

Duplicate Constituents and Merge Tasks Guide

11/08/2020Blackbaud CRM 4.0 Duplicate Constituents and Merge Tasks US

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Introduction to Managing Duplicate Constituents



Duplicate constituent data can be a problem. Data entry errors and missing data can cause duplicate records in your database. Duplicate constituent data can be costly and it can skew statistics and projections. Duplicates can also have a direct impact on expenses related to constituent appeals, such as mailings and fundraising.

Maintaining a "clean" constituent database requires an ongoing process of prevention and cleanup. The program provides tools that help you to identify and prevent duplicate constituents during data entry, as well as locate and consolidate any duplicate constituents saved in your database. This guide provides an overview of the typical steps involved.

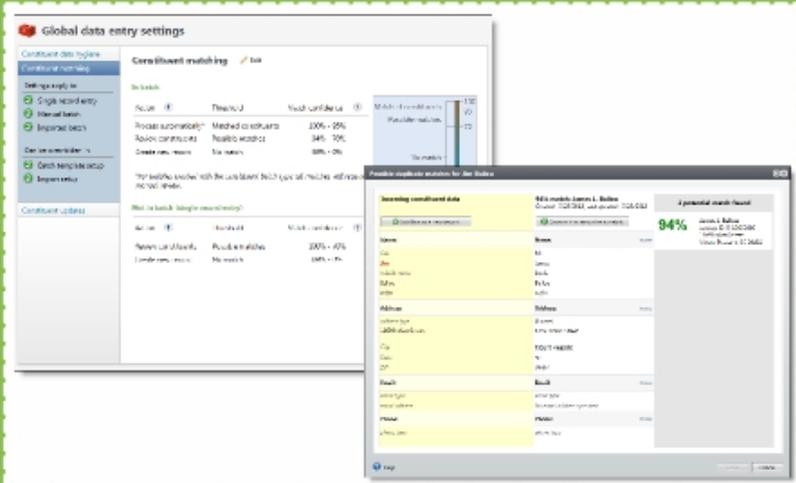
Manage Duplicates Workflow

Managing duplicate constituents in your database requires using tools in multiple areas of the program. This is an overview of the end-to-end duplicates management process. Each step in the workflow is discussed in its own chapter of this guide.

- **Prevent Duplicate Constituents:** Use tools to identify potential duplicate constituent records during data entry. Once configured, many duplicate prevention tasks are automated and handled for you at the time of data entry. For more information, see [Prevent Duplicate Constituents on page 12](#).
- **Find Duplicate Constituents:** Use search processes to find duplicate constituents saved in your database. You can run searches on the entire database or on a subset of records. For more information, see [Find Duplicate Constituents on page 48](#).
- **Merge Duplicate Constituents:** After you find duplicate constituents saved in your database, you can remove duplicates by consolidating information on matched records through merge processes. You can configure how merge processes handle conflicting data on duplicates. For more information, see [Merge Duplicate Constituents on page 71](#).



Prevent



Global data entry settings

Constituent matching

Field	Match	Match confidence	Match threshold
Postal automatically	Matched on software	100% - 25%	75%
Postal constituent	Postal on match	34% - 70%	75%
Constituent match	No match	98% - 99%	75%

Prevent duplicate matches for the future

Increasing constituent data

Source constituent	Match	Match confidence	Match threshold
James L. Baker	Match	94%	75%



Search



Full Constituent Duplicate Search Process

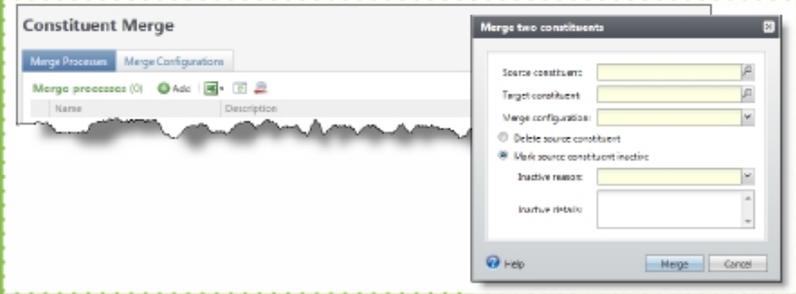
Type: Full process of all constituents

Incremental Constituent Duplicate Search Process

Type: Full process of all constituents added or updated since the last duplicate search.



Merge



Constituent Merge

Merge two constituents

Source constituent: [Field]

Target constituent: [Field]

Merge configuration: [Field]

Delete source constituent

Merge source constituent inactive

Inactive reason: [Field]

Inactive details: [Field]

[Merge] [Cancel]

Prevent Duplicate Constituents

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The program includes several tools to help you maintain clean and consistent constituent data and to prevent new duplicates when you add constituents through the Add an individual or Add an organization screen, or through manual or imported batches. Once configured, many of the data hygiene tasks are automated and handled for you at the time of data entry.

Duplicates Prevention Workflow

To maintain a duplicates-free database, you must prevent duplicates from entering the database. The prevention workflow consists of three parts: 1) setting rules and standards for data entry 2) configuration in *Administration* and 3) handling incoming data in *Constituents*, *Batch*, and *Import*.

- **Define rules and standards for constituent data entry:** To prevent issues with duplicate identification caused by inconsistencies in name and address formats, define organizational rules and standards for constituent data entry. For recommended best practices, see [Best Practices For Constituent Data Entry on page 14](#).
- **Configure Data Entry Rules:** Use tools provided on the Global data entry settings page in *Administration* to configure the program to prevent duplicates during data entry and to maintain clean and accurate constituent data.

- To automatically standardize the format of constituent addresses and names that you add or edit through batches, imports, or the Add an individual or Add an organization screens, turn on the Constituent data hygiene settings. Standardization can help prevent duplicate records, make constituents easier to find in searches, and ensure names and addresses are formatted correctly on communications. For more information about how to configure constituent data hygiene settings, see [Constituent Data Hygiene on page 16](#).

Note: Standardization only applies to constituent records added after you turn on the constituent data hygiene settings. To standardize all existing constituent records, you must use the Standardize Constituent Names and Addresses global change process. For more information about global change processes, see the [Administration Guide](#).

- To prevent the creation of duplicate records, define global constituent matching settings. When you add a constituent record through batch, import, or the Add an individual or Add an organization screens, the program calculates how similar the record is to existing records in the database. The program compares field values from the new record with existing records and calculates the degree of similarity between the first names, last/organization names, middle names, suffixes, titles, addresses, and zip code. For more information about how to configure constituent matching settings, see [Constituent Matching Settings on page 20](#).

Note: Constituent match settings only apply when you turn the matching feature on with the **Enable/disable matching** configuration task in *Administration*.

Note: This duplicate search process is different from the full and incremental search processes. This process occurs automatically during data entry and uses a different matching algorithm.

- To manage how the program resolves conflicting data on matched constituents, set constituent update rules. Constituent update rules apply when an incoming constituent matches an existing constituent, but their names or contact information are different. For example, two records are very similar but the first name is "Dave" on the existing constituent and "David" on the incoming constituent. Update rules allow you to choose how the program handles this conflict for you. You can set the program to update the existing name, add the incoming name as an alias, ignore the incoming name, or require users to compare the constituents on the duplicate resolution screen to determine which action to take. For more information about how to configure constituent update settings, see [Constituent Update Rules on page 28](#).

Note: Constituent update rules apply when you add a constituent using the Add an individual screen or the Add an organization screen, or when you add a constituent through manual or imported Constituent Update or Enhanced Revenue batches.

- **Prevent Duplicates During Data Entry:** After you configure the data entry rules, these tasks occur in *Constituents*, *Batch*, and *Import* to prevent duplicates from occurring. Some tasks are automated and require no actions from users. Other tasks require users to make decisions about incoming matches and conflicting information.

Automated Tasks

- Capitalization rules and address standardization are applied automatically to names and addresses when you add or edit constituents through batches, imports, or the Add an individual or Add an organization screens.

- The program runs the match confidence calculation immediately when you click **Save** on the Add an individual or Add an organization screens or when you validate or commit a manual or imported batch.
- When the program finds matches that score high enough to qualify for automatic updates, it automatically assigns the record ID from the existing constituent to the matched constituent in the batch. For Constituent Update and Enhanced Revenue batches, if the matches have data conflicts, the program automatically updates the existing constituent with information from the incoming constituent according to your organization's selected constituent update rules.

Hands-on Tasks

- When matching constituents qualify for manual review (their match confidence score falls in the middle range), the program prompts you to compare the matches on the duplicates resolution screen and decide whether they are a match. For more information about the duplicates resolution screen, see [Resolve Duplicate Constituents on page 38](#).
- If you prefer to be more "hands-on" with your data, you can require users to evaluate matches on the duplicate resolution screen before the program makes any updates, even when the records have match confidence scores high enough to qualify for automatic updates. On the Configure constituent updates screen, select **Require manual review (generate exception)** for at least one type of update rule. For more information, see [Configure Constituent Update Rules on page 30](#).

