define course registration rules in the Course Registration Status Form (SFARSTS). Define codes for each relevant part of term. No special part of term codes or registration status codes have been established for integration with INGRESS.

Status	Description	Affected By Student Status	Start Date	End Date	Voice Response Indicator
DC	Drop Course -The longest title	<input type="checkbox"/>	05-MAY-2012	15-DEC-2012	<input type="checkbox"/>
DD	Drop/Delete	<input type="checkbox"/>	05-MAY-2012	15-DEC-2012	<input type="checkbox"/>
DW	Web Drop	<input type="checkbox"/>	05-MAY-2012	15-AUG-2012	<input type="checkbox"/>
RE	**Registered**	<input checked="" type="checkbox"/>	05-MAY-2012	15-DEC-2012	<input checked="" type="checkbox"/>
RW	**Web Registered**	<input type="checkbox"/>	05-MAY-2012	15-DEC-2012	<input type="checkbox"/>
WC	WD Course-W	<input type="checkbox"/>	05-AUG-2012	15-DEC-2012	<input type="checkbox"/>

\*\*\* RSTS codes and dates shown here are for example only and are not an indicator of the codes or values your institution utilizes.

**5. Establish the integration configuration settings**

The Integration Configuration Settings form (GORICCR) establishes the rules for integration. The process of 'ELEARNING' is required with the following settings:

- ACTIVE\_TERM: The current processing term(s) must be set up as an active term.
- ICEMAIL: The email type identifying which email address will be extracted for each person. If this rule is not established, all persons to be extracted to report to INGRESS must have the "Preferred" flag set on one email address on the SPAIDEN form, EMAIL tab, or on form GOAEMAL.

Integration Configuration Settings - GORICCR 8.1

Process: ELEARNING eLearning Integration rules  
Setting: ACTIVE\_TERM Active Term

**Configuration Settings**

Setting: ACTIVE\_TERM Active Term Sequence:   
Value: 201202  
Description: Spring 2012 User ID: KGRAY Activity Date: 20-JAN-2012  
Translation:

Setting: ACTIVE\_TERM Active Term Sequence:   
Value: 201205  
Description: Summer 2012 User ID: KGRAY Activity Date: 21-MAY-2012  
Translation:

Setting: ACTIVE\_TERM Active Term Sequence:   
Value: 201208  
Description: Fall 2012 User ID: KGRAY Activity Date: 22-MAY-2012  
Translation:

**6. Create an integration partner system code**

Create a new integration partner system code in the Integration Partner System Code Validation form (GTVINTP). Use the 'INGR' code with a description of 'INGRESS'.

Integration Partner System Code Validation - GTVINTP 8.1

Integration Partner System	Description	User ID	Activity Date
INGR	INGRESS	KGRAY	21-JUL-2010

**7. Create integration partner system rules**

Each course section that will share information through INGRESS will be assigned an Integration Partner Value that will indicate whether the section is a sending or a receiving section of the shared course.

Create integration partner rules on the Integration Partner System Rules form (GORINTG). The following Integration Partner codes are suggested: 'ISEND' with a description of 'INGRESS Sending Section'; and 'IRECV' with a description of 'INGRESS Receiving Section'. Institutional values can be substituted, and multiple values can be used if desired. The corresponding Cross Referenced Partner System will be set to 'INGR' for all codes.

Integration Partner Value	Description	Cross Referenced Partner System	Description	User ID	Activity Date
IRECV	INGRESS Receiving Section	INGR	INGRESS	KGRAY	21-JUL-2010
ISEND	INGRESS Sending Section	INGR	INGRESS	KGRAY	21-JUL-2010

**8. Create a cross reference label**

Create a cross reference label in the EDI Verification Label Validation form (STVXLBL). Use the code 'RGTGPIC' and the description 'INGRESS Partner Integr Code'

EDI Label Code	Description	System Required	Activity Date
RGTGPIC	INGRESS Partner Integr Code	<input type="checkbox"/>	21-JUL-2010

**9. Translate the integration partner codes**

Each Integration Partner Code must be translated on the EDI Cross-Reference Rules form (SOAXREF). The translation will allow INGRESS to identify whether each code indicates a sending or a receiving section. Translate the code(s) for sending sections to the Electronic Value 'S', and the code(s) for receiving sections to the Electronic Value 'R'.

