# DegreeWorks
# Banner Considerations
# Technical Guide

***Software Patch DW4.0.6***
***April 15, 2010***

SUNGARD HIGHER EDUCATION

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***Baseline Release DW4.0.0***
***September 30, 2008***

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# Document Change Log

| Version | Date | Change Description |
|---|---|---|
| DW4.0.6 | April 15, 2010 | Update to Banner Workflow Integration procedure |
| DW4.0.4 | September 14, 2009 | Miscellaneous text cleanup<br>Updated required tables<br>Text cleanup for Luminis (UCX-CFG020WEBPARAMS)<br>Text cleanup for SSB (menu setup for student role)<br>Addition of Special Topics |
| DW4.0.3 | May 1, 2009 | Class Attribute for transfer classes applied to Program<br>Updated required tables |
| DW4.0.2 | March 31, 2009 | WebTreQer update notations<br>Updated required tables<br>Luminis Channels (Bookmark, CPIP Inline)<br>Luminis LDAP Credentials<br>Applicant Processing<br>Workflow Integration |
| DW4.0.1 | December 19, 2008 | List of Database Table Access updated (SSRMEET)<br>Updated text about Program Field |
| DW4.0.0 | October 22, 2008 | Added SCBDESC to Database Table Access |
| DW4.0.0 | September 30, 2008 | Update UCX references to reflect new names and naming convention<br>Source of Class Attribute from CFG020BANNER setting<br>Extract uses config file<br>Self Service updated<br>Added Banner Database Issues section<br>List of Database Table access updated |
| 7.7.2.D02.P03 | May 2008 | Require access to SOBCACT table<br>Selecting UCX tables for extract |
| 7.7.2.D02.P02 | March 2008 | Added single ID option for bannerextract |
| 7.7.2.D02.P01 | February 2008 | Correction for sorlcur_program<br>Update and reformat Required Tables<br>Added new View Audit Refresh D20 REFRESH flag and explanatory text; update D20 BANNER SureCode screen shot<br>Added option to use .ids file when running bannerextract<br>Added DGWCPUCOUNT section for bannerextract and RAD30JOB Added deleteid to bannerextract script |
| 7.7.2.D02 | December 14, 2007 | Initial Version |
| | | |

# Table of Contents

# Banner Considerations

## Banner Considerations

To help you use DegreeWorks effectively, there are a variety of special topics that need to be discussed and elaborated.  It is assumed that the reader is familiar with the UCX and how it is maintained.

# Banner Attributes

## Banner Class Attributes

Banner “class attributes” are codes that are not part of the standard database tables passed for class records (current, historic and transfer) from the student system to DegreeWorks. These class attributes are stored in the following Banner database tables and are retrieved using different pieces of a student’s class data:

| | |
|---|---|
| SSRATTR | - current classes by Crn and Term |
| SHRATTR | - historic classes by PIDM, Sequence Numbers and Effective Term |
| SHRATTC | - historic classes by Crn and Effective Term |
| SHRTATT | - transfer classes by PIDM and Sequence Numbers |

Historic class attributes are stored in two tables: SHRATTR and SHRATTC. A UCX-CFG020 BANNER flag “Always Process SHRATTC” controls whether attributes from SHRATTC are extracted if attributes from both tables exist. SHRATTR class attributes are processed first. If any SHRATTR attributes are found for a given class they are written to the rad_attr_dtl. Then the UCX-CFG020 BANNER “Always Process SHRATTC” flag is checked:

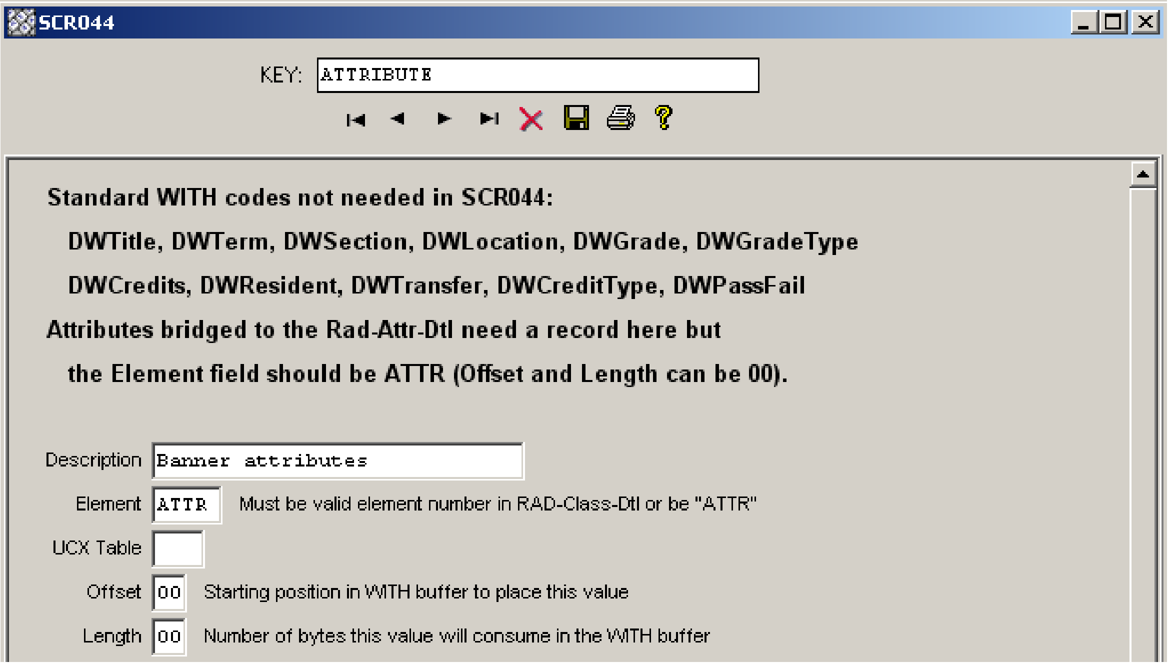
‘N’ - the SHRATTC attributes will be skipped for a given class if attributes from SHRATTR already exist for that class. This is the default value if this flag is left BLANK.

‘Y’ - the SHRATTC class attributes will always be processed and written to the rad_attr_dtl if found for a given class, even if SHRATTR attributes exist for that class. In this case class attributes from both the SHRATTR and SHRATTC Banner tables would be written to the rad_attr_dtl.

These values are available for use with the "WITH" keyword in Scribe and a single entry of "ATTRIBUTE" must be defined in UCX-SCR044. Class Attributes may be used where a requirement varies based on class data. For example, classes in the "Honors" program might have an "HONR" Class Attribute assigned to each "Honors" class. If a student is in the "Honors" program and must complete 5 credits in Honors English, then the requirement could be written as follows:

```
5 Credits in ENGL @ (With Attribute = HONR)
```

The above requirement will only work properly if the "ATTRIBUTE" is added to UCX-SCR044 with the "ATTR" Element assigned. The "ATTR" tells DegreeWorks that this item is defined in the rad_attr_dtl. Be sure to set the Offset and Length fields to "00". See the UCX-SCR044 screen below.



KEY: ATTRIBUTE

**Standard WITH codes not needed in SCR044:**

**DWTitle, DWTerm, DWSection, DWLocation, DWGrade, DWGradeType**

**DWCredits, DWResident, DWTransfer, DWCreditType, DWPassFail**

**Attributes bridged to the Rad-Attr-Dtl need a record here but**

**the Element field should be ATTR (Offset and Length can be 00).**

Description: Banner attributes

Element: ATTR Must be valid element number in RAD-Class-Dtl or be "ATTR"

UCX Table:

Offset: 00 Starting position in WITH buffer to place this value

Length: 00 Number of bytes this value will consume in the WITH buffer

## Transfer Classes Applied to Program

(As of DW4.0.3)

In addition to class attributes generated from the standard Banner attribute tables, it is also possible to generate a rad_attr_dtl record for Transfer Classes which have been applied to a Program in Banner. Such classes are identified by linking the Banner Transfer Equivalence record, SHRTRCE, to the Transfer Course Degree Applied table SHRTRCD where SHRTRCD_APPLIED_IND = ‘Y’. The rad_attr_value will be populated with the student’s Program Code, which is extracted from the associated Degree table SHRDGMR. To enable this feature, set the UCX-CFG020BANNER flag “Transfer Program Attr” to ‘Y’.

You could then scribe the Program value in the related requirement blocks so that the Transfer Classes are applied appropriately. For instance, “do not accept any transfer classes for this requirement that are not applied to the AA program (coded attribute of PRAA)” could be scribed as:

```
MaxClasses 0 in @ (With DWTransfer = Y and Attribute <> PRAA)
```

# Banner Course Attributes

Banner “course attributes” are codes that are not part of the standard database tables passed for course records from the student system to DegreeWorks, These course attributes are stored in the **SCRATTR** Banner database table and are retrieved when courses are being pulled into DegreeWorks. These attributes are stored in the rad-crs-attr-dtl linked from the rad-course-mst by the course key. When a planner audit is performed the attributes associated with each course in the plan is sent to the auditor in case they are needed to satisfy requirements using “WITH Attribute=”.

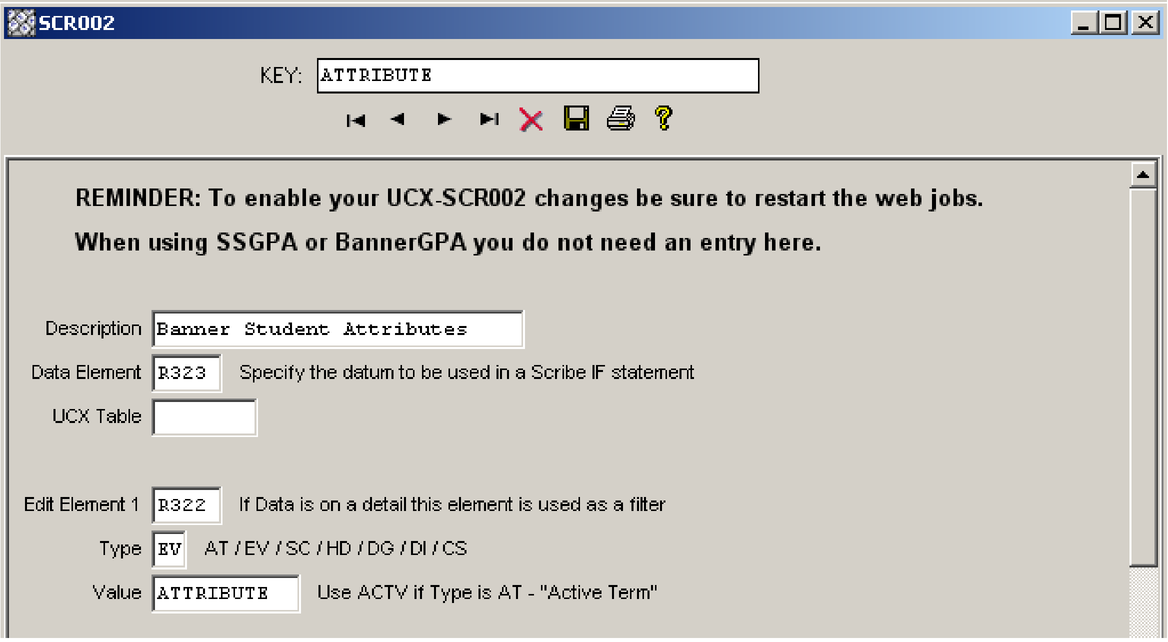
# Banner Student Attributes

Banner "student attributes" are codes that are not part of the standard database tables passed for class records (current, historic and transfer) from the student system to DegreeWorks, These student attributes are stored in the **SGRSATT** Banner database table. These attributes are retrieved using the student's PIDM. These values are available for use in If-statements in Scribe and may be used to control what appears in the student header on the audit worksheets. Student Attributes may be used where a requirement varies based on the presence or absence of an attribute. For example, students in the Honors program might have to take an additional set of classes. The Student Attribute code of "HONR", for example, will be pulled from Banner into DegreeWorks and will be used to control what requirements the student must meet. Such a requirement might be written as follows:

```
If (Attribute = HONR) then
  15 Credits in ENGL 4@ Label "15 upper-division credits required for honor students";
```

All Banner Student Attributes are placed into the rad-custom-dtl in DegreeWorks with a custom-code of "ATTRIBUTE" and a custom-value of the attribute code, such as "HONR" for example.

UCX-SCR002 must contain an ATTRIBUTE entry telling DegreeWorks to retrieve all rad-custom-dtl ATTRIBUTE records and send them to the auditor.



KEY: ATTRIBUTE

**REMINDER: To enable your UCX-SCR002 changes be sure to restart the web jobs.**

**When using SSGPA or BannerGPA you do not need an entry here.**

| | | |
|---|---|---|
| Description | Banner Student Attributes | |
| Data Element | R323 | Specify the datum to be used in a Scribe IF statement |
| UCX Table | | |
| Edit Element 1 | R322 | If Data is on a detail this element is used as a filter |
| Type | EV | AT / EV / SC / HD / DG / DI / CS |
| Value | ATTRIBUTE | Use ACTV if Type is AT - "Active Term" |

# Banner Setup Checklist

## UCX

Review and change UCX settings using SureCode (see SureCode documentation).

| UCX | Action |
|---|---|
| UCX-SCR001 STATUS | change Description to “Student Type” |
| UCX-SCR001 SCHOOL | change Description to “Level” |
| UCX-SCR001 LEVEL | change Description to “Student Class Level” |
| UCX-CFG020 BANNER | Be sure the Banner Site flag is Y.<br>You can turn on the Search in Banner flag now but it is suggested that you perform all searches against the bridged data at first while getting everything setup. Leave this flag as ‘N’ for now but switch it to ‘Y’ later in your implementation.<br>See the documentation regarding the other flags on this record. |
| UCX-CFG020 REFRESH | Set the flags to appropriately configure the refresh parameters |
| UCX-CFG020 SEARCH | Set the Show flags to ‘N’ for items you are not using. Show Specialization and Show Liberal Learning should be ‘N’ since these are not used in Banner.<br>Note - School in DegreeWorks is actually the same as Level in Banner.<br>See the documentation regarding the other flags on this record. |
| UCX-STU352 DISCIPLINE STATUS | Set the Discipline Status flag to ‘I’ for those disciplines that are Inactive. If a Discipline is Inactive then the class (current, historic and transfer) will be skipped and NOT bridged to the DegreeWorks rad_class_dtl. |
| UCX-STU385 IN PROGRESS Flag | The default In-Progress flag is ‘N’ for historical classes found in SHRTCKN. If an historical grade combination in UCX-STU385 (key = School/GradeType/Grade) is considered ‘In-Progress’ then set this In-Progress flag to ‘Y’ so that the rad_inprog_flag on the rad_class_dtl gets built appropriately with a ‘Y’ value. |
| UCX-STU385 OVERRIDE Flags | There is a “master” Override flag and 8 Override values. Refer to the Technical Guide UCX documentation on details on each of these Override fields is used. |
| UCX-STU385 Transfer Repeat Flags | There are three Transfer Repeat fields that may be used to override the standard Transfer Repeat Pointer and Repeat Policy used for repeated transfer classes. Please refer to the Technical Guide UCX documentation for details on how to load these fields. |
| UCX-BAN080 Custom Data | For special “if” statements and for any special data desired on the worksheet setup UCX-BAN080. Please refer to the Technical Guide UCX documentation for details on how to setup UCX-BAN080. |

# Banner Data Extracts

## Selecting People

Modify these files as needed to select the desired students, applicants, advisors and staff:

```
local/sql/bannerstudents.sql
local/sql/bannerapplicants.sql (As of DW4.0.2)
local/sql/banneradvisors.sql
local/sql/bannerstaff.sql
```

## Deleting People

Modify this file as needed if ID codes are to be deleted from DegreeWorks:

```
local/sql/bannerdeleteids.sql
```

## Selecting UCX Entries

If selected UCX tables are to be re-extracted from Banner to DegreeWorks, create a UCX file containing a list of DegreeWorks tables. For example, load one table per line:

```
STU356
STU385
STU560
```

Add a ".ucx" extension to this file in the local/sql directory. The actual file name can be any valid Unix file name. However, it MUST have the ".ucx" extension. For example, the file "bantables.ucx" may be created: local/sql/bantables.ucx. The banner extract command would be:

```
bannerextract ucx bantables.ucx
```

If this file is found then only the DegreeWorks tables listed in that file will be re-loaded with Banner data. Make sure to check the setting for the UCX-CFG020 BANNER "Add UCX Entries Only" flag. Make sure it is set to "N" if ALL entries are to be reloaded from Banner. If only NEW entries are to be loaded from Banner make sure this UCX-CFG020 flag is set to "Y".

## Selecting Different Records for Your Institution

Modify the **$ADMIN_HOME/common/bannerextract.config** file as needed to select a different set of records than those DegreeWorks is selecting by default. Make sure to review this file and make all appropriate changes for your site.

***NOTE: ALL of the Banner tables used by the banner extracts (ban40-ban47 and dap58) are now included in this configuration file.***

# Oracle

Install/setup Banner views, etc.

# Scripts

Setup “bannerextract” script in cron (see Technical documentation).

```
bannerextract student
bannerextract applicants (As of DW4.0.2)
bannerextract advisor
bannerextract staff
bannerextract course
bannerextract ucx
bannerextract equiv
bannerextract ets
```

# Post extract

After UCX has been copied from Banner review each of these tables and setup as needed.

Be sure not to run UCX extract again - unless the UCX-CFG020 BANNER Add UCX Entries Only is set to Y so that none of the records you changed will be deleted – only new records in Banner will be added to the UCX.

| Table | Fields to setup |
|---|---|
| UCX-AUD027 | Filter fields |
| UCX-STU016 | Planner flag |
| UCX-STU035 | Planner flag |
| UCX-STU307 | Short degree field |
| UCX-STU346 | Calendar codes used in WebTreQer (As of DW4.0.2) |
| UCX-STU352 | Discipline Status (“I” – Inactive) |
| UCX-STU385 | GPA Calc flag |
| UCX-STU385 | In-Progress flag |
| UCX-STU385 | Override flags |
| UCX-STU385 | Override Transfer Repeat flag/fields |

# DegreeWorks Data Extract

## Configuration and Installation

The DegreeWorks Data Extract process for Banner clients was developed using Oracle's Pro*C embedded SQL tools. These programs execute on the DegreeWorks application server – Linux, UNIX, etc. SunGard has developed several extract programs to not only extract the required data but to also convert the data to the Bridge Interface Format (BIF) so that it is ready to load into DegreeWorks.

Verify or perform the following steps to configure your DegreeWorks Server to perform the Banner DegreeWorks Data Extract:

### STEP 1 – Banner Database login

Be sure the DB_LOGIN_BANNER environment variable is set correctly:

```
$ echo $DB_LOGIN_BANNER
```

If this does not show the correct Banner database login you need to edit this variable in dwenv.config and log back into your host session. Here are examples of how to set this variable:

```
export DB_LOGIN_BANNER=userid/userpwd
export DB_LOGIN_BANNER=userid/userpwd@some.other.machine.edu
```

If the database is on a remote machine you may use the "@" option to specify where the database resides.

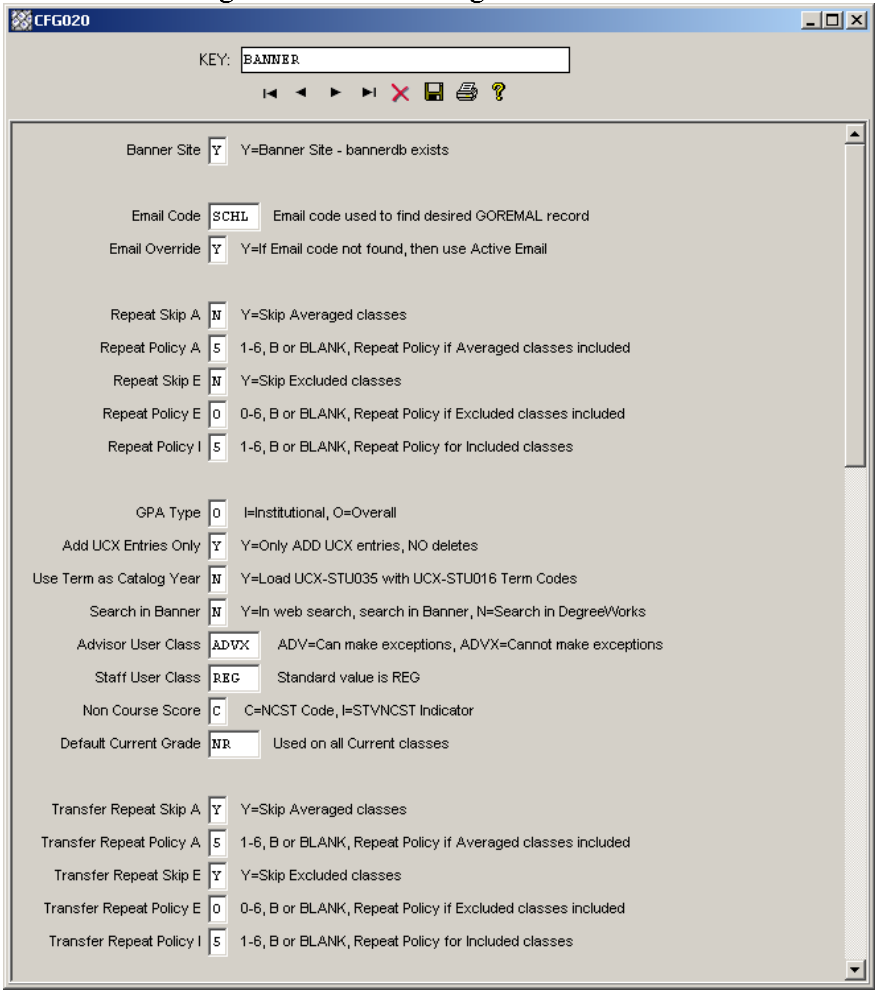
Be sure the ORACLE_SID environment variable is set correctly:

```
$ echo $ORACLE_SID
```

If this is not set correctly, review your setup of dwenv.config – see config_SetupMenuItems.

## STEP 2 – Setup UCX-CFG020 BANNER

Review all settings BEFORE running the extract.



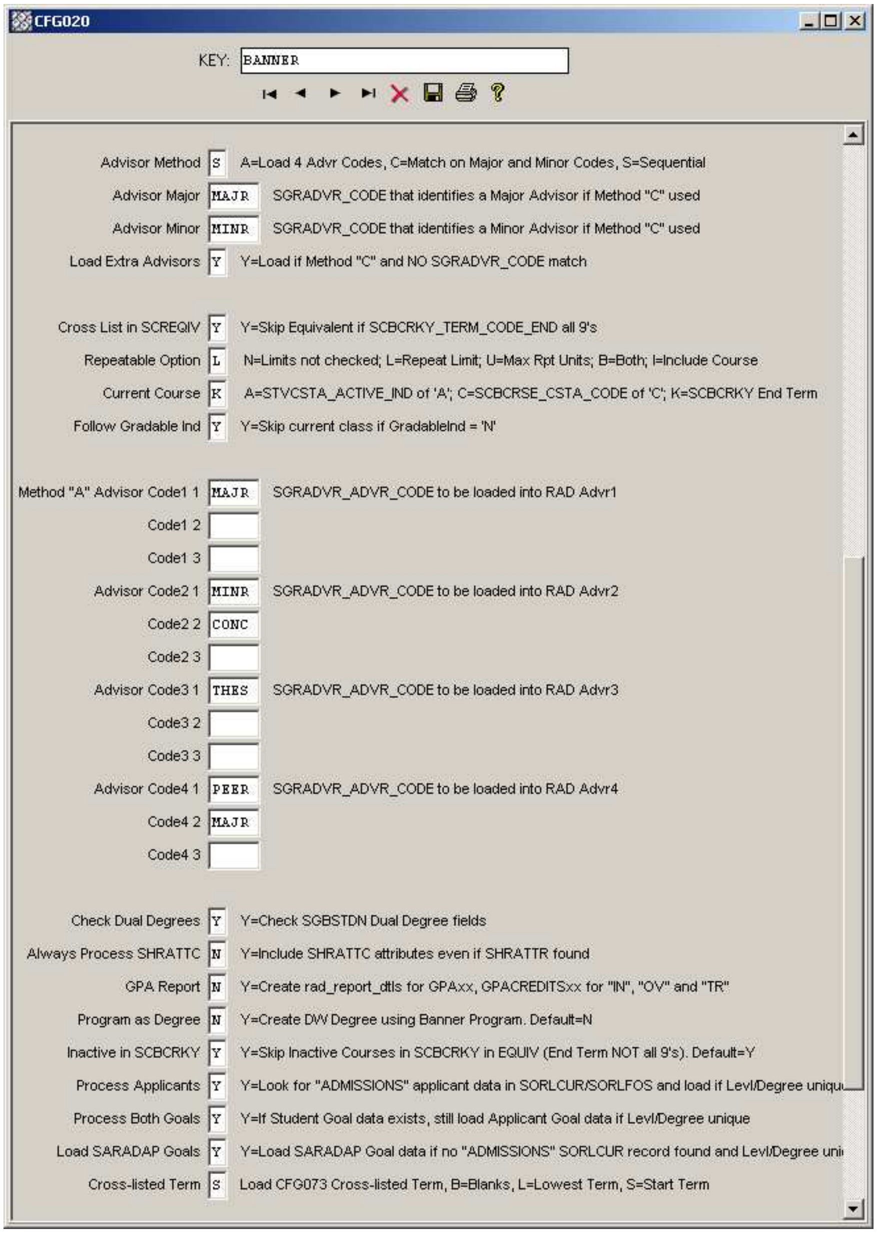
KEY: BANNER

| | | |
|---|---|---|
| Banner Site | Y | Y=Banner Site - bannerdb exists |
| Email Code | SCHL | Email code used to find desired GOREMAL record |
| Email Override | Y | Y=If Email code not found, then use Active Email |
| Repeat Skip A | N | Y=Skip Averaged classes |
| Repeat Policy A | 5 | 1-6, B or BLANK, Repeat Policy if Averaged classes included |
| Repeat Skip E | N | Y=Skip Excluded classes |
| Repeat Policy E | 0 | 0-6, B or BLANK, Repeat Policy if Excluded classes included |
| Repeat Policy I | 5 | 1-6, B or BLANK, Repeat Policy for Included classes |
| GPA Type | O | I=Institutional, O=Overall |
| Add UCX Entries Only | Y | Y=Only ADD UCX entries, NO deletes |
| Use Term as Catalog Year | N | Y=Load UCX-STU035 with UCX-STU016 Term Codes |
| Search in Banner | N | Y=In web search, search in Banner, N=Search in DegreeWorks |
| Advisor User Class | ADVX | ADV=Can make exceptions, ADVX=Cannot make exceptions |
| Staff User Class | REG | Standard value is REG |
| Non Course Score | C | C=NCST Code, I=STVNCST Indicator |
| Default Current Grade | NR | Used on all Current classes |
| Transfer Repeat Skip A | Y | Y=Skip Averaged classes |
| Transfer Repeat Policy A | 5 | 1-6, B or BLANK, Repeat Policy if Averaged classes included |
| Transfer Repeat Skip E | Y | Y=Skip Excluded classes |
| Transfer Repeat Policy E | 0 | 0-6, B or BLANK, Repeat Policy if Excluded classes included |
| Transfer Repeat Policy I | 5 | 1-6, B or BLANK, Repeat Policy for Included classes |

**Repeat Policy**
Although you may use repeat policies 1-6 telling DegreeWorks to use the class with the best grade or the most recently taken class etc it is recommended that you set the Repeat Policy flags to ‘B’ for all Repeat Indicators. When ‘B’ is used this behavior will occur:

- **Excluded** classes will end up in the Insufficient section of the audit but they will not affect the overall GPA or credits.
- **Averaged** classes will end up in the Insufficient section of the audit and they will affect the overall GPA but will not be counted in the overall credits towards degree.
- **Included** classes will apply to rules as normal classes affecting the GPA and total credits.

By using the ‘B’ setting you are telling DegreeWorks to handle each class based on the indicator without regard to grades or terms taken as the decision about which classes should be counted and not counted has already been made and recorded using the indicator. When ‘B’ is in use the normal DegreeWorks repeat logic is skipped simplifying the auditing process greatly.



KEY: BANNER

| | | |
|---|---|---|
| Advisor Method | S | A=Load 4 Advr Codes, C=Match on Major and Minor Codes, S=Sequential |
| Advisor Major | MAJR | SGRADVR_CODE that identifies a Major Advisor if Method "C" used |
| Advisor Minor | MINR | SGRADVR_CODE that identifies a Minor Advisor if Method "C" used |
| Load Extra Advisors | Y | Y=Load if Method "C" and NO SGRADVR_CODE match |
| Cross List in SCREQIV | Y | Y=Skip Equivalent if SCBCRKY_TERM_CODE_END all 9's |
| Repeatable Option | L | N=Limits not checked; L=Repeat Limit; U=Max Rpt Units; B=Both; I=Include Course |
| Current Course | K | A=STVCSTA_ACTIVE_IND of 'A'; C=SCBCRSE_CSTA_CODE of 'C'; K=SCBCRKY End Term |
| Follow Gradable Ind | Y | Y=Skip current class if GradableInd = 'N' |
| Method "A" Advisor Code1 1 | MAJR | SGRADVR_ADVR_CODE to be loaded into RAD Advr1 |
| Code1 2 | | |
| Code1 3 | | |
| Advisor Code2 1 | MINR | SGRADVR_ADVR_CODE to be loaded into RAD Advr2 |
| Code2 2 | CONC | |
| Code2 3 | | |
| Advisor Code3 1 | THES | SGRADVR_ADVR_CODE to be loaded into RAD Advr3 |
| Code3 2 | | |
| Code3 3 | | |
| Advisor Code4 1 | PEER | SGRADVR_ADVR_CODE to be loaded into RAD Advr4 |
| Code4 2 | MAJR | |
| Code4 3 | | |
| Check Dual Degrees | Y | Y=Check SGBSTDN Dual Degree fields |
| Always Process SHRATTC | N | Y=Include SHRATTC attributes even if SHRATTR found |
| GPA Report | N | Y=Create rad_report_dtls for GPAxx, GPACREDITSxx for "IN", "OV" and "TR" |
| Program as Degree | N | Y=Create DW Degree using Banner Program. Default=N |
| Inactive in SCBCRKY | Y | Y=Skip Inactive Courses in SCBCRKY in EQUIV (End Term NOT all 9's). Default=Y |
| Process Applicants | Y | Y=Look for "ADMISSIONS" applicant data in SORLCUR/SORLFOS and load if Levl/Degree uniqu |
| Process Both Goals | Y | Y=If Student Goal data exists, still load Applicant Goal data if Levl/Degree unique |
| Load SARADAP Goals | Y | Y=Load SARADAP Goal data if no "ADMISSIONS" SORLCUR record found and Levl/Degree uni |
| Cross-listed Term | S | Load CFG073 Cross-listed Term, B=Blanks, L=Lowest Term, S=Start Term |

## STEP 3 – Setup SQL select files

Review, modify and/or create the ".sql" files in the local/sql directory using your DegreeWorks user *before* launching the RAD30 processor or the bannerextract script. It is recommended that you copy the sql statement into sqlplus and make sure it executes properly. Also, make sure that the number of ID codes selected by the sql statement is what is expected and that they are the correct ID codes.