Best Practices For Constituent Data Entry

Small inconsistencies during data entry may impact matching scores for potential duplicates. For example, the full and incremental duplicate search processes deduct points for differences in spelling, capitalization, and punctuation. For this reason, we recommend that your organization define rules and standards for constituent data entry to prevent issues with duplicate identification. These are a few recommendations:

- Create relationships for constituents in a family. If relationships are not configured for family members with the same last name and address, they may be misidentified as duplicates.
- Save constituents as the correct type: Individual, Organization, Household, or Group. The full and incremental duplicate searches cannot match constituents of different types. For example, if a constituent is added twice, as an organization and an individual, the program will not identify these records as duplicates even if their names and addresses are the same. For families, create a household record and then add the individual constituents to that household.

Note: The SSIS search processes can match constituents of different types. If you have many constituents saved as the wrong type, this may be a good reason to use the SSIS search, at least initially until you have those issues fixed and have consistent data entry procedures in place.

- Articles: Use articles at the beginning of organization names consistently—either always or never include them. For example, "The Boys and Girls Club" and "Boys and Girls Club" are not identified as duplicates by the full or incremental duplicate search processes due to the phonetic differences of the first word. The duplicate search that runs automatically during data entry will identify "The Boys and Girls Club" and "Boys and Girls Club" as potential duplicates if those records also include a matching address, email address, or phone number. In other words, the program would prevent

this duplicate from being added to the database, but will not find this match once the records are saved in the database. If you have organizations in your database that may have an article as the first word of their name, you should manually search for possible duplicates.

- Abbreviations: The full and incremental search processes do not recognize Street, St. and ST as the same word, so if they are entered differently on matching constituents, it impacts their scores. For addresses, we recommend that you use the address abbreviations used by the [U.S. Postal Service](#).
- Suffixes and titles: If the constituent has a suffix or title, select it from the code table in the **Suffix** or **Title** fields. Do not enter the suffix or title as part of the first or last name.
- Initials: If the constituent's name includes an initial, such as Thomas E. Smith, enter the initial in its appropriate name field (in this case, Middle) and include a period. Do not combine the initial with another name, such as entering "Thomas E." in the **First name** field.
- Hyphens: If a compound first name is not hyphenated, such as Mary Sue Jones, enter both parts of the first name (Mary and Sue) in the **First name** field.

The duplicate search that runs automatically during data entry standardizes data before it runs the matching algorithm to ensure that minor differences such as capitalization and punctuation do not prevent the program from finding matches. This duplicate search will identify matches that the full and incremental search process would miss. For more information about the matching standardization process, see [Constituent Matching Algorithm on page 23](#).

Automatic Data Standardization

To promote consistency during constituent data entry, use the Constituent data hygiene settings in *Administration* to automate data standardization. With these settings turned on, the program automatically standardizes constituent names and addresses during data entry based on rules you define. Standardization can prevent issues caused by human error because users do not have to remember the correct formats for names and addresses. For example, if a user enters "3186 WEST MAIN STREET" in the **Address** field, the program can automatically update that entry to "3186 W Main St" when the user moves on to the next field.

The program also uses Constituent data hygiene settings to standardize constituent data entered through manual and imported batches. This will help clean up constituent data entered online or imported from vendors that use different data formatting standards.

When using the default settings, the program formats addresses according to the standards set by the U.S. Postal Service except for capitalization. Instead of capitalizing all letters in addresses, the program title cases most words and removes punctuation. For names, the program capitalizes the first letter of every word. It then lowercases all subsequent letters with some exceptions. For detailed information about the Constituent data hygiene settings, see [Constituent Data Hygiene on page 16](#).

Global Data Entry Settings

To help ensure that your constituent data is clean and formatted consistently, you can define default rules for data entry on the Global data entry settings page. To access this page, go to *Administration* and click **Global data entry settings** under **Data**.

On this page, you select the type of settings to define. After you select a type, the page displays its existing rules, the areas where those rules apply, and the areas where you can override the rules. To edit the data entry rules, click **Edit**.

Global data entry settings

Constituent matching Edit

Settings apply to

- Single record entry
- Manual batch
- Imported batch

Can be overridden in

- Batch template setup
- Import setup

Constituent updates

In batch

Action	Threshold	Match confidence
Process automatically*	Matched constituents	100% - 95%
Review constituents	Possible matches	94% - 70%
Create new record	No match	69% - 0%

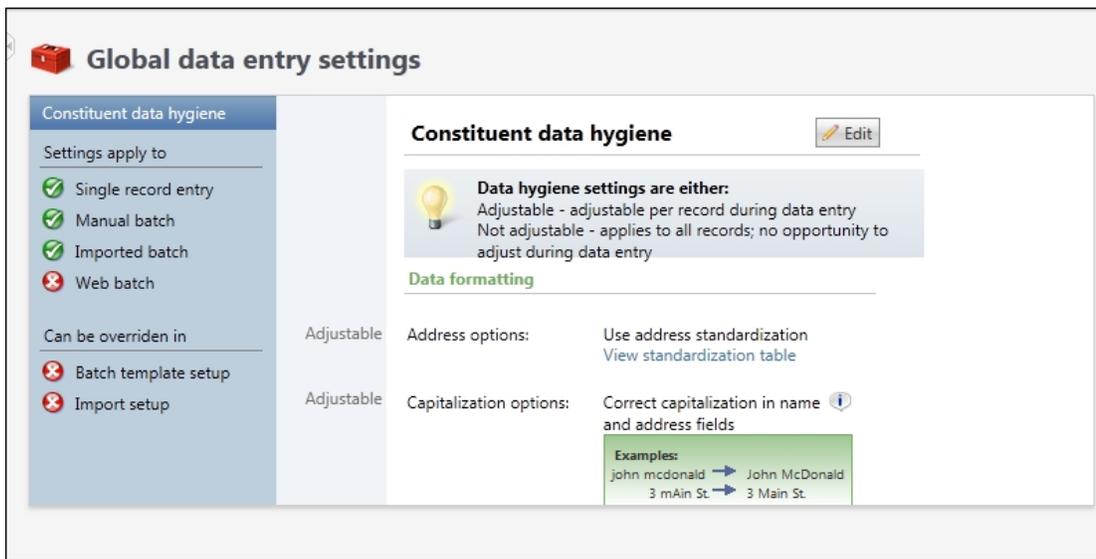
*For batches created with the constituent batch type, all matches will require manual review.

Not in batch (single record entry)

Action	Threshold	Match confidence
Review constituents	Possible matches	100% - 70%
Create new record	No match	69% - 0%

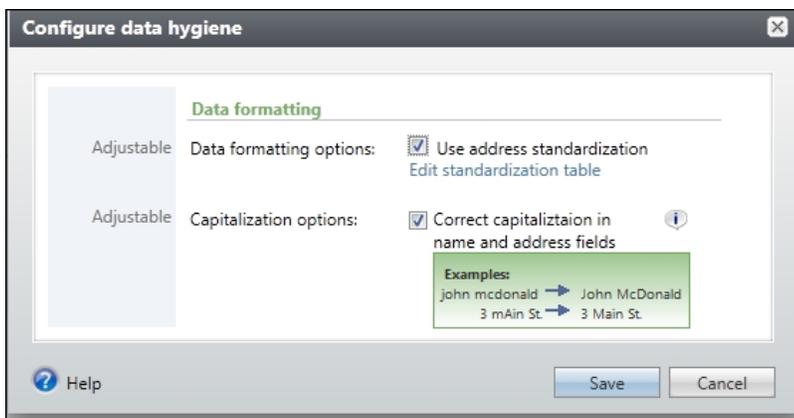
Constituent Data Hygiene

To standardize the format of constituent addresses and names that you add or edit through batches, imports, or the Add an individual or Add an organization screens, you can define data-formatting settings on the Global data entry settings page. To access this page, go to *Administration* and click **Global data entry settings** under **Data**. On the Global data entry settings page, select **Constituent data hygiene** to manage your data-formatting options.



When you turn on data formatting options, the program automatically formats any text that users enter in constituent address and name fields based on the standardization rules that you define. For example, if a user enters "3186 WEST MAIN STREET" in the **Address** field, the program can automatically update that entry to "3186 W Main St" when the user moves on to the next field.

To turn on data formatting options, click **Edit**. The Configure data hygiene screen appears.



- To turn on automatic address formatting, select **Use address standardization**. For information about address standardization rules, see [Address Standardization Rules on page 18](#).

Address standardization applies to batch templates with the Constituent Address Update Batch, Constituent Batch, Constituent Update Batch, Event Sponsorship Batch, and Registrant Batch batch types, as well as to import processes that use batch templates with these types. Standardization also applies to manual entry on batch templates with the Enhanced Revenue Batch, Sponsor Batch, and Auction Item Batch batch types.

- To turn on automatic capitalization, select **Correct capitalization in name and address fields**. For information about capitalization rules, see [Text Capitalization Rules on page 19](#)

Automatic capitalization applies to batch templates with the Constituent Address Update Batch, Constituent Batch, Constituent Update Batch, Donation Batch, Event Sponsorship Batch, and Registrant Batch batch types, as well as to import processes that use batch templates with these types. Capitalization also applies to manual entry on batch templates with the Enhanced Revenue Batch, Sponsor Batch, and Auction Item Batch batch types.