Electronic Label	Electronic Qualifier	Electronic Value	EDI	Web	XML	Banner Value	Description
RGTGPIC	I	R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	IRECV	INGRESS Receiving Section
RGTGPIC	1	S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ISEND	INGRESS Sending Section

### 10. Build grade codes

Build the grade codes in the Grade Code Maintenance form (SHAGRDE), if needed. No special grade codes have been established to be utilized for INGRESS.

Grade Code	Level	Abbreviation	Term	Status	Quality	Count in	Traditional	Incomplete	Web	Numeric	Repeat	Last Attendance	Activity
				Ind	Points	Attempted	Passed	Earned	GPA	Ind	Ind	Date	Date
A	01	A-UNDER	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-MAY-1997	
A#	01	A-ACDRW	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-DEC-2004	
A%	01	A/CPC	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-DEC-2004	
A%^	01	A/NOCR	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-DEC-2004	
A*	01	A-LS	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11-AUG-1998	
A*^	01	A/LSNC	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-DEC-2004	
A^	01	A/NOCR	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-DEC-2004	
A.	01	A TRANS	000000	A	4.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	28-JUN-2005	
B	01	B-UNDER	000000	A	3.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16-MAY-1997	
B#	01	B-ACDRW	000000	A	3.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11-MAY-2006	

\*\*\* Grade codes and settings shown here are for example only and are not an indicator of the codes and settings your institution utilizes.

### 11. Define sections and assign integration partner codes

On the Schedule form (SSASECT) assign an integration partner code to all collaborative online course sections that should be processed by INGRESS. This code will indicate that the section will be shared with other institutions, as well as indicate whether the section is a sending or a receiving section of the shared class.

Term: 201208 CRN: 10001 Create CRN: Copy CRN: Subject: INGR Course: 1234 Title: INGRESS Test Course 1234

Course Section Information | Section Enrollment Information | Meeting Times and Instructor | Section Preferences

Subject: INGR INGRESS CEU Indicator:

Course Number: 1234 Title: INGRESS Test Course 1234 Credit Hours: 3.000  None  To  Or 6.000

Section: 01 Billing Hours: 3.000  None  To  Or 6.000

Cross List:  Campus: A Main Campus Contact Hours: 3.000  None  To  Or 6.000

Status: A Active Lecture: 3.000  None  To  Or 6.000

Schedule Type: 2 Distance Instruction Lab:  None  To  Or

Instructional Method: F Fully at a distance Other:  None  To  Or

Integration Partner: ISEND INGRESS Sending Section Link Identifier:

Grade Mode:  Attendance Method:

Session:  Weekly Contact Hours:

Special Approval:  Daily Contact Hours:

Duration:  Part of Term: 1 05-AUG-2012 15-DEC-2012 16

Registration Dates:  Maximum Extensions: 0  Print  Voice Response and Self-Service Available

Start Dates:  Prerequisite Check Method:  Basic or None  CAPP  DegreeWorks  Gradable  Tuition and Fee Waiver

Long Title  Comments  Syllabus

### 12. Register/drop/withdraw students in course sections

Students register/drop through Self Service Banner for all course sections that are part of the collaborative online programs just as they would for any other course section. Students can also be administratively registered, dropped, or withdrawn for course sections through the Student Course Registration form (SFAREGS).

## ***II. Defining Sections, Persons, and Memberships to INGRESS***

### **Overview**

The INGRESS Data Extract process (ZSRGDIS) extracts data for shared course sections and makes it accessible for processing by INGRESS. Basic course data, along with information for assigned instructors and enrolled students, are extracted from Banner and stored in the INGRESS intermediate tables housed within the institution's Banner database. These data are used by INGRESS to perform seat balancing functions among multiple institutions sharing the course sections, as well as to define courses, sections, instructors, students, and memberships in the USG collaborative LMS. After INGRESS performs seat balancing functions, the section enrollment data (viewable from the Schedule form (SSASECT), Enrollment Data block) is automatically updated with the calculated maximum and available seats for each section.