**Note:** If a Banner table is used in one of the sql files identified below that is ***not*** found in the "Required Access to Banner Tables" list located at the end of this document make sure to have your database administrator add the appropriate access. Otherwise the ID codes will not be extracted correctly and the banner extract will fail.

Review and modify as needed the file used to select the **students** you want bridged to DegreeWorks:

```
local/sql/bannerstudents.sql
```

Review and modify as needed the file used to select the **applicants** you want bridged to DegreeWorks:

```
local/sql/bannerapplicants.sql
```

Review and modify as needed the file used to select the **advisors** you want bridged to DegreeWorks:

```
local/sql/banneradvisors.sql
```

## STEP 4 – Setup bannerextract.config file

Review and modify as needed the **$ADMIN_HOME/common/bannerextract.config** file to select a different set of records based on your particular needs. The SQL FROM/WHERE clauses for every Banner table used by the banner extract programs are included in this configuration file.

The config file should look like the example you see here – the FROM/WHERE text for your school may need to be changed.

```
# SGBSTDN must be a; AND is required at the end of the WHERE
SGBSTDN-from:  FROM SGBSTDN a
SGBSTDN-where: WHERE a.SGBSTDN_TERM_CODE_EFF =
SGBSTDN-where:       (SELECT MAX(b.SGBSTDN_TERM_CODE_EFF)
SGBSTDN-where:        FROM SGBSTDN b WHERE b.SGBSTDN_PIDM = a.SGBSTDN_PIDM) AND
#                    a.SGBSTDN_PIDM = <students-pidm>
```

A special set of records with keys of "CALCFCN-from:" and "CALCFCN-where:" have been created for the special Banner function: "F_CLASS_CALC_FCN". This function call is made by the banner student extract using the PIDM, LEVL_CODE and TERM_CODE specified in this bannerextract.config file to generate the student's Class Standing code that is loaded into the rad_stu_level on the rad_goal_dtl. A default set of special records with a key of "CALCFCN" are included in this configuration file and are loaded with the FROM and WHERE clauses from the SGBSTDN default entry. Change this set of "CALCFCN" records as appropriate for your site.

Here is an example of the SORLCUR/SORLFOS entries in this configuration file:

```
################### SORLCUR - LEARNER CURRICULUM (ban40) ###############

# SORLCUR must be a; AND is required at the end of the WHERE
SORLCUR-from:  FROM SORLCUR a
SORLCUR-where: WHERE a.SORLCUR_CACT_CODE = 'ACTIVE'
SORLCUR-where:   AND a.SORLCUR_SEQNO     =
SORLCUR-where:    (SELECT MAX(b.SORLCUR_SEQNO) FROM SORLCUR b
SORLCUR-where:      WHERE b.SORLCUR_PIDM        = a.SORLCUR_PIDM
SORLCUR-where:        AND b.SORLCUR_PRIORITY_NO = a.SORLCUR_PRIORITY_NO
SORLCUR-where:        AND b.SORLCUR_LMOD_CODE   = 'LEARNER')
SORLCUR-where:   AND
#                    a.SORLCUR_PIDM = <students-pidm>

################### SORLFOS - STUDENT FIELD OF STUDY (ban40) ###########

# SORLFOS must be a; AND is required at the end of the WHERE
SORLFOS-from:  FROM SORLFOS a, SORLCUR b
SORLFOS-where: WHERE b.SORLCUR_CACT_CODE  = 'ACTIVE'
SORLFOS-where:   AND b.SORLCUR_SEQNO =
SORLFOS-where:    (SELECT MAX(c.SORLCUR_SEQNO) FROM SORLCUR c
SORLFOS-where:      WHERE c.SORLCUR_PIDM        = b.SORLCUR_PIDM
SORLFOS-where:        AND c.SORLCUR_PRIORITY_NO = b.SORLCUR_PRIORITY_NO
SORLFOS-where:        AND c.SORLCUR_LMOD_CODE   = 'LEARNER')
SORLFOS-where:   AND a.SORLFOS_CSTS_CODE  = 'INPROGRESS'
SORLFOS-where:   AND a.SORLFOS_CACT_CODE  = 'ACTIVE'
SORLFOS-where:   AND a.SORLFOS_PIDM       = b.SORLCUR_PIDM
SORLFOS-where:   AND a.SORLFOS_LCUR_SEQNO = b.SORLCUR_SEQNO
SORLFOS-where:   AND
#                    a.SORLFOS_PIDM = <students-pidm>
```

# Batch Data Extract Process

Student and/or applicant academic data is required for DegreeWorks to generate a Degree Audit. SunGard extracts student data, applicant data, advisor information, your course catalog and the list of transfer institutions from the Banner database and stores this data in the Repository for Audit Data (RAD) database tables. This procedure is known as the DegreeWorks Bridge process and consists of the following data extraction processes:

**Students** – active students' academic and basic biographic data are extracted based on the SQL specified in the $ADMIN_HOME/common/bannerextract.config file. Student data can also be extracted individually by the SPRIDEN ID.

**Applicants** – admissions applicants academic and basic biographic data may be extracted based on the SQL specified in the $ADMIN_HOME/common/bannerextract.config file. However, only unique combinations of the Level (School) and Degree may be extracted (this assumes the UCX-CFG020 BANNER configuration flags are set appropriately and/or the APPLICANT data extract is performed). Applicant data may also be extracted individually by the SPRIDEN ID.
(As of DW4.0.2)

**Advisors** – access records are created for advisors who require access to DegreeWorks

**Staff** – access records are created for staff who require access to DegreeWorks

**Course Catalog** – all current courses from your course catalog

**Course Equivalents** – historic courses and their current equivalent courses

**ETS** – Transfer institution ETS codes, names and identification data

**UCX Validation Codes** – Validation tables consisting of data from Banner STV tables

**Mappings** – Transfer Articulation Mappings for import into TreQ and WebTreQer
This mapping information is also used by a CourseLink display. (As of DW4.0.4)

The batch extract programs are executed one of two ways: a script named **bannerextract** or via Transit. When extracting students DegreeWorks automatically runs a new degree audit for each of the students that have changed data since the last time they were extracted. In doing this you will be sure that each student's degree audit reflects any changes made to their student record.

The bannerextract for ETS must be run before bannerextract mappings.

## bannerextract

This script can be used to schedule the extract to run using **cron** or **at** or it can be run directly at any time during the day as needed.

**Warning: Be sure you are not in the local/sql directory when running bannerextract.**

## Student

To run the **student** extract using bannerstudents.sql file in the local/sql directory:

```
	$ bannerextract student
```

You may also specify a different sql file in the local/sql directory:

```
	$ bannerextract student somestudents.sql
```

You may also specify a file of student IDs in the local/sql, admin/data or current directory:

```
	$ bannerextract student somestudents.ids
```

For testing purposes you may also supply a single student ID instead of a file name:

```
	$ bannerextract student 1234567
```

Sometimes a need arises to force a student to be bridged from Banner into DegreeWorks thereby ignoring or overriding the hash value that is normally checked.  An environment variable can be set to force this extract. This variable must be set at the command line. The extract must also be run from the command line. Once the user does not want to force extracting, the user can either log off or reset the environment variable. Make sure the command is typed exactly as below (case Does matter). Only extracts performed from the command line by this user will be affected by this environment variable.  Transit extracts will not be affected. Extracts done during a cron job will not be affected unless explicitly denoted in the cron job.
For Banner sites the commands are:

```
	$export RAD11FORCE=ALL
	$bannerextract student listofstudents
```

## Applicant

(As of DW4.0.2)

To run the **applicant** extract using bannerapplicants.sql file in the local/sql directory:

```
	$ bannerextract applicant
```

You may also specify a different sql file in the local/sql directory:

```
	$ bannerextract applicant someapplicants.sql
```

You may also specify a file of applicant IDs in the local/sql, admin/data or current directory:

```
	$ bannerextract applicant someapplicants.ids
```

For testing purposes you may also supply a single applicant ID instead of a file name:

```
	$ bannerextract applicant 2468642
```

## Advisor

To run the **advisor** extract using banneradvisors.sql file in the local/sql directory:

```
        $ bannerextract advisor
```

You may also specify a different sql file in the local/sql directory:

```
        $ bannerextract advisor someadvisors.sql
```

You may also specify a file of advisor IDs in the local/sql, admin/data or current directory:

```
        $ bannerextract advisor someadvisor.ids
```

You may also supply a single advisor ID instead of a file name:

```
        $ bannerextract advisor 1234567
```

## Staff

To run the **staff** extract, you must save a file of staff IDs in the local/sql directory. The file can have any name but it must have the .ids extension, for example “staff.ids”. Exit the local/sql directory before running the following command (you must NOT be in local/sql when running bannerextract):

```
        $ bannerextract staff staff.ids
```

You may also supply a single staff ID instead of a file name:

```
        $ bannerextract staff 1234567
```

## Deleting IDs

To delete unwanted IDs from the DegreeWorks database, you can create a query to select those individuals, and save it in a file named local/sql/bannerdeleteids.sql. To run the delete function, issue the following command after exiting the local/sql directory (do NOT use with cron):

```
        $ bannerextract deleteid
```

You may also specify a different sql file in the local/sql directory:

```
        $ bannerextract deleteid somedeletes.sql
```

You may also specify a file of IDs in the local/sql, admin/data or current directory:

```
        $ bannerextract deleteid somedeletes.ids
```

## Selected UCX Tables

To run the **ucx** extract using a list of DegreeWorks UCX tables listed in a file in the local/sql directory with an ".ucx" extension **(do NOT use with cron)**:

```
$ bannerextract ucx someucxtables.ucx
```

WARN: DO NOT put the UCX_ prefix on the table names even though the actual database table names are: UCX_STU352, UCX_STU560 and UCX_STU563)

For example, the "local/sql/someucxtables.ucx" file might contain tables:

```
STU352
STU560
STU563
```

In this case ONLY these 3 UCX tables will be re-extracted from Banner.

**Note**: The UCX-STU563 table (Concentrations) is re-created from the STVMAJR Banner table which also is used to recreate major tables (UCX-STU023 and UCX-AUD027) and minor tables (UCX-STU024 and UCX-AUD029). However, *only* UCX-STU563 will be extracted with this banner extract.

Make sure to check the setting for the UCX-CFG020 BANNER "Add UCX Entries Only" flag BEFORE running the UCX bannerextract. Make sure it is set to "N" if ALL entries are to be reloaded from Banner. If only NEW entries are to be loaded from Banner make sure this UCX-CFG020 flag is set to "Y".

In the above example, UCX-STU352 is being re-extracted. It has a "Discipline Status" flag in it which is manually input using SureCode. These updates will need to be made again if the entire UCX-STU352 is re-extracted.

## Other Modes

The other extract modes do not have associated sql files – these modes extract ALL records from the Banner database and load them into the associated DegreeWorks database tables:

```
$ bannerextract course
```

Only adds/updates rad_course_mst records, but deletes and re-adds rad_crs_attr_dtl records.

```
$ bannerextract ucx
```

If UCX-CFG020 BANNER Add UCX Entries Only = "N" all records are deleted and re-added.
If UCX-CFG020 BANNER Add UCX Entries Only = "Y" only new records will be added (no updates).

```
$ bannerextract equiv
```

The dap_eqv_crs_mst and UCX-CFG070 are first both deleted and all equivalencies re-added.

```
$ bannerextract ets
```

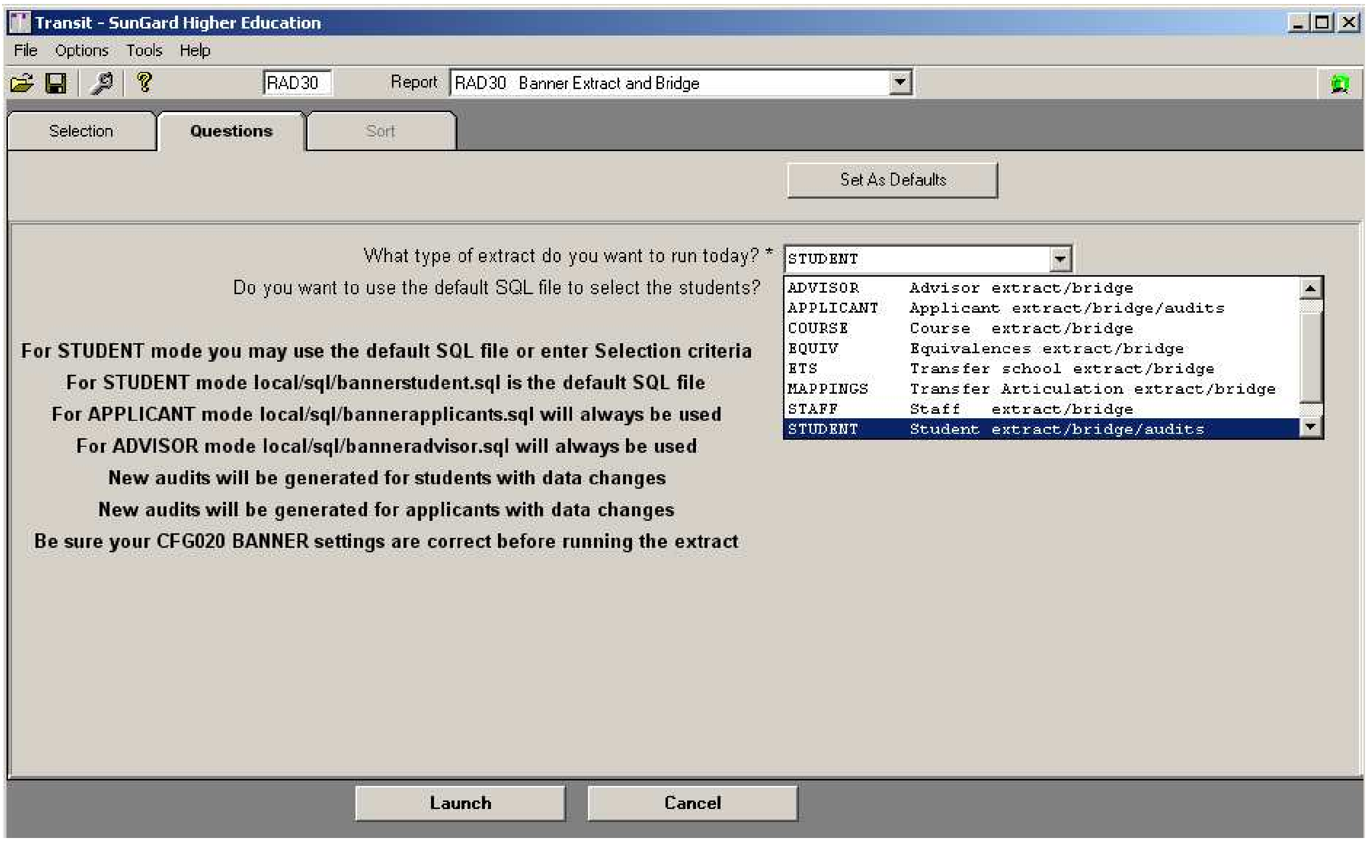
Only adds/updates rad_ets_mst records (no deletes).

```
$ bannerextract mappings
```

The old mappings are first deleted and then new mappings are re-added.

# Transit – RAD30

You may use the RAD30 processor in Transit to run the Banner extract. When running the STUDENT extract you may use the default .sql file or you may use the Selection tab to choose the pool of students you want extracted.  Your user logon must be given the PTSBANPR key in order for RAD30 to show up as an option for you in Transit - this key can be added to your user using SHPCFG.



RAD30 Report: RAD30 Banner Extract and Bridge

What type of extract do you want to run today? * STUDENT

Do you want to use the default SQL file to select the students?

```
ADVISOR     Advisor extract/bridge
APPLICANT   Applicant extract/bridge/audits
COURSE      Course  extract/bridge
EQUIV       Equivalences extract/bridge
ETS         Transfer school extract/bridge
MAPPINGS    Transfer Articulation extract/bridge
STAFF       Staff   extract/bridge
STUDENT     Student extract/bridge/audits
```

**For STUDENT mode you may use the default SQL file or enter Selection criteria**

**For STUDENT mode local/sql/bannerstudent.sql is the default SQL file**

**For APPLICANT mode local/sql/bannerapplicants.sql will always be used**

**For ADVISOR mode local/sql/banneradvisor.sql will always be used**

**New audits will be generated for students with data changes**

**New audits will be generated for applicants with data changes**

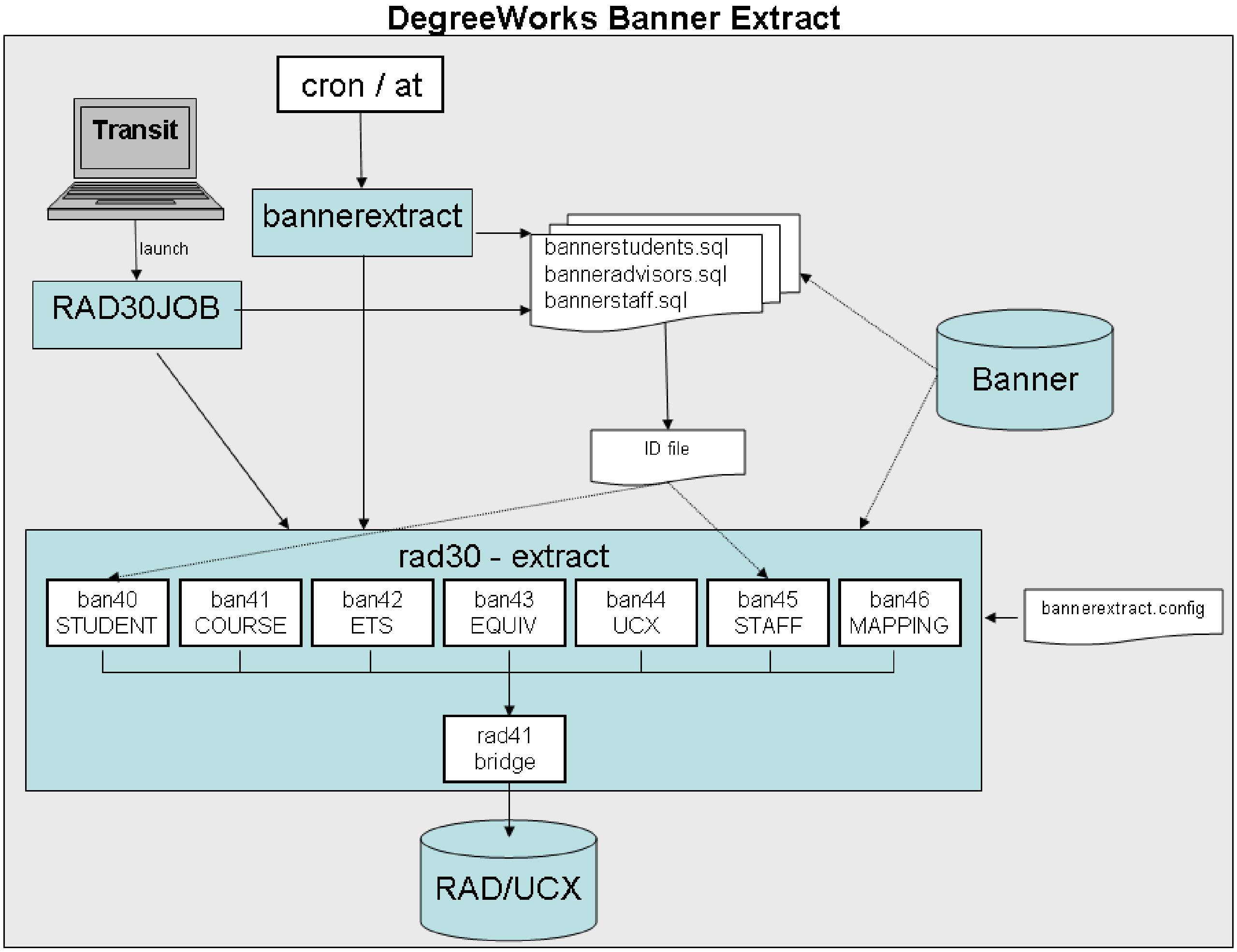
**Be sure your CFG020 BANNER settings are correct before running the extract**

## DGWCPUCOUNT

Both the bannerextract script and the RAD30JOB script will use the DGWCPUCOUNT environment variable to split up the file of student, advisor or staff IDs into multiple files. Once multiple ID files are created, the scripts are then able to launch multiple processes on each of the files. In theory, with DGWCPUCOUNT set to 4 the task gets done in a quarter of the time.

See dwenv.config to change your DGWCPUCOUNT setting.

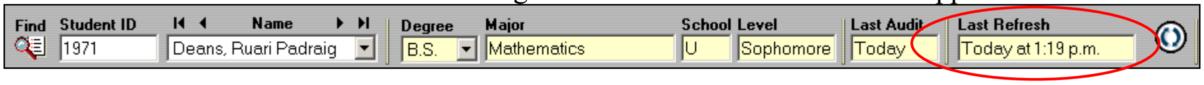
# Batch Extract Flow Diagram



# Dynamic Data Extract Process

In addition to extracting student data via the batch extract you may extract data for a single student using the dynamic method – there are two ways in which a dynamic extract may take place: the first is available from within the DegreeWorks web application as a button, and the second occurs whenever a triggering event takes place.

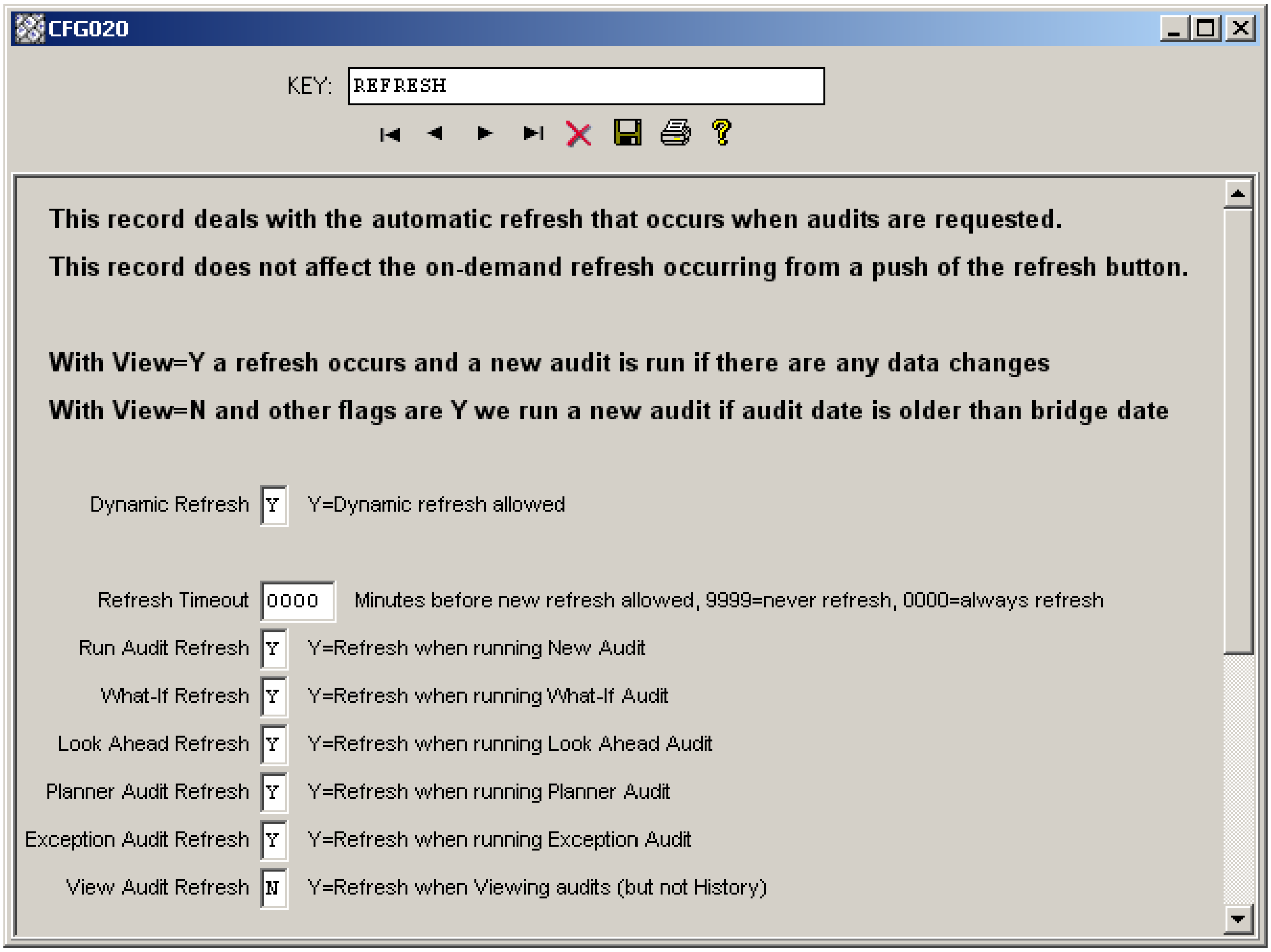
The first way of performing a dynamic extract from Banner is to push a button. Users with the SDREFRES key will be shown the Last Refresh field in the student context area at the top of the main web page. When the UCX-CFG020 BANNER "Banner Site" flag is Y the Refresh button will also appear for these users.



| Find | Student ID | Name | Degree | Major | School | Level | Last Audit | Last Refresh |
|---|---|---|---|---|---|---|---|---|
| | 1971 | Deans, Ruari Padraig | B.S. | Mathematics | U | Sophomore | Today | Today at 1:19 p.m. |

The Last Refresh date and time indicate the last time the student's academic data was copied from Banner into DegreeWorks. At any time users may click the on-demand refresh button to once again pull in this student's data. Users may want to do this after a major or grade change was made in Banner and they don't want to wait for the nightly batch extract. Once the extract process completes the user will get a confirmation message and the Last Refresh date/time will be updated.

The second way of performing a dynamic extract involves a triggering event, which may occur when any user requests an audit from the Worksheets, What If, Planner, Exceptions or Look Ahead tabs. The UCX-CFG020 REFRESH record in SureCode is used to control this behavior.



KEY: REFRESH

This record deals with the automatic refresh that occurs when audits are requested.

This record does not affect the on-demand refresh occurring from a push of the refresh button.

With View=Y a refresh occurs and a new audit is run if there are any data changes

With View=N and other flags are Y we run a new audit if audit date is older than bridge date

Dynamic Refresh Y Y=Dynamic refresh allowed

Refresh Timeout 0000 Minutes before new refresh allowed, 9999=never refresh, 0000=always refresh

Run Audit Refresh Y Y=Refresh when running New Audit

What-If Refresh Y Y=Refresh when running What-If Audit

Look Ahead Refresh Y Y=Refresh when running Look Ahead Audit

Planner Audit Refresh Y Y=Refresh when running Planner Audit

Exception Audit Refresh Y Y=Refresh when running Exception Audit

View Audit Refresh N Y=Refresh when Viewing audits (but not History)

## Running Audits

Turning on the Dynamic Refresh with all or some of the other flags turned on will affect performance – both for all users of the system and the particular users attempting to run an audit. Before DegreeWorks runs the requested audit it refreshes the student's academic data from Banner – this takes extra time and will consume additional system resources. When a refresh occurs through running an audit the user is not notified – but the Last Refresh date/time is updated.

The Refresh Timeout is a mechanism the client may use to inhibit repetitive dynamic refreshes for students that are incidental and not necessary, for instance when multiple What-Ifs are being launched within a short time span. The client can specify a length of time during which no additional refreshes of data would be appropriate. This timeout setting is used in conjunction with the refresh date/time stored on the rad-primary-mst to tell DegreeWorks if it should re-read the student's data in Banner.

As with the batch extract process, the ban40/banstudent and rad41/radbridge routines are used to perform the dynamic refresh. The rad41/radbridge does check for changed data and will skip the insertion of records if no changes exist – but will update the refresh date/time on the rad-primary-mst and that shown on the web page either way.

**Viewing Audits** With the View Audit Refresh flag set to Y the system will check the timeout setting as with running an audit and will execute the extract as needed. If there are data changes a new audit will be run. In addition, the audit and refresh date/times will be updated in the student context area on the web page reflecting what has just occurred. When an extract is processed while in View mode the bridge date/time are not updated if there are no real data changes – this is different from when in Run mode.

When the View Audit Refresh flag is N and one of the other refresh flags is Y the system compares the extract/bridged date/time to that on the most recent audit for the given school/degree. If it is determined that the audit is stale a new audit will be processed.

# Banner Degree Coding Structure

For each student, DegreeWorks creates a degree record for each active SORLCUR record it finds with a unique sorlcur_degc_code. One or more SORLFOS records is linked back to the associated SORLCUR(s) by the lcur_seq_no. Each SORLFOS major/minor/concentration is placed on this degree record. Each degree record built in DegreeWorks will result in a discrete degree audit.

