



**Viewing Features**

Click to Scale View of live application

Controlled by:

Click to Refresh View of live application

**F11 for Full Screen**  
**Esc to return to Normal View**

Click to return to normal view

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**Topics of Discussion**

- What is Common Matching ?
- Data Load Review
- Setup for Financial Aid Data Load
- Reviewing the Results
- Testing your matching rules

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**What is Common Matching?**

- Process to create and manage basic person records. A part of the initiative to prevent the creation of multiple pidms.
- Banner-wide Enhancement under Banner General 7.0
- On-line from %IDEN forms
  - Institutional Option on GUAINST
  - Not required
- Batch Processes
  - Required regardless of GUAINST setting

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**What is Common Matching?**

- **Components of Common Matching**
  - Matching Source – identify process or how the rules will be used
  - Matching Rules associated with the Matching Source
- **Common Matching Algorithm**
  - primary match – hard-coded
  - secondary match – rule based on associated Matching Source

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**What is Common Matching?**

- **Three possible Results**
  - New Record – no match
  - Matched Record – matches only one record
  - Potential Match – partial match and record is suspended

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**CM Banner General Enhancements**

**Pre-General 7.3 versus General 7.3+**

- **Banner General 7.3 Enhancements**
  - Change in terminology
    - Required or Exists vs Match On Null? No or Yes
  - Addition of Comment fields
  - Additional Matching rules
- **Banner General patch 7.3.2/7.4**
  - November 2006

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### Terminology

- **Source Codes**
  - **Data Load Source**
    - EDE, CSS
  - **Common Matching Source**
    - User Defined for institutional procedures
- **“On-Line” compared to “Batch”**
  - CM On-line means matching through the %IDEN forms or the new Matching Entry form directly
  - Financial Aid Data Load forms follow batch rules

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### Data Load Processes

- Banner Data Load processes
  - RCBTPxx or RCBCTxx- EDE Data Load part 1
    - Load EDE data or CSS Profile to temporary Banner tables
  - RCPMTCH- Data Load part 2
    - Matching Process – Compares temporary tables to permanent tables
    - RCRSUSP - Suspense records resulting from part 2
  - RCRTpxx - Data Load part 3
    - Loads Matched and/or New records as specified into the database from temporary tables
  - RCPDTMP – Optional Delete temporary tables
    - Can be run at beginning or end of process

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### Common Matching and Data Load

Where is it used in Banner Financial Aid Data Load?

- **Financial Aid Data Load Part 2 (RCPMTCH)**
  - New Parameter for Common Matching Source Code
  - Update output (rcpmch\_jobnumber.lis)
- **Reviewing the Suspense Records (RCRSUSP)**
  - Accesses Common Matching Entry form (GOAMTCH) and Common Matching process
  - Option to Run Financial Aid Data Load Part 3 (RCRTpxx) online to load individual records
  - Executes matching rules

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### Data Load Set Up Forms

- RTVINFC – Delivered table of Data Load Sources
  - EDE, CSS
  - Associate Tracking Requirement
  - Associate Recruiting Source and Contact Type
- RCRTPTR - Determine the conversion values
  - Major codes, Marital status, Citizenship, SBGI codes
- RCRINFR - Determine matching rules in Banner 6
  - Replaced by Common Matching
  - Data to match, i.e., Name, SSN

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### RCRINFR – Obsolete with FA 7.0

Interface Data Matching Rules Form: RCRINFR 5.0 (BANK)

Aid Year: 2007 Source Code: EDE EDE Record

Matching Rules

	SSN	Last Name	First Name	Middle Initial	Birthdate			Gender
Indicator:	<input type="checkbox"/>							
Length:	9	20	10					

	Address				Telephone	
	Address	City	State	Zip	Area Code	Number
Indicator:	<input type="checkbox"/>					
Length:						

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### CM Set Up Forms for Data Load