### **Frequency**

The ZSRGDIS process should be run to extract course section data whenever new sections are defined and assigned an INGRESS integration partner code, when information for a previously defined section is changed, or when a course section is inactivated or reactivated. It can also be run any number of times during the day for the purpose of updating class rosters in INGRESS. It is *not* necessary to run ZSRGDIS to pick up changes in enrollment counts.

The ZSRGDIS process should be run to pull updated course section, person, and membership data once a day just prior to the daily automated pull of data to be loaded into the USG collaborative LMS.

The process can be run multiple times per day as needed.

### **1. Execute ZSRGDIS**

The INGRESS Data Extract Process is executed from Job Submission (GJAPCTL). The process selects course sections in Banner that have been flagged as sections for which INGRESS should perform seat balancing calculations. If specified, the process will also extract information for assigned instructors and enrolled students. All instructors assigned to these sections and all students with enrollment activity in these sections will be processed by the ZSRGDIS process. A population selection can be used to limit the persons processed; however, it must be used every time the process is run.

The process will create a .lis and a .log file. The .lis file will contain success and error messages related to those records being extracted from Banner. The .log file will contain general processing messages and may include error messages not specifically related to a particular data record.



### Parameters for ZSRGDIS

No	Name	Required	Description/Instructions	Default Values
01	Application Code	No	Application Code of the Population Selection	
02	Selection ID	No	ID of the Population Selection	
03	Creator ID	No	ID of the Creator of the Population Selection Rules	
04	User ID	No	ID of the User who selected the Population	
05	Term	Yes	Term for processing. Must be valid on SOATERM	
06	Extract Persons/Memberships	Yes	Y=Yes; N=No	Y
07	Update Person Record	Yes	Update person record data in Vista	N

### ZSRGDIS Processing Notes

Course sections can be inactivated by one of two methods:

1. Set the Status field on the Schedule form (SSASECT) to a value indicating that the section is inactive. This will require the removal of enrollments, instructors, and meeting times prior to inactivating the section. Note that the Status code must be defined on the Section Status Code Validation form (STVSSTS) as Inactive ("Active" field must NOT be checked).

OR

2. Remove the integration partner code value on the Schedule form (SSASECT). This will remove the section from processing through INGRESS and will cause the section and enrollments to be inactivated within INGRESS; however, the section will still be active within the institution's Banner system. The section can be reactivated for INGRESS processing by reinstating the value of the Integration Partner field.

INGRESS automatically processes person data changes for the INGRESS class rosters; however, these changes are not automatically passed on to update person data in the LMS. Parameter 07, "Update Person Record", is used to indicate whether these changes should be sent to the LMS. Changes include name changes, email changes, and third party ID (LMS login id) changes.

## Sample Files

Samples of the .log and .lis files follow.

### Sample zsrgridis\_{nnnnnn}.lis

```
09-11-2012 11:47:31 Banner Test Database PAGE: 1
Run No. 830230 INGRESS/Vista Extract Process ZSRGRIDIS 8.15.1

Section Data Errors

Person Record Errors

09-11-2012 11:47:31 Banner Test Database PAGE: 2
Run No. 830230 INGRESS/Vista Extract Process ZSRGRIDIS 8.15.1

* * * CONTROL REPORT * * *

Parameter Description Parameter value(s)

Application Selection
Creator
User ID
Term Code 201208
Extract Persons/Memberships Y
Update Person Record N

Number of active sections inserted: 0
Number of active sections updated: 2
Number of active memberships inserted: 2
Number of active memberships updated: 12
Number of active persons inserted: 0
Number of active persons updated: 9
```

### Sample zsrgridis\_{nnnnnn}.log

```
Username: Connected.

Run Sequence Number.....:
Connected.
Connected.
```

## 2. INGRESS Processing

The data extracted by the ZSRGRIDIS process are used by INGRESS to perform seat balancing functions among multiple institutions sharing the course section, as well as to define courses, sections, instructors, students, and memberships in both INGRESS and the USG collaborative LMS.