Note that DegreeWorks does not utilize the sorlcur_program field to identify and extract the student's degree-major combination. In DegreeWorks, the degree is specifically taken from sorlcur_degc_code and the major is specifically taken from the associated SORLFOS record(s). However, the sorlcur_program is extracted and stored separately and can be referenced with Scribe to create a Program Requirement block, or differentiate between degree-major combinations by using the Program as a secondary tag. (As of DW4.0.1)

**Example A**

| **one degree - two majors** | |
|---|---|
| **Definition of degree, and location of data, in Banner** | **Results in DegreeWorks** |
| SORLCUR - sorlcur_degc_code =BS; seq-no=1<br>SORLFOS - sorlfos_majr_code =CHEM; lcur_seq_no=1<br>SORLFOS - sorlfos_majr_code =BIOL; lcur_seq_no=1 | This will result in one degree record in DegreeWorks - a BS degree with two majors. The degree audit will be run against this degree with two majors sharing or not sharing classes based on the requirements. |
| | |

**Example B**

| **two degrees of different type (same level) - two majors** | |
|---|---|
| **Definition of degree, and location of data, in Banner** | **Results in DegreeWorks** |
| SORLCUR - sorlcur_degc_code=BS; seq-no=1<br>SORLFOS - sorlfos_majr_code =MATH; lcur_seq_no=1<br>SORLCUR - sorlcur_degc_code =BS; seq-no=2<br>SORLFOS - sorlfos_majr_code =PHYS; lcur_seq_no=2 | This will result in one degree record in DegreeWorks - a BS degree with two majors. The degree audit will be run against this degree with two majors sharing or not sharing classes based on the requirements. |
| | |

**Example C**

| **two different degrees (same level) - two majors** | |
|---|---|
| **Definition of degree, and location of data, in Banner** | **Results in DegreeWorks** |
| SORLCUR - sorlcur_degc_code =BS; seq-no=1<br>SORLFOS - sorlfos_majr_code =CHEM; lcur_seq_no=1<br>SORLCUR - sorlcur_degc_code =BA; seq-no=2<br>SORLFOS - sorlfos_majr_code =ARTH; lcur_seq_no=2 | This will result in two degree records in DegreeWorks - a BS degree with a CHEM major and a BA degree with an ARTH major. Two discrete degree audits will be produced - all classes will be applied to both sets of degrees/majors regardless of sharing policies. |
| | |

## Example D

| two degrees (different level) – two majors | |
|---|---|
| **Definition of degree, and location of data, in Banner** | **Results in DegreeWorks** |
| SORLCUR - sorlcur_degc_code =BS; level=UG; seq-no=1<br>SORLFOS - sorlfos_majr_code =CHEM; lcur_seq_no=1<br>SORLCUR - sorlcur_degc_code =MA; level=GR; seq-no=2<br>SORLFOS - sorlfos_majr_code =PHIL; lcur_seq_no=2 | This will result in two degree records in DegreeWorks - a BS degree with a CHEM major and an MA degree with a PHIL major. Two discrete degree audits will be produced. The undergraduate classes will be applied to the BS degree/major and the graduate classes will be applied to the MA/PHIL degree/major. (Note - you may change the configuration flag to allow all classes to apply to both degrees thus ignoring the level filter that is in place by default.) |
| | |

## Example E

| two different BS degrees (same level) - two majors – Not recommended | |
|---|---|
| **Definition of degree, and location of data, in Banner** | **Results in DegreeWorks** |
| SORLCUR - sorlcur_degc_code=BSMATH; seq-no=1<br>SORLFOS - sorlfos_majr_code =MATH; lcur_seq_no=1<br>SORLCUR - sorlcur_degc_code =BSPHYS; seq-no=2<br>SORLFOS - sorlfos_majr_code =PHYS; lcur_seq_no=2 | This will result in two degree records in DegreeWorks - a BSMATH degree with a MATH major and a BSPHYS degree with a PHYS major. Two discrete degree audits will be produced - all classes will be applied to both sets of degrees/majors regardless of sharing policies. This is not a recommended approach. It is best to stick with Example A and link both majors to a single BS degree record. Students normally cannot double-count all classes between the two majors and the only way to prevent the double-counting is to link them to the same degree. |
| | |

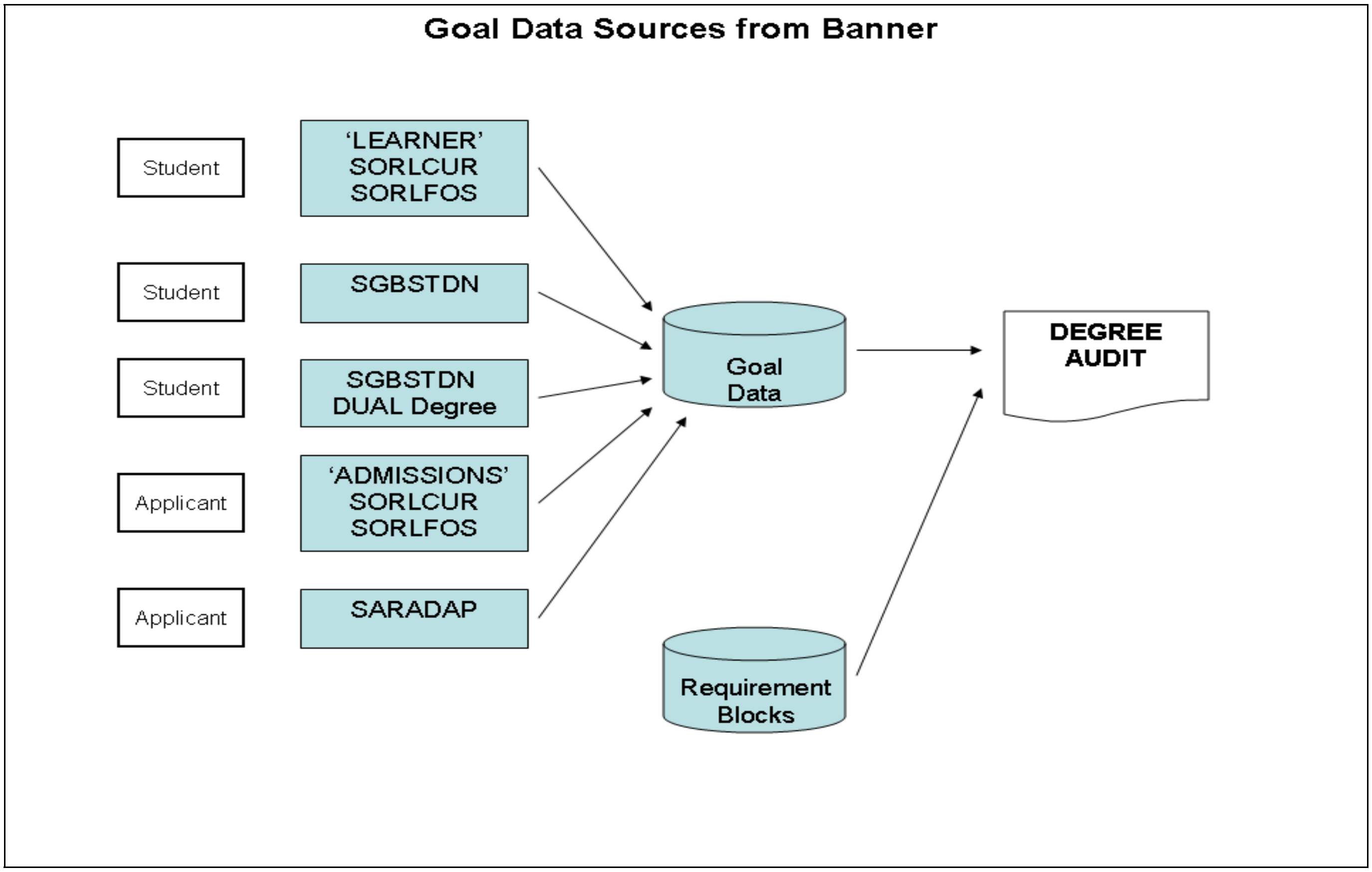
If concurrent curriculum is not used for the student being processed, then this data will be extracted from the fixed columns found on the SGBSTDN table.

# Banner Applicant Processing

(As of DW4.0.2)

DegreeWorks now allows the import of admissions data from Banner, allowing applicants to view degree audit worksheets. This can be a powerful recruiting tool for applicants who have transfer, test scores, custom records or other appropriate data in DegreeWorks.

The Banner extract (RAD30/BAN40) may now be run with the new **APPLICANT** mode to create the appropriate Goal and Goal Data records for each unique Level (school) and Degree combination (as well as extract all other appropriate Banner data for an applicant that may be used by DegreeWorks). The picture below outlines how the Goal Data may be loaded into DegreeWorks by the ban40 data extract with three STUDENT paths and two APPLICANT paths:



Basically there are 5 paths that ban40 may take to load student/applicant Goal data:

1) Student Goal Data may be loaded from 'LEARNER' SORLCUR/SORLFOS curriculum records
2) Student Goal Data may be loaded from SGBSTDN curriculum data
3) Student Goal Data may be loaded from SGBSTDN DUAL degree data
4) Applicant Goal Data may be loaded from 'ADMISSIONS' SORLCUR/SORLFOS curriculum records
5) Applicant Goal Data may be loaded from SARADAP curriculum data

The rules for determining how ban40 decides what Goal Data to extract from Banner are defined below.

Three new configuration flags in the UCX-CFG020 BANNER record control how the applicant data is to be extracted and which rules will be followed:

**Process Applicants -** A Y/N flag. Set to "Y" if applicant processing by the ban40 extract is to be performed. Set to "N" if NO applicant data is to be imported into DegreeWorks. If this flag is set to "Y" and the REFRESH button on the web is clicked, then Banner applicant data will be looked up **in addition to** student data.

**Process Both Goals** - A Y/N flag. Set to "Y" if goal (degree) data from Banner Student (LEARNER) as well as Applicant (ADMISSIONS) data is to be imported into DegreeWorks. Set to "N" if the ADMISSIONS SORLCUR/SORLFOS records are NOT to be imported into DegreeWorks if 'LEARNER' SORLCUR/SORLFOS data is found. For example, if a student is working toward an undergraduate degree, but has applied to graduate school at the same institution applicant data could also exist at the same time. Thus, this flag would need to be set to 'Y' so that both the undergraduate student data as well as the graduate applicant data is imported into DegreeWorks.

**Load SARADAP Goals -** A Y/N flag. Set to "Y" if SARADAP is to be processed if NO SORLCUR ADMISSIONS data is found. Set to "N" if NO SARADAP data is to be loaded into DegreeWorks.

The ban40 Banner data extract is now a STUDENT "and" APPLICANT extract. When processing begins, the software will determine whether any of the following conditions exist and set the configuration flags appropriately:

1) The LEARNER SORLCUR/SORLFOS records are retrieved using the SORLCUR query in $ADMIN_HOME/common/bannerextract.config (where the SORLCUR query specifies SORLCUR_LMOD_CODE = 'LEARNER' along with all other required SQL). If found then set LEARNER_FOUND = "Y".

2) If the UCX-CFG020 BANNER Process Applicants = "Y" (for Refresh over the web) or the bannerextract script is run with mode **APPLICANT**, then two additional checks will be made:

1. No LEARNER SORLCUR/SORLFOS records were found OR
2. The UCX-CFG020 BANNER Process Both Goals is set to "Y"

If either condition is met then ADMISSIONS SORLCUR/SORLFOS records are retrieved using the SORLCUR2 query in $ADMIN_HOME/common/bannerextract.config (where the SORLCUR query specifies SORLCUR_LMOD_CODE = 'ADMISSIONS' along with all other required SQL). If found then set ADMISSIONS_FOUND = "Y".

3) The SGBSTDN General Student record is looked up regardless of whether any SORLCUR/SORLFOS records are found. If an SGBSTDN record is found, SGBSTDN_FOUND will be set to "Y".

4) If ADMISSIONS_FOUND = Y then the associated SARADAP record will be identified using the SORLCUR_PIDM, SORLCUR_TERM_CODE and SORLCUR_KEY_SEQNO (linked to SARADAP_APPL_NO). If ADMISSIONS_FOUND = N, and the UCX-CFG020 BANNER Process Applicants flag = "Y" (or the APPLICANT mode is found in batch) and the UCX-CFG020 BANNER Load SARADAP Goals = "Y" the SARADAP record will be looked up using the SARADAP query in $ADMIN_HOME/common/bannerextract.config. If a valid record is found, SARADAP_FOUND = "Y".

Once the appropriate records have been read, the four flags (LEARNER_FOUND, ADMISSIONS_FOUND, SGBSTDN_FOUND and SARADAP_FOUND) will be checked. If data was NOT retrieved for ANY of these four conditions then an error message will be written to the extract log and processing will quit for this ID Code.

Next, the software processes the curriculum data into using the following five rules or paths:

1) If LEARNER_FOUND = “Y” then the appropriate rad_goal_dtl and rad_goaldata_dtl records will be created from LEARNER SORLCUR/SORLFOS.

2) If LEARNER_FOUND = “N” and ADMISSIONS_FOUND = “N” and SGBSTDN_FOUND = “Y” then the appropriate rad_goal_dtl and rad_goaldata_dtl records will be created from SGBSTDN.

3) If the UCX-CFG020 BANNER Check Dual Degree = “Y” and SGBSTDN_FOUND = “Y” then the Dual Degree fields will be checked. If the Dual Degree contains data in the Dual Level (school) and Dual Degree fields, and the combination is unique (does not match any LEARNER combinations previously extracted) then the appropriate rad_goal_dtl and rad_goaldata_dtl.records will be created from the Dual Degree.

4) If ADMISSIONS_FOUND = “Y” and the Level (school)/Degree combination is unique (does not match any LEARNER combinations previously extracted), then the appropriate rad_goal_dtl and rad_goaldata_dtl records will be created from the ADMISSIONS SORLCUR/SORLFOS data.

5) If ADMISSIONS_FOUND = “N” and UCX-CFG020 BANNER Process Applicants = "Y" and UCX-CFG020 BANNER Load SARADAP Goals = “Y” and SARADAP_FOUND = “Y” and the Level (school)/Degree combination is unique (does not match any LEARNER or SGBSTDN combinations previously extracted) then the appropriate rad_goal_dtl and rad_goaldata_dtl records will be created from SARADAP.

Processing will then continue so that other Banner data for the individual, such as transfer classes, test scores (e.g., AP tests), etc., are extracted and imported into DegreeWorks.

**Example of  APPLICANT SQL in $ADMIN_HOME/common/bannerextract.config:**

```
################### SORLCUR2 - ADMISSIONS CURRICULUM (ban40) ############

# SORLCUR must be a; AND is required at the end of the WHERE
SORLCUR2-from:   FROM SORLCUR a, STVTERM t, SARADAP c
SORLCUR2-where: WHERE (SELECT COUNT(*) FROM SHRTRCR
SORLCUR2-where: WHERE SHRTRCR_PIDM = c.SARADAP_PIDM) > 0
SORLCUR2-where:   AND t.STVTERM_START_DATE > SYSDATE
SORLCUR2-where:   AND ((SELECT COUNT(*) FROM SGBSTDN
SORLCUR2-where: WHERE SGBSTDN_PIDM = c.SARADAP_PIDM) < 1
SORLCUR2-where:    OR (SELECT COUNT(*) FROM STVSTST, SGBSTDN p
SORLCUR2-where: WHERE STVSTST_CODE = p.SGBSTDN_STST_CODE
SORLCUR2-where:   AND STVSTST_REG_IND = 'Y'
SORLCUR2-where:   AND p.SGBSTDN_TERM_CODE_EFF = (SELECT MAX
SORLCUR2-where:      (o.SGBSTDN_TERM_CODE_EFF) FROM SGBSTDN o
SORLCUR2-where: WHERE o.SGBSTDN_PIDM = p.SGBSTDN_PIDM
SORLCUR2-where:   AND o.SGBSTDN_TERM_CODE_EFF <
SORLCUR2-where:       c.SARADAP_TERM_CODE_ENTRY)) < 1)
SORLCUR2-where:   AND a.SORLCUR_CACT_CODE = 'ACTIVE'
SORLCUR2-where:   AND a.SORLCUR_LMOD_CODE = 'ADMISSIONS'
SORLCUR2-where:   AND a.SORLCUR_SEQNO = (SELECT MAX(b.SORLCUR_SEQNO)
SORLCUR2-where:  FROM SORLCUR b
SORLCUR2-where: WHERE b.SORLCUR_PIDM = a.SORLCUR_PIDM
SORLCUR2-where:   AND b.SORLCUR_PRIORITY_NO = a.SORLCUR_PRIORITY_NO
SORLCUR2-where:   AND b.SORLCUR_LMOD_CODE = 'ADMISSIONS')
SORLCUR2-where:   AND a.SORLCUR_PIDM = c.SARADAP_PIDM
SORLCUR2-where:   AND a.SORLCUR_TERM_CODE = c.SARADAP_TERM_CODE_ENTRY
SORLCUR2-where:   AND a.SORLCUR_KEY_SEQNO = c.SARADAP_APPL_NO
SORLCUR2-where:   AND t.STVTERM_CODE = c.SARADAP_TERM_CODE_ENTRY
SORLCUR2-where: AND
#                    a.SORLCUR_PIDM = <students-pidm>


################### SORLFOS2 - APPLICANT FIELD OF STUDY (ban40) ########

# SORLFOS must be a; AND is required at the end of the WHERE
SORLFOS2-where:  FROM SORLFOS a, SORLCUR b, STVTERM t, SARADAP d
SORLFOS2-where: WHERE (SELECT COUNT(*) FROM SHRTRCR
SORLFOS2-where: WHERE SHRTRCR_PIDM = d.SARADAP_PIDM) > 0
SORLFOS2-where:   AND t.STVTERM_START_DATE > SYSDATE
SORLFOS2-where:   AND ((SELECT COUNT(*) FROM SGBSTDN
SORLFOS2-where: WHERE SGBSTDN_PIDM = d.SARADAP_PIDM) < 1
SORLFOS2-where:    OR (SELECT COUNT(*) FROM STVSTST, SGBSTDN p
SORLFOS2-where: WHERE STVSTST_CODE = p.SGBSTDN_STST_CODE
SORLFOS2-where:   AND STVSTST_REG_IND = 'Y'
SORLFOS2-where:   AND p.SGBSTDN_TERM_CODE_EFF = (SELECT MAX
SORLFOS2-where:      (o.SGBSTDN_TERM_CODE_EFF) FROM SGBSTDN o
SORLFOS2-where: WHERE o.SGBSTDN_PIDM = p.SGBSTDN_PIDM
SORLFOS2-where:   AND o.SGBSTDN_TERM_CODE_EFF <
SORLFOS2-where:       d.SARADAP_TERM_CODE_ENTRY)) < 1)
SORLFOS2-where:   AND b.SORLCUR_CACT_CODE = 'ACTIVE'
SORLFOS2-where:   AND b.SORLCUR_LMOD_CODE = 'ADMISSIONS'
SORLFOS2-where:   AND b.SORLCUR_SEQNO = (SELECT MAX(f.SORLCUR_SEQNO)
SORLFOS2-where:  FROM SORLCUR f
SORLFOS2-where: WHERE f.SORLCUR_PIDM = b.SORLCUR_PIDM
SORLFOS2-where:   AND f.SORLCUR_PRIORITY_NO = b.SORLCUR_PRIORITY_NO
SORLFOS2-where:   AND f.SORLCUR_LMOD_CODE = 'ADMISSIONS')
SORLFOS2-where:   AND b.SORLCUR_PIDM = d.SARADAP_PIDM
SORLFOS2-where:   AND b.SORLCUR_TERM_CODE = d.SARADAP_TERM_CODE_ENTRY
SORLFOS2-where:   AND b.SORLCUR_KEY_SEQNO = d.SARADAP_APPL_NO
SORLFOS2-where:   AND t.STVTERM_CODE = d.SARADAP_TERM_CODE_ENTRY
SORLFOS2-where:   AND a.SORLFOS_CSTS_CODE = 'INPROGRESS'
SORLFOS2-where:   AND a.SORLFOS_CACT_CODE = 'ACTIVE'
SORLFOS2-where:   AND a.SORLFOS_PIDM = b.SORLCUR_PIDM
SORLFOS2-where:   AND a.SORLFOS_LCUR_SEQNO = b.SORLCUR_SEQNO
SORLFOS2-where:   AND a.SORLFOS_SEQNO =
SORLFOS2-where:      (SELECT MAX(l.SORLFOS_SEQNO) FROM SORLFOS l
SORLFOS2-where: WHERE l.SORLFOS_PIDM = b.SORLCUR_PIDM
SORLFOS2-where:   AND l.SORLFOS_PRIORITY_NO = a.SORLFOS_PRIORITY_NO
SORLFOS2-where:   AND l.sorlfos_csts_code = 'INPROGRESS'
SORLFOS2-where:   AND l.SORLFOS_LCUR_SEQNO = b.SORLCUR_SEQNO)
SORLFOS2-where: AND
#                    a.SORLFOS_PIDM = <students-pidm>
```

# Required Access to Banner

## Database Table Access

Access to your Banner database is required for the extract process, therefore read access must be provided to the tables listed in the chart below.

SPECIAL NOTE: If your site uses the custom SQL in the UCX-BAN080 table to extract non-standard pieces of data from Banner, those database tables will NOT be listed here. However, SELECT access must be provided for those tables as well.

| Banner Table | Course Catalog | Course Equivalents | ETS (transfer) | Advisors / Staff | Students | Applicants | UCX | Banner General | TreQ / WebTreQer | Description |
|---|---|---|---|---|---|---|---|---|---|---|
| GOREMAL | | | | X | X | X | | | | Email Address Data |
| SARADAP | | | | | | X | | | | Applicant Degree Data (As of DW4.0.2) |
| SCBCRKY | | X | | | | | | | | Course Start/End Dates |
| SCBCRSE | X | X | | | | | | | | Course Master  Data |
| SCBDESC | X | | | | | | | | | Course Description |
| SCRATTR | X | | | | | | | | | Course Attributes |
| SCREQIV | | X | | | | | | | | Course Equivalents |
| SCRRTST | X | | | | | | | | | Course Prerequisites |
| SFRSTCR | | | | | X | X | | | | Current Class Data |
| SGBSTDN | | | | | X | X | | | | General Student Degree Data |
| SGRADVR | | | | X | X | X | | | | Advisor Data |
| SGRSATT | | | | | X | X | | | | Student Attributes by PIDM and Current Term |
| SHBTATC | | | | | | | | | X | Transfer Institution Transfer Catalog Data (As of DW4.0.2) |
| SHRATTC | | | | | X | X | | | | Student Attributes by CRN and Historic Term |
| SHRATTR | | | | | X | X | | | | Student Attributes by PIDM and Historic Sequence Number |
| SHRDGMR | | | | | X | | | | | Student Degree table (As of DW4.0.3) |
| SHRGRDE | | | | | X | X | | | | Grade Codes (UCX-STU385) |
| SHRGRDO | | | | | X | X | | | | Grade Codes – valid combo of level/gmod/grade (UCX-STU385) |
| SHRICMT | | | | | | | | | X | Transfer Articulation Institution Course Comment (As of DW4.0.2) |
| SHRLGPA | | | | | X | X | | | | Summary GPA/Credits Data |
| SHRNCRS | | | | | X | X | | | | Non Course Data |
| SHRQPNM | | | | | X | X | | | | Non Course Data – Papers and Exams |
| SHRTATC | | | | | | | | | X | Transfer Institution Catalog Equivalent Data (As of DW4.0.2) |
| SHRTATT | | | | | X | X | | | | Student Attributes by PIDM and Transfer Sequence Number |
| SHRTCKG | | | | | X | X | | | | Historic Grade Values |
| SHRTCKL | | | | | X | X | | | | Historic Level (School) Data |
| SHRTCKN | | | | | X | X | | | | Historic Class Data |
| SHRTGPA | | | | | X | X | | | | Detail GPA/Credits by Term |
| SHRTRCD | | | | | X | | | | | Transfer Course Degree Applied table (As of DW4.0.3) |
| SHRTRCE | | | | | X | X | | | | Transfer Equivalent Data |
| SHRTRCR | | | | | X | X | | | | Transfer Class Data |
| SHRTRIT | | | | | X | X | | | | Transfer School Data |
| SOBCACT | | | | | X | X | | | | SORLCUR active indicator validation |
| SOBSBGI | | | X | | | | | | | ETS Address Data |
| SORBTAG | | | X | | | | | | | ETS Calendar Data |
| SORDEGR | | | | | X | X | | | | Previous Degree Data |
| SORLCUR | | | | | X | X | | | | Concurrent Degree Data |
| SORLFOS | | | | | X | X | | | | Field of Study Data |
| SORTEST | | | | | X | X | | | | Test Score Data |
| SMRPRLE | | | | | X | X | | | | Program codes (As of DW4.0.1) |
| SPRIDEN | | | | X | X | X | | | | Primary Name Data |
| SSBSECT | | | | | X | X | | | | Schedule Master Data |
| SSRATTR | | | | | X | X | | | | Student Attributes by CRN and Current Term |
| SSRMEET | X | | | | | | | | | Section meeting times (As of DW4.0.1) |
| STVACCL | | | | | | | X | | | Calendar Codes (UCX-STU346) used by WebTreQer (As of DW4.0.2) |

| Banner Table | Course Catalog | Course Equivalents | ETS (transfer) | Advisors / Staff | Students | Applicants | UCX | Banner General | TreQ / WebTreQer | Description |
|---|---|---|---|---|---|---|---|---|---|---|
| STVACYR | | | | | | | | | | Catalog Year Codes (UCX-STU035) |
| STVATTR | X | | | | | | | | | Attribute Codes - used by CourseLink (As of DW4.0.4) |
| STVCLAS | | | | | | | X | | | Student Level Codes (UCX-STU305) |
| STVCOLL | | | | | | | X | | | College Codes (UCX-STU560) |
| STVCSTA | X | X | | | | | | | | Course Status Codes |
| STVDEGC | | | | | | | X | | | Degree Codes (UCX-STU307) |
| STVGMOD | | | | | | | X | | | Grade Types (UCX-STU356) |
| STVLEVL | | | | | | | X | | | School Codes (UCX-STU350) |
| STVMAJR | | | | | | | X | | | Major Codes (UCX-STU023),<br>Minor Codes (UCX-STU024),<br>Concentration Codes (UCX-STU563) |
| STVNATN | | | X | | | | | | | ETS Foreign Country Codes |
| STVNCRQ | | | | | X | X | | | | Non Course Codes |
| STVNCST | | | | | X | X | | | | Non Course Status Codes |
| STVQPTP | | | | | X | X | | | | Non Course Exam/Paper Codes |
| STVRSTS | | | | | X | X | | | | Course Registration Status |
| STVSBGI | | | X | | X | X | X | | | ETS School Names |
| STVSTST | | | | | X | X | | | | Student Status (DW student type) |
| STVSTYP | | | | | X | X | X | | | Student Type (DW Student Status Codes UCX-STU306) |
| STVSUBJ | | | | | | | X | | | Discipline Codes (UCX-STU352) |
| STVTAST | | | | | | | | | X | Transfer Articulation Course Status (As of DW4.0.4) |
| STVTERM | X | X | | | X | X | X | | | Term Codes (UCX-STU016) |
| SURVERS | | | | | | | | X | | Version of Oracle being used |
| TWGBWSES | | | | | | | | X | | Banner Self Service |

TreQ Customers: If you have purchased TreQ, write access is required for the following Banner tables:

| Banner Table | Description |
|---|---|
| SHRTRIT | Transfer Institution (As of DW4.0.4) |
| SHRTRAM | Attendance Period by Transfer Institution (As of DW4.0.4) |
| SHRTRTK | Transfer Institution Transfer Course Taken (As of DW4.0.4) |

# Function Access

The f_class_calc_fnc function must be made available so that student class levels can be calculated.

If using Banner Self-Service single sign-on for DegreeWorks, grant execute on the following packages/procedures to the DB_LOGIN_BANNER user. The DB_LOGIN_BANNER user must also be granted create public synonym and drop public synonym privileges in order to install dwssbfaculty.sql and dwssbstudent.sql (See the Self-Service Banner section in this document).

TWBKWBIS
TWBKFRMT
BWLKOIDS
BWLKOSTM
BWCKFRMT
BWLKILIB
BWCKLIBS

# Banner Database Issues

## Pointing to different Banner database

Following are the steps to take in order to point to a different Banner database from DegreeWorks.

1) Create a degreeworks user in the new Banner database with select privileges to the list of tables identified in the DGW_Technical_Guide_Banner_Considerations document. You must also grant execute privilege to the Banner function f_class_calc_fnc and package twbkbssf.

2) On the DegreeWorks server, update the $ORACLE_HOME/network/admin/tnsnames.ora entry and add the new Banner database.

3) On the DegreeWorks server, edit the file dwenv.config and modify the following line:
   ```
   export DB_LOGIN_BANNER=
   ```
   and set the value to
   ```
   export DB_LOGIN_BANNER=degreeworks/password@service
   ```
   where degreeworks is the user defined in the new Banner database, password is the degreeworks user password, and service is the service name from tnsnames.ora. Keep this change by saving the dwenv.config file.

4) Log in again into the DegreeWorks server so that the new DB_LOGIN_BANNER variable is set. To check, issue the command
   ```
   echo $DB_LOGIN_BANNER
   ```
   and you should see the new entry from dwenv.config.

5) Test your new Banner connection by typing (as the dwadmin user logged into the DegreeWorks server):
   ```
   dbb
   ```

   and SQL*Plus should be launched in the Banner database. To verify that you are looking at the correct Banner database issue:
   ```
   SQL> select * from global_name;.
   ```

6) Restart the servers using the webrestart and daprestart commands

7) Determine if the data in the following tables in the new Banner database are different from the Banner database you originally used to populate DegreeWorks. If so, rerun the associated processes so data from the new Banner database is used to populate DegreeWorks.

| | |
|---|---|
| SCBCRSE, SCRATTR, SCRRTST | rerun bannerextract course |
| SCREQIV, SCBCRKY, STVCSTA | rerun bannerextract equiv |
| SHRGRDO, SHRGRDE | rerun bannerextract ucx for UCX-STU385 |
| STVCLAS | rerun bannerextract ucx for UCX-STU305 |
| STVCOLL | rerun bannerextract ucx for UCX-STU560 |
| STVDEGC | rerun bannerextract ucx for UCX-STU307 |
| STVGMOD | rerun bannerextract ucx for UCX-STU356 |
| STVLEVL | rerun bannerextract ucx for UCX-STU350 |
| STVMAJR | rerun bannerextract ucx for UCX-STU023, UCX-STU024, UCX-AUD027, UCX-AUD029, UCX-STU563 |
| STVSTYP | rerun bannerextract ucx for UCX-STU306 |
| STVTERM | rerun bannerextract ucx for UCX-STU016, UCX-STU035 |
| STVACYR | rerun bannerextract ucx for UCX-STU035 |

After bannerextract ucx has been run, run ucx12job to update DegreeWorks files and picklists.

# Creating the Banner Database Link in DegreeWorks

Once you have finished all of the steps above and confirmed that you can connect to Banner with the dbb command, you should recreate the database link to Banner in the DW database.