Note: To overwrite a correction, delete the corrected entry and then re-enter the text. The program does not standardize that text again. To re-apply a correction, delete the entry, tab out of the field, and then tab back to the field and re-enter the text.

Note: If you use a CASS-certified address validation provider such as *Satori*, that address validation/standardization process can overwrite standardization and capitalization corrections from the data hygiene settings.

Address Standardization Rules

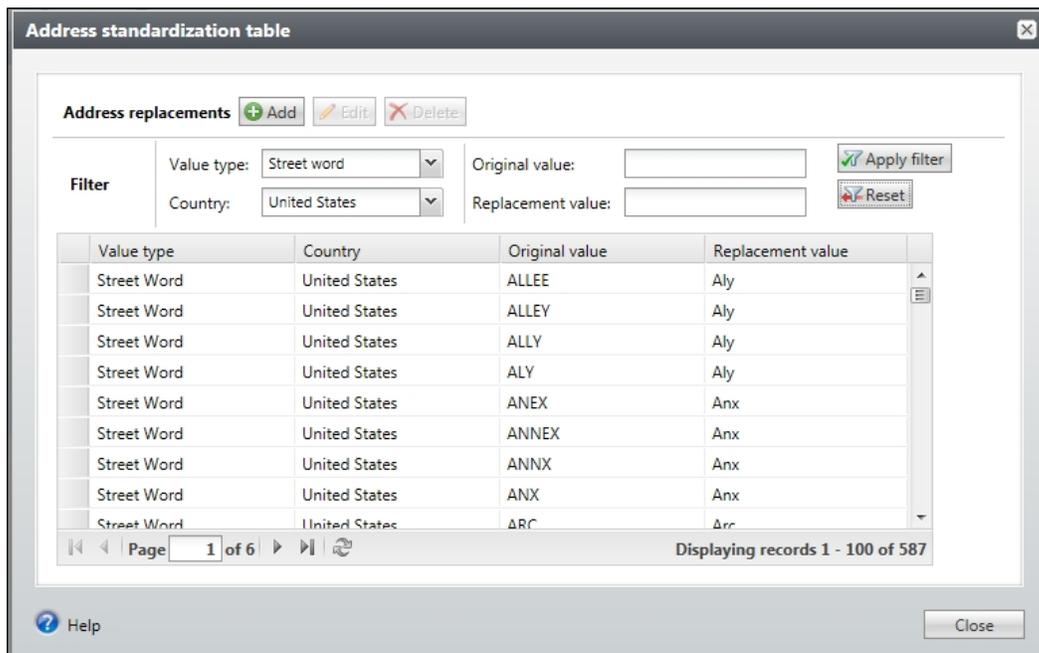
To view the address standardization rules, select **Constituent data hygiene** on the Global data entry settings page and click **View standardization table** under **Data formatting**.

The address standardization table includes the rules on how to format addresses. By default, the program uses standards defined by the U.S. Postal Service except for capitalization. Instead of capitalizing all letters in addresses, the program title cases most words and removes punctuation. The changes during standardization include:

- Convert spelled-out numbers to numerals. ("Two" becomes "2" and "Tenth" becomes "10th")
- Convert some spelled-out words to abbreviations, including:
 - Street suffixes ("Street" becomes "St" and "Road" becomes "Rd")
 - Directionals ("North" becomes "N" and "Southwest" becomes "SW")
 - Secondary unit designations ("Apartment" becomes "Apt" and "Suite" becomes "Ste")

➤ Edit the address standardization table

1. On the Global data entry settings page, select **Constituent data hygiene** and click **Edit**. The Configure data hygiene screen appears.
2. Under **Use address standardization**, click **Edit standardization table**. The Address standardization table screen appears.



Note: You can use filters to limit the rules that appear in the grid.

- To add a standardization rule, click **Add**. The Add replacement value screen appears.
 - a. In the **Value type** field, select the type of text to create a rule for.
 - b. In the **Country** field, select the country that the rule applies to.
 - c. In the **Original value** field, enter the text to replace.
 - d. In the **Replacement value** field, enter the text to use instead.
 - e. Click **Save**. You return to the Address standardization table screen.
 - To edit a standardization rule, select it in the grid and click **Edit**. The Edit replacement value screen appears. Edit the **Original value** and **Replacement value** fields as necessary. Click **Save**. You return to the Address standardization table screen.
 - To delete a standardization rule, select it in the grid and click **Delete**. On the confirmation screen, click **Yes**. After you delete a rule, the program no longer applies it to new addresses, but it does not change existing addresses.
3. Click **Close**. You return to the Configure data hygiene screen.

Text Capitalization Rules

When you use automatic capitalization, the program capitalizes the first letter of every word. It then lowercases all subsequent letters with the following exceptions:

- First letter after an apostrophe ("O'donald" becomes "O'Donald.")
- First letter after a space ("Mac donald" becomes "Mac Donald.")
- First letter after a hyphen ("Smith-jones" becomes "Smith-Jones.")

- Third letter when the first and third letters in a last name are both capitalized ("DeFazio" remains "DeFazio" and "McDonald" remains "McDonald.")
- First letter after "Mc" if the entire name is lowercase or uppercase ("MCDONALD" and "mcdonald" become "McDonald.")

Note: If a name begins with "Mc" and all subsequent letters are lowercase, the program assumes this is intentional and does not capitalize the third letter. ("Mcdonald" remains "Mcdonald.")

- First letter after "Mac" if it is capitalized and all subsequent letters are lowercase ("MacDonald" remains "MacDonald.")

Constituent Matching Settings

To prevent the creation of duplicate records, you can define constituent match settings on the Global data entry settings page. To access this page, go to *Administration* and click **Global data entry settings** under **Data**. On the Global data entry settings page, select **Constituent matching** to define the match confidence thresholds that the program uses to determine whether new constituent records match existing records in your database.

Note: Constituent match settings only apply when you turn the matching feature on with the **Enable/disable matching** configuration task in *Administration*.

When you add constituent records through batches, imports, the Add an individual screen, or the Add an organization screen, the program applies an algorithm to calculate "match confidence scores." To measure how similar new records are to existing records in your database, the algorithm compares field values on incoming records with field values on existing records and then assigns match scores that are weighted by field type. Records with high cumulative scores are likely matches, while records with low scores probably are not. For information about how the algorithm calculates match confidence scores, see [Constituent Matching Algorithm on page 23](#).

The program then compares match confidence scores to the percentage ranges, or "match confidence thresholds," that determine whether new records are matches, possible matches, or not matches. You manage two separate sets of match confidence thresholds: one for records added by batch or import and one for records added manually on the Add an individual or Add an organization screens. The default thresholds are 100-95%, 94-70%, and 69-0% for batch and import and 100-70% and 69-0% for manual entry.

Warning: If necessary, you can edit default thresholds for your organization. However, we recommend that you retain the defaults because the matching algorithm is designed to provide optimal results with those percentages and may return unexpected results if you change them. For example, if two records have matching email addresses but no other matching data, the program flags them as possible matches because their match confidence score of 70 is in the **Possible matches** threshold's default range of 94-70%. But if you change the threshold by just one point to 94-71%, the program no longer flags those two records as possible matches. For several factors to consider before you edit the default thresholds, see [Constituent Matching Algorithm on page 23](#).

In batch

Action i	Threshold	Match confidence i
<input checked="" type="checkbox"/> Process automatically*	Matched constituents	100% - <input type="text" value="95"/> %
<input checked="" type="checkbox"/> Review constituents	Possible matches	94% - <input type="text" value="70"/> %
Create new record	No match	69% - 0%

**For batches created with the constituent batch type, all matches will require manual review.*

Not in batch (single record entry)

Action i	Threshold	Match confidence i
Review constituents	Possible matches	100% - <input type="text" value="70"/> %
Create new record	No match	69% - 0%

The first set of match confidence thresholds applies to batch templates with the Constituent Batch, Constituent Update Batch, Membership Dues Batch, Enhanced Revenue Batch, Revenue Batch, Revenue Update Batch, and Sponsor Batch batch types, as well as the import processes that use batch templates with these types. For additional flexibility, you can overwrite match thresholds for individual batch templates and import processes. For example, if data that you import from a particular vendor requires extra scrutiny, you can edit thresholds for that vendor under **Configure options** on the batch template or under **Set options** on the import process.

Note: You cannot edit match thresholds on batch templates or import processes that use the Constituent Batch or Sponsor Batch batch types. These batch types always use the thresholds on the Global data entry settings page.

For information about how to edit constituent match settings on batch templates and import processes, see the *Batch and Import Guide*.

