

## SCT Banner 7.0 Common Matching (CM) FAQ

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### 1. What is Common Matching?

Common Matching (CM) is the new tool used to help prevent the accidental creation of multiple identification records (PIDMs) for the same person or non-person. It uses a rule-driven process that can help institutions determine whether an entity (person or non-person) is truly new to the system before the record is added to the database.

### 2. What are multiple PIDMs?

Multiple PIDMs occur when two or more identification records exist in the SPRIDEN table for the same person or non-person. Since Banner is designed to have only one identification record in the SPRIDEN table for person or non-person entities, this situation will cause problems with the data attached to these records.

This situation has been incorrectly referred to as duplicate PIDMs. Duplicate PIDMs are two identification records in SPRIDEN with the same PIDM (internal system identification number). Multiple PIDMs have different PIDMs and different IDs.

### 3. How does CM work?

CM is a process API (application programming interface) that uses a common matching algorithm to check for an existing record. Any online form, C program, COBOL program, or external interface that can insert a new SPRIDEN record can call this algorithm. This includes the basic person forms and data loads (recruiting search files, test score files, financial aid application files, etc.).

SCT Banner Student and SCT Banner Financial Aid have batch processes that create new identification records in the SPRIDEN table. Each has its own method of comparing the new information against records in the database to prevent the creation of multiple records for the same person. Each also has its own method for helping users reconcile potential or questionable matches. In SCT Banner 7.0, these product-specific methods are replaced with common methods in SCT Banner General. These common methods are part of the Common Matching enhancement.

The SCT Banner Student and SCT Banner Financial Aid data load processes also had separate methods for comparing names against their common nicknames. SCT Banner 7.0 replaces these methods with common forms and tables in SCT Banner General.

**4. Is CM used for batch or online processing?**

CM is used for both batch and online creation of new identification records.

**5. Can I use CM for non-persons?**

Yes. You can set up rules specifically for matching persons, non-persons (i.e., companies and vendors), or both.

**6. Do I have to use CM?**

A check box on the Installation Controls Form (GUAINST) turns CM on or off for online processing for your institution. Individual users can be exempted from online CM via an indicator on the Common Matching User Setup Form (GORCMUS). However, CM must be used for all data loads (i.e., batch processing) that create new identification records.

**7. Can I use CM even if I am exempt from required processing?**

Yes. Excluded users may still choose to use the algorithm on a case-by-case basis via the Common Matching Entry Form (GOAMTCH).

**8. Where is CM used in SCT Banner?**

CM is used in all online forms that create new identification (SPRIDEN) records. We refer to these as the \*IDEN forms, although not all of these forms contain the letters 'IDEN' (e.g., FTMVEND).

Batch processes that create SPRIDEN records use CM:

- Electronic Application Verify/Load Process (SARETMT)
- Electronic Prospect Match (SRRSRIN)
- Financial Aid Dataload Part 2 (RCPMTCH)

Each batch process will now call the new Common Matching algorithm to determine if a record is New, Matched, or a Potential Match. The Common Matching Entry Form (GOAMTCH) will be used to review records that are identified as potential matches or to identify new and matched records in the temporary tables.

Forms used to review the results from batch matching use CM:

- Electronic Application Process (SAAEAPS)
- Electronic Prospect Inquiry (SRIPREL)
- Financial Aid Suspended Records Maintenance (RCRSUSP)
- Online Transcripts Activity List (SHAEDIS)

When using one of the current forms for reviewing data loaded by a batch process, the Common Matching Entry Form (GOAMTCH) will be called and the Data Entry block will display data from the temporary table to allow the user to execute the Common Matching procedure (Duplicate Check) and review the results of the process.

Refer to the product-specific release guides for a list of obsolete objects and the functionality being replaced with General objects as a part of Common Matching.

#### **9. What are some common terms used in CM?**

- **Algorithm** - A step-by-step procedure for solving a problem or accomplishing some end especially by a computer.
- **Application programming interface (API)** - A database package that encapsulates the business logic surrounding an SCT Banner business entity. A business entity is the smallest, most granular grouping of information that an application can modify.
- **PIDM** – Person Identification Master. This is the internal identification number assigned to all person and non-person records. Even though records may have multiple names and external IDs, there can only be one PIDM.

#### **10. What has SunGard SCT done to ensure the quality of this enhancement?**

Clients have been involved in the development and testing of this enhancement at all levels. A client focus group helped us define the requirements and project scope. Clients participated in enhancement testing in Malvern, and several beta clients tested CM at their own sites with production-sized databases. SunGard SCT developers and consultants performed unit testing, modification testing, regression testing, and system testing.