INGRESS will run seat balancing processes automatically at timed intervals throughout the day. Calculations are based on the maximum seats for the shared section (as defined by the sending institution), the number of filled seats, and the number of institutions sharing the section. After INGRESS performs seat balancing functions, the section enrollment data (viewable from the SSASECT form, Enrollment Data block) are automatically updated with the calculated maximum and available seats for each section.

Term: 201208 CRN: 10001 Create CRN: Copy CRN: Subject: INGR Course: 1234 Title: INGRESS Test Course 1234

Course Section Information Section Enrollment Information Meeting Times and Instructor Section Preferences

Enrollment Details Reserved Seats

Enrollment Details

Maximum: 25 Waitlist Maximum: 0 Projected: 0  
Actual: 3 Waitlist Actual: 0 Prior: 0  
Remaining: 22 Waitlist Remaining: 0  Reserved

Generated Credit Hours: 15.000

Census One Enrollment Count: 3 Freeze Date: 10-SEP-2012  
Census Two Enrollment Count: 3 Freeze Date: 10-OCT-2012

INGRESS will automatically pull and process person and membership information at timed intervals throughout the day to build class rosters in INGRESS. Once per day these data are pulled and used to create XML data files for consumption by the LMS. Institutions should run the ZSRGDIS process at least once each day prior to the daily LMS data pull. If updates to class rosters in INGRESS are desired more often, ZSRGDIS can be run multiple times per day. The default value of 'Y' should be indicated for the "Extract Persons/Memberships" parameter.



More information on the INGRESS tool can be found at the INGRESS Commons:

[https://sharepoint.bor.usg.edu/team\\_sites/ingress/SitePages/Home.aspx](https://sharepoint.bor.usg.edu/team_sites/ingress/SitePages/Home.aspx)

### III. Loading Attendance Verification data

#### Overview

Attendance verification data for collaborative online program course sections will be collected through the INGRESS tool and made available to participating institutions. Processing of these data in Banner is a two-step process consisting of the ZSRIAVR process and the ZHRNOSH process.

#### Frequency

The ZSRIAVR and ZHRNOSH processes may be run at any time during the term as frequently as needed. However, it is recommended that the processes are executed following the attendance verification deadline set by the institution. Each time the process is run only the data that has not yet been processed will be loaded.

#### 1. Faculty Enter Attendance Verification Data through INGRESS

Faculty members will enter attendance verification information through the INGRESS Faculty Console for the courses they are instructing for the term. Attendance verification will be entered *once per term* for each course enrollment. Once data entry is complete and attendance verification is submitted for a particular course section, that data is stored in an INGRESS data table. At timed intervals, INGRESS copies these data to an INGRESS intermediate table, ZSRAVER, at each institution sharing the course section. It is stored here until the institution executes the ZSRIAVR process.



More information on the INGRESS tool can be found at the INGRESS Commons:

[https://sharepoint.bor.usg.edu/team\\_sites/ingress/SitePages/Home.aspx](https://sharepoint.bor.usg.edu/team_sites/ingress/SitePages/Home.aspx)

#### 2. Execute the ZSRIAVR Process

The Attendance Verification Load process (ZSRIAVR) is used to load attendance verification information into Banner for course sections that are processed by INGRESS. The process reads data that has been stored in the ZSRAVER intermediate table and loads the data into the attendance verification temporary table (ZTRNOSH). Only data for absent students will be loaded.

The ZSRIAVR process is executed from Job Submission (GJAPCTL). The process will create a .lis and a .log file. The .lis file will contain record counts and success and error messages related to those records being loaded into Banner. The .log file will contain general processing messages and may include error messages not specifically related to a particular data record.