Action	Description
Process automatically	<p>Use the percentage range for the Matched constituents threshold to indicate records with match scores that likely match existing records. When a new record and existing record have a match confidence score in this range, the program assigns the record ID from the existing record to the matched record in the batch. If multiple match confidence scores are within this range, the program uses the highest score as the match. This process occurs automatically and requires no action from users.</p> <p>Note: For Constituent Update and Enhanced Revenue batches, the program may update the existing constituent with information from the incoming constituent according to your organization's selected constituent update rules. For more information, see Constituent Update Rules on page 28. For Constituent, Membership Dues, Revenue, Revenue Update, and Sponsor batches, the program ignores any new or conflicting data. No updates are made to the existing constituent.</p> <p>To turn off automatic updates, clear Process automatically.</p>
Review constituents	<p>Use the percentage range for the Possible matches threshold to indicate records with match scores that are similar to existing records but still require manual review. When a new record and existing record have a match confidence score in this range, the program prompts you to compare the records and select whether to update the existing record or create a new one.</p> <p>For information about how to compare records on the duplicate resolution screen, see the <i>Batch and Import Guide</i>.</p> <p>To turn off manual reviews, clear Review constituents. For example, you might clear Review constituents for an import process when you have a high volume of records but no time or resources to manually compare records before you commit them. In this case, it might be better to quickly add records and then find and delete duplicates later.</p>
Create new record	<p>Use the percentage range for the No match threshold to indicate records with match scores that are not likely to match existing records. This range is based on your settings for the upper thresholds.</p> <p>For Constituent, Constituent Update, and Sponsor batches, the program creates a new constituent record. For Revenue, Enhanced Revenue, or Revenue Update batches, the program creates a new constituent record and associates the revenue with that record. This process occurs automatically and requires no actions from users.</p>

The second set of match confidence thresholds applies to constituent records (individual, organization, vendor, or vendor contact) that you enter manually on the Add an individual or Add an organization screens.

For information about how to manage duplicate constituents from forms, see the *Constituents Guide*.

Action	Description
Review constituents	Use the percentage range for the Possible matches threshold to indicate records that are similar enough to require manual review. When a record that you add on the Add an individual or Add an organization screens and an existing record have a match confidence score in this range, the program prompts you to compare the records and select whether to update the existing record or create a new constituent.
Create new record	Use the percentage range for the No match threshold to indicate records with match scores that are not likely to match existing records. This range is based on your settings for the upper threshold. The program creates a new record behind the scenes and requires no action from users.

Constituent Matching Algorithm

The program performs several steps to identify matches. First, it standardizes data on the incoming record. Then it selects a pool of records that are potential matches and standardizes data on those records for comparison. Next, it compares field values on the incoming record with field values on the existing records and calculates match scores and are weighted based on field type. Next, the algorithm deducts match scores from a perfect score of 100 to calculate total match confidence scores. And finally, the program compares match confidence scores to the match confidence thresholds to determine whether the incoming record is a match, a possible match, or not a match.

➤ Standardize Values

To ensure that minor differences such as capitalization and punctuation do not prevent the program from finding matches, the program standardizes data from incoming records to make the values easier to match. The standardization process:

- Capitalizes all letters
- Removes periods from first names, last names/organization names, and street names
- Removes apostrophes from last names/organization names
- Removes extra spaces before and after all values
- Converts carriage returns, dashes, and double spaces in addresses to single spaces
- Removes add-on digits to convert ZIP+4 to 5-digit ZIP codes

➤ Select a Pool of Records

To select the pool of potential matches from the records in your database, the program compares the following fields on the incoming record to the corresponding fields on existing records:

- **Lookup ID** (Constituent Update batches only)
- **Lookup ID** that matches an **Alternate ID** on the existing constituent (Constituent Update batches only)
- **Alternate lookup ID** and **Alternate lookup type** (Constituent Update batches only)

Note: Matches found by **Lookup ID** or **Alternate lookup ID/Alternate lookup type** receive match confidence scores of 100. If the **Process automatically** option is selected for batches, the program automatically assigns record IDs from existing records to these matched records in batches.

- **Email address**
- **Phone number**
- **Zip code** and first four characters of **Last name/Organization name**
- **Zip code**, street name **soundex** (an algorithm that indexes names by sound), and first three characters of **Last name**
- First three characters of **Zip code**, **First name** soundex (an algorithm that indexes names by sound), first four characters of street name, and the street number

If the program does not find any potential matches based on these field comparisons, it compares incoming constituents to existing constituents without addresses based on **Last name/Organization name** and the first three characters of **First name**. For example, if the incoming constituent is Jonathan Mott, the program includes Jon Mott, Joni Mott, or Jonathon Mott as possible matches.

If **First name** is blank on the incoming record, the program compares the incoming constituent to existing constituents matching last names and blank first names based on **Last name**. For example, if the incoming constituent has the last name Mott and **First name** is blank, the program only includes existing records with the last name Mott and no first name.

If the first name-only search finds no matches for an incoming record without an address, the program attempts to match that record by **Organization name** or **Last name** and the first three characters of **First name** to existing records with addresses.

Note: To prevent performance issues, the program excludes common names from the name-only search. A name is "common" if more than 1000 constituents in your database without addresses have the same last name and first 3 characters of the first name. If no constituents *without* addresses have that name, but 1000 or more constituents *with* addresses have it, the name is considered "common" and excluded from the search. The program identifies the common names in your database when you upgrade to 2.94 or later and stores them in a table. To edit this table, contact Professional Services.

After the program selects a pool of potential matches from the records in your database, it performs additional standardization on addresses:

- Convert spelled-out numbers to numerals. ("Two" becomes "2" and "Tenth" becomes "10th")
- Converts some spelled-out words to abbreviations, including:
 - Street suffixes ("Street" becomes "ST" and "Road" becomes "RD")
 - Directionals ("North" becomes "N" and "Southwest" becomes "SW")
 - Secondary unit designations ("Apartment" becomes "APT" and " Suite" becomes "STE")

➤ Calculate Matching Scores

After the program determines its pool of potential matches, it compares the fields on the incoming record to the corresponding fields on each of the records in the pool and then assigns match scores to each field. Each type of field has a range of scores to determine whether it is a match, likely match,

possible match, or not a match. The algorithm checks the following scenarios:

Scenario	Example	Result
First name / First initial	John vs. J	Likely match
Middle name / First initial	John vs. J	Likely match
First name / First name & middle initial	John vs. John A	Match
First name spelling variation	Chris vs. Kris	Likely match
Different first names with similar spelling or pronunciation	John vs. Joan	Not a match
Nickname	Christopher vs. Chris	Match
Last name / Hyphenated last name	Smith vs. Smith-Jones	Match
Street number / Hyphenated street number	4 vs. 4-2	Match
Same base street names, different street suffixes	Main St vs. Main Rd Northwest vs. NW	Possible match
Same base street names, missing or reordered street suffixes	Main vs. Main St SE King St. vs. King St.	Match
Three digits of zip code match, but not first three	02138 vs. 02234 02141 vs. 02138	Not a match Possible match
Titles are different but have the same gender	Mrs. vs. Ms.	Likely match
Titles are different and one or both genders are unknown	Mrs. vs. Dr.	Possible match
Titles are different and their genders are different	Mrs. vs. Mr.	Not a match
Suffixes	II vs. Jr. blank vs. Sr. blank vs. Jr., II, III, or IV Sr. vs. Jr., II, III, or IV II vs. III or IV III vs. IV Any other suffix combination without blanks	Match Likely match Possible match Not a match Not a match Not a match Possible match

Note: The FIRSTNAMEMATCH table in the database contains the nicknames (Christopher vs. Chris), spelling variations (Allen vs. Allan), and different first names with similar spellings (John vs. Joan) that the program uses to compare first name values.

For any data that does not fit these scenarios, the program applies a "fuzzy" matching algorithm to calculate how similar field values are on a character-by-character basis. The program uses a few different methods to calculate fuzzy match scores, but the simplest method compares two values and identifies the number of changes necessary to make the values match exactly. Changes include adding, removing, changing, or transposing characters. For example, if you compare "Christopher" vs. "Chrstopher," you would need to transpose the "si" in "Chrstopher" to fix the misspelling (one change). The program divides the number of changes by the number of characters in the longer name, multiplies the quotient by 100, and then subtracts the product from 100. For this example, $1/11 = .09$, $.09 * 100 = 9$, and $100-9=91$.

Each type of field has a range of fuzzy scores to determines whether it is a likely match, possible match, or not a match.

	Likely Match	Possible Match	Not a Match
First name	77-99	68-76	less than 68
Last name/Organization name	86-99	50-85	less than 50
Street number	75-99	50-74	less than 50
Street name	81-99	58-80	less than 58
Zip code	80-99	60-79	less than 60

➤ Calculate Total Matching Scores

After the program classifies fields as a matches, likely matches, possible matches, or not matches, it calculates a total match score for the incoming and existing records. Each result equals a weighted number of points which are deducted from 100 (100 being an exact match) as shown below.

