Data Mapping Recommendations

NW Data Centric, LLC
12/14/2017

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Purpose

This document provides field mapping recommendations derived from past data migration experiences.

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Suggestions

Recommended field mapping columns/fields:

1. Source system (For example: "Kintera", "Raisers Edge", etc. This can be important for clarify in a data migration that merge sdata from several source systems .)
2. Source table/file (For example: "Kintera Marketplace", "Constituent")
3. Source field (For example: "Last Name", "Has No Valid Address")
4. Source value (If only some values or if converted values from a source field will be transferred without use of code conversion maps to define a conversion)

5. Destination system (For example: "SF")
6. Destination object/table (For example: "Contact", Payment")
7. Destination field (For example: "HasOptedOutOfEmail", "npsp__Do_Not_Call__c")
8. Destination value (If a specific value should be placed in the destination field. If a code conversion map will be used for conversions, the name of code conversion map can be placed here)
9. Remarks.

Field Mapping Best Practices

Best practices include:

1. Each row represents a transfer of ONE field into another SINGLE field
   A) If a field is transferred to ***several*** fields in Salesforce, ***several*** rows should be used - one for each "destination" field
   B) If ***several*** fields are used, say to calculate a value for a ***single*** "destination" field, each contributing field should be listed on a ***separate*** row indicating the "destination" field. Remarks can be used to specify details of the calculation.
   C) If a code conversion map is needed, it would be ideal to include the name of the code conversion map on the row representing the mapping of the converted values from a source field to a destination field.
   D) Alternatively, rather than indicating the name of a code conversion mapping to be applied, the "Source value" and "Destination Value" columns may be used to document code each individual value conversion being used. Just use a separate row for each source value being converted
2. Some database systems use an underlying field name that differs from the “label” used to display a field in the database user interface. It's desirable to consistently use either the underlying field name or the user interface field label – mixed uses can become confusing when many fields are mapped.
3. Some database systems display data from several database tables on a single user interface form. A developer will typically need to know the table or file location of a field, but users may mistakenly think that all fields displayed in one place in the user interface are all located within the same database table. The developer will need to be vigilant about this sort of mislabelling.
4. If the data export files are provided to a data migration specialist ***before*** the field mapping is documented, a field mapping document can be generated by automation to list all tables/files and fields being provided. Only "destination" and "code conversion" information would remain to be entered.
5. A detailed field mapping provides the greatest utility if is ***correct***.

A) A developer should perhaps fill in the field mapping themselves based on client input – to ensure best practices are followed.

B) If client staff completes the field mapping, the developer should should allow time to review/assist, and sometimes to correct poorly formed field mapping specifications.

Field Mapping Using a Spreadsheet

Field mapping can be documented using a spreadsheet. This can allow a general user to complete field mappings, since nearly all computer users understand how to use a spreadsheet.

However, spreadsheet approaches require discipline on the part of the user:

1. Consistent spelling of names (for tables, objects, fields, etc) is the responsibility of the user, and requires careful keypunching for data migrations that include large numbers of objects/tables/fields for input or destination systems.

2. Care should be taken to avoid representing the same field mapping multiple times. This can be difficult when field mapping covers a large number of input or destination tables/objects.fields.

   It can be helpful to keep the spreadsheet sorted by source table and source field to make these situations easier to spot and correct.

3. Modifications to display row subsets of may require some careful, sophisticated sorting of spreadsheet rows.

   For example:

   A) Displaying "unmapped" data together

   B) Displaying "mapped" data together

   C) Display of all mappings for a particular source or destination object/table

   NWDC typically uses a special-purpose MS-Access database application for field mapping tasks. This is particularly helpful during more complex migrations when a spreadsheet-based approach can be. An explanation of advantages to the "database application" approach are provided later in this document.

Example Spreadsheets

If this current document was downloaded from the NWDC website, an example spreadsheet be included in that download, or in a 2d tab of the field mapping spreadsheet template.

Otherwise a download is available at this URL:

http://www.nw-data-centric.com/downloads/field_mapping_template.htm

NWDC Field Mapping Application

NWDC typically performs field mapping using a special-purpose MS-Access application.

The database application approach provides these advantages:

1. Because table/object and field names are entered only ***once***, names are subsequently applied/spelled consistently through the application for:
   A) Source systems
   B) Source tables/files
   C) Source columns
   D) Destination systems
   E) Destination tables
   F) Destination columns
2. The principle of each field mapping being a mapping of one source field to one destination field is enforced by the database structure
3. A variety of queries can be prepared in advance and readily run to display data in different fashions without an error prone approach like the cell selection and sorting that would have to be used in a spreadsheet.

   For Example:

   A) Display of all mappings from or to a specific table
   B) Display of all uses of a specific input field
   C) Display of all input data that is being transferred to a specific destination field
   D) Display of all “mapped” data
   E) Display of all “unmapped” data
   F) Display of “duplicate” field mappings
4. Searches for specific portions of the field mapping specifications is easily done via queries
5. Completion of column mappings is facilitated by a database form that allows selection of narrow portions of the overall column mapping record set for focus
6. A spreadsheet representation of the column mapping can be automatically exported for record-keeping or other purposes.

Field Mapping Application Availability

As of December 2017, NWDC's MS-Access field mapping application is not available for download from the NWDC website. The application is not yet polished enough to be suitable for widespread distribution - some details of use still require a skilled MS-Access user.