Parameters for ZSRIAVR

No	Name	Required	Description/Instructions	Default Values
01	Term	Yes	Term for processing. Must be valid on SOATERM	

Sample Files

Samples of the .log and .lis files follow.

Sample zsriavr\_{nnnnnn}.lis

```

14-SEP-2012 12:09:38                               Test Banner Database                               PAGE 1
ZSRIAVR                                             GOML Attendance Verification Load

ID          PIDM      Name                PTRM  CRN      Course Section  Attendance  Message
-----
678542345   43370   Dee, weaver         1     10003   TSTX 0002 X1A P   Student attending - record not loaded.
678542345   43370   Dee, weaver         1     10004   TSTX 0002 X2B P   Student attending - record not loaded.
745745745   43384   Knotted, Hope      1     10002   INGR 1234 02 P   Student attending - record not loaded.
253530000   45006   D' Ducky, Rubber   1     10002   INGR 1234 02 P   Student attending - record not loaded.
@00010118   45019   Dog, Under         1     10002   INGR 1234 02 A   Record loaded.
@00010119   45025   Apples, Ruby       1     10003   TSTX 0002 X1A A   Record loaded.
@00010119   45025   Apples, Ruby       1     10004   TSTX 0002 X2B A   Record loaded.

14-SEP-2012 12:09:38                               Test Banner Database                               PAGE 2
ZSRIAVR                                             GOML Attendance Verification Load

* * * REPORT CONTROL INFORMATION - ZSRIAVR 8.4.3 * * *

RPTNAME: ZSRIAVR
Term code: 201208
RECORD COUNT: 7
RECORDS LOADED: 3
    
```

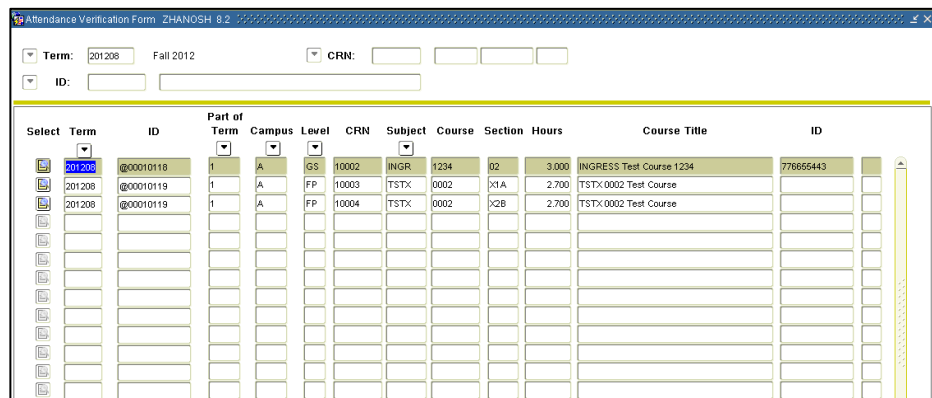
Sample zsriavr\_{nnnnnn}.log

```

Username: Connected.

Run Sequence Number.....:
Connected.
Connected.
    
```

All records loaded into the temporary table will be displayed on the ZHANOSH form.



### 3. Execute the ZHRNOSH Process

Attendance Verification data are stored in the ZTRNOSH temporary table until final processing is run using the Attendance Verification Process (ZHRNOSH). ZHRNOSH will read data that has been stored in the ZTRNOSH temporary table and update the Banner registration records for absent students.

Audit mode for this process allows the user to verify the records to be updated. Update mode will change the registration status for the course sections included as part of attendance verification.

The ZHRNOSH process is executed from Job Submission (GJAPCTL). The process will create a .lis and a .log file. The .lis file will contain record counts and success and error messages related to those records being loaded into Banner. The .log file will contain general processing messages and may include error messages not specifically related to a particular data record.

#### Parameters for ZHRNOSH

No	Name	Required	Description/Instructions	Default Values
01	Process Term	Yes	Enter Banner term code to be processed.	
02	Part-of-Term Code	Yes	Enter a specific P-O-T from SFARSTS or % for all P-O-T.	
03	Enter Drop/Withdrawal Code	Yes	Enter RSTS code to used to update course registration status on SFAREGS	
04	Run Mode	Yes	(A)udit mode provides a list of records to be updated. (U)pdate mode updates the student registration record.	