IF THE BANNER AND DEGREEWORKS DATABASES ARE ON SEPARATE SERVERS: modify tnsnames.ora on the Banner database server so there is a connection to the DegreeWorks database. This is required for the Banner database link, created in the DegreeWorks database, to connect to Banner.

1) On the DegreeWorks server, log in as dwadmin and determine the Banner login information by issuing the following command:

   ```
   echo $DB_LOGIN_BANNER
   ```

   The result will be similar to the following:

   ```
   DB_LOGIN_BANNER=BANNER_USER/BANNER_PW@BANNER_SERVICE
   ```

2) cd to the $DGWHOME/app/sql directory

3) Log into SQL*Plus in the DegreeWorks database by issuing the db command. Execute the bannerlink.sql script:

   ```
   db
   SQL> @bannerlink BANNER_SERVICE BANNER_USER BANNER_PW
   SQL> exit
   ```

   Note that the bannerlink script will attempt to drop the database link, so you may ignore the Oracle warning ORA-02024: database link not found.

# Banner Workflow Integration (optional)

(As of DW4.0.2)

## Installation Guide

Follow these steps in order to install and enable Banner Workflow integration with DegreeWorks for the sample models: exception petition process and planner approval process. We provide guidance and suggestions on Banner Workflow configuration here. But, it is assumed you are familiar, in general, with setting up Models, Business Events, Business Processes and Business Components in Workflow and you should refer to Banner Workflow documentation for more information.

Once the sample Workflow models are installed and set up you should inspect and customize the models before testing or using them. In particular you should inspect the activities, notifications and emails defined in each of these workflow models to customize Roles, Performers and email addresses. The "from" address in all notifications and emails used in these models is the email set for the Workflow "admin" user. These samples also use Workflow Roles: Approver, Academic Advisor and Academic Dean. You should be aware the users and email addresses associated with these Roles because they will be the ones notified to approve DegreeWorks requests if you do not modify the models. Most likely, you will want to customize the models to change which Roles/Users are responsible for performing the approval actions and receiving Workflow notifications.

### Log in to the DegreeWorks host server

1. Load Workflow related packages into the DegreeWorks database.
    a. `cd app/sql`
    b. `db`
    c. `@wf_parameters_pkg.sql`
    This file contains package wf_parameters and procedures F_PetitionParams and F_PlannerParams. This package can be customized in order to change the parameters that are sent to Banner Workflow model DW_PETITION and DW_PLANNER. The parameters that are extracted from the DegreeWorks database by these procedures needs to match up with the parameters that the Workflow models expect. So, if the "context parameters" of the model are customized, then these procedures probably need to be customized too.
    d. `@wf_updates_pkg.sql`
    This file contains a package named wf_updates and procedures P_UpdatePetition and P_UpdatePlanner. These procedures would probably not need to be customized.

2. Enable Banner Workflow integration using SureCode.
For exception petitions: **CFG020 WORKFLOWPETITION "Enable Petition Workflow"**
For SEP Planner: **CFG020 WORKFLOWPLANNER "Enable Planner Workflow"**

3. Review settings in CFG020 WORKFLOWWSDL to set the url to your Banner Workflow server WSDL for web services location.

4. Review settings in CFG020 WORKFLOWCREDENTIALS to set a username and password for your Banner Workflow server. Commonly, "wfwebservices" would be the username.

## Log in to the Banner Workflow host server

5. These task needs to be completed by a system administrator who can reconfigure and restart the Workflow server. Upload these two files from your DegreeWorks environment to your Workflow server. They will be located in sis_Banner/export/Workflow directory under the updates (installer root) directory.
   a. dw_petition.zip
   b. dw_planner.zip

6. Execute these two commands to import the sample DegreeWorks workflow models. Substitute a valid workflow username and password (wfroot for example) on your system as well the actual location of the files you uploaded in the previous step.
   a. `$WFHOME/bin/import username password dw_petition.zip`
   b. `$WFHOME/bin/import username password dw_planner.zip`

7. Edit $WFHOME/config/configuration.xml to add a DataSource for the DegreeWorks database the the "DataSources" section. An example DataSource setup follows in which you should substitute: your actual DegreeWorks server url for "your.degreeworks.server.edu", the actual port number the DegreeWorks oracle listener is running on for "1521" and your actual oracle listener handler for "YOUR_DEGREEWORKS_SID".

```
<DataSources>
 <!-- ... other existing data sources should not be modified... -->
 <DataSource name="DegreeWorks">

<Url>jdbc:oracle:thin:@your.degreeworks.server.edu:1521:YOUR_DEGREEWORKS_SID</Url>
     <Username>yourusername</Username>
     <Password>yourpassword</Password>
 </DataSource>
</DataSources>
```

   a. After editing configuration.xml run: `$WORKFLOW_HOME/bin/wftool uploadconfig`
   b. Use the engineconsole and startengine scripts to restart the engine node(s).
   c. Restart the OC4J instance(s).

## Log in to the Banner Workflow web environment as admin user

8. Create the Product Type needed for connecting to the DegreeWorks database. As an administrator using Workflow in your web browser, navigate to Workflow System Administration > Product Types. Click “Add Product Type”. Give it the name “DegreeWorks”, Version 1 (one), and choose the Data Source “DegreeWorks” from the drop-down list. This depends on the naming of the DataSource and successful restart of the Workflow server in step 7.

9. Set up the Business Components that the sample Workflow models depend on for calling the stored procedures installed earlier (in `wf_updates_pkg.sql`).
   a. Select “Business Component Catalog”
   b. Click “Add New Category”
   c. Name the category anything you like, we suggest using the name “DegreeWorks”. Save Category.
   d. Click “Add Component”
   e. The name must be “dw_updatepetition” (without quotes, of course).
   f. Select the category “DegreeWorks” from the drop-down list.
   g. Set Component Type to “Internal”.
   h. Set Product Type to “DegreeWorks” (this depends on setup of the Product Type step 8.)
   i. Set Technology Type to “Stored Procedure”.
   j. Set Status to “Active”.
   k. Set Release ID to “1”.
   l. Add a client launch parameter named “procedure” and set the value to: `wf_updates.P_UpdatePetition(@DW_UNIQUEID, @APPROVAL_DECISION)`
   m. Add two parameters, named “DW_UNIQUEID” and “APPROVAL_DECISION”.

10. Repeat step 11 for another Business Component.
    a. The name must be “dw_updateplanner” (without quotes, of course).
    b. Select the category “DegreeWorks” from the drop-down list.
    c. Set Component Type to “Internal”.
    d. Set Product Type to “DegreeWorks” (this depends on setup of the Product Type step 8.)
    e. Set Technology Type to “Stored Procedure”.
    f. Set Status to “Active”.
    g. Set Release ID to “1”.
    h. Add a client launch parameter named “procedure” and set the value to: `wf_updates.P_UpdatePlanner(@DW_UNIQUEID, @APPROVAL_DECISION)`
    i. Add two parameters, named “DW_UNIQUEID” and “APPROVAL_DECISION”.

11. Create/modify business events for the two DegreeWorks models: Business Events > Business Event Definitions > Click “Add Business Event Definition”.

    a. Set “Name:” to anything you like, we suggest “DW_PETITION”. Whatever name you set, it will also have to be set to the same name on CFG020 WORKFLOWPETITION “Petition Event Name”. Click “Save”.

    b. Add Event Parameters for “DW_PETITION” as follows and set them all to Type=”Text” and Guaranteed=”No”. On the topic of “Guaranteed” options: if you change any data that you want to be “optional” in dw_parameters_pkg.sql, then set those parameters to Guaranteed=”No”. STUDENT_EMAIL, USER_EMAIL, CREATE_DATE, NOTE_TEXT, STUDENT_ID, STUDENT_NAME, UNIQUE_ID, USER_NAME.
    (As of DW4.0.6)

    c. There are two optional parameters that you can define and modify dw_parameters_pkg.sql to implement. They control whether either or both approvers in the sample model should be ignored.

Define and set APPROVAL1_REQUIRED=0 to disable approver1. Define and set APPROVAL2_REQUIRED=0 to disable approver2.

d. Still on Business Event Definition, click “Add Workflow Association”. Select the value from the drop-down list provided for your workflow model and version.

e. After you click “Save” you will then map all of the business event parameters to the context parameters within that version of the workflow model. You must map all “guaranteed” parameters. When finished click “Save Parameter Mappings”.

12. Repeat step 11. for another event named “DW_PLANNER” which has to match on CFG020 WORKFLOWPLANNER “Planner Event Name” and have parameters: DESCRIPTION, STUDENT_EMAIL, STUDENT_GOALS, USER_EMAIL, CREATE_DATE, NOTE_TEXT, STUDENT_ID, STUDENT_NAME, UNIQUE_ID, USER_NAME. Again, parameters named APPROVAL1_REQUIRED and APPROVAL2_REQUIRED are optional and work the same way as explained above.

13. Create/modify business processes for the two DegreeWorks models: Enterprise Management > “Add Business Process”. We suggest you name the business processes using the same token as the Business Events: DW_PETITION and DW_PLANNER.
    a. Set Status=Active.
    b. Click “Add Workflow Association” and choose the appropriate workflow model/version.
    c. Click “Add Event Association” and choose the Business Event name you defined in steps 11/12.
    d. Authorized Initiators can be left empty, it is optional.
    e. Click “Save Process”.

14. Verify that you have these two models installed by opening them in the Workflow Modeler: DW_PETITION and DW_PLANNER.

15. If you want to customize the models immediately, use the modeler to make a “new version” or “create a copy”. Refer to Banner Workflow documentation for more information on using the modeler.

    a. When customizing the models, if you change any “context parameters” then you will have to update the pl/sql where those parameters are extracted from DegreeWorks in app/sql/wf_parameters_pkg.sql (and reload that package into the DegreeWorks database).

    b. You will also have to modify the business event parameters you defined later in steps 11-12 to match the parameters names given in the model context parameters and in the pl/sql package.

## Managing Plan/Petition Approval – two tools

DegreeWorks also provides tools to allow your users to approve/reject plans and petitions. However, if you are using Banner  Workflow to manage plans and petition approval it would be best to not use those tools in DegreeWorks. Using both mechanisms to approve/reject plans will most likely lead to confusion on campus about the approval process. Specifically, the Manage tab under the Planner tab can be used to approve/reject submitted plans and Exception Management supports a way to approve/reject petitions. Both of these should be turned off if Banner Workflow is being used to manage plan and petitions approval.

Please see the Exception Management and Student Educational Planner sections in the Web User Guide for more information.

# Integration with Portals

End-User Access to DegreeWorks by Banner customers is typically accommodated through either Banner Self Service, or the Luminis products.

The following chapters provide more information about both these products, and their use with DegreeWorks.

# Luminis

## Single Sign-on for DegreeWorks

## Instructions for integration of DegreeWorks with Luminis GCF

The following instructions will guide the user through configuration of Luminis and DegreeWorks (DW) for single sign-on integration using the Generic Connector Framework (GCF).

## Overview of single sign-on process.

Luminis has several options for single sign-on integration and DegreeWorks (DW) uses the Generic Connector Framework (GCF). Configuration of the GCF sets up a Luminis URL API to handle the DW logon process. Once configured and DW SHP user credentials are loaded into Luminis LDAP, then Luminis is able to issue logon requests to DW one behalf of the user. That logon request is sent from Luminis server directly to DW server (not through the browser) when a DW link (bookmark) is accessed within Luminis. The Luminis server will also send a logout request directly to DW when the user logs out of Luminis.

This requires the client to download GCF onto the Luminis server as a “jar file”, install it and configure the connector server. Then, the DegreeWorks configuration files for Luminis must be installed and localized. Finally, the client must load the DegreeWorks user’s credentials into Luminis LDAP using “cptool” and set up a “bookmark” Channel to launch DegreeWorks in a separate window. DegreeWorks is compatible with Luminis 3 and 4.

# Installation Steps: Luminis system configuration.

All of the following instructions take place on the Luminis server.

1. Ensure Generic Connector Framework (GCF) is installed on Luminis server. See documentation for installation instructions and GCF installation files can be acquired using SungardHE CRM (customer support center). Note the port number that the GCF virtual server, usually named “cpipconnector”, is running on (usually port 8008).

2. Review GCF documentation lsdk0907im.pdf

3. Set up the configuration for Luminis to use the connector for DegreeWorks. We will use the alias “degreeworks” to identify the external system connector. It is important to recognize this alias is case-sensitive.
    a. Get es.systems and store it in a backup file:
       ```
       configman -g es.systems > es.systems.configman
       ```
    b. Edit that file (es.systems.configman) to add a space and then the text “degreeworks”. For example if the original contents of the file contains the one line:
       ```
       sct cal is
       ```
       Then edit the file to add a space and the text “degreeworks” for example:
       ```
       sct cal is degreeworks
       ```
    c. Import the changes:
       ```
       configman -i es.systems.configman
       ```
    d. Verify the changes have taken effect. The following command should show “degreeworks” at the end of the list just as in the file that was edited above.
       ```
       configman -g es.systems
       ```

4. Set configuration items in Luminis LDAP site directory using the following commands:
    a. `configman –s es.degreeworks.autosync false`
    b. `configman –s es.degreeworks.configsleeptime 10000`
    c. `configman –s es.degreeworks.configattempts 60`
    d. `configman –s es.degreeworks.shortcircuitlogin false`
    e. `configman –s es.degreeworks.configURL “http://your.luminis.server:8008/cpipconnector/degreeworks/GetConfigVersion2”`
       (Replace “your.luminis.server” with the actual address of your luminis web server. If your cpipconnector server was configured on a port different from 8008 then replace that with the actual port in use)

5. Verify that all the previous configuration are set as shown above:
   ```
   configman -g es.systems
   configman -g es.degreeworks.configURL
   configman -g es.degreeworks.autosync
   configman -g es.degreeworks.configsleeptime
   configman -g es.degreeworks.configattempts
   configman -g es.degreeworks.shortcircuitlogin
   ```

6. If the DegreeWorks server uses secure https (SSL) then set the following configuration:
    a. View the current configuration: configman –g es.systems.secure.login
    b. If the output of that command contains other systems, then add a space “degreeworks” to the end of that output. If not, then set “degreeworks” only as follows:
       ```
               configman -s es.systems.secure.login “degreeworks”
       ```

## Installation Steps: Luminis SSO configuration files.

All of the following instructions take place on the Luminis server.

1. Copy files degreeworks.properties and degreeworks.xml to the cpipconnector config directory. The location of the cpipconnector config directory depends on local configuration. For Luminis 3.3 this directory is usually at $CP_ROOT/products/sso/config. For Luminis 4 the directory is commonly at $CP_ROOT/webapps/cpipconnector/WEB-INF/config.

2. Ensure that appropriate access permissions are set on those files:
   ```
   chmod 755 degreeworks.properties
   chmod 755 degreeworks.xml
   ```

   These files are available from the CSC in the tar files:
   DegreeWorks_LuminisGCF_3.3.tar.gz -- Version 3.3
   DegreeWorks_LuminisGCF_IV.tar.gz -- Version 4
   To untar them, use the following command:
   ```
   gzip -dc DegreeWorks_LuminisGCF_IV.tar.gz| tar xf -
   ```

3. Edit cpipconnector.properties which should be already located in the sso/config directory. Add the name of the degreeworks.properties file to the property.files property which is a comma-delimited list.
   a. If DegreeWorks is the only external system then it should look like this:
   **`property.files=degreeworks.properties`**
   b. But if the original configuration is property.files=comexp.properties, then add degreeworks like this:
   **`property.files=comexp.properties,degreeworks.properties`**

4. Edit degreeworks.properties file to make the following localizations. Replace "degreeworks.yoursite.edu" with the actual address of your degreeworks server/url. Where appropriate, replace http with https if SSL is used.
   ```
   a. http://degreeworks.yoursite.edu/pickup.html
   b. degreeworks.externalSystemURL = http://degreeworks.yoursite.edu
   c. Use the actual location of sso/config directory in the following setting
      instead of "/opt/luminis/products/sso/config"
      degreeworks.operations = /opt/luminis/products/sso/config/degreeworks.xml
   ```

5. Still in degreeworks.properties file: Luminis version 3 requires the following settings that Luminis version 4 does not require. If using Luminis version 4, these settings should be removed.
   ```
   a. degreeworks.license.issued = Luminis Platform Generic Framework Connector
      Implementation Key
   b. degreeworks.license.key = T211-XD3Q-2WGW-AEAD-E2E1-T2XP-SA21-9Q4P
   c. degreeworks.coursemap.enabled = false
   d. degreeworks.coursemap.cp.00001.200410 = _28_1
   ```

6. Edit degreeworks.xml to replace the absolute url paths with the actual url paths in use on the DegreeWorks web server. For instance if the login page is located at http://your.degreeworks.server/degreeworks/default.html, then replace "/dw2/default.html" in this xml file on line 5 with "/degreeworks/default.html" and replace "/dw2/IRISLink.cgi" on lines 11 and 25 with "/degreeworks/IRISLink.cgi".

7. Restart Luminis and cpipconnector servers. Whenever any of the above configuration changes are made, both servers must be restarted in order to take effect.

## Installation Steps: DegreeWorks server.

All of the following instructions take place on the DegreeWorks server.

1. Upload the file pickup.html to the DegreeWorks web server document root directory.

2. Ensure that appropriate access permissions are set on that file:
   ```
   chmod 755 pickup.html
   ```

3. If necessary update IRISLink.cgi to version 1.4 be sure not to lose local configuration settings.

4. In IRISLink.cgi set the following configuration setting:
   ```
   $IGNORE_LOGONADDRESS = $TRUE;
   ```

## Luminis User Configuration.

All of the following instructions take place on the Luminis server.

1. Set up a user to test single sign-on to DegreeWorks. In the following command replace luminis_username with an actual luminis user name, access_id with a DegreeWorks user name and access_code with the DegreeWorks user's password.

   ```
   cptool set user luminis_username
   ExternalAccount="degreeworks|access_id|access_code"
   ```

2. For instructions on bulk loading of DegreeWorks users into Luminis LDAP, review the section "Load DegreeWorks credentials into Luminis LDAP" later in this document and Luminis GCF Implementation Guide (lsdk0907im.pdf) section titled "SET THE CPIP EXTERNAL ACCOUNT FOR EXTERNAL SYSTEM USERS"

## Luminis Bookmark Channel

(As of DW4.0.2)

All of the following instructions take place using the Luminis web interface for administrator.

1. In order to set up a Luminis Bookmark Channel for access to DegreeWorks log in with a user who has administrative access to control content/layout. Create a "bookmark" channel using a title of "DegreeWorks" and using a url similar to the following while replacing your.luminis.server and degreeworks.yoursite.edu/dw2/ locations with appropriate values. Also, if SSL is used, replace http in http%3A//degreeworks.yoursite.edu/dw2/ with https.

   http://your.luminis.server/cp/ip/login?sys=degreeworks&url=http%3A//degreeworks.yoursite.edu/dw2/IRISLink.cgi%3FSCRIPT%3DSD2WORKS

   Optionally set up multiple channels to control access for different user classes by changing the url arguments contained in the channel bookmark link. For instance, send a user class of "STU" or "ADV" as in the following example:

   http://your.luminis.server/cp/ip/login?sys=degreeworks&url=http%3A//degreeworks.yoursite.edu/dw2/IRISLink.cgi%3FSCRIPT%3DSD2WORKS%26USERCLASS%3DSTU

## Luminis CPIP Inline Channel

(As of DW4.0.2)

All of the following instructions take place using the Luminis web interface as an administrator.

1. Select Portal Admin > Publish a new channel. Select “CPIP Inline Frame” and then click “Next”.
2. Fill in the Channel Type fields (Title, Name, etc) as you like. Click “Next”.
3. On the General Settings page, enter the External System ID that you used in step 3. of “Luminis System Configuration” above.
4. Still on the General Settings page, enter a Destination URL using the following sample format and substitute “mydegreeworks.edu/IRISLink.cgi” for the actual url to your DegreeWorks web server including the path to IRISLink.cgi.

   http://mydegreeworks.edu/IRISLink.cgi?SERVICE=SCRIPTER&SCRIPT=SD2GETMYAUDIT&ACTION=REVAUDIT&REPORT=WEB31&ContentType=xml

5. On CPIP Inline Frame Parameters, do not check any of the checkboxes.
6. Follow through the rest of the configuration pages setting the Categories, Roles, etc as needed and as appropriate for your site configuration. Then click Finish.

# User Guide

## Two Luminis SSO options

You have two options with regard to how DegreeWorks verifies the Access Id and Access Code it receives when the Luminis SSO occurs.

1. Have DegreeWorks validate against the Luminis LDAP credentials

2. Load the DegreeWorks SHP credentials into Luminis LDAP for Luminis to pass to DegreeWorks when the SSO occurs.

## Using the Luminis LDAP Credentials (option 1)

(As of DW4.0.2)

Under this first option the actual Luminis LDAP credentials will be sent to DegreeWorks. Instead of verifying the login data passed against its SHP records  DegreeWorks will use its LDAP call-out feature to validate the ID and password against Luminis LDAP – where they came from in the first place.

Please be sure to review the Security section in the DegreeWorks Technical Guide and also the UCX-CFG020 LDAP, LDAPDN and LDAPSERVER sections in the DegreeWorks Technical Guide UCX.

To configure Luminis to send its LDAP credentials to DegreeWorks when a SSO occurs you need to set two values in degreeworks.properties:

```
        degreeworks.cpipconnector.getconfig.sendlogin               = true
        degreeworks.cpipconnector.getconfig.usePDSCredentials    = true
```

This will tell Luminis to send its LDAP credentials instead of those from the degreeworks external system when the Luminis SSO occurs.

In addition you need to setup the UCX-CFG020 LDAP records in DegreeWorks to point to where the Luminis LDAP credentials reside.

### UCX-CFGO20 LDAP

The **User RDN** setting should be set to “uid”. This is the actual user-id used when the user logs into Luminis. DegreeWorks uses this to locate the user’s credentials.

The **Attribute User ID** should be set to pdsExternalSystemID – but only if that contains the user’s SPRIDEN-ID – as it is the RAD-ID used in DegreeWorks. If some other attribute houses the user’s SPRIDEN-ID then use that setting instead.

The **Attribute User Class** can be set to pdsRole but this field must contain a valid DegreeWorks user-class as defined in UCX-CFG012 – such as STU, ADV, etc. If pdsRole is not suitable you can use another LDAP attribute to house this user-class. If you can’t house the user-class in LDAP you may leave this Attribute User Class field blank so that DegreeWorks uses the user-class that was set during the bridge extract.

### UCX-CFG020 LDAPDN

The LDAPDN setting should look something like this:

```
ou=people,o=somewhere.edu,o=cp
```

where the somewhere.edu will be replaced with a valid value for where Luminis resides on your network.

**UCX-CFG020 WEBPARAMS**

Set the Enable LDAP flag to "Y".

Be sure OpenLDAP is installed on the DegreeWorks server and that the DegreeWorks software was built with the dwenv.config DWLDAP value set to 1. If the DWLDAP setting is not in dwenv.config, you can add it to the Build Environment Variables section as follows:

```
# DWLDAP - Set DWLDAP to 1 to compile support for LDAP authentication
export DWLDAP=1
```

After saving this change, re-login to the unix server to reset this variable, then issue "build all" so that the DegreeWorks software is compiled with this setting.

When testing be sure to review the logdebug/web.log file to make sure the correct ACCESS_ID and ACCESS_CODE are being passed.

The second option to use is where the SHP logon information is copied into the DegreeWorks external system in Luminis LDAP.  An explanation follows on the next page.

## Load DegreeWorks credentials into Luminis LDAP (option 2)

1. Take a csv file listing Luminis ID and SPRIDEN for each user that you want to load/enable for single sign on from Luminis to DegreeWorks. Upload it to a working directory on the DegreeWorks server. The format should look like this for example:

   ```
   adam.red,911199999
   adam_blue,911199994
   adelina.green,911199997
   ```

2. Open that file in vi and prepare to do some find/replace on it. Use the following vi substitution commands to make an sql script out of it.

   ```
   a. :%s/^/SELECT 'set user /g

   b. :%s/,/ ExternalAccount="degreeworks|' || TRIM(shp_access_id) || '|' ||
      TRIM(shp_access_code) || '"' FROM shp_user_mst WHERE shp_access_id='/g

   c. :%s/$/';/g
   ```

3. Save the file as luminis_user_dw_creds.sql.

4. Create another file that you will run through sqlplus to execute the file you created above. Note that you may want to change or use your own names for the files “sptool_cmd_input.txt” and “luminis_user_dw_creds.sql” and “thisfile.sql”.

   -Run this file using this command:

   ```
   SQLPLUS /@ @thisfile.sql
   set termout off
   set feedback off
   set verify off
   set echo off
   set pagesize 0
   set linesize 200
   set trimspool on
   column dt new_Value mydate noprint
   select to_char(sysdate, 'YYYYMMDD') dt from dual;

   spool cptool_cmd_input.txt
   @luminis_user_dw_creds.sql;
   spool off
   exit;
   ```

5. Run that file using sqlplus or db for example:

   ```
   db /@ @thisfile.sql
   ```

6. That should run sqlplus and output the file that you named in the spool command, for example cptool_cmd_input.txt. Inspect that file, it should have a format that looks like this:

   ```
   set user adam.red ExternalAccount="degreeworks|911199999|password"
   set user adam_blue ExternalAccount="degreeworks|911199994|password"
   set user adelina.green ExternalAccount="degreeworks|911199997|password"
   ```

7. Take that spool file and transfer it to the Luminis server. You will now execute the commands in that file using cptool (a Luminis program) that will load the user credentials into Luminis LDAP. Run the cptool command on it as follows:

```
cptool process file cptool_cmd_input.txt
```

# Self Service Banner

## Single Sign-on for DegreeWorks

## Integration of DegreeWorks with Self Service Banner

### Introduction.

These instructions will guide the user through configuration of Self-Service Banner (SSB) and DegreeWorks (DW) for single sign-on integration.

### Overview of single sign-on process.

The purpose of these installation steps is to make a new menu item available in Self Service under the tab where it is configured. When that menu item is selected the link will send a single sign-on request to DegreeWorks then cause the DW application to be displayed if the single sign-on request is validated. If it is not validated then an error will be displayed.

Single sign-on is accomplished by means of a pl/sql SSB package that builds an html form containing the encoded arguments that DW needs to identify a user and validate the user's SSB session. The arguments are posted to DW cgi in an encoded format. An argument labeled SSBDATA contains a value that changes with every page view or refresh of the DW link in SSB. DW decodes that value then validates the session ID and spriden_pidm associated with that session in Banner. However DW does not update/change the session ID value like SSB normally does with each page view. The reason is to leave the SSB session intact so that the user can go back to SSB by means of a link and find that their SSB session is still valid and active as long as it has not timed out during their usage of DW.

# Installation Steps: Self-Service Banner web menu setup.

## Menu setup for Student role

1. Grant the necessary privileges to your DegreeWorks user in the Banner database, as follows:
    a. Type dbb to start sqlplus in the Banner database
    b. To display and verify your DegreeWorks user name type "show user" and enter:
    ```
    SQL> show user
    USER is "DWMGR"
    ```
    c. Log into sqlplus in your Banner database as a DBA account and issue the following grants to your DegreeWorks user (note that some of these may already be granted):
    ```
    grant create procedure to dwmgr;
    grant create public synonym to dwmgr;
    grant execute on f_class_calc_fnc to dwmgr;
    grant execute on TWBKBSSF to dwmgr;
    grant execute on TWBKWBIS to dwmgr;
    grant select on SFRSTCR to dwmgr;
    grant select on SPRIDEN to dwmgr;
    grant select on STVTERM to dwmgr;
    grant select on TWGBWSES to dwmgr;
    ```

    And include the following if you will also be using single DW sign-on for faculty:
    ```
    grant execute on BWCKFRMT to dwmgr;
    grant execute on BWCKLIBS to dwmgr;
    grant execute on BWLKILIB to dwmgr;
    grant execute on BWLKOIDS to dwmgr;
    grant execute on BWLKOSTM to dwmgr;
    grant execute on TWBKFRMT to dwmgr;
    ```

2. Find dwssbstudent.sql file in the app/sql directory on the DW host server (cd app/sql). Use the shortcut script dbb to connect to your Banner database in sqlplus, and then run the file by issuing @dwssbstudent.sql. This will create the package called "DW_Student" in the database.

3. Log in to SSB with a user who has access to WebTailor Administration. Select the WebTailor tab, then "Web Menus and Procedures" from the menu.

4. Click the "Create" button to add a new web menu or procedure. Enter data for the following required fields. Enter data for the other fields according to your preference.

    a. Page Name: DW_Student.P_SignOn

    b. Description: DegreeWorks. Or, enter whatever text you would like to appear as the description.

    c. Module: Student Self-Service. Or, select the appropriate module for your site.

    d. Enter page title, header text, and header graphic as you prefer.

    e. Enter back link settings as you prefer. If you are adding the DegreeWorks menu item to the student main menu then the back link url would be: twbkwbis.P_GenMenu?name=bmenu.P_StuMainMnu.

    f. Choose Associated Roles according to your preference.

5. Numbers 4 and 5 are options dependant on how you want to display or call the DW package from within Self Service. Display the DegreeWorks link on a main menu by calling the new web procedure from your main menu package: DW_Student.P_SignOn (term, pidm, 0). The first two arguments, term and pidm, can be sent as null. The third argument, show_headers, should equal 0 (zero) when you are calling this procedure from another package. If you choose to do this step, you can skip #5 below.

6. Display the DegreeWorks package link on a main menu. Do this if you skipped #4 above. This option will allow you to display a full page containing the DW link and any additional information you wish to provide.

    a. Go back to WebTailor > Web menus and Procedures.

    b. Select the menu where you want to add DegreeWorks (for example the main menu bmenu.P_GenMnu or the student main menu bmenu.P_StuMainMnu)

    c. Click “Customize Menu Items”

    d. Click “Add a New Menu Item” (If you do not see that button yet, then you will need to click “Copy Baseline to Local” first).

    e. Enter the URL: DW_Student.P_SignOn

    f. Enter the link text, description and sequence number according to your preference.

    g. Check the box next to Database Procedure.

7. Configure WebTailor Parameters

    a. DWLINKTEXT – The text you want to display as the link to DegreeWorks

    b. DWURL – The url to the DegreeWorks cgi. For example https://yourserver.edu/degreeworks/IRISLink.cgi.

    c. DWDISPLAYBUTTON – Set to “1” to have a button displayed instead of an automatic redirect.