#### **11. Are there any implications if Value-Based Security (VBS) and Protection of Personally Identifiable Information (PII) are used with CM?**

VBS and PII limit the information in SCT Banner that a user can see depending on business rules established by an institution. CM tries to prevent the creation of multiple identification records for the same person (or non-person) across the entire enterprise. If users cannot see all the identification records in the database, they are more likely to create multiples because the system is telling them that other matching records do not exist, when in fact, they do.

To resolve this apparent conflict, VBS and PII will be disabled on the Common Matching Entry Form (GOAMTCH) and on all batch processes that use the Common Matching Algorithm (see earlier Q/A for the list of these processes). So, regardless of whether CM is used online or in a batch process, users will be able to access all identification records across the enterprise.

## **12. Can I have multiple sets of matching rules?**

Yes. Sets of matching rules are associated with the sources of the data. For example, users who create new identification records from financial aid applications have a different set of identity fields available than users who create records from contact cards received from a college night at a local high school. Social Security numbers are always available on financial aid applications but rarely on admissions test score files. Therefore, users in financial aid offices would typically use matching rules that are different from the rules used in the admissions or recruiting offices.

Within each matching source, you can also define multiple sets of fields to use for matching, with each set given a priority number. The matching algorithm looks for matches using priority number one, then two, and so on.

## **13. Do I need to create rules for all of my Oracle users?**

No. You only need to create rules for those users who will be creating new identification (SPRIDEN) records. Users who attempt to create new identification records and are not defined on the Common Matching User Setup Form (GORCMUS) must use Common Matching but will not have any default values set for them.

## **14. Are there required data elements for matching?**

The only field that must be used in all matching rules is the Search Last Name field. This field contains a person's last name or a non-person's name. The 'Search' version of the field has been converted to all capital letters, and special characters such as apostrophes, hyphens, spaces, and accents have been removed.

## **15. Do I have to use the full length of a field in my matching rules?**

No. On certain text fields you can choose to match on any length from 1 up to the maximum length for the field. Indicator and coded fields must use the full length.

## **16. What fields can I use in my matching rules?**

The fields that may be used for matching in online and batch processing are defined in a pre-delivered data dictionary. The delivered data dictionary only contains fields that are part of General or Common tables; tables that are delivered to all Banner clients. Other fields (such as High School Code from SORHSCH) may be added to the data dictionary for use in batch processing, but additional logic (database procedures) would have to be written by you or delivered with specific SCT Banner products for the matching algorithm to recognize them. The SCT Banner Student product will deliver a package procedure, sakmtch.p\_match\_sorhsch, to enable matching on high school fields that are currently available for matching under Banner 6.x.

The SCT Banner General Release and User Guides have information on creating your own procedures and adding other data elements for use in batch processes. Sample rules for each product are also part of the General Release Guide.

**17. When I migrate my CM rules from my test environment to my production environment, which tables should be migrated and in what order?**

The following tables should be migrated in the specified order:

GTVCMSC  
GORCMSC  
GORCMDO  
GORNAME\*  
GORNPNM\*  
GORCMDD  
GOBCMUS  
GORCMSP  
GORCMSR  
GORCMUP

\* = Order doesn't matter. These tables have no dependencies.

GUBINST is not included because it has only one field that is used for Common Matching. That field can be set manually after migrating the other tables.

**18. What are the potential outcomes of the Common Matching process?**

The CM process returns one of the following statuses:

- **New** – No existing records match the rules. You can create a new person or non-person record.
- **Match** – One and only one record matches the rules. Data for the matched PIDM is returned for review.
- **Potential Match** – Either some, but not all, fields match, or multiple records match exactly. For example, first name and last name match but date of birth does not match.

**19. Can I override the results of CM?**

Yes. You can still create a new record from the Common Matching Entry Form (GOAMTCH) even if the process returns a single match or multiple potential matches.

**20. Can I use wildcards on the Common Matching Entry Form (GOAMTCH)?**

No. The Common Matching Entry Form does not work the same as traditional search forms. Matching rules, not wildcards, are used to control the length of a field to match against. For new records, data is inserted exactly as it is entered on this form; you don't want a wildcard to be inserted as part of the data.

**21. Does the matching algorithm look at alternate identification records?**

Yes. The matching algorithm looks at all identification records, current and alternate (aka prior names/IDs). It also looks at all active and inactive addresses if you included any of the address fields in your rules.