	Match	Likely Match	Possible Match	Not a Match	Incoming is Blank, Existing is Not	Existing is Blank, Incoming is Not
Title	0	1	2	18	0	0
Suffix	0	1	3	18	0	0
Last name /Organization name or Maiden name	0	3	8	15	n/a	n/a
Street number	0	8	17	24	1	3
Street name	0	5	14	31	18	21
Zip code	0	7	12	31	6	1

First name and middle name combinations impact the matching score. If the same name or initial appears in the **First name** field of one record and the **Middle name** field of a potential match, the program scores the records as if the values were in the same fields on both records. For example, if the incoming constituent is **First name** = John and **Middle name** = Anderson and the existing constituent is **First name** = John Anderson and **Middle name** = blank, the program scores the first and middle names as "Matches." If the incoming constituent is **First name** = John and **Middle name** = Anderson and the existing constituent is **First name** = John A, the program scores the first name as a "Match" and the middle name as a "Likely match." The table below demonstrates how the program scores first and middle name combinations.

		First name						
		Both blank	Match	Likely match	Possible match	Not a match	Incoming is blank, Existing is not	Existing is blank, Incoming is not
Middle name	Incoming or Existing is blank	0	0	-3	-15	-31	-1	-3
	Match	0	0	-1	-10	-26	0	-2
	Likely match	0	-1	-8	-13	-29	-1	-3
	Possible match	-6	-6	-9	-21	-37	-7	-9
	Not a match	-16	-16	-19	-31	-47	-17	-19

➤ Should I Adjust Constituent Matching Settings?

A record's total matching score determines its matching threshold. This in turn determines whether the program automatically assigns the record ID from the existing constituent to the matched incoming constituent, waits for a user to manually review the match and make a decision, or automatically creates a record.

The matching algorithm provides optimal results when you use the default threshold percentages (such as 100-95%, 94-70%, and 69-0% for batches). If you adjust the percentages, the program may automatically update records that you do not expect or require you to manually review records that are not matches.

Before you adjust the default thresholds, you should weigh the following considerations:

- If you turn off the **Matched constituents** threshold for batches, all matches require manual review, even if the Lookup IDs are the same or all values match exactly.
- If you lower the bottom percentage of the **Matched constituents** threshold for batches, matches that previously required manual review may subsequently be automatic matches. Unless you consistently approve matches with scores just below the current **Matched constituents** threshold, you should not edit this threshold.
- If you raise the bottom percentage of the **Matched constituents** threshold for batches, matches that previously were matched automatically may subsequently require manual review. Unless the program automatically matches constituents that do not match, you should not edit this threshold.
- If you lower the bottom percentage of the **Possible matches** threshold, constituents that previously were not considered possible matches may subsequently require manual review. Unless

the program consistently creates duplicate records for constituents that already exist, you should not edit this threshold.

- If you raise the bottom percentage of the **Possible matches** threshold, potential matches that previously required manual review may no longer be flagged for manual review. Unless you consistently reject possible matches with lower match scores, you should not edit this threshold.

Constituent Update Rules

To manage how the program resolves conflicting data on matched constituents, you can set constituent update rules on the Global data entry settings page. To access this page, go to *Administration* and click **Global data entry settings** under **Data**. On the Global data entry settings page, select **Constituent updates**.

Global data entry settings

- Constituent data hygiene
- Constituent matching
- Constituent updates**

Settings apply to

- Single record entry
- Manual batch
- Imported batch

Can be overridden in

- Batch template setup
- Import setup

Constituent updates (for matched constituents) [Edit](#)

Constituent update settings are either:
 Adjustable - adjustable per record during data entry
 Not adjustable - applies to all records; no opportunity to adjust during data entry

Name updates

Adjustable	If incoming name is different from existing name:	Update name
Not adjustable	Retain existing name as historical reference:	Yes

Address updates

Adjustable	If incoming address is <u>similar</u> to an existing address:	Add as new address
Adjustable	If incoming address is NOT similar to any existing address:	Add as new address
Not Adjustable	When you add an incoming address as new: If new address has the same type as any existing address:	Make existing address inactive ⓘ
Adjustable	Make new address primary:	Only if the current primary address has the same address type

Constituent update rules apply when an incoming constituent matches an existing constituent, but their names or contact information are different. For example, two records are very similar but the first name is "Dave" on the existing constituent and "David" on the incoming constituent. Update rules allow you to choose how the program handles this conflict for you. You can set the program to update the existing name, add the incoming name as an alias, ignore the incoming name, or require users to compare the constituents on the duplicate resolution screen to determine which action to take. You can specify rules for names, addresses, email addresses, phone numbers, and birth dates.

When Do Rules Apply?

Constituent update rules are applied when data conflicts under these circumstances:

- When you add a new constituent using the Add an individual screen or the Add an organization screen and it matches an existing constituent according to your defined constituent matching settings.
- When you add a constituent through manual Constituent Update and Enhanced Revenue batches and it matches an existing constituent according to your defined constituent matching settings.
- When you add a constituent through imported Constituent Update and Enhanced Revenue batches and it matches an existing constituent according to your defined constituent matching settings and you *exclude* the constituent ID.

Constituent update rules do NOT apply when data conflicts under these circumstances:

- When you edit a constituent using the Edit an individual screen or the Edit an organization screen.
- When you add a constituent through manual Constituent Update and Enhanced Revenue batches and *include* the constituent ID.
- When you edit a constituent through imported Constituent Update and Enhanced Revenue batches and you *include* the constituent ID.

Note: When you add the constituent through manual Constituent Update or Enhanced Revenue batches, and you enter the Constituent ID for an existing constituent, the program assumes you intend to update the existing constituent manually and does not apply any constituent update rules to avoid overwriting the values you enter.

Constituent update rules apply only to Constituent Update and Enhanced Revenue Batch batches, as well as the import processes that use those types of batch templates. For additional flexibility, you can set different constituent update rules for individual batch templates and import processes. From the Add/Edit a batch template screen, select the Constituent updates tab under **Configure options**. From the Add/Edit import process screen, select the Constituent updates tab under **Set options**.

Automated or Hands-on Control?

Constituent update rules are intended to automate the update process so that data is handled for you according to your defined rules. When matching constituents in a batch or import qualify for automatic updates (their match confidence score is above the top threshold), the program applies constituent update rules automatically. For example, if you select the **Update name** rule, the program automatically replaces the name on the existing constituent with the name from the incoming constituent when the batch is committed. However, if you prefer to be more "hands-on" with your data, you can select **Require manual review (generate exception)** to ensure that each matching record is evaluated by a user on the Possible duplicate matches screen before the program makes any updates.

When matching constituents qualify for manual review (their match confidence score falls in the middle range), the program prompts you to resolve data conflicts on the duplicates resolution screen. To automate updates, you can click **Use my organization's rules** to resolve conflicting fields automatically according to your rules. For example, if you selected the **Update name** rule, when you

click **Use my organization's rules**, the program automatically moves the name from the incoming constituent column to the existing constituent column. For any fields that require manual review, or if you need to update fields differently than your rules specify, you can use options to manually add, update, or ignore the incoming data. For more information about the duplicate resolution screen for batches, see the *Batch and Import Guide*.

When you add a potential duplicate from the Add an individual screen or the Add an organization screen, you are also prompted to resolve the conflicts on the duplicate resolution screen. Like batches, you can click **Use my organization's rules** to resolve conflicting fields automatically according to your rules. Also, for any fields that require manual review, or if you need to override the applied rules, you can use options to manually add, update, or ignore the incoming data. For more information about the duplicate resolution screen for individual constituents, see the *Constituents Guide*.

Possible duplicate matches for Allison Andrews

Incoming constituent data

80% match: Allison E. Andrews
Created: 5/20/1999; Last updated: 3/16/2013

Actions: Ignore all Use my organization's rules

Field	Incoming Data	Existing Data
Name:	Allison Andrews	Allison Andrews, Ph.D.
Address:	4559 Philpot Lane Minneapolis, MN 55403	4859 Philpot Lane Minneapolis, MN 55403
Email:	aea@anet.net	AEA@anet.com
Phone:	(612) 321-0066	(612) 321-0047

Tips

If this record is not a match, click 'View other potential matches' to cancel your changes and go back to browsing.

Your organization's update rules:

- Update existing name with incoming name
- Add incoming similar address as new address
- Add incoming dissimilar address as new address
- Only make incoming address primary if the old primary address had the same type
- Add incoming phone number as new phone number
- Only make incoming phone number primary if the old primary phone had the same type
- Add incoming email address as new email address
- Only make incoming email address primary if the old primary email address had the same email type

Buttons: Help, Save, Cancel

Configure Constituent Update Rules

To configure constituent update rules, from *Administration*, click **Global data entry settings**. On the Global data entry settings page, select **Constituent updates**. The Constituent updates (for matched constituents) page appears. Click **Edit**. The Configure constituent updates screen appears.

Note: Blanks are not considered conflicts. For more information about how the program handles blanks, see [Data Conflicts on page 36](#).