### Menu setup for Faculty role

Setting up a menu item for a Faculty role is similar to the steps above with some differences listed as follows:

1. The sql file app/sql/dwssbfaculty.sql contains another package DW_Faculty with a procedure called P_SignOn. The default USERCLASS in this package is “ADV”. If you are providing this link to users who are ADVX or REG instead of ADV, then modify the hardcoded value for USERCLASS in this file. Insert the package into the Banner database using dbb.

2. The “Page Name” in step 3a above will be: DW_Faculty.P_SignOn.

3. Choose a module and associated roles that appropriate for faculty memebers.

4. Add the menu item for faculty members to a menu that is appropriate for your site. One option is to add it to the bmenu.P_FacStuMnu menu.

## Installation Steps: DegreeWorks server.

1. Use SureCode to set CFG020 WEBPARAMS “Enable SSB Sign-on” = “Y”

2. Change your header frame to include a link back to self-service. You should modify the **SD_HeaderFrame.html** file to add a link back to Self Service. We suggest you remove the Portal link and replace it with the call to the Self Service function defined in the SD2WORKS shpscript.

```
  DrawLink ("Back to Self-Service", "top.BackToSelfServiceBanner('Main')");
  DrawLink ("Transcript",      "top.BackToSelfServiceBanner('Transcript')");
  //DrawLink ("Portal",             "",                          "_blank");
```

3. In SD2WORKS the BackToSelfService function is defined.
   Be sure you change “**myschool**” and “**somemachine**” shown below to be appropriate for your setup.

```
////////////////////////////////////////////////////////////////////////
// You can pass in an sMode to be used here to control where the link
// should go within Self-Service.
////////////////////////////////////////////////////////////////////////
function BackToSelfServiceBanner(sMode)
{
// assume user is not a student (or not logged on as one anyway)
var bStudent = false;
<$ILMASK Service=SDSTUME>
bStudent = true; // this is a student
</$ILMASK>
if (bStudent)
  {
  if (sMode=="Transcript")
    sMenuName="bwskotrn.P_ViewTermTran";
  else // normal mode
    sMenuName="twbkwbis.P_GenMenu?name=bmenu.P_AdminMnu";
  }
else // not a student
  {
  if (sMode=="Transcript")
    sMenuName="bwlkftrn.P_FacDispTran";
  else // normal mode
    sMenuName="twbkwbis.P_GenMenu?name=bmenu.P_FacStuMnu";
  }
window.location.href="http://myschool.edu/somemachine/" + sMenuName;
} // backtoselfservicebanner
```

4. In the same HeaderFrame files you need to disable the DoLogout function. This function gets triggered when the DegreeWorks pages are unloaded when the user clicks on “Back to Self Service”. Odd behavior occurs when DoLogout actually tries to log the user out. In the DoLogout function add the “**return**;” as shown below:

```
function DoLogout()
  {
    return;   // disable because of Self Service
```

5. Issue a webrestart.

# Student ID Pass-along to DegreeWorks

## Overview

An advisor working in SSB must select a student before clicking on DegreeWorks. When the user does choose DegreeWorks the student being reviewed is passed to the student context area within DegreeWorks. As soon as the student appears the Worksheet tab is automatically selected and the student's most recent degree audit is displayed.

Allowing an advisor user coming from SSB to switch to another student in DegreeWorks would cause much confusion when the user then switched back to SSB since the new student ID is not then pushed back to SSB - they would be surprised to see the old student ID still sitting there in SSB.

To prevent such confusion it is best to take away the ability for these users to switch to another student within DegreeWorks. To remove this ability you should do a RemKey in common/SHPCFG on the SDSTUANY and SDFIND keys.

```
If (DGWUserClass = ADV) then
   RemKey = SDSTUANY, SDFIND  # Disallow changing student IDs in DW
```

## How this works

The link from SSB requests the SD2WORKS DegreeWorks script. When the request is made the student ID from SSB is sent to DegreeWorks as PORTALSTUID=<someid>. The SD2WORKS script grabs this student ID and passes it along to the SD2STUCON student context area script. Once the SD2STUCON script sees that an ID was passed in it checks to see that the user is not a student and then immediately loads that student’s name, degree, etc. If the user does not have the SDFIND or SDSTUANY keys they will not be able to switch to a new student; switching students must occur in SSB.

# User Role Pass-along to DegreeWorks

## Overview

An advisor working in SSB may be reviewing data on her advisees or may be looking at her own student records. The advisor would have two DegreeWorks links – one on the SSB student tab and one on the SSB faculty tab. When the advisor is working on one of her advisees and clicks the DegreeWorks link she need to be able to continue to play the role of an advisor when in DegreeWorks. Conversely, when she is examining her own student record in SSB and clicks the DegreeWorks link she needs to play the role of a student when in DegreeWorks.

The above section on passing the Student ID from SSB to DegreeWorks is tightly related to this topic and thus the same adjustments to the advisor's keys need to be made.

## How this works

The faculty tab containing the link to DegreeWorks must pass the USERCLASS of ADV (or ADVX) to DegreeWorks. The student tab must pass the USERCLASS of STU to DegreeWorks.

The user must have been extracted from Banner as an advisor at some point. This advisor user-class is stored in the shp-user-mst in DegreeWorks as the primary/overall user-class. When the user connects to DegreeWorks from SSB the USERCLASS passed from SSB is stored in the dap-user-mst table as the dynamic one to use for the current session. The primary user-class in the shp-user-mst is used to prevent a user with a primary user-class of STU from being changed to another other user-class. Similarly, a primary user-class of REG cannot be overwritten with any other user-class.

# Special Topics

To help you use DegreeWorks effectively, there are a variety of special topics that can warrant discussion and elaboration. These topics are typically generated from customer feedback when it becomes clear that an extended explanation is needed on some specific issue. The topic often references other documents that contain the specifics of configuration. The special topic can take the form of an abbreviated "how to" document.

# Applicants in DegreeWorks

For DW 4.0.2 and beyond there is now an Applicant extract that can be executed to allow students who have an applicant record, but may not yet be considered a current student to be bridged into DGW.  For these students if they have transfer courses, test scores, or other appropriate data in Banner their data will be bridged over into DGW.

Advisors and REG users can see applicants within DGW just as they see other "regular" students. Applicants must log into DGW from within SSB or Luminis, so they must have at least that access on the Banner side. Applicants must have at least applied to the school and have a SGBSTDN, SARADAP, or SORLCUR/SORLFOS record to be able to be extracted and thus be able to log into DGW.

There is not a universal "GUEST" applicant extract or login* that recruiters or admissions officers can use to log potential students into DGW.

*Unless the school has created a GUEST type user which they can then use to access DGW. This is a topic for another discussion though.

## How to extract applicants:

1. Use the REFRESH button (only will work if UCX-CFG020/BANNER->Process_Applicants = "Y")

2. Use the command line or cron

   $bannerextract applicant *applicants*
   Where *applicants* can be:
   - SQL file
   - ID file
   - Individual ID

3. Transit
   Select Applicant as the extract type
   Must use an SQL file, cannot use the selection criteria

## Configuration Flags:

There are a few configuration flags that will need to be set using SureCode in CFG020/BANNER:

**Process Applicants** – Y/N – Setting this flag to “Y” will allow the applicant extract process to happen when the REFRESH button is pressed. The applicant data will be looked up in addition to the student data.

**Process Both Goals** – Y/N – Setting this flag to “Y” loads both the “LEARNER” and the “ADMISSIONS” data from SORLCUR/SORLFOS into DGW. If it is set to “N”, then “ADMISSIONS” data is not loaded into DGW if “LEARNER” data is found.

## Extract Process

When the REFRESH button is pressed the following extract process is followed:

1. The SORLCUR/SORLFOS records are checked for a “LEARNER” record using the SORLCUR query within the bannerextract.config file. If a “LEARNER” record is found, then the variable LEARNER_FOUND is set to “Y”.

2. If UCX-CFG020/BANNER->Process_Applicants = “Y” then if LEARNER_FOUND = “N” or if LEARNER_FOUND = “Y” and UCX-CFG020/BANNER->Process_both_goals = “Y” then the SORLCUR/SORLFOS records are searched for an “ADMISSIONS” record using the SORLCUR2 query in bannerextract.config. If an “ADMISSIONS” record is found, then the variable ADMISSIONS_FOUND is set to “Y”.

3. Regardless of what happens in steps 1 & 2, the SGBSTDN record is looked up. If found, the variable SGBSTDN_FOUND is set to “Y”.

4. One of the following two paths will be followed:

    a. If the variable ADMISSIONS_FOUND = “Y”, then the associated SARADAP record will be looked up based on the associated values found in SORLCUR

    b. If ADMISSIONS_FOUND = “N” and UCX-CFG020/BANNER->Process_Applicants = “Y” and UCX-CFG020/BANNER->Load_SARADAP_GOALS = “Y” the SARADAP record is looked up based on the SARADAP query in bannerextract.config.

When the bannerextract applicant is executed from the command line or a cron job or if Transit is used to extract the applicants, the following process is followed:

1. Same as above. The LEARNER_FOUND flag is set to “Y” if found

2. If LEARNER_FOUND = “N” or if LEARNER_FOUND = “Y” and UCX-CFG020/BANNER->Process_both_goals = “Y” then use the SORLCUR2 in bannerextract.config to search for “ADMISSIONS” records. If found set ADMISSIONS_FOUND = “Y”.

3. Same as above

4. One of the following two paths will be followed:

    a. If the variable ADMISSIONS_FOUND = “Y”, then the associated SARADAP record will be looked up based on the associated values found in SORLCUR

    b. If ADMISSIONS_FOUND = “N” and UCX-CFG020/BANNER->Load_SARADAP_GOALS = “Y” the SARADAP record is looked up based on the SARADAP query in bannerextract.config.

Once extracted at least one of the variables (ADMISSIONS_FOUND, LEARNER_FOUND, SGBSTDN_FOUND, or SARADAP_FOUND) will have to be “Y” or an error will result.
Then one and possibly up to three of the following paths will be taken (one path from the two student type paths, one path from the two applicant type paths, and one from the dual degree path):

1. (Student Path)

   If LEARNER_FOUND = “Y”
   The goal (degree) records are created from the SORLCUR/SORLFOS records
2. (Student Path)

   If LEARNER_FOUND = “N” and ADMISSIONS_FOUND = “N” and SGBSTDN_FOUND = “Y”
   Load goal records from SGBSTDN records
3. (Applicant Path)

   If ADMISSIONS_FOUND = “Y” and the Level(school)/Degree combination does not match any of the LEARNER Level(School)/Degree combinations
   Load goal records from the ADMISSIONS version of the SORLCUR/SORLFOS records
4. (Applicant Path)

   If ADMISSIONS_FOUND = “N” and SARADAP_FOUND = “Y” and UCX-CFG020/BANNER->Process_Applicants = “Y” and UCX-CFG020/BANNER->Load_SARADAP_goals = “Y” and the Level(school)/Degree combination does not match any of the LEARNER Level(School)/Degree combinations
   Load goal records from SARADAP
5. (Dual Degree Path)

   If UCX-CFG020/BANNER->Check_dual_degree = “Y” and SGBSTDN_FOUND = “Y” and the Dual Level(school)/Dual Degree combination does not match any of the LEARNER Level(School)/ Degree combinations
   Load goal records from the SGBSTDN dual degree records

## Bannerextract.config file

There are three areas in the bannerextract.config file that need to be examined to determine if they are extracting the appropriate applicant data:

1. SORLCUR2

2. SORLFOS2

3. SARADAP

## Applicant User Class

An applicant user class (APP) must be created in the SHPCFG file. This will be the lowest class. If the class does not already exist in AUD012, it will need to be added there.

```
#-----------------------------------------------------------------------------
#-- DegreeWorks keys for applicants
#-----------------------------------------------------------------------------
if (DGWUSERCLASS = "APP") then
addgroup = SRNAPP
```

By default, the SRNAPP group has the following accesses:

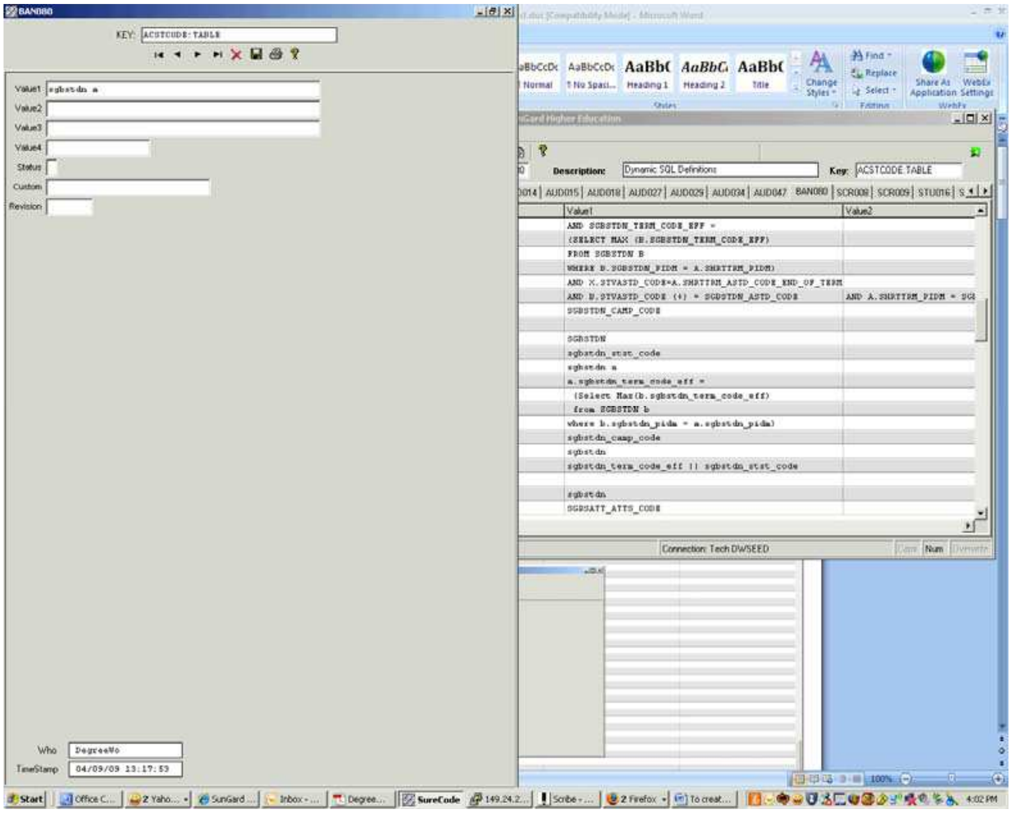
SDAUDREV
SDLOKAHD
SDSTUME
SDWEB31
SDWHATIF
SDWORKS
SDXML31
SDAUDPDF

# Using Banner Data to create Scribe Custom Data

There may be a time when a rule needs to be scribed against a variable from Banner that is not by default bridged into DegreeWorks. Some examples of this type of variable includes graduation status, academic standing, and campus code. Follow the procedure below to set up and use these types of variables.

1. Create the variable in the BAN080. In this table you will indicate the column, table, and where statements to retrieve the variable from Banner. The following shows an example of the code set up for the academic standing code. You pick a name for this variable. We will call it ACSTCODE. Note: if you choose a table that is not a typical table DGW uses, you must make sure your DBA gives the DGW user read access to this table.

    a. Create a record in BAN080 with the key of ACSTCODE:TABLE. The Value1 should be the table name you are retrieving from in this case, SGBSTDN.



BAN080

KEY: ACSTCODE:TABLE

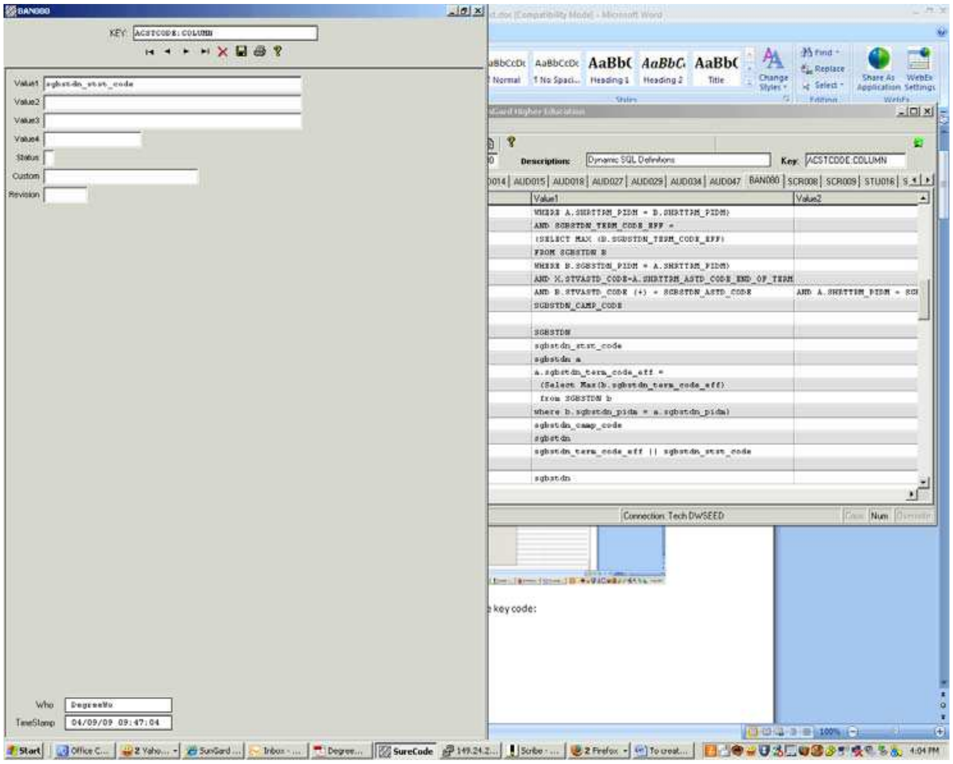
| | |
|---|---|
| Value1 | sgbstdn a |
| Value2 | |
| Value3 | |
| Value4 | |
| Status | |
| Custom | |
| Revision | |
| Who | DegreeWo |
| TimeStamp | 04/09/09 13:17:53 |

Description: Dynamic SQL Definitions    Key: ACSTCODE:TABLE

| Value1 | Value2 |
|---|---|
| AND SGBSTDN_TERM_CODE_EFF = | |
| (SELECT MAX (B.SGBSTDN_TERM_CODE_EFF) | |
| FROM SGBSTDN B | |
| WHERE B.SGBSTDN_PIDM = A.SHRTTRM_PIDM) | |
| AND X.STVASTD_CODE=A.SHRTTRM_ASTD_CODE_END_OF_TERM | |
| AND B.STVASTD_CODE (+) = SGBSTDN_ASTD_CODE | AND A.SHRTTRM_PIDM = SGB |
| SGBSTDN_CAMP_CODE | |
| | |
| SGBSTDN | |
| sgbstdn_stst_code | |
| sgbstdn a | |
| a.sgbstdn_term_code_eff = | |
| (Select Max(b.sgbstdn_term_code_eff) | |
| from SGBSTDN b | |
| where b.sgbstdn_pidm = a.sgbstdn_pidm) | |
| sgbstdn_camp_code | |
| sgbstdn | |
| sgbstdn_term_code_eff \|\| sgbstdn_stst_code | |
| | |
| sgbstdn | |
| SGRSATT_ATTS_CODE | |

Connection: Tech DWSEED

    b. Next create a record for the column with the key code: ACSTCODE:COLUMN. For this example, we will be retrieving the SGBSTDN_STST_CODE, so that should be entered in the Value1 field.



KEY: ACSTCODE:COLUMN

| | |
|---|---|
| Value1 | sgbstdn_stst_code |
| Value2 | |
| Value3 | |
| Value4 | |
| Status | |
| Custom | |
| Revision | |
| Who | DegreeWo |
| TimeStamp | 04/09/09 09:47:04 |

Description: Dynamic SQL Definitions Key: ACSTCODE:COLUMN

| Value1 | Value2 |
|---|---|
| WHERE A.SHRTTRM_PIDM = B.SHRTTRM_PIDM) | |
| AND SGBSTDN_TERM_CODE_EFF = | |
| (SELECT MAX (B.SGBSTDN_TERM_CODE_EFF) | |
| FROM SGBSTDN B | |
| WHERE B.SGBSTDN_PIDM = A.SHRTTRM_PIDM) | |
| AND X.STVASTD_CODE=A.SHRTTRM_ASTD_CODE_END_OF_TERM | |
| AND B.STVASTD_CODE (+) = SGBSTDN_ASTD_CODE | AND A.SHRTTRM_PIDM = SGI |
| SGBSTDN_CAMP_CODE | |
| | |
| SGBSTDN | |
| sgbstdn_stst_code | |
| sgbstdn a | |
| a.sgbstdn_term_code_eff = | |
| (Select Max(b.sgbstdn_term_code_eff) | |
| from SGBSTDN b | |
| where b.sgbstdn_pidm = a.sgbstdn_pidm) | |
| sgbstdn_camp_code | |
| sgbstdn | |
| sgbstdn_term_code_eff \|\| sgbstdn_stst_code | |
| | |
| sgbstdn | |

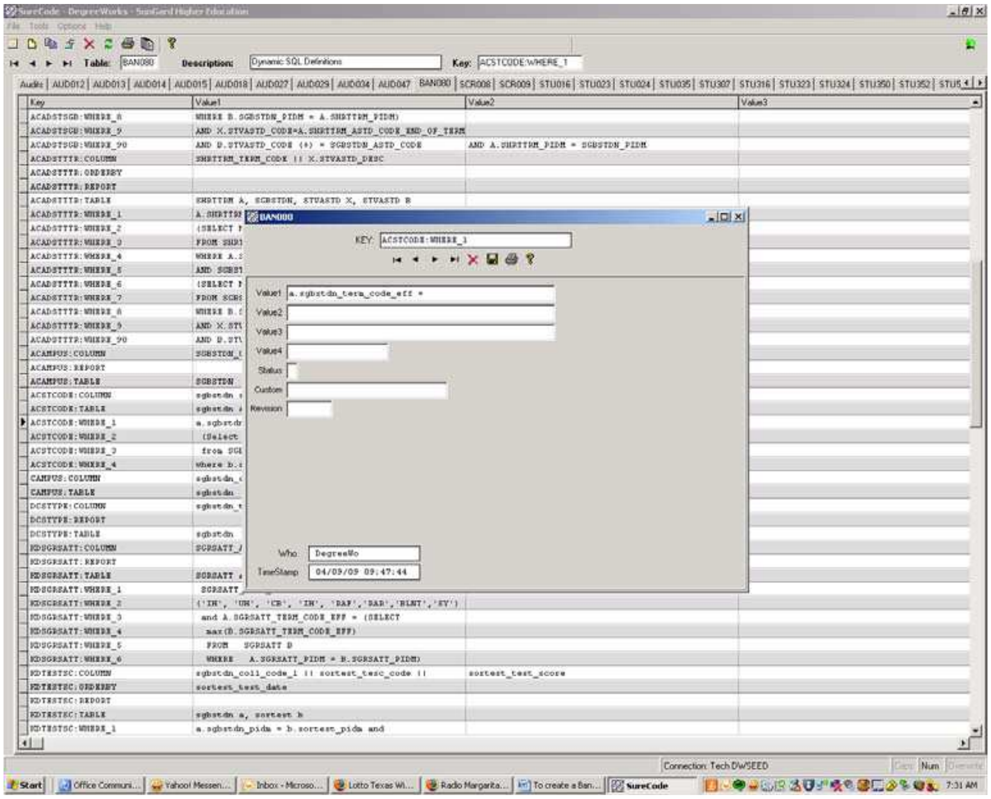
Connection: Tech DWSEED

c. Any SQL statements that will be used to find the desired instance of the variable should now be entered into records with keys beginning with WHERE. For multiple where statements, add multiple where records. These records should be named WHERE_1, WHERE_2, etc. In this example, we will find the academic status value for the latest term. The SQL to accomplish this will be:

*Where a.sgbstdn_term_code_eff = (Select Max(b.sgbstdn_term_code_eff) from*
*Sgbstdn b where b.sgbstdn_pidm = a.sgbstdn_pidm)*

In this example, four records will need to be created. They can be named: ACSTCODE:WHERE_1, ACSTCODE:WHERE_2, ACSTCODE:WHERE_3, and ACSTCODE:WHERE_4.

Screen shots of these are as follows:



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File Tools Options Help
Audits | AUD012 | AUD013 | AUD014 | AUD015 | AUD018 | AUD027 | AUD029 | AUD034 | AUD047 | BAN080 | SCR008 | SCR009 | STU016 | STU023 | STU024 | STU035 | STU307 | STU316 | STU323 | STU324 | STU350 | STU352 | STU3
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Caps Num Overwrite
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Table: BAN080 Description: Dynamic SQL Definitions Key: ACSTCODE:WHERE_1

| Key | Value1 | Value2 | Value3 |
|---|---|---|---|
| ACADSTSGD:WHERE_8 | WHERE B.SGBSTDN_PIDM = A.SHRTTRM_PIDM) | | |
| ACADSTSGD:WHERE_9 | AND X.STVASTD_CODE=A.SHRTTRM_ASTD_CODE_END_OF_TERM | | |
| ACADSTSGD:WHERE_90 | AND B.STVASTD_CODE (+) = SGBSTDN_ASTD_CODE | AND A.SHRTTRM_PIDM = SGBSTDN_PIDM | |
| ACADSTTTR:COLUMN | SHRTTRM_TERM_CODE \|\| X.STVASTD_DESC | | |
| ACADSTTTR:ORDERBY | | | |
| ACADSTTTR:REPORT | | | |
| ACADSTTTR:TABLE | SHRTTRM A, SGBSTDN, STVASTD X, STVASTD B | | |
| ACADSTTTR:WHERE_1 | A.SHRTTRM | | |
| ACADSTTTR:WHERE_2 | (SELECT M | | |
| ACADSTTTR:WHERE_3 | FROM SHRT | | |
| ACADSTTTR:WHERE_4 | WHERE A.S | | |
| ACADSTTTR:WHERE_5 | AND SGBST | | |
| ACADSTTTR:WHERE_6 | (SELECT M | | |
| ACADSTTTR:WHERE_7 | FROM SGBS | | |
| ACADSTTTR:WHERE_8 | WHERE B.S | | |
| ACADSTTTR:WHERE_9 | AND X.STV | | |
| ACADSTTTR:WHERE_90 | AND B.STV | | |
| ACAMPUS:COLUMN | SGBSTDN_C | | |
| ACAMPUS:REPORT | | | |
| ACAMPUS:TABLE | SGBSTDN | | |
| ACSTCODE:COLUMN | sgbstdn_s | | |
| ACSTCODE:TABLE | sgbstdn a | | |
| ACSTCODE:WHERE_1 | a.sgbstdr | | |
| ACSTCODE:WHERE_2 | (Select | | |
| ACSTCODE:WHERE_3 | from SGE | | |
| ACSTCODE:WHERE_4 | where b.s | | |
| CAMPUS:COLUMN | sgbstdn_c | | |
| CAMPUS:TABLE | sgbstdn | | |
| DCSTYPE:COLUMN | sgbstdn_t | | |
| DCSTYPE:REPORT | | | |
| DCSTYPE:TABLE | sgbstdn | | |
| KDSGRSATT:COLUMN | SGRSATT_A | | |
| KDSGRSATT:REPORT | | | |
| KDSGRSATT:TABLE | SGRSATT a | | |
| KDSGRSATT:WHERE_1 | SGRSATT_ | | |
| KDSGRSATT:WHERE_2 | ('IN', 'UN', 'CR', 'IN', 'BAF','BAR','BLNT','SY') | | |
| KDSGRSATT:WHERE_3 | and A.SGRSATT_TERM_CODE_EFF = (SELECT | | |
| KDSGRSATT:WHERE_4 | max(B.SGRSATT_TERM_CODE_EFF) | | |
| KDSGRSATT:WHERE_5 | FROM SGRSATT B | | |
| KDSGRSATT:WHERE_6 | WHERE A.SGRSATT_PIDM = B.SGRSATT_PIDM) | | |
| KDTESTSC:COLUMN | sgbstdn_coll_code_1 \|\| sortest_tesc_code \|\| | sortest_test_score | |
| KDTESTSC:ORDERBY | sortest_test_date | | |
| KDTESTSC:REPORT | | | |
| KDTESTSC:TABLE | sgbstdn a, sortest b | | |
| KDTESTSC:WHERE_1 | a.sgbstdn_pidm = b.sortest_pidm and | | |

BAN080

KEY: ACSTCODE:WHERE_1

Value1: a.sgbstdn_term_code_eff =

Value2:

Value3:

Value4:

Status:

Custom:

Revision:

Who: DegreeWo

TimeStamp: 04/09/09 09:47:44

Connection: Tech DWSEED

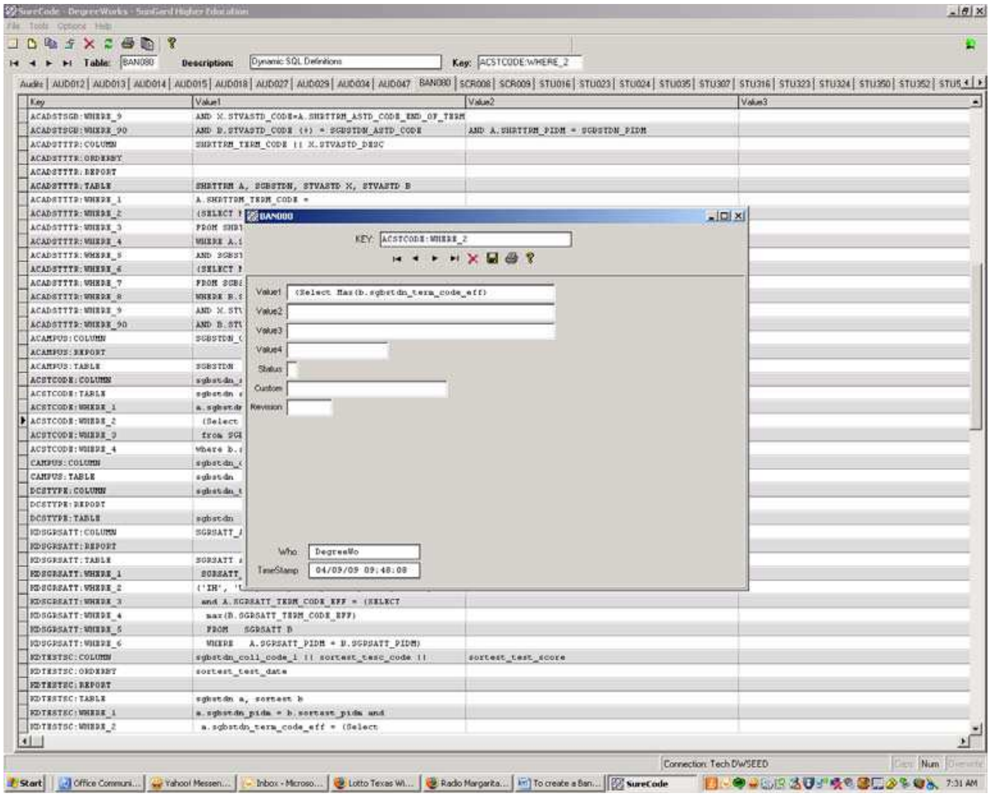

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Table: BAN080 Description: Dynamic SQL Definitions Key: ACSTCODE:WHERE_2

| Key | Value1 | Value2 | Value3 |
|---|---|---|---|
| ACADSTSGD:WHERE_9 | AND X.STVASTD_CODE=A.SHRTTRM_ASTD_CODE_END_OF_TERM | | |
| ACADSTSGD:WHERE_90 | AND B.STVASTD_CODE (+) = SGBSTDN_ASTD_CODE | AND A.SHRTTRM_PIDM = SGBSTDN_PIDM | |
| ACADSTTTR:COLUMN | SHRTTRM_TERM_CODE \|\| X.STVASTD_DESC | | |
| ACADSTTTR:ORDERBY | | | |
| ACADSTTTR:REPORT | | | |
| ACADSTTTR:TABLE | SHRTTRM A, SGBSTDN, STVASTD X, STVASTD B | | |
| ACADSTTTR:WHERE_1 | A.SHRTTRM_TERM_CODE = | | |
| ACADSTTTR:WHERE_2 | (SELECT M | | |
| ACADSTTTR:WHERE_3 | FROM SHRT | | |
| ACADSTTTR:WHERE_4 | WHERE A.S | | |
| ACADSTTTR:WHERE_5 | AND SGBST | | |
| ACADSTTTR:WHERE_6 | (SELECT M | | |
| ACADSTTTR:WHERE_7 | FROM SGBS | | |
| ACADSTTTR:WHERE_8 | WHERE B.S | | |
| ACADSTTTR:WHERE_9 | AND X.STV | | |
| ACADSTTTR:WHERE_90 | AND B.STV | | |
| ACAMPUS:COLUMN | SGBSTDN_C | | |
| ACAMPUS:REPORT | | | |
| ACAMPUS:TABLE | SGBSTDN | | |
| ACSTCODE:COLUMN | sgbstdn_s | | |
| ACSTCODE:TABLE | sgbstdn a | | |
| ACSTCODE:WHERE_1 | a.sgbstdr | | |
| ACSTCODE:WHERE_2 | (Select | | |
| ACSTCODE:WHERE_3 | from SGE | | |
| ACSTCODE:WHERE_4 | where b.s | | |
| CAMPUS:COLUMN | sgbstdn_c | | |
| CAMPUS:TABLE | sgbstdn | | |
| DCSTYPE:COLUMN | sgbstdn_t | | |
| DCSTYPE:REPORT | | | |
| DCSTYPE:TABLE | sgbstdn | | |
| KDSGRSATT:COLUMN | SGRSATT_A | | |
| KDSGRSATT:REPORT | | | |
| KDSGRSATT:TABLE | SGRSATT a | | |
| KDSGRSATT:WHERE_1 | SGRSATT_ | | |
| KDSGRSATT:WHERE_2 | ('IN', 'U | | |
| KDSGRSATT:WHERE_3 | and A.SGRSATT_TERM_CODE_EFF = (SELECT | | |
| KDSGRSATT:WHERE_4 | max(B.SGRSATT_TERM_CODE_EFF) | | |
| KDSGRSATT:WHERE_5 | FROM SGRSATT B | | |
| KDSGRSATT:WHERE_6 | WHERE A.SGRSATT_PIDM = B.SGRSATT_PIDM) | | |
| KDTESTSC:COLUMN | sgbstdn_coll_code_1 \|\| sortest_tesc_code \|\| | sortest_test_score | |
| KDTESTSC:ORDERBY | sortest_test_date | | |
| KDTESTSC:REPORT | | | |
| KDTESTSC:TABLE | sgbstdn a, sortest b | | |
| KDTESTSC:WHERE_1 | a.sgbstdn_pidm = b.sortest_pidm and | | |
| KDTESTSC:WHERE_2 | a.sgbstdn_term_code_eff = (Select | | |

BAN080

KEY: ACSTCODE:WHERE_2

Value1: (Select Max(b.sgbstdn_term_code_eff)

Value2:

Value3:

Value4:

Status:

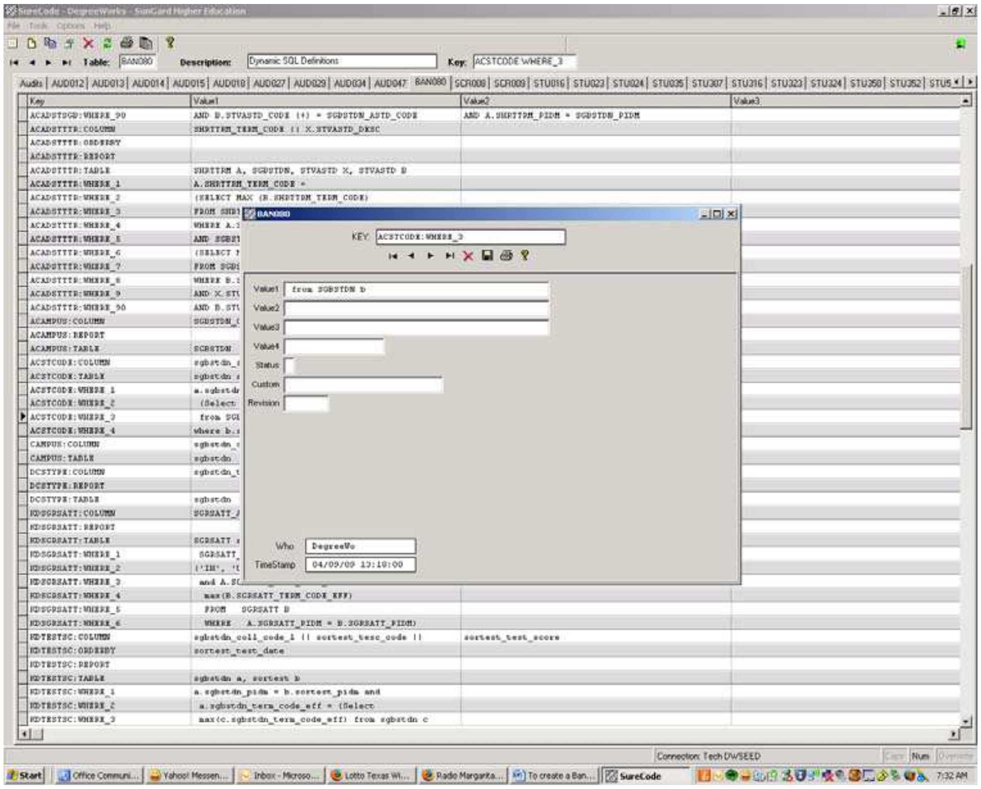
Custom:

Revision:

Who: DegreeWo

TimeStamp: 04/09/09 09:48:08

Connection: Tech DWSEED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File Tools Options Help
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Table: BAN080 Description: Dynamic SQL Definitions Key: ACSTCODE WHERE_3

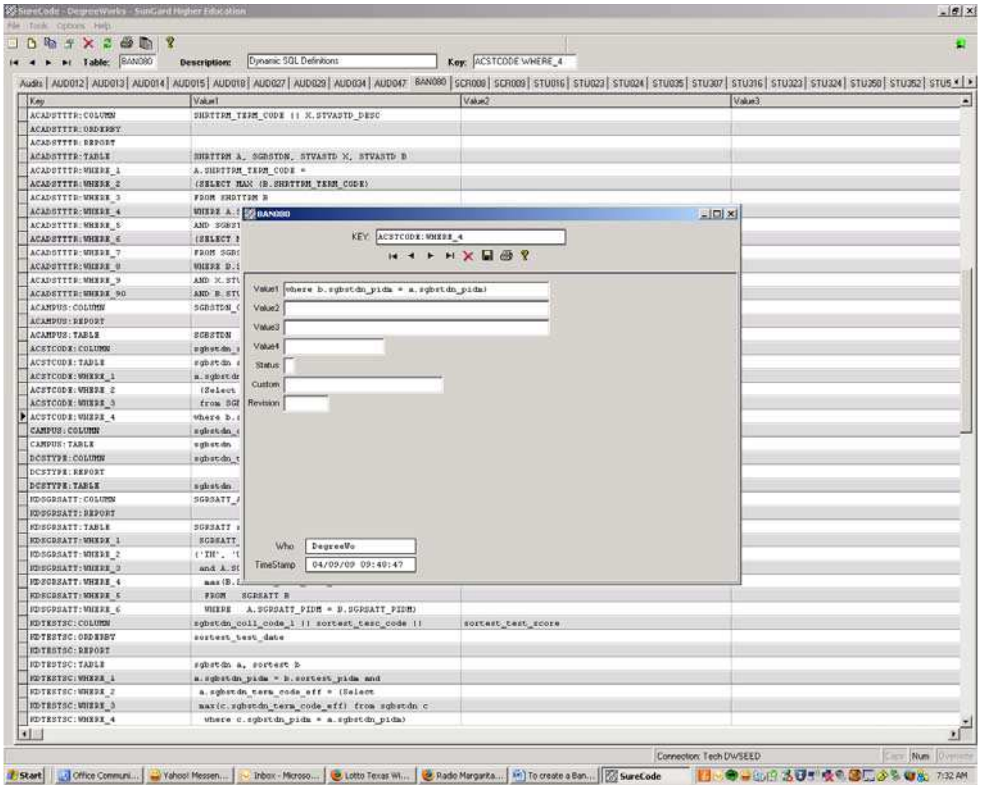
| Key | Value1 | Value2 | Value3 |
|---|---|---|---|
| ACADSTSGD:WHERE_90 | AND B.STVASTD_CODE (+) = SGBSTDN_ASTD_CODE | AND A.SHRTTRM_PIDM = SGBSTDN_PIDM | |
| ACADSTTTR:COLUMN | SHRTTRM_TERM_CODE \|\| X.STVASTD_DESC | | |
| ACADSTTTR:ORDERBY | | | |
| ACADSTTTR:REPORT | | | |
| ACADSTTTR:TABLE | SHRTTRM A, SGBSTDN, STVASTD X, STVASTD B | | |
| ACADSTTTR:WHERE_1 | A.SHRTTRM_TERM_CODE = | | |
| ACADSTTTR:WHERE_2 | (SELECT MAX (B.SHRTTRM_TERM_CODE) | | |
| ACADSTTTR:WHERE_3 | FROM SHR | | |
| ACADSTTTR:WHERE_4 | WHERE A.: | | |
| ACADSTTTR:WHERE_5 | AND SGBST | | |
| ACADSTTTR:WHERE_6 | (SELECT M | | |
| ACADSTTTR:WHERE_7 | FROM SGB | | |
| ACADSTTTR:WHERE_8 | WHERE B.: | | |
| ACADSTTTR:WHERE_9 | AND X.STV | | |
| ACADSTTTR:WHERE_90 | AND B.STV | | |
| ACAMPUS:COLUMN | SGBSTDN_( | | |
| ACAMPUS:REPORT | | | |
| ACAMPUS:TABLE | SGBSTDN | | |
| ACSTCODE:COLUMN | sgbstdn_( | | |
| ACSTCODE:TABLE | sgbstdn s | | |
| ACSTCODE:WHERE_1 | a.sgbstdr | | |
| ACSTCODE:WHERE_2 | (Select | | |
| ACSTCODE:WHERE_3 | from SGI | | |
| ACSTCODE:WHERE_4 | where b.: | | |
| CAMPUS:COLUMN | sgbstdn_: | | |
| CAMPUS:TABLE | sgbstdn | | |
| DCSTYPE:COLUMN | sgbstdn_t | | |
| DCSTYPE:REPORT | | | |
| DCSTYPE:TABLE | sgbstdn | | |
| HDSGRSATT:COLUMN | SGRSATT_/ | | |
| HDSGRSATT:REPORT | | | |
| HDSGRSATT:TABLE | SGRSATT : | | |
| HDSGRSATT:WHERE_1 | SGRSATT_ | | |
| HDSGRSATT:WHERE_2 | ('IN', 't | | |
| HDSGRSATT:WHERE_3 | and A.SC | | |
| HDSGRSATT:WHERE_4 | max(B.SGRSATT_TERM_CODE_EFF) | | |
| HDSGRSATT:WHERE_5 | FROM SGRSATT B | | |
| HDSGRSATT:WHERE_6 | WHERE A.SGRSATT_PIDM = B.SGRSATT_PIDM) | | |
| HDTESTSC:COLUMN | sgbstdn_coll_code_1 \|\| sortest_tesc_code \|\| | sortest_test_score | |
| HDTESTSC:ORDERBY | sortest_test_date | | |
| HDTESTSC:REPORT | | | |
| HDTESTSC:TABLE | sgbstdn a, sortest b | | |
| HDTESTSC:WHERE_1 | a.sgbstdn_pidm = b.sortest_pidm and | | |
| HDTESTSC:WHERE_2 | a.sgbstdn_term_code_eff = (Select | | |
| HDTESTSC:WHERE_3 | max(c.sgbstdn_term_code_eff) from sgbstdn c | | |

KEY: ACSTCODE:WHERE_3

Value1 from SGBSTDN b
Value2
Value3
Value4
Status
Custom
Revision

Who DegreeWo
TimeStamp 04/09/09 13:18:00

Connection: Tech DWSEED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BAN080
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Table: BAN080 Description: Dynamic SQL Definitions Key: ACSTCODE WHERE_4

| Key | Value1 | Value2 | Value3 |
|---|---|---|---|
| ACADSTTTR:COLUMN | SHRTTRM_TERM_CODE \|\| X.STVASTD_DESC | | |
| ACADSTTTR:ORDERBY | | | |
| ACADSTTTR:REPORT | | | |
| ACADSTTTR:TABLE | SHRTTRM A, SGBSTDN, STVASTD X, STVASTD B | | |
| ACADSTTTR:WHERE_1 | A.SHRTTRM_TERM_CODE = | | |
| ACADSTTTR:WHERE_2 | (SELECT MAX (B.SHRTTRM_TERM_CODE) | | |
| ACADSTTTR:WHERE_3 | FROM SHRTTRM B | | |
| ACADSTTTR:WHERE_4 | WHERE A.: | | |
| ACADSTTTR:WHERE_5 | AND SGBST | | |
| ACADSTTTR:WHERE_6 | (SELECT M | | |
| ACADSTTTR:WHERE_7 | FROM SGB | | |
| ACADSTTTR:WHERE_8 | WHERE B.: | | |
| ACADSTTTR:WHERE_9 | AND X.STV | | |
| ACADSTTTR:WHERE_90 | AND B.STV | | |
| ACAMPUS:COLUMN | SGBSTDN_( | | |
| ACAMPUS:REPORT | | | |
| ACAMPUS:TABLE | SGBSTDN | | |
| ACSTCODE:COLUMN | sgbstdn_: | | |
| ACSTCODE:TABLE | sgbstdn s | | |
| ACSTCODE:WHERE_1 | a.sgbstdr | | |
| ACSTCODE:WHERE_2 | (Select | | |
| ACSTCODE:WHERE_3 | from SGI | | |
| ACSTCODE:WHERE_4 | where b.: | | |
| CAMPUS:COLUMN | sgbstdn_( | | |
| CAMPUS:TABLE | sgbstdn | | |
| DCSTYPE:COLUMN | sgbstdn_t | | |
| DCSTYPE:REPORT | | | |
| DCSTYPE:TABLE | sgbstdn | | |
| HDSGRSATT:COLUMN | SGRSATT_/ | | |
| HDSGRSATT:REPORT | | | |
| HDSGRSATT:TABLE | SGRSATT : | | |
| HDSGRSATT:WHERE_1 | SGRSATT_ | | |
| HDSGRSATT:WHERE_2 | ('IN', 't | | |
| HDSGRSATT:WHERE_3 | and A.SC | | |
| HDSGRSATT:WHERE_4 | max(B.: | | |
| HDSGRSATT:WHERE_5 | FROM SGRSATT B | | |
| HDSGRSATT:WHERE_6 | WHERE A.SGRSATT_PIDM = B.SGRSATT_PIDM) | | |
| HDTESTSC:COLUMN | sgbstdn_coll_code_1 \|\| sortest_tesc_code \|\| | sortest_test_score | |
| HDTESTSC:ORDERBY | sortest_test_date | | |
| HDTESTSC:REPORT | | | |
| HDTESTSC:TABLE | sgbstdn a, sortest b | | |
| HDTESTSC:WHERE_1 | a.sgbstdn_pidm = b.sortest_pidm and | | |
| HDTESTSC:WHERE_2 | a.sgbstdn_term_code_eff = (Select | | |
| HDTESTSC:WHERE_3 | max(c.sgbstdn_term_code_eff) from sgbstdn c | | |
| HDTESTSC:WHERE_4 | where c.sgbstdn_pidm = a.sgbstdn_pidm) | | |

KEY: ACSTCODE:WHERE_4

Value1 where b.sgbstdn_pidm = a.sgbstdn_pidm)
Value2
Value3
Value4
Status
Custom
Revision

Who DegreeWo
TimeStamp 04/09/09 09:40:47

Connection: Tech DWSEED

A summary of the records in BAN080 for this variable should look like the following:

| | | |
|---|---|---|
| ACSTCODE:COLUMN | Sgbstdn_stst_code | |
| ACSTCODE:TABLE | Sgbstdn a | |
| ACSTCODE:WHERE_1 | a.sgbstdn_term_code_eff = | |
| ACSTCODE:WHERE_2 | (Select Max(b.sgbstdn_term_code_eff) | |
| ACSTCODE:WHERE_3 | From SGBSTDN b | |
| ACSTCODE:WHERE_4 | Where b.sgbstdn_pidm = a.sgbstdn_pidm) | |

2. Next a record needs to be added into the SCR002 table in which to scribe against. This record should have the same name as the variable created in step 1 above. The Data Element value should be the record from UCX-SYS999 that is to be used in the Scribe IF statement. Since you are pulling data from BAN080, this data will go into the rad_custom_dtl record. The rad_custom_code with a value of 'R322' in SYS999 should then be entered in as the Data Element. The UCX table can be left blank since this is coming from BAN080 data. The Edit Element1 should be the value of the data item. In this case, 'R323' in SYS999 points to the rad_custom_value field, this should entered into the Edit Element1 field. We will be retrieving all the values for this data item, so the Type value should be set to EV. Finally the value of the SCR002 record should be the name of the variable from the BAN080 table. In this case ACADSTST. The following is the screen shot of the SCR002 record:

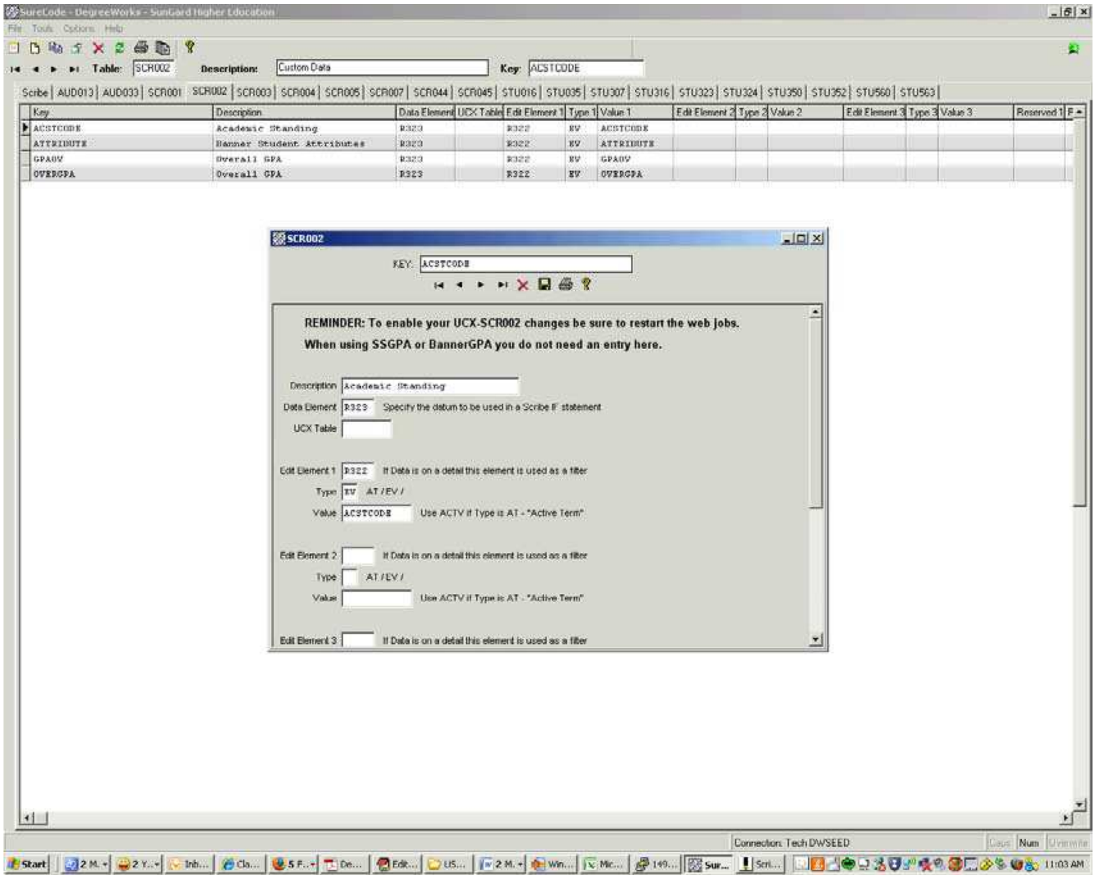

SureCode - DegreeWorks - SunGard Higher Education
File Tools Options Help
Scribe | AUD013 | AUD033 | SCR001 | SCR002 | SCR003 | SCR004 | SCR005 | SCR007 | SCR044 | SCR045 | STU016 | STU035 | STU307 | STU316 | STU323 | STU324 | STU350 | STU352 | STU560 | STU563

Table: SCR002 Description: Custom Data Key: ACSTCODE

| Key | Description | Data Element | UCX Table | Edit Element 1 | Type 1 | Value 1 | Edit Element 2 | Type 2 | Value 2 | Edit Element 3 | Type 3 | Value 3 | Reserved 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACSTCODE | Academic Standing | R323 | | R322 | EV | ACSTCODE | | | | | | | |
| ATTRIBUTE | Banner Student Attributes | R323 | | R322 | EV | ATTRIBUTE | | | | | | | |
| GPAOV | Overall GPA | R323 | | R322 | EV | GPAOV | | | | | | | |
| OVERGPA | Overall GPA | R323 | | R322 | EV | OVERGPA | | | | | | | |

SCR002

KEY: ACSTCODE

REMINDER: To enable your UCX-SCR002 changes be sure to restart the web jobs.

When using SSGPA or BannerGPA you do not need an entry here.

Description: Academic Standing

Data Element: R323 Specify the datum to be used in a Scribe IF statement

UCX Table:

Edit Element 1: R322 If Data is on a detail this element is used as a filter

Type: EV AT / EV /

Value: ACSTCODE Use ACTV if Type is AT - "Active Term"

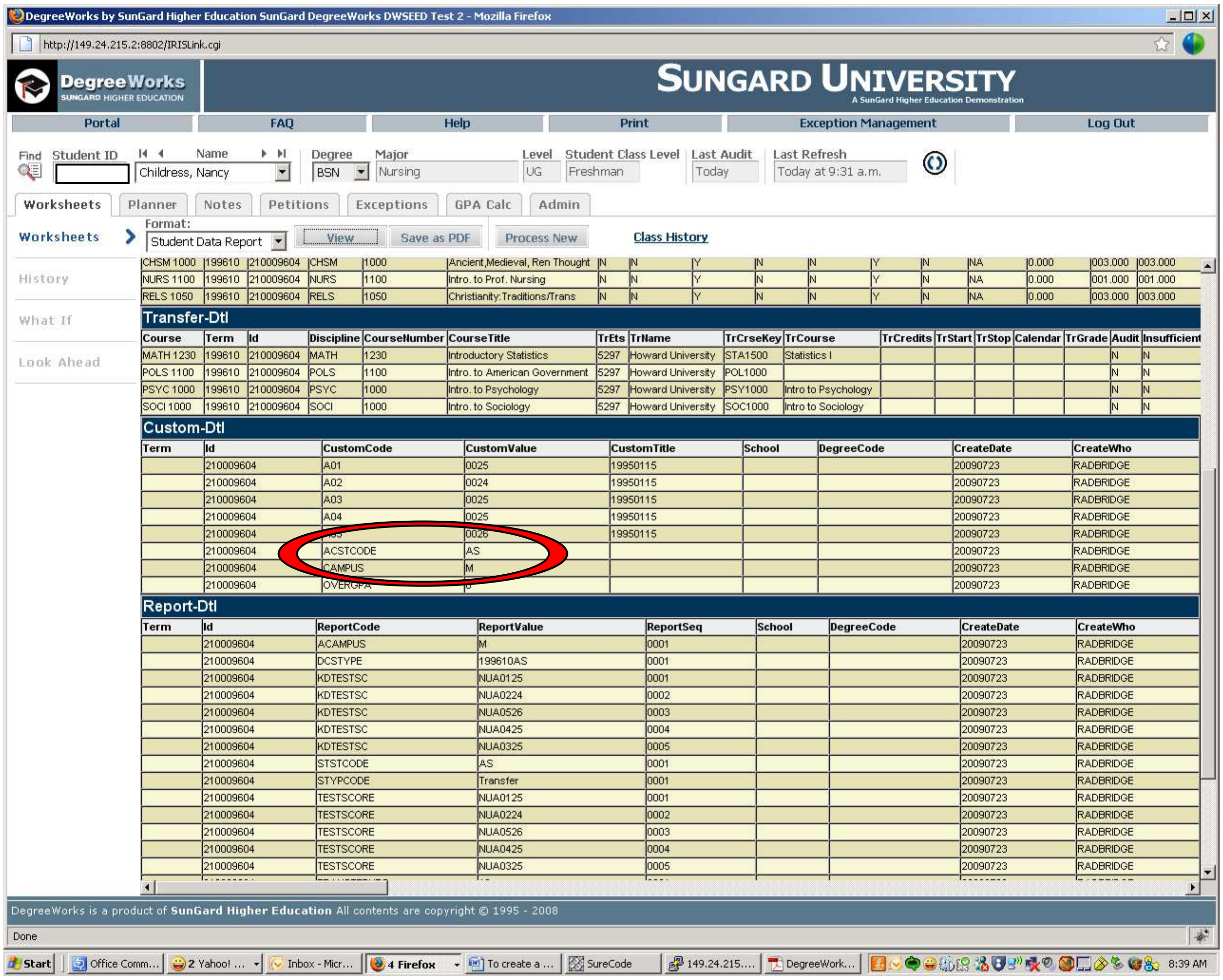
Edit Element 2: If Data in on a detail this element is used as a filter

Type: AT / EV /

Value: Use ACTV if Type is AT - "Active Term"

Edit Element 3: If Data is on a detail this element is used as a filter

3. After the tables have been set up in SureCode for the BAN080 records and the SCR002 record. A webrestart and a UCX12job command should be issued. For students to get this data put into their rad_custom_data table, they will need to be re-bridged from Banner into DegreeWorks. If the data item does not exist in Banner for the student, the record will not be loaded in the rad_cust_dtl table. Once a student has been re-extracted, his student data record will now look like this:



DegreeWorks by SunGard Higher Education SunGard DegreeWorks DWSEED Test 2 - Mozilla Firefox

http://149.24.215.2:8802/IRISLink.cgi

Student ID: 
Name: Childress, Nancy
Degree: BSN
Major: Nursing
Level: UG
Student Class Level: Freshman
Last Audit: Today
Last Refresh: Today at 9:31 a.m.