- GTVCMSC – Define CM Source
- GORCMSC – Associate Source Rules
- GORCMRL - Associate Matching Rules
- GORNAME - Name Translation Rules
- RCRDTSR - Data Source Rules

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### Common Matching End User Form

- GOAMTCH – Common Matching Entry Form
  - Accessed through the Suspense Form RCRSUSP
  - Matches based on defined rules
  - Can still perform queries from the Suspense Form
  - Access to user defined additional lookup forms from this form.
  - Different than direct access to GOAMTCH

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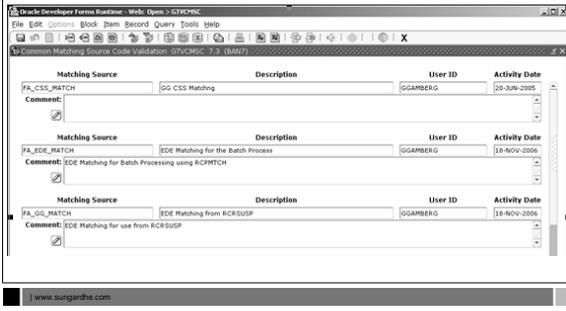
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### CM Setup for Financial Aid Data Load

- Define the Common Matching Source Code
  - Common Matching Source Code Validation form (GTVCMSC)



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### CM Set Up for Data Load

#### Common Matching Source Rules – GORCMSC

- Matching Rule Options
  - Use On-Line, Match Type – Person, Non-Person, New options
- Data Entry/Update defaults
  - Set up defaults for address, telephone, and e-mail types
  - For on-line or copy to hierarchy
- Hierarchy of Display
  - Allows display of information even if match is not found
- Detail List
  - Specify forms the user can access from GOAMTCH to see details for potential matches using detail icon

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## CM Setup Data Load

### Common Matching Source Rules – GORCMSC

- Banner General 7.3 Additional Matching Options
  - Transpose Date Month / Day
    - Use new Birthdate option
  - Transpose First Name / Last Name
    - William James/ James William
  - Allow Alias Wildcard Use
    - For use with GORNAME Alias
  - Allow Length Override
  - Prevent ID Creation on API Failure – on-line use only

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## GORCMSC – CM Source Rules

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## Setup for Financial Aid Data Load

### Common Matching Source Rules – GORCMSC

- Specify forms the user can access from GOAMTCH to see details for potential matches
  - 'Details' link will provide pop-up options list

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### CM Setup for Data Load

#### Name Translation Rules – GORNAME

- Define Name Translation Rules
  - Associate aliases for person
  - GORNAME can be used for first and middle names and is delivered with data for common names.

↳ Name Translation Rules: GORNAME 7.0 (5747010g) (CHICAO)

Name	Alias
ABIGAIL	ABBIE
ABIGAIL	ABBY
AL	ALFRED
AL	ALLEN
ANDY	ANDREW
ANTHONY	TONY
BARBARA	BARB

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### Setup for Financial Aid Data Load

- Financial Aid Data Load Part 3 (RCRTPxx) online processing from RCRSUSP
  - Define default Parameter Set for Data Source and aid year
    - Needed for the RCRDTSR form
  - Job Parameter Set Rules form (GJRJPRM).
    - Establish default parameter values for user IDs
      - Default Parameter Value Validation form (GJAPDFT)

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### Setup for Financial Aid Data Load

- Data Source Rules form (RCRDTSR)
  - Processing suspended records from Financial Aid Suspended Records Maintenance
    - Common Matching Source Code for Data Source and aid year for RCRSUSP
    - Saved Parameter Set name for Data Load Part 3 (RCRTPxx) for Data Source and aid year

↳ Data Source Rules: RCRDTSR 7.1 (BAN7)

Aid Year	Source Code	Common Matching Source Code	Parameter Set
0400	CSS	FA_CS_MATCH	CSS07
0407	EDE	FA_EDE_MATCH	EDE07