#### Sample File

A sample of the .lis file follows.

#### Sample zhrnosh\_{nnnnnn}.lis

```

14-Sep-12 at 12:22:28      Banner Test Database      Page: 1
                          Attendance Verification      ZHRNOSH
ID      NAME                TERM  PTRM  CRN  MESSAGES
@00010118 Dog, under dunder  201208  1    10002  ***Processed Successfully***
Total Class Enrollment for 10002 : 2
@00010119 Apples, Ruby Red  201208  1    10003  ***Processed Successfully***
Total Class Enrollment for 10003 : 2
@00010119 Apples, Ruby Red  201208  1    10004  ***Processed Successfully***
Total Class Enrollment for 10004 : 1

14-Sep-12 at 12:22:28      Banner Test Database      Page: 2
                          Attendance Verification
*** REPORT CONTROL INFORMATION - ZHRNOSH - GAMOD 8.6 * * *

Run Mode : U
Term Code : 201208
Part-of-Term Code : %
RSTS Code : DC
Students Updated : 3
Report Line Limit : 55

Record Count : 3

Run ended on 14-Sep-12 at 12:22:29
**** Process completed successfully. ****
    
```

**4. Verify Loaded Attendance Verification Data**

When run in (U)pdate mode, results of ZHRNOSH processing can be viewed from the SFAREGS form for the term, courses, and students processed. ZHRNOSH will update the registration status code for the student's class enrollment to the RSTS code entered in parameter 3.

The screenshot shows the SFAREGS Student Course Registration form. The top section includes fields for Term (201208), ID (@00010118), and Date (14-SEP-2012). Below this are tabs for Registration, Student Term, Curricula, Study Path, and Time Status. The Enrollment Information section shows Status (EL), Reason, Process Block, Status Date (24-MAY-2012), and various hour and acceptance settings. The Course Information table below has columns for CRN, Subject, Course, Section, Mode, Grade, Credit Hours, Bill Hours, Attempted Hours, Time Status, Status, Level, Appr Recd, Override, Part of Term, Method of Instruction, and Study Campus Path. The first row of the table shows CRN 10002, Subject INGR, Course 1234, Section 02, Mode N, Grade 000, Bill Hours 000, Attempted Hours 000, Time Status 000, and Status DC. A callout box with an arrow points to the 'DC' status value, containing the text 'Registration status updated'.

CRN	Subject	Course	Section	Mode	Grade	Credit Hours	Bill Hours	Attempted Hours	Time Status	Status	Level	Appr Recd	Override	Part of Term	Method of Instruction	Study Campus Path
10002	INGR	1234	02	N		000		000	000	DC	IGS			1	F	A

## IV. Loading Grade Data

### Overview

Grade data, both midterm and final, for collaborative online course sections will be collected through the INGRESS tool and made available to participating institutions. Processing of these data in Banner is accomplished by executing the Grade Load process (ZSRIGRD).

### Frequency

The Grade Load process can be executed at any time during the term; however, it is recommended that the process is executed following mid-term grade assignments (if applicable) and final grade assignments. Each time the process is run only the data that has not yet been processed will be loaded.

### 1. Faculty Enter Grades Data through INGRESS

Faculty members will enter grades through the INGRESS Faculty Console for the courses they are instructing for the term. Once data entry is complete and grades are submitted for a particular course section, that data is stored in an INGRESS data table. At timed intervals, INGRESS copies these data to an INGRESS intermediate table, ZSRGRLD, at each institution sharing the course section. These data will be processed to create grade entries in Banner using the ZSRIGRD process.



More information on the INGRESS tool can be found at the INGRESS Commons:

[https://sharepoint.bor.usg.edu/team\\_sites/ingress/SitePages/Home.aspx](https://sharepoint.bor.usg.edu/team_sites/ingress/SitePages/Home.aspx)

### 2. Execute the ZSRIGRD Process

The Grade Load process (ZSRIGRD) loads into Banner grades assigned to students for course sections processed by INGRESS.