Format: Student Data Report

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHSM 1000 | 199610 | 210009604 | CHSM | 1000 | Ancient,Medieval, Ren Thought | N | N | Y | N | N | Y | N | NA | 0.000 | 003.000 | 003.000 |
| NURS 1100 | 199610 | 210009604 | NURS | 1100 | Intro. to Prof. Nursing | N | N | Y | N | N | Y | N | NA | 0.000 | 001.000 | 001.000 |
| RELS 1050 | 199610 | 210009604 | RELS | 1050 | Christianity:Traditions/Trans | N | N | Y | N | N | Y | N | NA | 0.000 | 003.000 | 003.000 |

**Transfer-Dtl**

| Course | Term | Id | Discipline | CourseNumber | CourseTitle | TrEts | TrName | TrCrseKey | TrCourse | TrCredits | TrStart | TrStop | Calendar | TrGrade | Audit | Insufficient |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MATH 1230 | 199610 | 210009604 | MATH | 1230 | Introductory Statistics | 5297 | Howard University | STA1500 | Statistics I | | | | | | N | N |
| POLS 1100 | 199610 | 210009604 | POLS | 1100 | Intro. to American Government | 5297 | Howard University | POL1000 | | | | | | | N | N |
| PSYC 1000 | 199610 | 210009604 | PSYC | 1000 | Intro. to Psychology | 5297 | Howard University | PSY1000 | Intro to Psychology | | | | | | N | N |
| SOCI 1000 | 199610 | 210009604 | SOCI | 1000 | Intro. to Sociology | 5297 | Howard University | SOC1000 | Intro to Sociology | | | | | | N | N |

**Custom-Dtl**

| Term | Id | CustomCode | CustomValue | CustomTitle | School | DegreeCode | CreateDate | CreateWho |
|---|---|---|---|---|---|---|---|---|
| | 210009604 | A01 | 0025 | 19950115 | | | 20090723 | RADBRIDGE |
| | 210009604 | A02 | 0024 | 19950115 | | | 20090723 | RADBRIDGE |
| | 210009604 | A03 | 0025 | 19950115 | | | 20090723 | RADBRIDGE |
| | 210009604 | A04 | 0025 | 19950115 | | | 20090723 | RADBRIDGE |
| | 210009604 | A05 | 0026 | 19950115 | | | 20090723 | RADBRIDGE |
| | 210009604 | ACSTCODE | AS | | | | 20090723 | RADBRIDGE |
| | 210009604 | CAMPUS | M | | | | 20090723 | RADBRIDGE |
| | 210009604 | OVERGPA | 0 | | | | 20090723 | RADBRIDGE |

**Report-Dtl**

| Term | Id | ReportCode | ReportValue | ReportSeq | School | DegreeCode | CreateDate | CreateWho |
|---|---|---|---|---|---|---|---|---|
| | 210009604 | ACAMPUS | M | 0001 | | | 20090723 | RADBRIDGE |
| | 210009604 | DCSTYPE | 199610AS | 0001 | | | 20090723 | RADBRIDGE |
| | 210009604 | KDTESTSC | NUA0125 | 0001 | | | 20090723 | RADBRIDGE |
| | 210009604 | KDTESTSC | NUA0224 | 0002 | | | 20090723 | RADBRIDGE |
| | 210009604 | KDTESTSC | NUA0526 | 0003 | | | 20090723 | RADBRIDGE |
| | 210009604 | KDTESTSC | NUA0425 | 0004 | | | 20090723 | RADBRIDGE |
| | 210009604 | KDTESTSC | NUA0325 | 0005 | | | 20090723 | RADBRIDGE |
| | 210009604 | STSTCODE | AS | 0001 | | | 20090723 | RADBRIDGE |
| | 210009604 | STYPCODE | Transfer | 0001 | | | 20090723 | RADBRIDGE |
| | 210009604 | TESTSCORE | NUA0125 | 0001 | | | 20090723 | RADBRIDGE |
| | 210009604 | TESTSCORE | NUA0224 | 0002 | | | 20090723 | RADBRIDGE |
| | 210009604 | TESTSCORE | NUA0526 | 0003 | | | 20090723 | RADBRIDGE |
| | 210009604 | TESTSCORE | NUA0425 | 0004 | | | 20090723 | RADBRIDGE |
| | 210009604 | TESTSCORE | NUA0325 | 0005 | | | 20090723 | RADBRIDGE |

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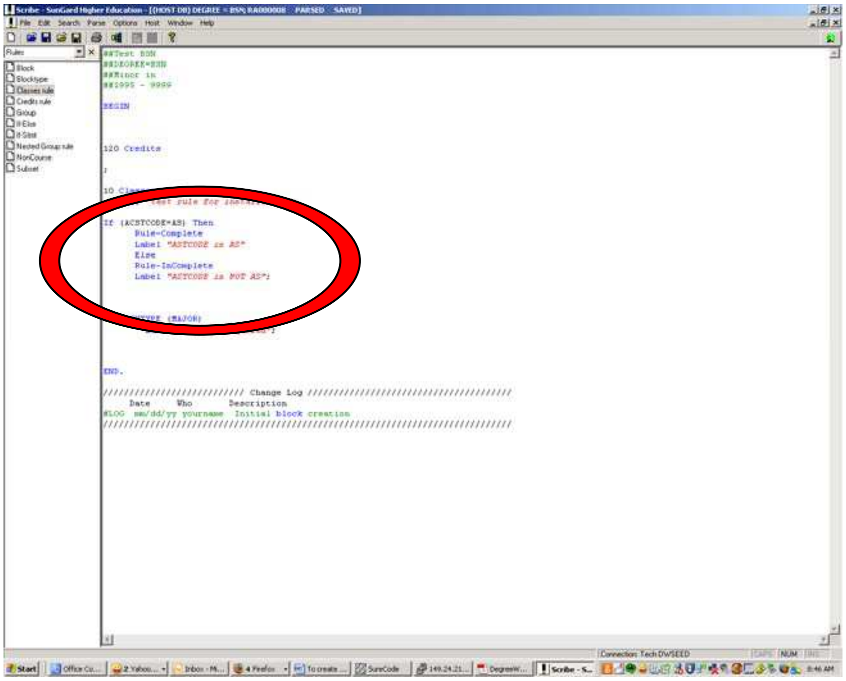
Done

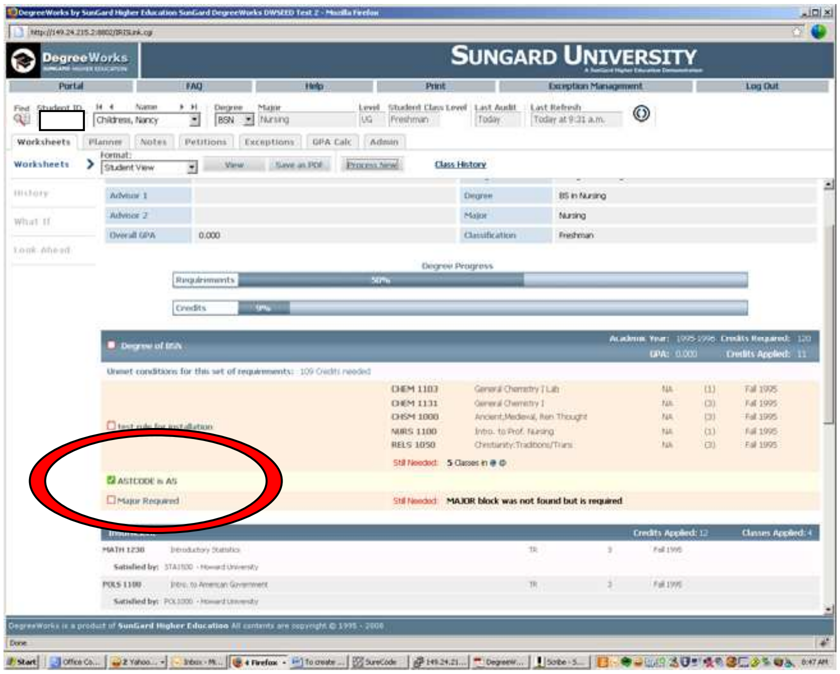
4. Now you can put in rules into your blocks to use this data variable created above. For our example using the Academic Status code, we can scribe against this value to determine if a particular rule has been met. An example using the ACADSTST code is:



Scribe - SunGard Higher Education - [(HOST DB) DEGREE = BSN; RA000008 PARSED SAVED]
File Edit Search Parse Options Host Window Help
Rules
Block
Blocktype
Classes rule
Credits rule
Group
If-Else
If-Stmt
Nested Group rule
NonCourse
Subset

```
##Test BSN
##DEGREE=BSN
##Minor in
##1995 - 9999

BEGIN



120 Credits

;

10 Clas
     test rule for instal

If (ACSTCODE=AS) Then
     Rule-Complete
     Label "ASTCODE is AS"
     Else
     Rule-InComplete
     Label "ASTCODE is NOT AS";


     KTYPE (MAJOR)



END.

//////////////////////////// Change Log //////////////////////////////////////
     Date      Who       Description
#LOG  mm/dd/yy yourname  Initial block creation
//////////////////////////////////////////////////////////////////////////////
```

This rule will then look like the following once an audit is run:



Student ID: Name: Childress, Nancy | Degree: BSN | Major: Nursing | Level: UG | Student Class Level: Freshman | Last Audit: Today | Last Refresh: Today at 9:31 a.m.

Format: Student View

| | | | |
|---|---|---|---|
| Advisor 1 | | Degree | BS in Nursing |
| Advisor 2 | | Major | Nursing |
| Overall GPA | 0.000 | Classification | Freshman |

Degree Progress

Requirements 50%

Credits 9%

Degree of BSN — Academic Year: 1995-1996 Credits Required: 120 GPA: 0.000 Credits Applied: 11

Unmet conditions for this set of requirements: 109 Credits needed

| | | | | | |
|---|---|---|---|---|---|
| □ test rule for installation | CHEM 1103 | General Chemistry I Lab | NA | (1) | Fall 1995 |
| | CHEM 1131 | General Chemistry I | NA | (3) | Fall 1995 |
| | CHSM 1000 | Ancient,Medieval, Ren Thought | NA | (3) | Fall 1995 |
| | NURS 1100 | Intro. to Prof. Nursing | NA | (1) | Fall 1995 |
| | RELS 1050 | Christianity:Traditions/Trans | NA | (3) | Fall 1995 |
| | Still Needed: | 5 Classes in @ @ | | | |
| ☑ ASTCODE is AS | | | | | |
| □ Major Required | Still Needed: | MAJOR block was not found but is required | | | |

Credits Applied: 12 Classes Applied: 4

| | | | | |
|---|---|---|---|---|
| MATH 1230 | Introductory Statistics | TR | 3 | Fall 1995 |
| Satisfied by: STA1500 - Howard University | | | | |
| POLS 1100 | Intro. to American Government | TR | 3 | Fall 1995 |
| Satisfied by: POL1000 - Howard University | | | | |

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## Scribing against Test scores:

Test scores are brought into the DGW rad_custom_dtl table from the SORLCUR table by default based on your bannerextract.config file. By default all test scores are retrieved. You can modify the bannerextract.config file to delimit what test scores are brought in by adding WHERE statements into the bannerextract.config file. Since these scores are already being brought in, it is not needed to create a BAN080 set of records to retrieve them. You will need to create SCR002 records for the test scores to be able to scribe against the tests. As an example, if a student has the following records in SORTEST:

```
SORTEST_TESC_CODE    SORTEST_TEST_SCORE SORTEST_TEST_DATE
-----------------    --------------------      -------------------------
A01                        25          15-JAN-95
A02                        24          15-JAN-95
A03                        25          15-JAN-95
A04                        25          15-JAN-95
A05                        26          15-JAN-95
```

To be able to scribe against one of these, the test code will need to be added to the SCR002 table. For example to scribe against test types of A01, the following SCR002 record needs to be created:

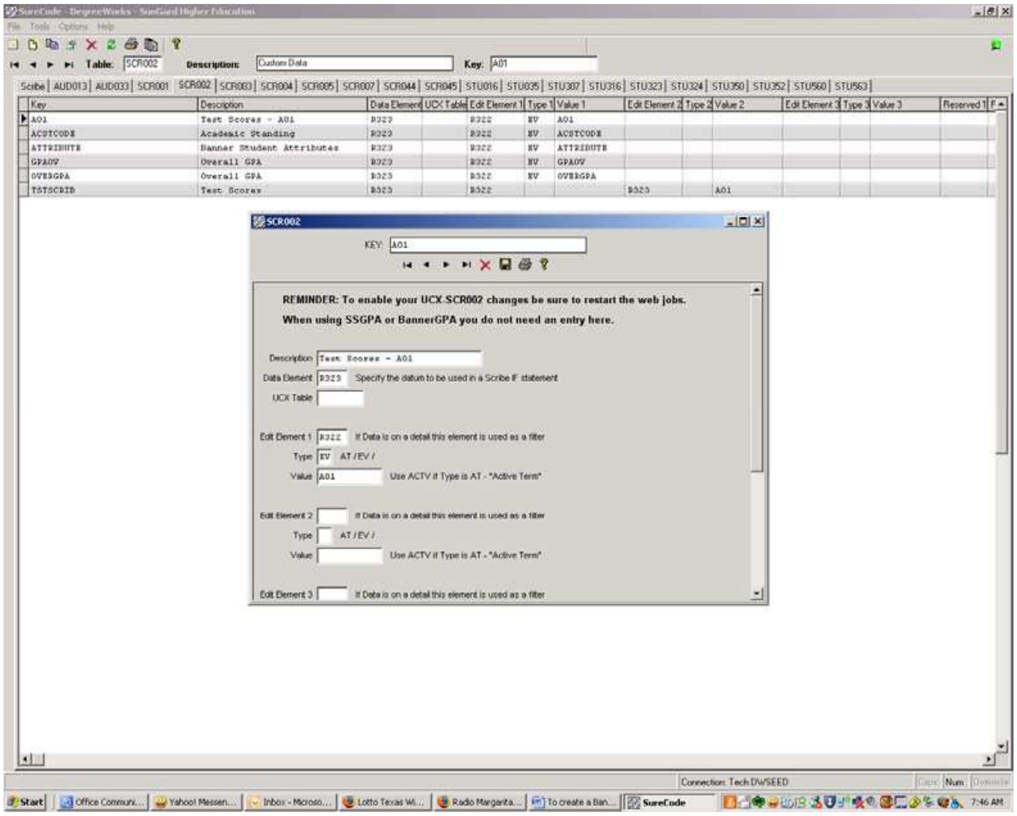

SureCode - DegreeWorks - SunGard Higher Education
File Tools Options Help
Scribe | AUD013 | AUD033 | SCR001 | SCR002 | SCR003 | SCR004 | SCR005 | SCR007 | SCR044 | SCR045 | STU016 | STU035 | STU307 | STU316 | STU323 | STU324 | STU350 | STU352 | STU560 | STU563
Connection: Tech DWSEED
Start

Table: SCR002 Description: Custom Data Key: A01

| Key | Description | Data Element | UCX Table | Edit Element 1 | Type 1 | Value 1 | Edit Element 2 | Type 2 | Value 2 | Edit Element 3 | Type 3 | Value 3 | Reserved 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A01 | Test Scores - A01 | R323 | | R322 | RV | A01 | | | | | | | |
| ACSTCODE | Academic Standing | R323 | | R322 | RV | ACSTCODE | | | | | | | |
| ATTRIBUTE | Banner Student Attributes | R323 | | R322 | RV | ATTRIBUTE | | | | | | | |
| GPAOV | Overall GPA | R323 | | R322 | RV | GPAOV | | | | | | | |
| OVERGPA | Overall GPA | R323 | | R322 | RV | OVERGPA | | | | | | | |
| TSTSCRID | Test Scores | R323 | | R322 | | | R323 | | A01 | | | | |

SCR002

KEY: A01

**REMINDER: To enable your UCX-SCR002 changes be sure to restart the web jobs.**

**When using SSGPA or BannerGPA you do not need an entry here.**

Description: Test Scores - A01

Data Element: R323 Specify the datum to be used in a Scribe IF statement

UCX Table:

Edit Element 1: R322 If Data is on a detail this element is used as a filter

Type: RV AT / EV /

Value: A01 Use ACTV if Type is AT - "Active Term"

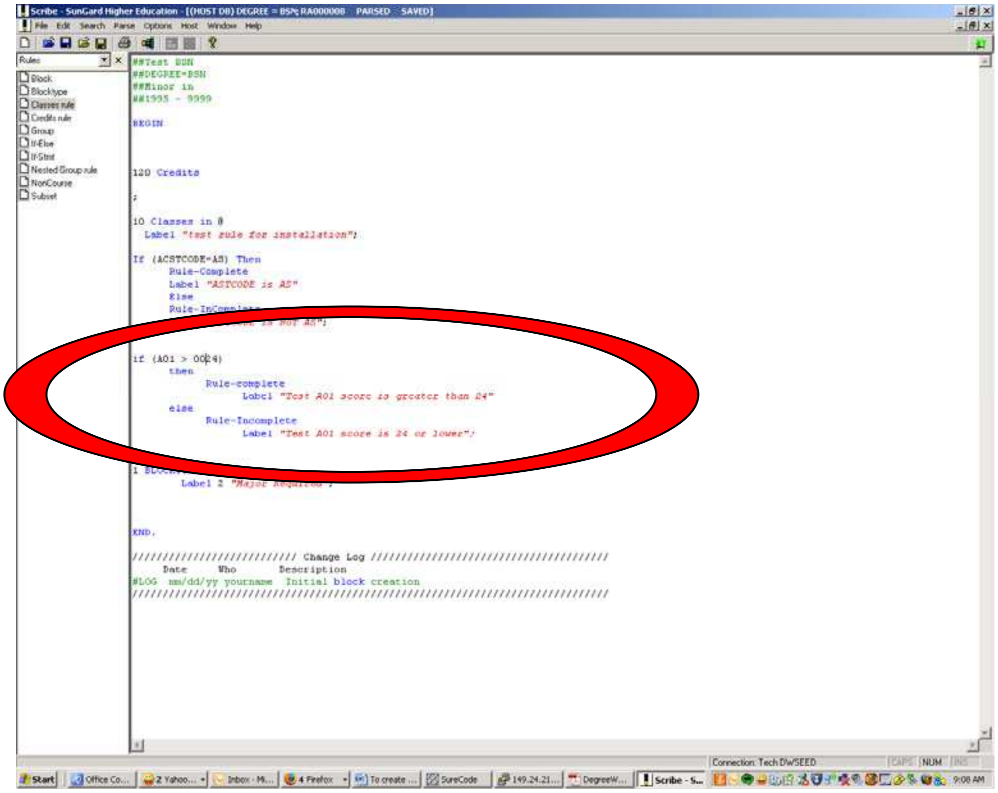
Edit Element 2: If Data is on a detail this element is used as a filter

Type: AT / EV /

Value: Use ACTV if Type is AT - "Active Term"

Edit Element 3: If Data is on a detail this element is used as a filter

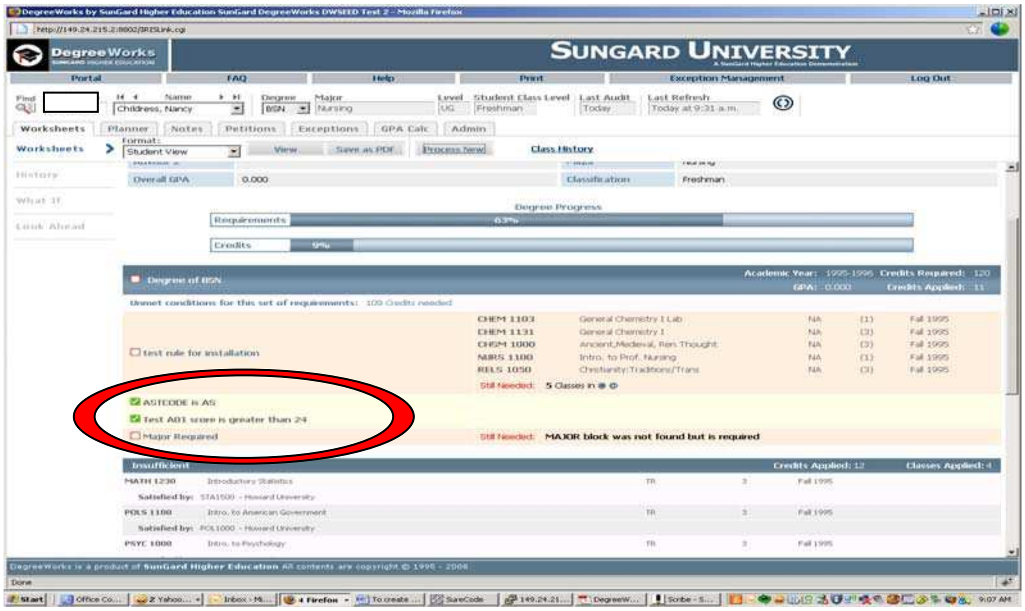
Then in Scribe the following rule can be put into place:



Scribe - SunGard Higher Education - [(HOST DB) DEGREE = BSN; RA000008 PARSED SAVED]

```
##Test BSN
##DEGREE=BSN
##Minor in
##1995 - 9999

BEGIN


120 Credits

;

10 Classes in @
  Label "test rule for installation";

If (ACSTCODE=AS) Then
      Rule-Complete
      Label "ASTCODE is AS"
      Else
      Rule-InComplete
      Label "ASTCODE is NOT AS";

if (A01 > 0024)
      then
            Rule-complete
                  Label "Test A01 score is greater than 24"
      else
            Rule-Incomplete
                  Label "Test A01 score is 24 or lower";

1 BLOCK
        Label 2 "Major Required";


END.

///////////////////////////// Change Log ////////////////////////////////////////////
     Date      Who         Description
#LOG  mm/dd/yy yourname  Initial block creation
/////////////////////////////////////////////////////////////////////////////////////
```

Running the audit with our test student gives the following result:



DegreeWorks by SunGard Higher Education SunGard DegreeWorks DWSEED Test 2 - Mozilla Firefox

http://149.24.215.2:8002/IRISLink.cgi

SUNGARD UNIVERSITY

| Name | Degree | Major | Level | Student Class Level | Last Audit | Last Refresh |
|---|---|---|---|---|---|---|
| Childress, Nancy | BSN | Nursing | UG | Freshman | Today | Today at 9:31 a.m. |

Format: Student View

| | | | |
|---|---|---|---|
| Overall GPA | 0.000 | Classification | Freshman |

Degree Progress
Requirements 63%
Credits 9%

Degree of BSN — Academic Year: 1995-1996 Credits Required: 120 GPA: 0.000 Credits Applied: 11

Unmet conditions for this set of requirements: 109 Credits needed

□ test rule for installation

| | | | | |
|---|---|---|---|---|
| CHEM 1103 | General Chemistry I Lab | NA | (1) | Fall 1995 |
| CHEM 1131 | General Chemistry I | NA | (3) | Fall 1995 |
| CHSM 1000 | Ancient,Medieval, Ren Thought | NA | (3) | Fall 1995 |
| NURS 1100 | Intro. to Prof. Nursing | NA | (1) | Fall 1995 |
| RELS 1050 | Christianity:Traditions/Trans | NA | (3) | Fall 1995 |

Still Needed: 5 Classes in @ @

☑ ASTCODE is AS

☑ Test A01 score is greater than 24

□ Major Required — Still Needed: MAJOR block was not found but is required

Insufficient — Credits Applied: 12 Classes Applied: 4

| | | | | |
|---|---|---|---|---|
| MATH 1230 | Introductory Statistics | TR | 3 | Fall 1995 |
| Satisfied by: | STA1500 - Howard University | | | |
| POLS 1100 | Intro. to American Government | TR | 3 | Fall 1995 |
| Satisfied by: | POL1000 - Howard University | | | |
| PSYC 1000 | Intro. to Psychology | TR | 3 | Fall 1995 |

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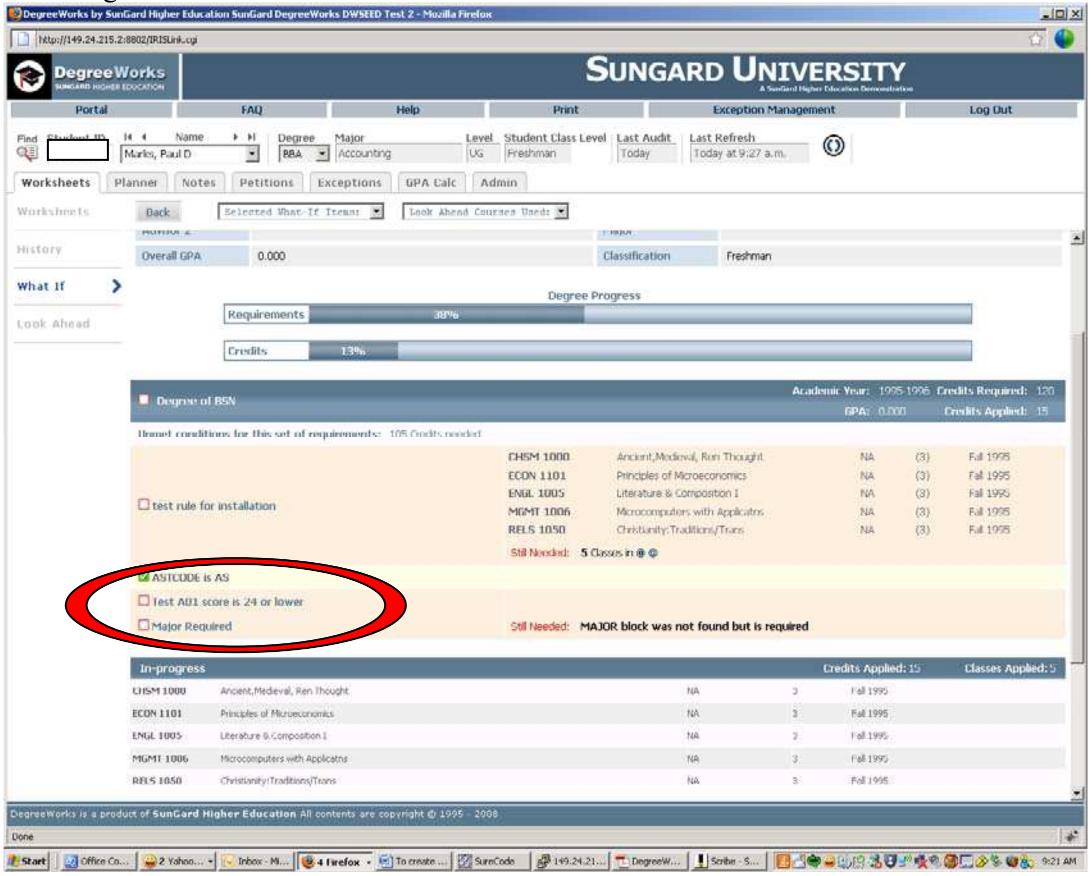
Running an audit with a student who does not meet this qualification or has not taken this test will get the following result:



Find Student ID: | Name: Marks, Paul D | Degree: BBA | Major: Accounting | Level: UG | Student Class Level: Freshman | Last Audit: Today | Last Refresh: Today at 9:27 a.m.

| | | | |
|---|---|---|---|
| Overall GPA | 0.000 | Classification | Freshman |

□ Degree of BSN — Academic Year: 1995-1996 Credits Required: 120 GPA: 0.000 Credits Applied: 15

Unmet conditions for this set of requirements: 105 Credits needed

□ test rule for installation

| | | | | |
|---|---|---|---|---|
| CHSM 1000 | Ancient,Medieval, Ren Thought | NA | (3) | Fall 1995 |
| ECON 1101 | Principles of Microeconomics | NA | (3) | Fall 1995 |
| ENGL 1005 | Literature & Composition I | NA | (3) | Fall 1995 |
| MGMT 1006 | Microcomputers with Applicatns | NA | (3) | Fall 1995 |
| RELS 1050 | Christianity:Traditions/Trans | NA | (3) | Fall 1995 |

Still Needed: 5 Classes in @ @

☑ ASTCODE is AS

□ Test A01 score is 24 or lower

□ Major Required — Still Needed: MAJOR block was not found but is required

In-progress — Credits Applied: 15 Classes Applied: 5

| | | | | |
|---|---|---|---|---|
| CHSM 1000 | Ancient,Medieval, Ren Thought | NA | 3 | Fall 1995 |
| ECON 1101 | Principles of Microeconomics | NA | 3 | Fall 1995 |
| ENGL 1005 | Literature & Composition I | NA | 3 | Fall 1995 |
| MGMT 1006 | Microcomputers with Applicatns | NA | 3 | Fall 1995 |
| RELS 1050 | Christianity:Traditions/Trans | NA | 3 | Fall 1995 |

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Done

# Using Banner data as Transit selection

There may be a need to use a data item from Banner that is not normally pulled over into DegreeWorks as a selection criteria in running reports in Transit. This can be done by creating and pulling over the variable into DegreeWorks, then updating the selection criteria used in Transit. Here is the procedure: (Our example will pull a graduation code from Banner.)

1. Create the variable to be pulled over from Banner in the BAN080 table. (For information on how to create BAN080 variables, please refer to the documentation on retrieving BAN080 variables.)

   For our example we will create the variable GRADCODE from field SHRDGMR_GRST_CODE of SHRDGMR.
2. Make sure the variable's REPORT value is created as a blank record so that the data gets loaded into the rad_report_dtl table without a validated value.