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### Reviewing the Results

- In Batch RCPMTCH Output
- On-line from RCRSUSP
  - Match icon or next block to GOAMTCH form
  - Select ID icon updates temp ID to matched ID
  - Load icon – run RCRTPxx on line
- GOAMTCH
  - Data loaded from EDE defaults in
  - Duplicate Check icon or next block
  - Update ID icon

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### Reviewing the Results

- Financial Aid Data Load Part 2 (RCPMTCH)
  - Displays the rules for the Matching Source
- Identifies
  - Record processed
  - Status
    - New/Hold
    - Matched – includes the rule matched on
    - Suspended – lists as 'Review'
    - Errors
    - Duplicates
- Summary of records processed

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### Reviewing the Results

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Source          Match Type      Priority  Column Name          Length  Data Required
-----
A_GG_MATCH      Person          1        SFFPERG_BIRTH_DAY    2        Exists
                               2        SFFPERG_BIRTH_MON    1        Exists
                               3        SFFPERG_BIRTH_YEAR   4        Exists
                               4        SFFPERG_SEX          1        Exists
                               5        SFFPERG_ZIP          9        Required
                               6        SFFIDEM_SEARCH_FIRST  3        Exists
                               7        SFFIDEM_SEARCH_LAST   5        Required
20-NOV-2006 11:39:51 AM  mainlin7_ban7_Linux 12345678901
Job Year: 0607          Data Load Batch Process
                          All Records
-----
ENFC  P10N  ID      SIN  NAME          STATUS  PRIORITY  CODE  MESSAGE
-----
00048906 F0000314 605000001 Anders, James R  Suspense  Review
00048909 F00003107 605000003 Anderson, Anna L  Suspense  Review
00048900 F00003108 605000004 Anderson, Bill E  New-Hold  Ready for processing
00048909 F00003117 605000000 Green, Alex J    Match-M  1        Ready for processing
00048904 F00003112 605000009 Jefferson, Ann J  Match-A  1        Ready for processing
00048901 F00003109 605000005 Johnson, Ashley L  Suspense  Review
00048902 F00003110 605000007 Jones, Hugh R    New-Hold  Ready for processing
00048903 F00003111 605000008 Scott, Douglas G  New-Hold  Ready for processing
00048908 F00003116 605000002 Smith, Marianne L  Match-P  1        Ready for processing
00048907 F00003118 605000006 Summers, Robert C  New-Hold  Ready for processing
00048905 F00003113 605000010 Thoms, Leuca A   New-Hold  Ready for processing
  
```

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**Records that will load**

- **Records receive one of the following designations:**
  - N= New record
  - M= Current RORSTAT and RCRAPP exist
  - A= RORSTAT exists for current year, but no RCRAPP record
  - R= No current RCRAPP, but student is in Banner – SPRIDEN record exists

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**Records that need to be reviewed**

- **Suspense records receive one of the following designations:**
  - N = Hold parameter selected for 'N'ew records
  - S = Insufficient data, data doesn't match
  - E = Missing data, not enough data to do a match
  - D = Duplicate data, two of same record
  - \* = Duplicate PIDM

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**Reviewing the Results**

- **RCRSUSP – Steps to review New Records**
  - Data Load record defaults into RCRSUSP
    - Use Match Icon or next block to GOAMTCH
  - Data Load information defaults into GOAMTCH
    - Use Duplicate Check icon or next block for matching process
    - "No matches found, exiting" back to RCRSUSP
    - Determine action on this is New
  - Change Override status to 'N'ew
  - Optionally load the record to Production or wait to run in batch

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**Enhancement to Generated ID  
Release 7.6 FA**

- New Temporary ID beings with an "F"
- Updated RCBTP07 and RCRTP07
  - Part 1 uses SOBSEQN ID
  - Part 3 uses the new Banner-wide Generator API
- Only inserts the "real" ID in step 3 for a New Student
- Eliminates gaps in the ID numbers and "wasted" numbers

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**Reviewing the Results**