ZSRIGRD reads the data that has been stored in the ZSRGRLD intermediate table and loads the data into Banner.

ZSRIGRD is executed from Job Submission (GJAPCTL). The process will create a .lis and a .log file. The .lis file will contain record counts and success and error messages related to those records being loaded into Banner. The .log file will contain general processing messages and may include error messages not specifically related to a particular data record.

### Parameters for ZSRIGRD

No	Name	Required	Description/Instructions	Default Values
01	Term Code	Yes	Enter Banner term code for the grades to be processed.	
02	Grade Type	Yes	Enter 'F' to process final grades, 'M' to process mid-term grades, or 'B' to process both final and mid-term grades.	



**Sample File**

A sample of the .lis file follows.

**Sample zsrigrd\_{nnnnnn}.lis**

```

19-AUG-2010 11:35:08 Banner Test Database PAGE 1
ZSRIGRD GOML Grade Load

ID PIDM NAME COURSE SECTION GRD DIFF STATUS FINAL GRADE -----
001122337 1000587 Tucker-Smith, Willy INGR 1000 Y01 B Final grade loaded.
100000010 90164847 d'Artagnan, Charles INGR 1000 Y01 B Final grade loaded.
100000012 90164849 du Vallon, Porthos INGR 1000 Y01 A Final grade loaded.
--- CRN: 80449 --- INGR 1000 Y01 --- Section Final Grades Processed date: --- UPDATED

100000014 90164853 Fizzwhistlebugmierbagginstopbuggy INGR 1000 Y02 NG Not registered; Not graded
932066118 90164842 Hill, Barbara INGR 1000 Y02 A Final grade loaded.
--- CRN: 80450 --- INGR 1000 Y02 --- Section Final Grades Processed date: --- UPDATED

19-AUG-2010 11:35:08 Banner Test Database PAGE 2
ZSRIGRD GOML Grade Load

* * * REPORT CONTROL INFORMATION - ZSRIGRD 8.4.3 * * *
RPTNAME: ZSRIGRD
TERM: 201008
Grade Type: F
Record Count: 5
Records REJECTED for Invalid Student ID or Course Section: 0
Section Final Grades Processed Date Updated Count: 2
Section Final Grades Processed Date Updated ERRORS: 0
    
```

**3. Verify loaded grade records**

Loaded grades can be viewed in the Class Roster form (SFASLST) for the term, courses, and students processed.

The screenshot shows the 'Class Roster SFASLST 8.3.0.2' window. At the top, there are filters for Term (201008 - Fall Semester 2010), CRN (80449 - INGR 1000 Y01), Roll (unchecked), and Degree Award Status (Select....). Below the filters is a table with the following columns: Sequence, ID, Name, Status, Status Date, Midterm Grade, Final Grade, Grade Mode, Incomplete Final Grade, Extension Date, and Hours. The table contains three rows of data:

Sequence	ID	Name	Status	Status Date	Midterm Grade	Final Grade	Grade Mode	Incomplete Final Grade	Extension Date	Hours
1	001122337	Tucker-Smith, Willy T.	RE	19-AUG-2010		B	N			3.000
2	100000012	du Vallon, Porthos d.	RE	19-AUG-2010		A	N			3.000
3	100000010	d'Artagnan, Charles d.	RE	19-AUG-2010		B	N			3.000

Below each row, there is a 'Rolled' checkbox and a 'Grade Comment' dropdown menu.

## V. Clearing Log Table entries

### Overview

The INGRESS Log Table Clearing process (ZSRCLRL) will delete entries from the INGRESS log table, ZSRSMGL, which were generated on or prior to the date supplied as a parameter.