➤ Name Updates

Under **Name updates**, for the **If name is different from existing name** setting, select one of these options:

- **Update name** — Select this option to replace the name on the existing constituent with the name from the incoming constituent.
- **Add name as an alias** — Select this option to add the name from the incoming constituent as an alias to the existing constituent rather than replace an existing name. For example, if the incoming first name is "David" and the existing first name is "Dave," the program adds David as an alias and leaves "Dave" as the first name.
- **Ignore name** — Select this option to never update the name on the existing constituent. For example, if the incoming first name is "David" and the existing first name is "Dave," the program leaves the first name as "Dave."
- **Require manual review (generate exception)** — Select this option to always require a user to manually compare conflicting names on the duplicate resolution screen even if the match confidence score is high enough to automatically update the name. Also, when you select **Require manual review (generate exception)** for any field, the program does not apply updates to other fields on the existing record, regardless of the selected rule, until you complete the duplicate resolution screen. For example, if you select **Require manual review** for names but **Update existing address** for addresses, the program does not automatically update the address fields on the existing constituent. On the duplicate resolution screen, when you click **Use my organization's rules**, the program automatically moves the address from the incoming constituent column to the existing constituent column, but you must manually select whether to add, update, or ignore the incoming name.

For the **Retain existing name for historical reference** setting, to store the existing name on the constituent record under **Historical names**, select **Yes**. This occurs when the batch is committed. To discard the existing name, select **No**.

Note: Need a visual? View the [name update flowchart](#).

➤ Address Updates

Under **Address updates**, for the **If incoming address is similar to an existing address** setting, select one of these options:

Note: "Similar" means the incoming address (**Street number**, **Street name**, and **Zip code**) is very close to an existing address, but there are differences in one or more of the address fields. To find similar addresses, the program compares the incoming address to each address on the existing constituent (home, business, etc.) and applies the address portion of the matching algorithm to calculate how similar the addresses are. When a pair of addresses score 86 or higher, they are considered similar. For example, if the existing street address is 1955 Main St. 29402 and the incoming is 1956 Main St. 29402, their address matching score is 92, so the program applies the rule selected for the **If address is similar to an existing address** setting. If the incoming address is similar to multiple existing addresses, the program applies the rule to the existing address with the highest address matching score. If no existing addresses are found that are similar to an incoming address,

the program applies the rule selected for the **If address is NOT similar to any existing address** setting.

- **Update existing address (old address will not be retained)** — Select this option to replace the address on the existing constituent with the address from the incoming constituent.

Note: For imported Constituent Update or Enhanced Revenue batches, if the constituent row includes the constituent ID as well as the address ID (generally only used in vendor files), the address is always updated on the constituent regardless of the selected constituent update rule. If the row includes the constituent ID but not the address ID, the program applies the selected address update rules except for **Make new address primary**. The program always respects the address marked primary in the batch row regardless of the option selected for **Make new address primary**.

- **Add as new address** — Select this option to add the incoming address as an additional address rather than update the existing address.
- **Ignore address** — Select this option to never overwrite the address on the existing constituent. The program discards the incoming address.
- **Require manual review (generate exception)** — Select this option to always require a user to manually compare conflicting addresses on the duplicate resolution screen even if the match confidence score is high enough to automatically update the address. Also, when you select **Require manual review (generate exception)** for any field, the program does not apply updates to other fields on the existing record, regardless of the selected rule, until you complete the duplicate resolution screen. For example, if you select **Require manual review** for addresses but **Update name** for names, the program does not automatically update the name fields on the existing constituent. On the duplicate resolution screen, when you click **Use my organization's rules**, the program automatically moves the name from the incoming constituent column to the existing constituent column, but you must manually select whether to add, update, or ignore the incoming address.

For the **If address is NOT similar to any existing address** setting, select one of these options:

- **Add as new address** — Select this option to add the incoming address as a new address to the existing constituent.
- **Ignore address** — Select this option to never add the incoming address to the existing constituent.
- **Require manual review (generate exception)** — Select this option to always require a user to manually compare conflicting addresses on the duplicate resolution screen even if the match confidence score is high enough to automatically add the address.

Under **When you add an incoming address as new**, you can select additional options for the new addresses. These options also apply to new addresses entered on the duplicate resolution screen.

For the **If new address had the same type as any existing address** setting, select one of these options:

- **Make existing address inactive** — Select this option to make inactive any existing addresses with the same address type as the new address. The program updates the **End date** field on the constituent for all existing addresses with that address type.

Note: If the new and existing addresses are similar and neither has an address type assigned, the program does not make the existing address inactive. If the new address is not similar to any existing addresses and it does not have an address type assigned, any existing addresses that do not have an address type assigned remain active.

- **Keep the existing address active** — Select this option to keep the existing address active and add the incoming address as an additional address with the same address type.

For the **Make new address primary** setting, select one of these options:

Note: If the existing constituent has no addresses, the primary address in the batch is always primary regardless of the option selected for **Make new address primary**.

- **Always** — Select this option to always make the new address primary. If a constituent has more than one new address in the batch, the one marked primary is made primary. If none of the new addresses is marked primary, the one that appears first in the batch is made primary.
- **Only if the current primary address has the same address type** — Select this option to make the new address primary only if it has the same address type as the existing primary address. If there are multiple new addresses in the batch and one has the same address type as the existing primary address, it becomes primary. If there are multiple new addresses with the same address type as the existing primary address and one of those new addresses is marked primary, it becomes primary. If there are multiple new addresses with the same address type as the existing primary address and none of those new addresses is marked primary, the one that appears first in the batch is made primary.
- **Never** — Select this option to never make the new address primary.

Note: Need a visual? View the [address update flowchart](#).

➤ Phone Number Updates

Under **Phone number updates**, for the **If incoming phone is not identical to any existing phone** setting, select one of these options:

- **Add as new phone** — Select this option to add the incoming phone number as a new number.
- **Ignore phone** — Select this option to never add the incoming phone number to the existing constituent.
- **Require manual review (generate exception)** — Select this option to always require a user to manually compare conflicting phone numbers on the duplicate resolution screen even if the match confidence score is high enough to automatically update the phone number. Also, when you select **Require manual review (generate exception)** for any field, the program does not apply updates to other fields on the existing record, regardless of the selected rule, until you complete the duplicate resolution screen. For example, if you select **Require manual review** for phone numbers but **Update name** for names, the program does not automatically update the name fields on the existing constituent. On the duplicate resolution screen, when you click **Use my organization's rules**, the program automatically moves the name from the incoming constituent column to the existing constituent column, but you must manually select whether to add, update, or ignore the incoming phone number.

Note: For imported Constituent Update or Enhanced Revenue batches, if the constituent row includes the constituent ID as well as the phone ID (generally only used in vendor files), the phone number is always updated on the constituent regardless of the selected constituent update rule. If the row includes the constituent ID but not the phone ID, the program applies the selected phone update rules except **Make new phone primary**. In this case, the program always respects the phone marked primary in the batch row regardless of the option selected for **Make new phone primary**.

Under **When you add an incoming phone as new**, you can select additional options for the new phone numbers. These options also apply to new phone numbers entered on the duplicate resolution screen.

For the **If new phone has the same type as any existing phone** setting, select one of these options:

- **Make existing phone inactive** — Select this option to make inactive any existing phone numbers with the same phone type as the new phone number. The program updates the **End date** field on all existing phone numbers on the constituent with that phone type.
- **Keep existing phone active** — Select this option to keep the existing phone number active and add the incoming phone number as an additional phone number with the same phone type.

For the **Make new phone primary** setting, select one of these options:

Note: If the existing constituent has no phone numbers, the primary phone number in the batch is always primary regardless of the option selected for the **Make new phone primary** setting.

- **Always** — Select this option to always make the new phone number primary. If a constituent has more than one new phone number in the batch, the one marked primary is made primary. If none of the new phone numbers is marked primary, the number that appears first in the batch is made primary.
- **Only if the current primary phone has the same phone type** — Select this option to make the new phone number primary only if it has the same phone type as the existing primary phone number. If there are multiple new phone numbers in the batch and one has the same phone type as the existing primary phone number, it becomes primary. If there are multiple new phone numbers with the same phone type as the existing primary phone number and one of those new phone numbers is marked primary, it becomes primary. If there are multiple new phone numbers with the same phone type as the existing primary phone number and none of those new phone numbers is marked primary, the one that appears first in the batch is made primary.
- **Never** — Select this option to never make the new phone number primary.

Note: Need a visual? View the [phone number update flowchart](#).

➤ Email Address Updates

Under **Email address updates**, for the **If incoming email address is not identical to any existing email address** setting, select one of these options:

- **Add as new email address** — Select this option to add the incoming email address as a new email address.

- **Ignore email address** — Select this option to never add the incoming email address to the constituent.
- **Require manual review (generate exception)** — Select this option to always require a user to manually compare conflicting email addresses on the duplicate resolution screen even if the match confidence score is high enough to automatically update the name. Also, when you select **Require manual review (generate exception)** for any field, the program does not apply updates to other fields on the existing record, regardless of the selected rule, until you complete the duplicate resolution screen. For example, if you select **Require manual review** for email addresses but **Update name** for names, the program does not automatically update the name fields on the existing constituent. On the duplicate resolution screen, when you click **Use my organization's rules**, the program automatically moves the name from the incoming constituent column to the existing constituent column, but you must manually select whether to add, update, or ignore the incoming email address.