- RCRSUSP – Steps to review Potential Match
  - Data Load record defaults into RCRSUSP
    - Use Match Icon or next block to GOAMTCH
  - Data Load information defaults into GOAMTCH
    - Use Duplicate Check icon or next block for matching process
    - Record(s) display on Potential Match tab
    - User determines a match
      - Select ID icon back to RCRSUSP

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**Reviewing the Results**

- RCRSUSP – Steps to review Potential Match
  - Record displays in Match Results
    - Choose select ID to update the Data Load Record ID and Status
    - Override to update Status to Match

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**Rules – How They Work**

- Primary Match uses name, SSN, and/or ID as defined in the rule to establish the population to use for secondary match
  - 1) If ID exists in the rule, find all record in Banner with matching ID
  - 2) If SSN exists in the rule, find all records in Banner with matching SSN
  - 3) Find all records in Banner with matching name based on the rules
    - If first and/or middle name are part of the rule, they are included as part of the 'name' comparison
    - Will utilize the alias tables for first and middle names

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**Rules – How They Work**

- Match on Null Data? – Yes or No
- Yes - Banner and/or incoming data can be NULL or identical to match
- No - Banner and incoming data must be NOT NULL and identical to be considered a Match.
- Note: If rules are built using Name and SSN/SIN/TIN only and the match is not exact, the record will be New. To make the same record suspend and display potential matches, you need to include at least one more non-null and non-matched "No" data element or one non-matched "Yes" data element in your rule.

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**Rules – How They Work**

- Last Name = 4, First Name = 3, SSN = 9, DOB YEAR = 4
1. Find all records in Banner with SSN of 511000007
  2. Find all records in Banner with Last Name of ARCH and First Name of JAN  
Establishes population for Secondary Match.  
If no records are found as a result of the Primary Match, a status of New is returned

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**Rules – How They Work**

Banner	External
	<b>Jan Archibald – 511000007 - 1976</b>
<b>Janet Archibald - 511000001 - 1976</b>	
<b>Janice Archer – null - 1971</b>	
<b>Janoula Archmertle – 789123333 - 1980</b>	
<b>Peter Falkner – 511000007 - 1972</b>	

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**Rules – How They Work**

Secondary match is performed on the population returned by the primary match. Each record is compared and a status determined.

- All data elements defined in the rule are compared  
Last Name = 4, First Name = 3, SSN = 9, DOB YEAR = 4 (All Required)

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**Rules – How They Work**

Banner	External
	<b>Jan Archibald – 511000007 - 1976</b>
<b>Janet Archibald - 511000001 - 1976</b>	<b>Name match, SSN no match, DOB Year match- Suspense</b>
<b>Janice Archer – null - 1971</b>	<b>Name match, SSN missing, DOB Year no match New</b>
<b>Janoula Archmertle – 789123333 - 1980</b>	<b>Name match, SSN no match, DOB Year no match New</b>
<b>Peter Falkner – 511000007 - 1972</b>	<b>Name no match, SSN match, DOB Year no match. Suspense</b>

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**Rules – How They Work**

Status of each record queried to determine overall result

- All records returned as **New**, overall status = **New**
- Only one **Matched** status, overall status = **Match**
- More than one **Matched** status, overall status = **Suspense**
- No matches exist, records returned as **New** and **Suspense**, overall status = **Suspense**

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**Rules – How They Work**

One Rule with full Last Name, full First Name, full SSN all required.

Banner	External John Smith 511000001
John Smith 511000002	Name Match, SSN no match <b>New</b>
John Smith 678551122	Name Match, SSN no match <b>New</b>
John Smith 457223144	Name Match, SSN no match <b>New</b>
John Smith 677881111	Name Match, SSN no match <b>New</b>