**22. What happens with special characters in name and address fields?**

The matching algorithm ignores special characters such as hyphens, apostrophes, spaces, and accents. It also uses the uppercased version of text in the comparison process. The Common Matching process converts the data entered in the text fields on GOAMTCH and the fields in the database so the algorithm can perform the duplication check on similarly formatted data.

**23. How does CM handle addresses?**

Addresses are broken down into multiple components (street line1, city, state, ZIP/postal code). Each component or any combination may be used in the matching rules. Street lines 2 and 3 are included on the Common Matching Entry Form (GOAMTCH) for inserting data into the address table only; these fields are not used in the matching process. The same is true for the County and Nation codes.

**24. What causes the Common Matching Entry Form (GOAMTCH) to be called automatically?**

If online matching is turned on globally for all users and the individual user is not exempt from the process, then entering an unknown ID or generating a new ID on any of the so called "IDEN" forms causes the user to be taken to the new Common Matching Entry Form to perform the matching process. Under the same circumstances, GOAMTCH will also be initiated from the Quick Entry Form (SAAQUIK) and the Quick Recruit Form (SRAQUIK).

**25. Can I use the Common Matching Entry Form (GOAMTCH) as a quick data-entry form?**

Yes. The Common Matching Entry Form has fields for name, address, telephone number, SSN/SIN/TIN, date of birth, gender, and e-mail all on the same block. On other "IDEN" forms, you need to go to several tabs to enter the same data. The GOAMTCH form may be more efficient for such data entry.

**26. Can I use aliases or nicknames for person and non-person matching?**

Yes. This enhancement includes a new General version of the Person Alias Table (GORNAME) that replaces the separate versions in Student (SORNAME) and Financial Aid (RCRNAME). If you presently use SORNAME, you can copy the records from this table into the new GORNAME table via a script provided by SunGard SCT. If you do not use SORNAME, you can use the same script to load a limited number of records provided as seed data. The new Name Translation Rules Form (GORNAME) allows you to add additional name equivalents.

By using this alias table, nicknames and their common equivalents will be considered the same by the matching process. For example, if you enter a first name as Bob on the Common Matching Entry Form, all first names of Robert in the database will be considered a match (assuming that there is a record in the GORNAME table establishing that pair). The person alias table will be used for matching on middle names as well.

This enhancement also includes an alias table for use with non-persons (GORNPNM). For example, IBM and International Business Machines would be considered a match if that association was created in the non-person alias table. Since no data currently exists in SCT Banner for non-person aliases, no conversion script and no seed data are being delivered. All vendor name associations must be created manually via a new form, the Non-Person Name Translation Rules Form (GORNPNM).

**27. If CM finds a match, can I enhance the existing data with what I have entered?**

Yes. You can use the Common Matching Entry Form (GOAMTCH). Even if you are not creating a new person (or non-person) record, SCT Banner can insert a new address, telephone, or e-mail record. If the matched person (or non-person) does not already have a record with the stipulated type code, SCT Banner will insert a new address, telephone, or e-mail record with that type code. SCT Banner will not change existing data.

**28. What data is created when I create a new record?**

If CM does not find any matches in the database and you choose to create it as a new record, the data that's created depends on what was entered on the GOAMTCH form. The process can create:

- Identification record in SPRIDEN (PIDM, ID, Name)
- Person record in SPBPERS (Date of Birth, SSN/SIN/TIN, and Gender)
- Address record in SPRADDR
- Telephone record in SPRTELE
- E-mail address in GOREMAL

**29. Does this enhancement include reconciliation of previously created multiple records?**

No. This enhancement only includes processes to help prevent the accidental creation of new multiple PIDMs. We hope to develop and deliver tools to help the reconciliation process in a future release.

**30. Does CM identify the duplicates I already have?**

No. We hope to deliver such a process in a future release.

### **31. What documentation will be available for CM?**

Information about CM will be published in the following documents:

- SCT Banner 7.0 General Release Guide (January 2005)
- SCT Banner 7.0 General User Guide (March 2005)

The following release and user guides will contain information on using Common Matching with batch data loads for Student and Financial Aid respectively:

- SCT Banner 7.0 Student Release Guide (January 2005)
- SCT Banner 7.0 Financial Aid Release Guide (January 2005)
- SCT Banner 7.0 Student User Guide (March 2005)
- SCT Banner 7.1 Financial Aid User Guide (March 2005)

### **32. How can I get more information on CM?**

SunGard SCT Services are available to help train your staffs and to help you build the rules necessary to implement Common Matching at your campus. Computer-Based Training (CBT) and Education Center courses will also be available. Contact your Account Manager for information about these services.

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