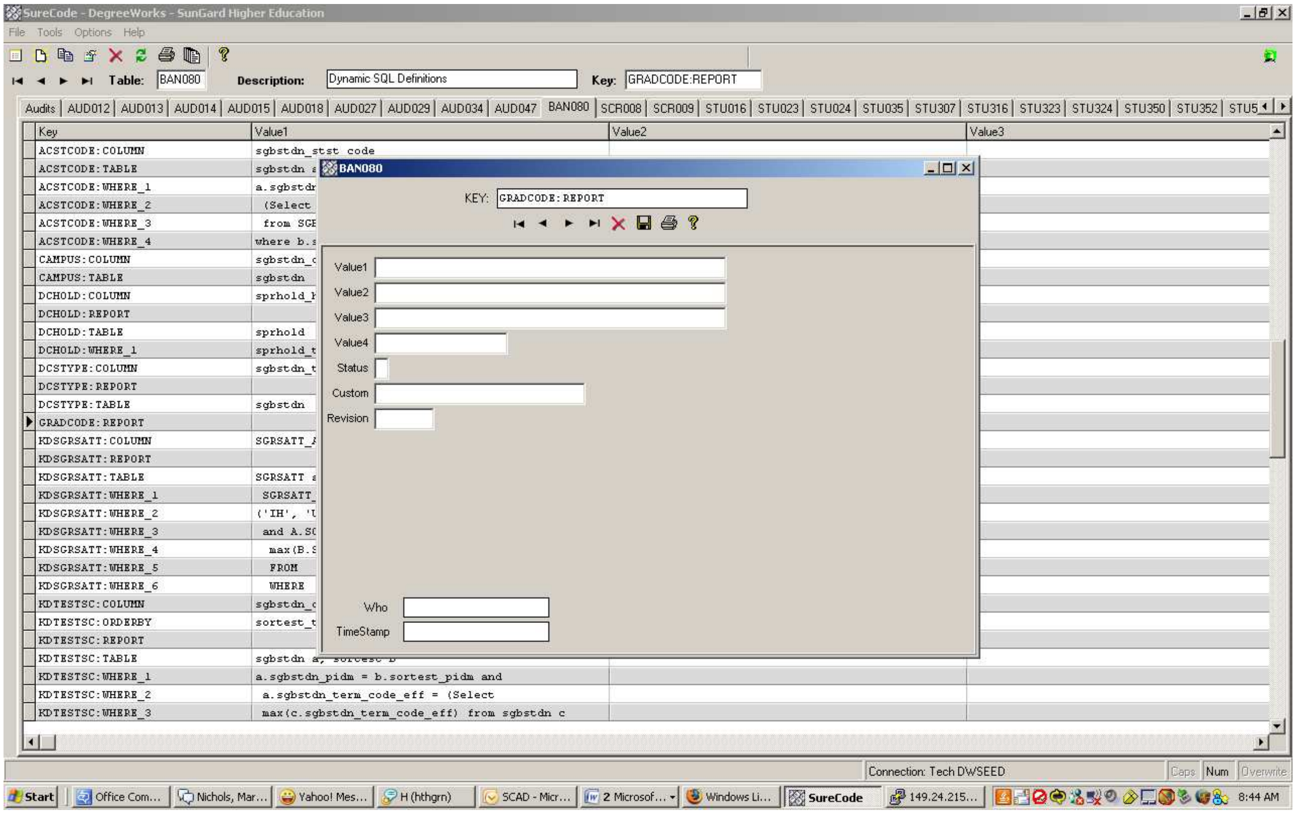


Table: BAN080 Description: Dynamic SQL Definitions Key: GRADCODE:REPORT

| Key | Value1 | Value2 | Value3 |
|---|---|---|---|
| ACSTCODE:COLUMN | sgbstdn_stst code | | |
| ACSTCODE:TABLE | sgbstdn a | | |
| ACSTCODE:WHERE_1 | a.sgbstdr | | |
| ACSTCODE:WHERE_2 | (Select | | |
| ACSTCODE:WHERE_3 | from SGE | | |
| ACSTCODE:WHERE_4 | where b.s | | |
| CAMPUS:COLUMN | sgbstdn_c | | |
| CAMPUS:TABLE | sgbstdn | | |
| DCHOLD:COLUMN | sprhold_h | | |
| DCHOLD:REPORT | | | |
| DCHOLD:TABLE | sprhold | | |
| DCHOLD:WHERE_1 | sprhold_t | | |
| DCSTYPE:COLUMN | sgbstdn_t | | |
| DCSTYPE:REPORT | | | |
| DCSTYPE:TABLE | sgbstdn | | |
| GRADCODE:REPORT | | | |
| KDSGRSATT:COLUMN | SGRSATT_A | | |
| KDSGRSATT:REPORT | | | |
| KDSGRSATT:TABLE | SGRSATT a | | |
| KDSGRSATT:WHERE_1 | SGRSATT_ | | |
| KDSGRSATT:WHERE_2 | ('IH', 'U | | |
| KDSGRSATT:WHERE_3 | and A.SC | | |
| KDSGRSATT:WHERE_4 | max(B.S | | |
| KDSGRSATT:WHERE_5 | FROM | | |
| KDSGRSATT:WHERE_6 | WHERE | | |
| KDTESTSC:COLUMN | sgbstdn_c | | |
| KDTESTSC:ORDERBY | sortest_t | | |
| KDTESTSC:REPORT | | | |
| KDTESTSC:TABLE | sgbstdn a, sortest b | | |
| KDTESTSC:WHERE_1 | a.sgbstdn_pidm = b.sortest_pidm and | | |
| KDTESTSC:WHERE_2 | a.sgbstdn_term_code_eff = (Select | | |
| KDTESTSC:WHERE_3 | max(c.sgbstdn_term_code_eff) from sgbstdn c | | |

BAN080

KEY: GRADCODE:REPORT

Value1:
Value2:
Value3:
Value4:
Status:
Custom:
Revision:
Who:
TimeStamp:

Connection: Tech DWSEED

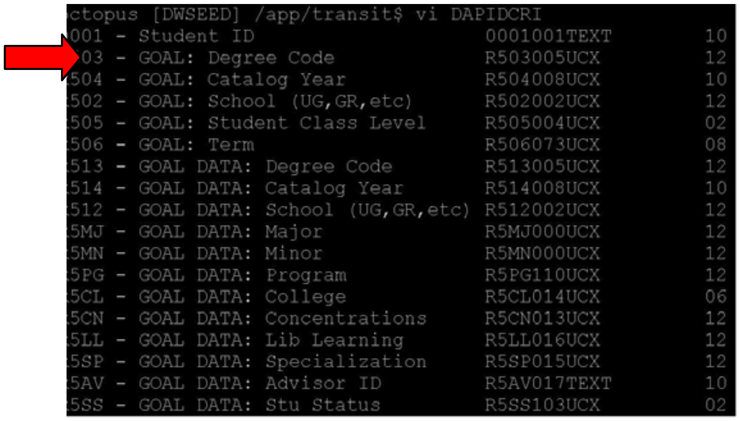
SureCode - DegreeWorks - SunGard Higher Education
File Tools Options Help
Audits AUD012 AUD013 AUD014 AUD015 AUD018 AUD027 AUD029 AUD034 AUD047 BAN080 SCR008 SCR009 STU016 STU023 STU024 STU035 STU307 STU316 STU323 STU324 STU350 STU352 STU5
Caps Num Overwrite
Start Office Com... Nichols, Mar... Yahoo! Mes... H (hthgrn) SCAD - Micr... 2 Microsof... Windows Li... SureCode 149.24.215... 8:44 AM

3. Re-extract the students so they get this variable loaded into their rad_report_dtl.

4. On the DegreeWorks application server, go to the *transit* directory

   $cd transit

5. Edit the selection criteria file DAPIDCRI by inserting a line in the file at the location you want the new selection criteria to appear.
/app/transit$vi DAPIDCRI

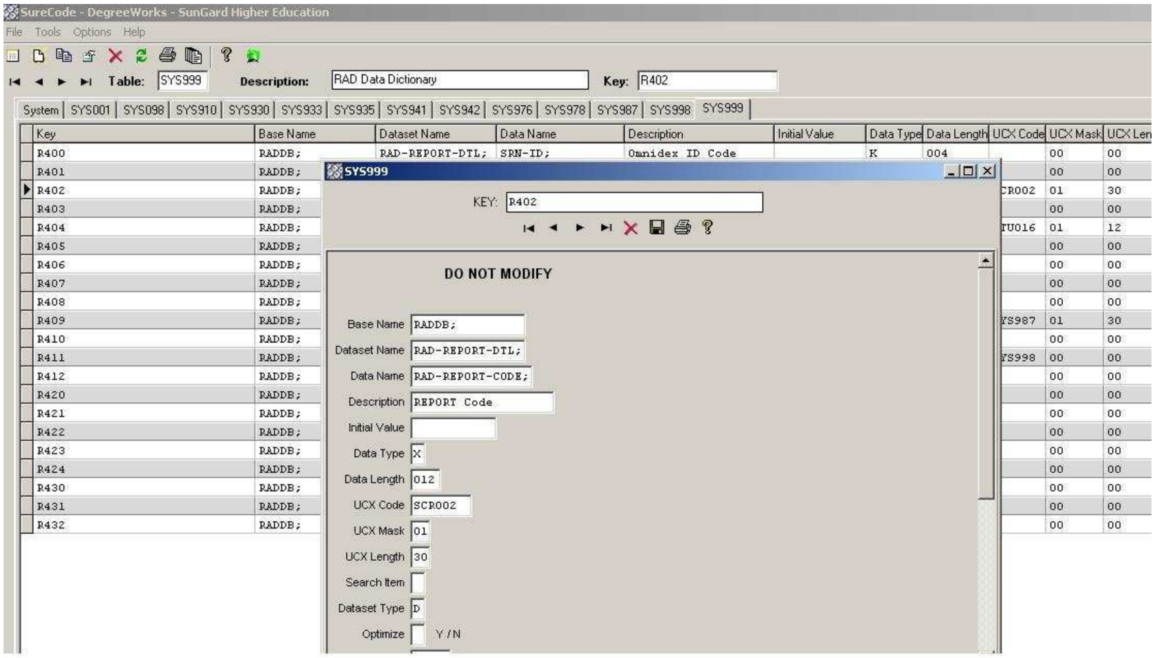


```
ctopus [DWSEED] /app/transit$ vi DAPIDCRI
001 - Student ID                   0001001TEXT       10
03 - GOAL: Degree Code             R503005UCX        12
504 - GOAL: Catalog Year           R504008UCX        10
502 - GOAL: School (UG,GR,etc)     R502002UCX        12
505 - GOAL: Student Class Level    R505004UCX        02
506 - GOAL: Term                   R506073UCX        08
513 - GOAL DATA: Degree Code       R513005UCX        12
514 - GOAL DATA: Catalog Year      R514008UCX        10
512 - GOAL DATA: School (UG,GR,etc) R512002UCX       12
5MJ - GOAL DATA: Major             R5MJ000UCX        12
5MN - GOAL DATA: Minor             R5MN000UCX        12
5PG - GOAL DATA: Program           R5PG110UCX        12
5CL - GOAL DATA: College           R5CL014UCX        06
5CN - GOAL DATA: Concentrations    R5CN013UCX        12
5LL - GOAL DATA: Lib Learning      R5LL016UCX        12
5SP - GOAL DATA: Specialization    R5SP015UCX        12
5AV - GOAL DATA: Advisor ID        R5AV017TEXT       10
5SS - GOAL DATA: Stu Status        R5SS103UCX        02
```

6. The first line to add is a choice to create a picklist of report variables to test against. This will be the name of the report variable created in BAN080. For our example, we will be adding a variable called GRADCODE. The format of the line to add will be as follows:

| Field | Length | Description | Value for the example |
|---|---|---|---|
| Element number | 4 | Must be a valid UCX-SYS999 element number | R402 |
| Filler | 3 | Normally " – " | - |
| Literal | 30 | Displayed in Transit's picklist | Report Code<br>*(Free form text here)* |
| Element number | 4 | Must match first field | R402 |
| Select criteria number | 3 | No longer used | 000 |
| Edit Type | 4 | UCX, DCM3, PICK, etc. see Edit Type table below | PICK |
| Picklist file | 8 | File located in transit directory; only if Edit Type is PICK | REPOFILE<br>*(Select a filename to create)* |
| Data length | 2 | Length of data user is allowed to enter | 10 |

R402 is the record in SYS999 which points to the report_code field in the rad_report_dtl table.



SureCode - DegreeWorks - SunGard Higher Education
File Tools Options Help

Table: SYS999 Description: RAD Data Dictionary Key: R402

System | SYS001 | SYS098 | SYS910 | SYS930 | SYS933 | SYS935 | SYS941 | SYS942 | SYS976 | SYS978 | SYS987 | SYS998 | SYS999

| Key | Base Name | Dataset Name | Data Name | Description | Initial Value | Data Type | Data Length | UCX Code | UCX Mask | UCX Len |
|---|---|---|---|---|---|---|---|---|---|---|
| R400 | RADDB; | RAD-REPORT-DTL; | SRN-ID; | Omnidex ID Code | | K | 004 | | 00 | 00 |
| R401 | RADDB; | | | | | | | | 00 | 00 |
| R402 | RADDB; | | | | | | | CR002 | 01 | 30 |
| R403 | RADDB; | | | | | | | | 00 | 00 |
| R404 | RADDB; | | | | | | | TU016 | 01 | 12 |
| R405 | RADDB; | | | | | | | | 00 | 00 |
| R406 | RADDB; | | | | | | | | 00 | 00 |
| R407 | RADDB; | | | | | | | | 00 | 00 |
| R408 | RADDB; | | | | | | | | 00 | 00 |
| R409 | RADDB; | | | | | | | YS987 | 01 | 30 |
| R410 | RADDB; | | | | | | | | 00 | 00 |
| R411 | RADDB; | | | | | | | YS998 | 00 | 00 |
| R412 | RADDB; | | | | | | | | 00 | 00 |
| R420 | RADDB; | | | | | | | | 00 | 00 |
| R421 | RADDB; | | | | | | | | 00 | 00 |
| R422 | RADDB; | | | | | | | | 00 | 00 |
| R423 | RADDB; | | | | | | | | 00 | 00 |
| R424 | RADDB; | | | | | | | | 00 | 00 |
| R430 | RADDB; | | | | | | | | 00 | 00 |
| R431 | RADDB; | | | | | | | | 00 | 00 |
| R432 | RADDB; | | | | | | | | 00 | 00 |

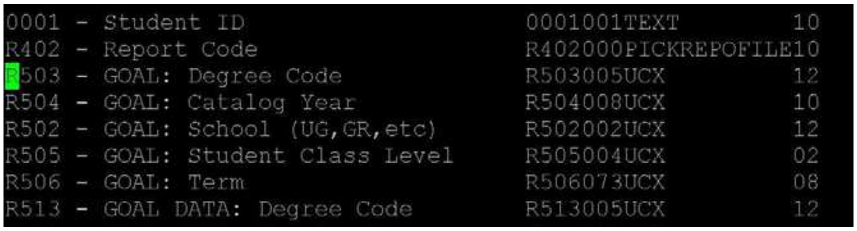
SYS999

KEY: R402

DO NOT MODIFY

Base Name: RADDB;
Dataset Name: RAD-REPORT-DTL;
Data Name: RAD-REPORT-CODE;
Description: REPORT Code
Initial Value:
Data Type: X
Data Length: 012
UCX Code: SCR002
UCX Mask: 01
UCX Length: 30
Search Item:
Dataset Type: D
Optimize: Y / N

The DAPIDCRI file will now look like this:



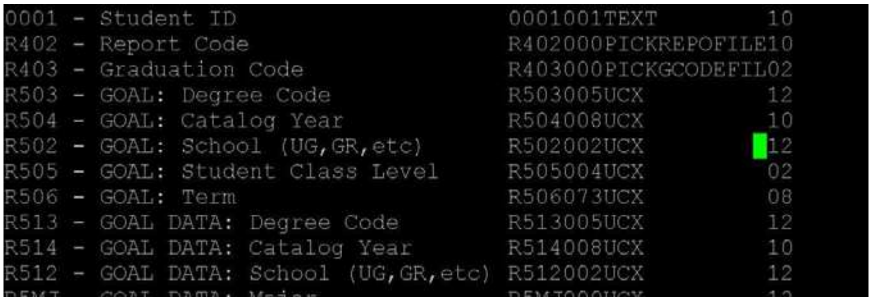
```
0001 - Student ID                   0001001TEXT        10
R402 - Report Code                  R402000PICKREPOFILE10
R503 - GOAL: Degree Code            R503005UCX         12
R504 - GOAL: Catalog Year           R504008UCX         10
R502 - GOAL: School (UG,GR,etc)     R502002UCX         12
R505 - GOAL: Student Class Level    R505004UCX         02
R506 - GOAL: Term                   R506073UCX         08
R513 - GOAL DATA: Degree Code       R513005UCX         12
```

7. Create a second line in the DAPIDCRI file to pick up the value of the code we will be looking for. In our example we will be looking for different GRADCODE values. Some examples include:
   GR – Graduated
   AG – Applied for graduation
   NG – Not able to graduate

This line will contain the following values:

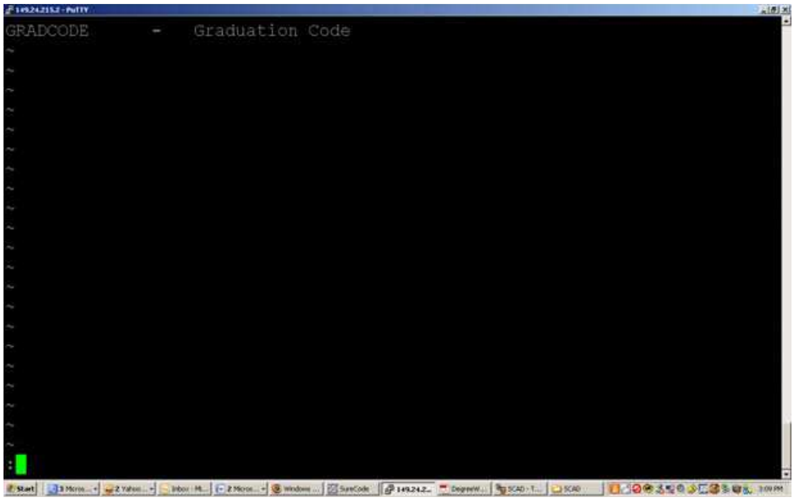
| Field | Length | Description | Value for the example |
|---|---|---|---|
| Element number | 4 | Must be a valid UCX-SYS999 element number | R403 |
| Filler | 3 | Normally “ – “ | - |
| Literal | 30 | Displayed in Transit’s picklist | Graduation Code<br>*(Free form text here)* |
| Element number | 4 | Must match first field | R403 |
| Select criteria number | 3 | No longer used | 000 |
| Edit Type | 4 | UCX, DCM3, PICK, etc. see Edit Type table below | PICK |
| Picklist file | 8 | File located in transit directory; only if Edit Type is PICK | GCODEFIL<br>*(Select a filename to create)* |
| Data length | 2 | Length of data user is allowed to enter | 10 |

The DAPIDCRI file will now look like this:



```
0001 - Student ID                    0001001TEXT        10
R402 - Report Code                   R402000PICKREPOFILE10
R403 - Graduation Code               R403000PICKGCODEFIL02
R503 - GOAL: Degree Code             R503005UCX         12
R504 - GOAL: Catalog Year            R504008UCX         10
R502 - GOAL: School (UG,GR,etc)      R502002UCX         12
R505 - GOAL: Student Class Level     R505004UCX         02
R506 - GOAL: Term                    R506073UCX         08
R513 - GOAL DATA: Degree Code        R513005UCX         12
R514 - GOAL DATA: Catalog Year       R514008UCX         10
R512 - GOAL DATA: School (UG,GR,etc) R512002UCX         12
R5MJ - GOAL DATA: Major              R5MJ000UCX         12
```

8. Create the picklist files. In this case we will create REPOFILE and GCODEFIL. In the REPOFILE, list any BAN080 variables that you want to select against. For this example we will only have one value in this file: GRADCODE.



```
GRADCODE      -   Graduation Code
~
~
~
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~
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:
```
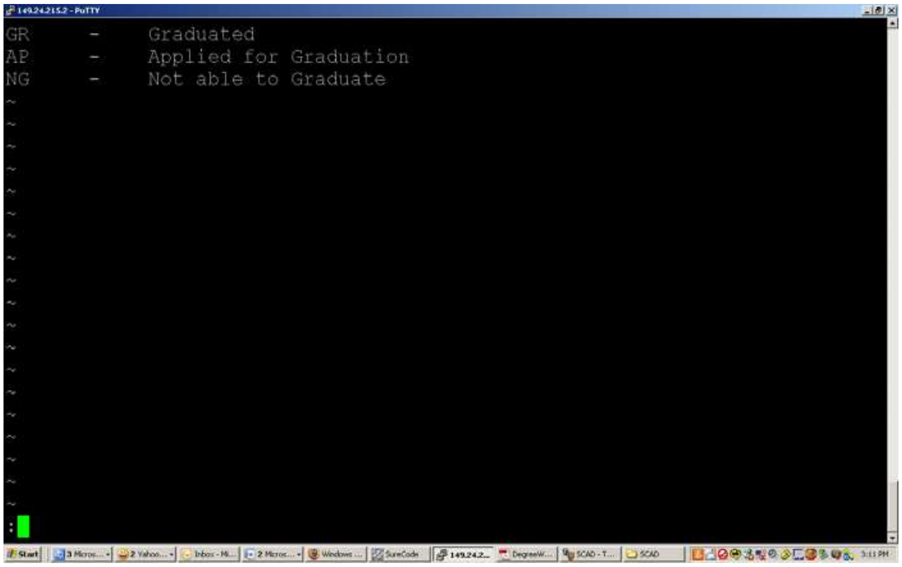

The GCODEFIL will contain all of the values for the GRADCODE which we would like to select against.



```
GR      -     Graduated
AP      -     Applied for Graduation
NG      -     Not able to Graduate
~
~
~
~
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~
~
:
```
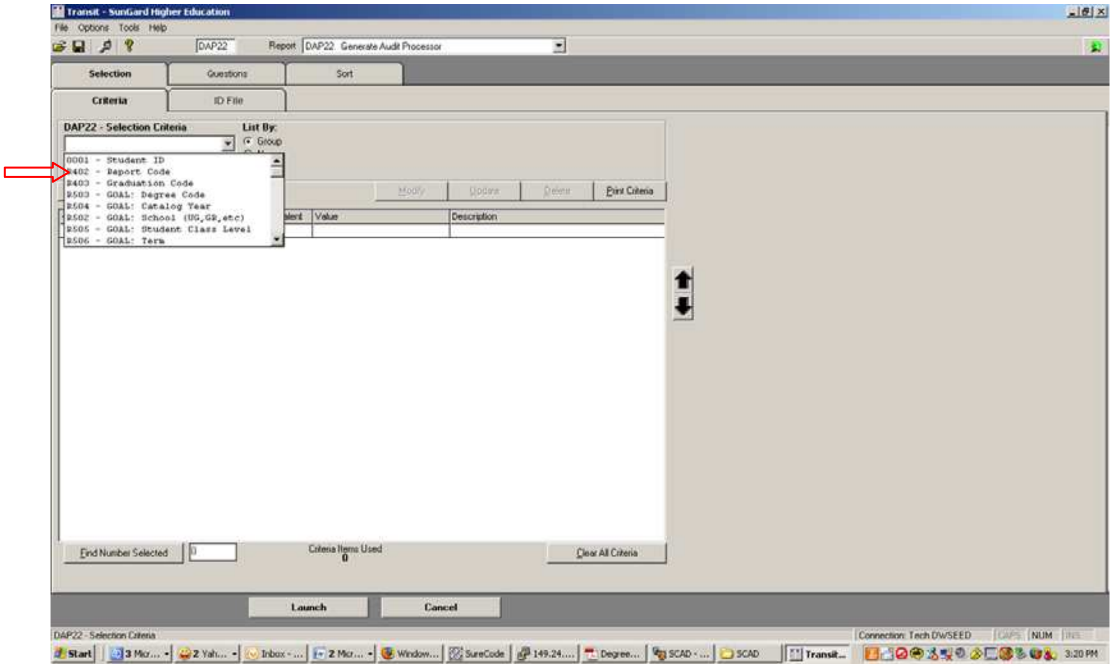
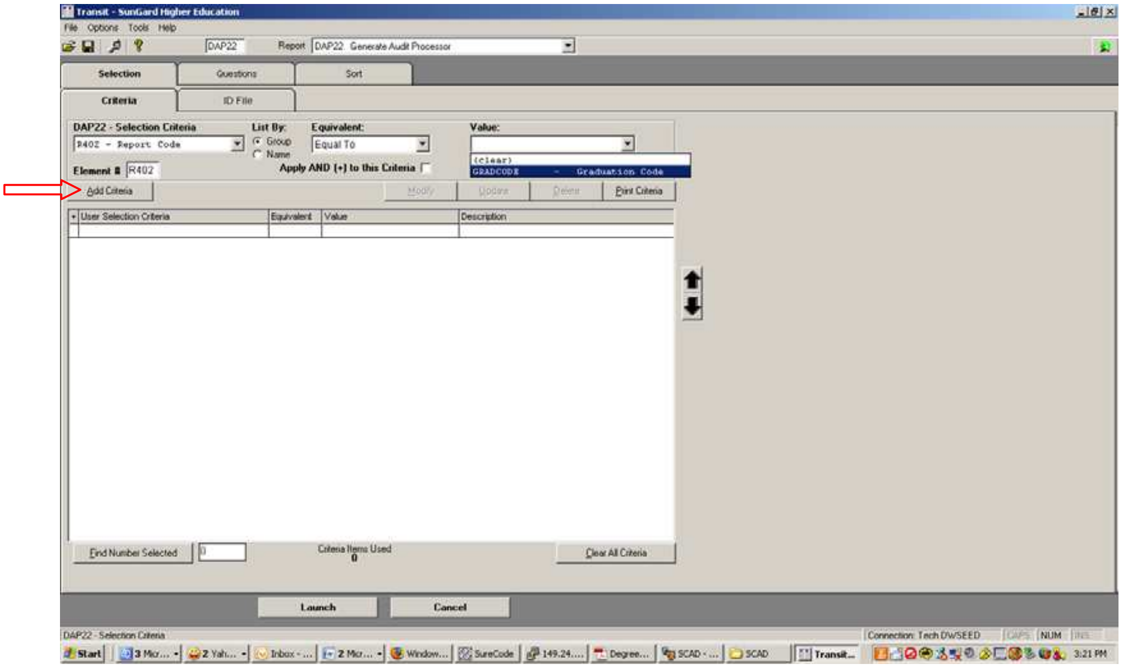

9. Run the programs to load these changes into Transit: ode20get and daprestart
    a. App/transit$ ode20get
    b. App/transit$ daprestart

10. Log into Transit and choose the DAP22 Program

11. Use the selection criteria pull down menu



12. Select Report Code and GRADCODE.  Press the Add Criteria button



Transit - SunGard Higher Education

DAP22 Report DAP22 Generate Audit Processor

DAP22 - Selection Criteria: R402 - Report Code

List By: ● Group ○ Name

Equivalent: Equal To

Value: (clear) / GRADCODE - Graduation Code

Element # R402

Apply AND (+) to this Criteria □

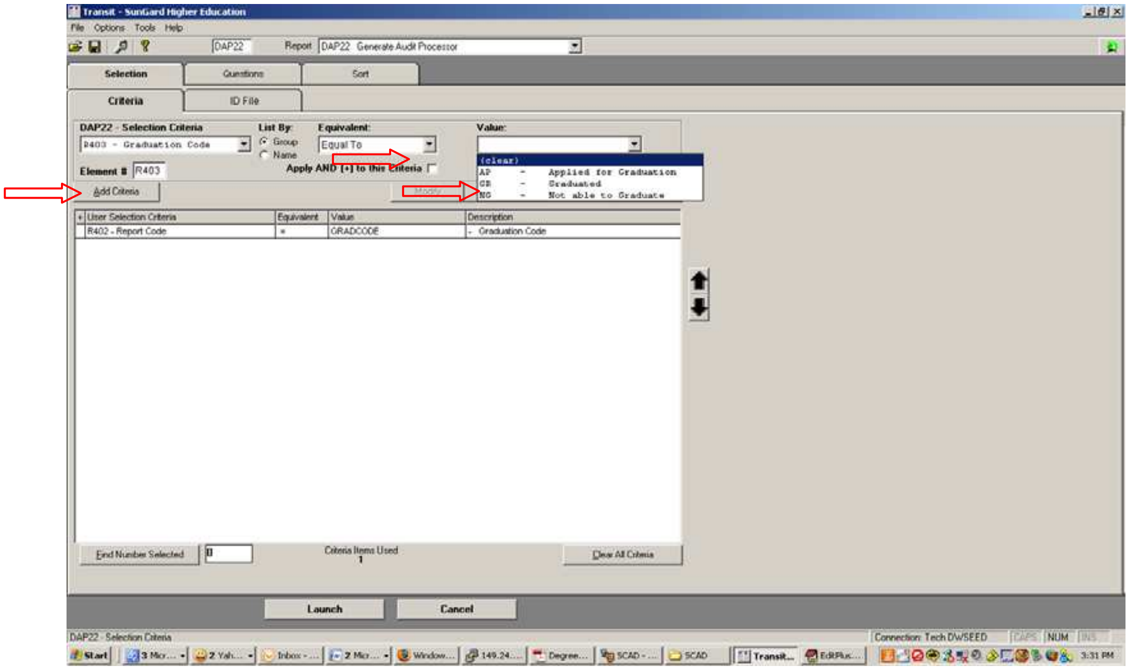
| User Selection Criteria | Equivalent | Value | Description |
|---|---|---|---|

Criteria Items Used 0

DAP22 - Selection Criteria

Connection: Tech DWSEED

13. Select the Graduation Code and the type of Graduation Code to select against. Press the Add Criteria button and the "And with" check box.



Transit - SunGard Higher Education

DAP22 Report DAP22 Generate Audit Processor

DAP22 - Selection Criteria: R403 - Graduation Code

List By: ● Group ○ Name

Equivalent: Equal To

Value: (clear) / AP - Applied for Graduation / GR - Graduated / NG - Not able to Graduate

Element # R403

Apply AND (+) to this Criteria □

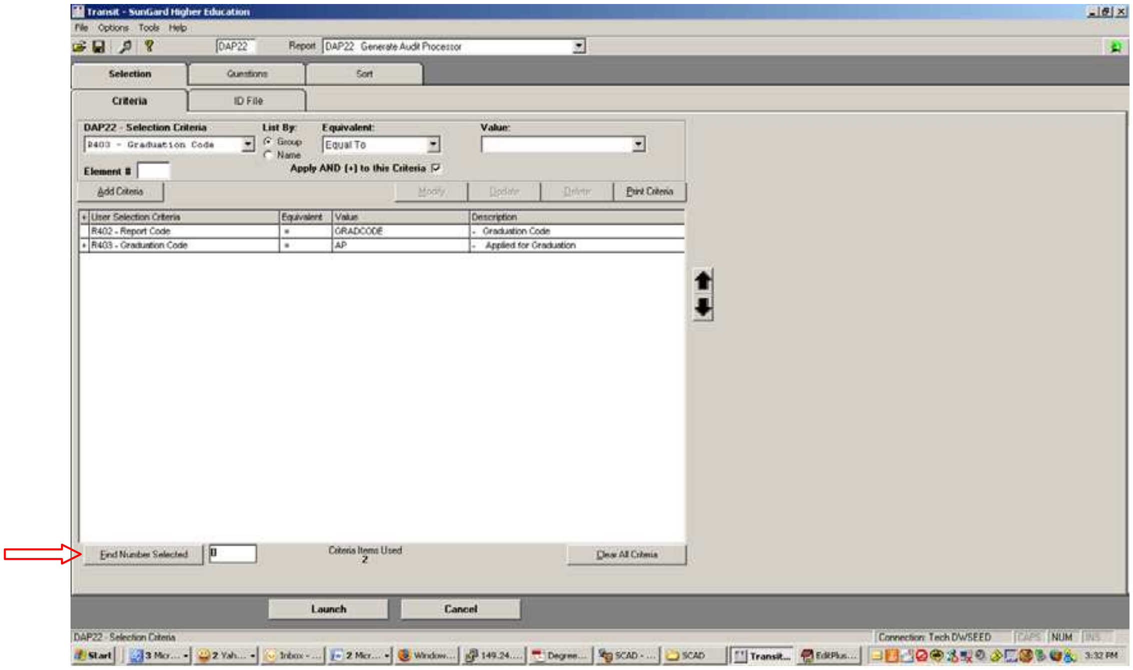
| User Selection Criteria | Equivalent | Value | Description |
|---|---|---|---|
| R402 - Report Code | = | GRADCODE | - Graduation Code |

Criteria Items Used 1

DAP22 - Selection Criteria

Connection: Tech DWSEED

14. Make sure you select the “Find Number Selected” button to check the number of records you have selected.



DAP22 Report DAP22 Generate Audit Processor

DAP22 - Selection Criteria: R403 - Graduation Code

List By: ● Group ○ Name

Equivalent: Equal To

Value:

Element #

Apply AND (+) to this Criteria ☑

| + | User Selection Criteria | Equivalent | Value | Description |
|---|---|---|---|---|
|  | R402 - Report Code | = | GRADCODE | - Graduation Code |
| + | R403 - Graduation Code | = | AP | - Applied for Graduation |

Find Number Selected 0

Criteria Items Used 2

DAP22 - Selection Criteria

Connection: Tech DWSEED CAPS NUM INS