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**Rules – How They Work**

Without 'Almost' record

Banner	External John Smith 511000001
John Smith 678551122	Name Match, SSN no match <b>New</b>
John Smith 457223144	Name Match, SSN no match <b>New</b>
John Smith 677881111	Name Match, SSN no match <b>New</b>

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### Rules – How They Work

If using this rule and want to review all records with different SSNs, consider adding Gender as Exists.

Banner	External
John Smith, 511000002, null	John Smith, 511000001, null
John Smith 678551122, male	John Smith, 511000001, null
John Smith 457223144, null	John Smith, 511000001, null

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### Rules – How They Work

- Example 6x to 7x – Use Gender as Exists to mimic City with length of 0.

#### 6X

Last name = 6, required  
First name = 4, required  
SSN = 9, required  
City = 0, required

#### 7x

Last name = 6, required  
First name = 4, required  
SSN = 9, required  
Gender = 1, Exists

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### Rules – How They Work

- Working through an example with multiple rules

Banner	External
John Smith, 888112332, 13-FEB-1945, Morton City	John Smith, 811007777, 05-MAY-1981, Morton City

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**Rules – How They Work**

**Rule Priority 1: Record selected in Primary match for Name. Student Suspended. Name & City match; DOB & SSN data did not match**

Element	Matched?
Name, required	Y
SSN, required	N
City, required	Y
DOB Day, exists	N
DOB Month, exists	N
DOB Year, exists	N

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**Rules – How They Work**

**Rule Priority 2: Record selected in Primary match for Name. Student Suspended. Name & City match; DOB & SSN data did not match**

Element	Matched?
Name, required	Y
SSN, exists	N
City, required	Y
DOB Day, exists	N
DOB Month, exists	N
DOB Year, exists	N

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**Rules – How They Work**

**Rule Priority 3: Record selected in Primary match for Name. Student New. Name match; DOB data did not match**

Element	Matched?
Name, required	Y
DOB Day, required	N
DOB Month, required	N
DOB Year, required	N

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**TESTING**

- Review Records flagged as New in addition to Matches
- With Multiple priority rules, review what priority rule determined match
- Consider using the "Hold" parameter for "New" during testing
- Performance
  - Unnecessary priority rules
  - Selecting too many optional rules for batch processing

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**TESTING**

- Person Search Results Many Potential Match
  - Rule not strict enough
- Person Search Results in One Match and Potential Matches
- Person Search that results in an Exact Match
- Status is New but Potential Matches exist from Prior Rule
- Match Results show value missing
  - Elements in the rule are required but not entered
- Data Elements Required but not Provided
- Data Elements set as Exits are Provided and do not Match
- Exception = New
  - External passes primary match
  - None of the non-name/SSN fields match

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**Summary**

- Common Matching is required for FA Data Load
- Common Matching from on-line forms is an institutional decision
- GOAMTCH will be called from RCRSUSP
- GOAMTCH through RCRSUSP uses batch rules
- Up to 99 rule priorities (rule sets) can be defined
  - Caution should be used with minimal data comparisons

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**Summary**

- The Primary match is performed for each rule based on the elements for the rule
  - Rule 1 – Last Name, First Name, SSN
  - Rule 2 – Last Name, First Name
- Use Gender as exists to mimic City of 0 length to suspend records
- Reviewing Rules and analyzing results

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**Questions and Answers**

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**Thank you for your participation**

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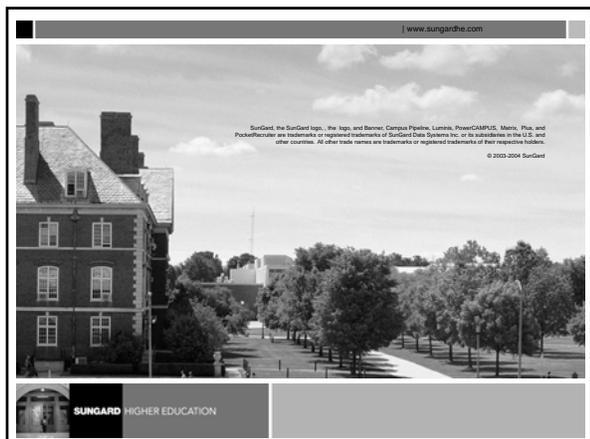
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