Note: For imported Constituent Update or Enhanced Revenue batches, if the constituent row includes the constituent ID as well as the email ID (generally only used in vendor files), the email address is always updated on the constituent regardless of the selected constituent update rule. If the row includes the constituent ID but not the email ID, the program applies the selected email update rules except for **Make new email address primary**. In this case, the program always respects the email address marked primary in the batch row regardless of the option selected for **Make new email address primary**.

Under **When you add an incoming email address as new**, you can select additional options for the new email addresses. These options also apply to new email addresses entered on the duplicate resolution screen.

For the **If new email address has the same type as any existing email address** setting, select one of these options:

- **Make existing email address inactive** — Select this option to make inactive any existing email addresses with the same email type as the new address. The program updates the **End date** field on all existing email addresses on the constituent with that email type.
- **Keep existing email address active** — Select this option to keep the existing email address active and add the incoming email as an additional email address with the same email type.

For the **Make new email address primary** setting, select one of these options:

Note: If the existing constituent has no email addresses, the primary email address in the batch is always primary regardless of the option selected for **Make new email address primary**.

- **Always** — Select this option to always make the new email address primary. If a constituent has more than one new email address in the batch, the email marked primary is made primary. If none of the new email addresses is marked primary, the email that appears first in the batch is made primary.
- **Only if the current primary email address has the same email type** — Select this option to make the new email address primary only if it has the same email type as the existing primary email address. If there are multiple new email addresses in the batch and one has the same email type as the existing primary email address, it becomes primary. If there are multiple new email addresses with the same email type as the existing primary email address and one of those new email addresses is marked primary, it becomes primary. If there are multiple new email addresses with

the same email type as the existing primary email address and none of those new email addresses is marked primary, the email that appears first in the batch is made primary.

- **Never** — Select this option to never make the new email address primary.

Note: Need a visual? View the [email address update flowchart](#).

> Birth Date Updates

Under **Birth date updates**, for the **If incoming birth date is not identical to existing birth date** setting, select one of these options:

- **Update birth date** — Select this option to replace the birth date on the existing constituent with the birth date from the incoming constituent. The program updates the date automatically for all matched constituents.
- **Ignore birth date** — Select this option to never overwrite the birth date on the existing constituent. The program discards the incoming birth date.

Note: For imported Constituent Update or Enhanced Revenue batches, if the constituent row includes the constituent ID, the birth date is always updated on the constituent regardless of the selected constituent update rule.

Data Conflicts

When matching constituents have different names or contact information, we call these "conflicts." The program compares data in these fields to find conflicts and then applies constituent update rules to resolve the differences:

- Birth dates: **Birth date** field
- Phone numbers: **Number** or **Phone type** fields
- Email address: **Email address** or **Email type** fields

For names and addresses, the program first checks these core name and address fields for conflicts:

- Names: **First name**, **Middle name**, **Last name**, **Title**, and **Suffix** fields
- Addresses: **Address type**, **Street number**, **Street name**, **City**, **State**, **Zip code**, **Is primary?** and **End date** fields.

Then, the program checks all other additional name and address fields on the constituent record.

Automatic updates: If there are no conflicts in the core fields, the program updates them and then checks for conflicts in all additional name and address fields. If there are no conflicts in the additional fields, the program updates those as well. If there are conflicts in the additional fields, but not in the core fields, the program updates the additional fields unless the constituent update rule is set to **Ignore name/address**. In that case, the program does not add or update the additional fields. If there are conflicts in the core fields, the program uses the selected constituent update rule for all fields (core and additional).

Manual Review: If there are conflicts in the core fields, the program uses the selected constituent update rule for all fields (core and additional) except when the rule is set to **Ignore name/address**. In that case, the program does not add or update the additional fields.

➤ Rules For Resolving Conflicts

- If the existing constituent has a value for a field that is blank on the incoming constituent, the program does not overwrite the existing value to make it blank.
- A blank value is not considered a conflict. When the incoming record includes values for fields that are blank on the existing record, the program adds the new values to the existing constituent *if there are no conflicts in the other address or name fields*, regardless of which constituent update rule is selected. For example, in the table below, the blank apartment number is updated because there are no conflicts between the address fields. This update occurs even if the rule is set to **Add as new address**, **Ignore address**, or **Require manual review**.

Incoming	Existing	Final
5 Main St.	5 Main St.	5 Main St.
Apt. 5	<i>blank</i>	Apt. 5
Boston	Boston	Boston
MA	MA	MA
11111	11111	11111

- The program treats address and name fields as blocks. If there is a conflict in one address or name field, the program applies the constituent update rule to all fields in the address or name block, including blank fields. For example, in the table below, there is a conflict between the **Street** fields. If the constituent update rules are set to **Update existing address**, the program updates the blank **Apartment number** field because it must update the **Street** field.

Incoming	Existing	Final
12 Main St.	5 Main St.	12 Main St.
Apt. 5	<i>blank</i>	Apt. 5
Boston	Boston	Boston
MA	MA	MA
11111	11111	11111

The table below demonstrates what happens with the same records when the constituent update rules are set to **Ignore address**. In this case, the program keeps the existing values for **Street** and **Apartment number**. The blank value is not updated.

Incoming	Existing	Final
12 Main St.	5 Main St.	5 Main St.
Apt. 5	<i>blank</i>	<i>blank</i>
Boston	Boston	Boston
MA	MA	MA
11111	11111	11111

Resolve Duplicate Constituents

When you add a constituent record through batch, import, or the Add an individual or Add an organization screens, the program automatically runs the match confidence calculation to verify that the incoming record does not already exist in the database. If the new constituent's match confidence score falls within the range defined for possible matches, the program flags the record as a potential duplicate. Use the duplicates resolution screen to decide whether to update the existing record or add a new constituent.

Use the duplicates resolution screen for constituents with scores in the Possible matches range

Constituent matching ✎ Edit

In batch

Action	Threshold	Match confidence
Process automatically*	Matched constituents	100% - 95%
Review constituents	Possible matches	94% - 70%
Create new record	No match	69% - 0%

*For batches created with the constituent batch type, all matches will require manual review.

Not in batch (single record entry)

Action	Threshold	Match confidence
Review constituents	Possible matches	100% - 70%
Create new record	No match	69% - 0%

Resolve Duplicates for One Constituent

When you add a new individual or organization constituent, the program automatically compares it to existing records to verify that it does not already exist in the database. If the program finds other

constituents with similar name and address information, the Possible duplicate matches screen appears and displays all possible matching records. From this screen you can decide whether to create a new constituent or to update an existing record with new information.

► Resolve duplicate constituents from the Add an Individual or Add an Organization screen

1. From the Add an Individual or Add an Organization screen, enter information for a new constituent. When you click **Save**, the program automatically runs a duplicate check to find any existing constituents that may match this new constituent. If it finds a match, the program flags automatically displays the Possible duplicate matches screen so you can decide whether to create a new constituent or to update the existing constituent with new information.

Incoming constituent data	92% match: Alex A. Smart	6 potential matches found
Add this as a new record Name: Alexander A Sma title: A Sma suffix: Sma Date of birth: 1/1/1985 Address: 1 Smart st., Boston, MA 12345-1111 Email: sma@gmail.com Phone: (617) 888-5555	Created: 12/16/2011; Last updated: 2/24/2012 Confirm this record as a match Name: Alex A title: A Smart suffix: Smart Date of birth: 1/1/1975 Primary address: 1 Smart st., Boston, MA 12345 Primary email: smart@gmail.com Primary phone: (123) 456-7899	92% Alex A. Smart Lookup ID: 8-10000998 1 Smart st. Boston, MA 12345 78% Alex S. Sm Lookup ID: 8-10001001 1 Smart road boston, MA 12345 71% Alexander S. Smartov Lookup ID: 8-10001040 1 smartov st. boston, MA 12345 56% Alam Smar Lookup ID: 8-10001019 1 Smar st. boston, MA 12345

The **Incoming constituent data** column displays information from the new record.

The **Potential Matches** column on the right lists all existing constituents in the database that are possible matches, ranked from the highest to lowest match confidence score. The percentage represents the degree of similarity between the first names, last/organization names, middle names, suffixes, titles, addresses, and zip codes. For more information about the match confidence score, see the *Administration Guide*.

When you select a constituent in the **Potential matches** column, its information appears in the middle column so you can compare the incoming and existing records side-by-side. Black fields are exact matches. Red fields are similar but need careful review. After you compare the records, you can do one of the following:

- If you decide the incoming constituent is not a duplicate, click **Add this as a new record**. The screen displays the name and contact information for the new record. Click **Save** to create a new record, or if you change your mind, you can click **Don't add this as a new record** to return to the previous screen.