Each time the INGRESS seat balancing process is initiated, 2 entries are made in the ZSRSMGL log table, one when the ZSRSMG1\* process is executed, and one when the ZSRSMG2\* process is executed. If errors are encountered during execution they are also logged into this table. Over time, the log table accumulates a large number of entries, many of which are no longer needed for troubleshooting purposes after a period of time. ZSRCLRL provides a means of clearing entries from the table.

\*Note: ZSRSMG1 and ZSRSMG2 are stored procedures that are executed automatically when INGRESS performs seat balancing functions.

### Frequency

ZSRCLRL can be run at any time during the term as frequently as needed. It is recommended that not all records be deleted from the table unless necessary. Deleting old data records and retaining more recent entries at regular intervals is highly recommended.

### 1. Execute the ZSRCLRL Process

ZSRCLRL is executed from Job Submission (GJAPCTL). The process will create a .lis and a .log file. The .lis file will contain counts of records to be deleted (in Audit mode) or deleted (in Update mode) by the process. The .log file will contain general processing messages.

### Parameters for ZSRCLRL

No	Name	Required	Description/Instructions	Default Values
01	Run Mode	Yes	Enter "A" for Audit Mode, "U" for Update Mode	A
02	Date	Yes	Delete all entries through this date – Format DD-MON-YYYY (default delete all)	30-DEC-9999

### Sample File

Samples of the .lis and .log files follow.

**Sample zsrclrl\_{nnnnn}.lis**

```
04-14-2011 at 10:35:30                                Test Banner Database
                                                         INGRESS Log Clearing Process                                PAGE 1
                                                         ZSRCLRL

* * * REPORT CONTROL INFORMATION * * *

ZSRCLRL 8.7.1
Run Mode : U
Date : 30-DEC-9999
Report Line Limit : 55
Number of Records Deleted : 353

ZSRCLRL 8.7.1 completed successfully
```

### Sample zsrclrl\_{nnnnn}.log

```
Username: Connected.
RUN SEQUENCE NUMBER: zsrclrl completed successfully
16 lines written to /home/banjob/zsrclrl_823045.lis

ZSRCLRL 8.7.1 completed successfully
Connected.
Connected.
```

## Appendix A: Document History

This section details the history of the document and updates made for each modification.

Release and Date	Form/Process	Page	Update Description
Georgia Enhancements 8.4.1, September 17, 2010			Initial release
Georgia Enhancements 8.4.3, October 2010	ZSRSMG1 ZSRSMG2	N/A	Enhanced functionality for stored procedures to more efficiently handle locked data records.
Georgia Enhancements 8.7.1, June 2011	ZSRGDIS ZSRCLRL		ZSRCLRL – new process. ZSRGDIS updates: <ul style="list-style-type: none"> <li>Extract values for the section credit hours and CIP code.</li> <li>Extract a value indicating whether a student’s registration status indicates that he is registered, dropped or withdrawn.</li> <li>Add additional error checks with corresponding error messages.</li> <li>Add additional information to the process output.</li> <li>Complete processing in a timelier manner.</li> </ul> ZSRGDIS corrections: <ul style="list-style-type: none"> <li>Identify the correct record for PIN retrieval and print an error if the PIN is null.</li> <li>Update error message text to more correctly reflect the error.</li> </ul>
Georgia Enhancements 8.11.1, October 2011	ZSRGDIS		ZSRGDIS correction: <ul style="list-style-type: none"> <li>Update the course section Start Date in the intermediate table whenever it updates other information for the course section.</li> </ul>
Georgia Enhancements 8.15.1, September 2012	ZSRGDIS		ZSRGDIS enhanced for integration with D2L: <ul style="list-style-type: none"> <li>Alter the calculation of the End Restrict Date value. The End Restrict Date for each course section is determined by adding 60 days to the end date for Part of Term ‘1’. Use of the census date for the term following the reporting term has been eliminated.</li> <li>Alter the length of the Course Title field to accommodate up to 50 characters.</li> </ul>

			<p>Although Banner can only store 30 characters in this field, conversion of special characters can result in Course Title values that exceed 30 characters.</p> <p>Document updated to reflect changes and to update screen shots.</p>
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## Appendix B: Process Flow