- If you decide the incoming constituent does match an existing constituent, click **Confirm this record as a match**. Additional options appear. You can evaluate each red field and decide what to do with the incoming data: If you select to add or update a field, it appears green in the existing constituent column. If you select to ignore a field, it appears stricken through in the incoming constituent column.
 - To discard all new or conflicting data from the incoming constituent, click **Ignore all**.
 - To automatically apply the constituent update rules set on the Global data entry page of *Administration*, click **Use my organization's rules**. For example, if you have **Add incoming phone number as new phone number** set as a rule, when you click **Use my organizations rules**, the program automatically adds the incoming phone number to the existing record. If your update rules require manual review for certain fields, you must review those incoming fields and manually select which action to take. As a reference, your organization's selected update rules appear in the **Tips** column. For information about constituent update rules, see the *Administration Guide*.
 - To add the name as an alias to the existing constituent, click **Add as alias**. To add the address, email, or phone number as primary or secondary on the existing constituent (rather than replace the existing value), click **Add** and select **Add as primary** or **Add as secondary**. If the incoming constituent has information that is blank on the existing constituent, you can click **Add** to add that data to the existing record.

Note: If the existing constituent has multiple addresses, phone numbers, or emails, use the drop-down to select which one to display.

Note: Click **more** to view the history of changes for each field on the address, phone number, or email.

- d. To discard the incoming value (neither add a new value nor update the existing value), click **Ignore**.
- e. To replace the existing name, address, email, or phone number with the incoming value, click **Update existing** and select whether to update all fields or to select individual fields to update. If you select **Update all name/address/email/phone number fields**, the program moves all fields of that type to the existing constituent. If you select **Select fields to update**, the **Ignore** and **Update current** options appear so you can handle each field individually.

Click **Ignore all** to discard all incoming constituent data.

When you click **Use my organization's rules**, the program applies updates to conflicting fields according to these rules.

Click **Update existing** to overwrite the value on the existing constituent with the incoming date.

Click **Ignore** to discard a specific incoming value.

Click **Add** to add the incoming value to the existing constituent. For addresses, emails, and phones, you can also select whether they're primary or secondary.

Red = Incoming value conflicts with existing constituent
Green = Incoming value will be updated or added to existing constituent
Stricken-through = Incoming value will be ignored

Use the drop-down to select which address displays for comparison.

Click **more** to view all names, addresses, emails, or phone numbers associated with the existing constituent.

Phones

Type:	Phone:	Last updated:
Home	(612) 321-0847	1/2/2012
Cell Phone	(612) 393-0029	3/30/2001
Business	(612) 321-0066	

- 2. Click **Save** to save your changes to the existing record, or if you change your mind, you can click **View other potential matches** to return to the previous screen.

Resolve Duplicate Constituents in a Batch

When you validate a constituent or revenue batch, the program automatically runs a duplicate check to find any existing constituents that may match constituents in the batch. If the match confidence score for a pair of constituents falls within the range defined for possible matches, the program flags the incoming record as a potential duplicate and displays an exception in the batch data entry grid. To view information about the possible duplicate, click the message and use the duplicate resolution screen to decide whether to update the existing constituent or add a new constituent record.

➤ Resolve duplicates in a Constituent Update or Enhanced Revenue batch

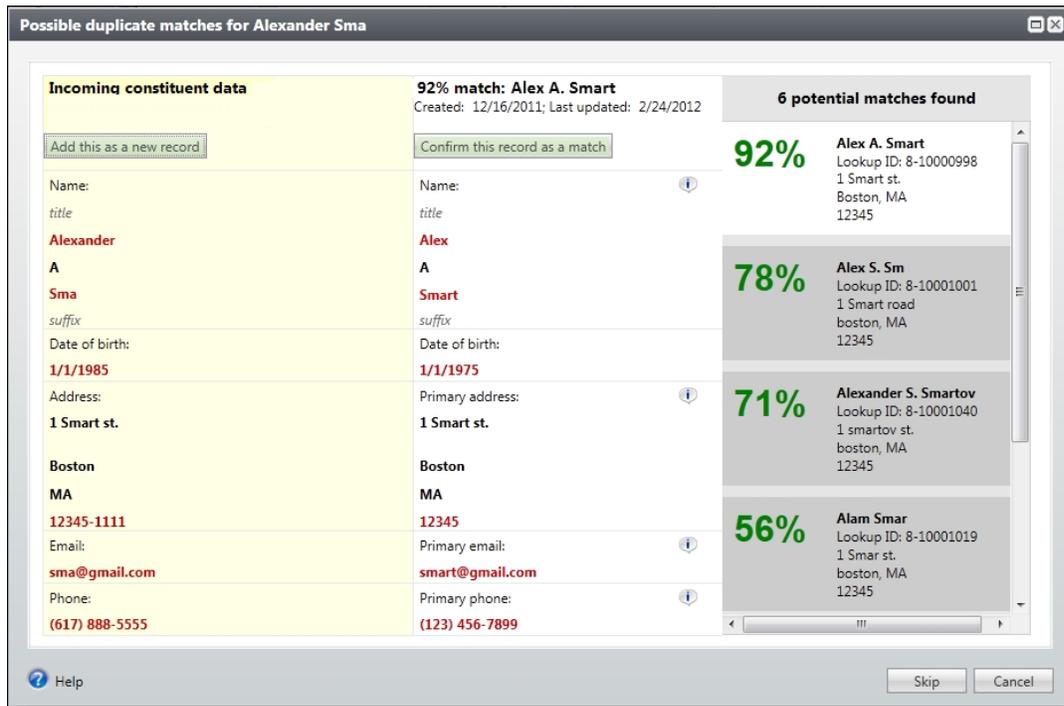
Note: The Possible duplicate matches screen appears for Constituent Update and Enhanced Revenue batch types. The Duplicate record check screen appears for Constituent, Membership Dues, Revenue, Revenue Update, and Sponsor batches. For more information about the Duplicate record check screen, see [Resolve duplicate constituents in Constituent, Membership Dues, Revenue, Revenue Update, and Sponsor batches on page 46](#).

1. From a validated batch that contains exceptions, find a row in the grid with a yellow caution symbol. Click the symbol and a duplicate records message appears under the row.

Note: If an incoming constituent is similar enough to an existing constituent to qualify for an automatic update (their match confidence score is above the top matching threshold), but your organization's constituent update rules require manual review for certain fields, the batch generates an exception that requires you to review the incoming fields and manually select which action to take. For information about constituent update rules, see the *Administration Guide*.

	Account system	Constituent	Lookup ID	Amount	Date	Revenue type	Payment method	Application	Designation	GL post status
1	System Generated Acco...	Alex A. Smart	8-1000998	\$100.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
2	System Generated Acco...	Alexander A. Sma		\$200.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
This constituent matches multiple records. Click here to view.										
3	System Generated Acco...	Al Smartovich		\$300.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
4	System Generated Acco...	Alan Sm		\$300.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
5	System Generated Acco...	Ala Sma		\$300.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
6	System Generated Acco...	Als T. Sma		\$300.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
7	System Generated Acco...	El A. Sm		\$300.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted
8	System Generated Acco...	Bobby Po		\$300.00	12/16/2011	Payment	Cash	Donation	2000ANNUAL	Not posted

2. Click the message. The Possible duplicate matches screen appears.



Warning: The Possible duplicate matches screen will not appear if you turn off matching via the **Enable/disable matching** configuration task in *Administration*.

The **Incoming constituent data** column displays information from the new record.

The **Potential Matches** column on the right lists all existing constituents in the database that are possible matches, ranked from the highest to lowest match confidence score. The percentage represents the degree of similarity between the first names, last/organization names, middle names, suffixes, titles, addresses, and zip codes. For more information about the match confidence score, see the *Administration Guide*.

When you select a constituent in the **Potential matches** column, its information appears in the middle column so you can compare the incoming and existing records side-by-side. Black fields are exact matches. Red fields are similar but need careful review. After you compare the records, you can do one of the following:

- If you decide the incoming constituent is not a duplicate, click **Add this as a new record**. The screen displays the name and contact information for the new record. Click **Save** to create a new record, or if you change your mind, you can click **Don't add this as a new record** to return to the previous screen.

- If you decide the incoming constituent matches an existing constituent, click **Confirm this record as a match**. Additional options appear. You can evaluate each red field and decide what to do with the incoming data: If you select to add or update a field, it appears green in the existing constituent column. If you select to ignore a field, it appears stricken through in the incoming constituent column.
 - a. To discard all new or conflicting data from the incoming constituent, click **Ignore all**.
 - b. To automatically apply the constituent update rules set on the Global data entry page of *Administration*, click **Use my organization's rules**. For example, if you have **Add incoming phone number as new phone number** set as a rule, when you click **Use my organization's rules**, the program automatically adds the incoming phone number to the existing record. If your update rules require manual review for certain fields, you must review those incoming fields and manually select which action to take. As a reference, your organization's selected update rules appear in the **Tips** column. For information about constituent update rules, see the *Administration Guide*.
 - c. To add the name as an alias to the existing constituent, click **Add as alias**. To add the address, email, or phone number as primary or secondary on the existing constituent (rather than replace the existing value), click **Add** and select **Add as primary** or **Add as secondary**. If the incoming constituent has information that is blank on the existing constituent, you can click **Add** to add that data to the existing record.

Note: If the existing constituent has multiple addresses, phone numbers, or emails, use the drop-down to select which one to display.

Note: Click **more** to view the history of changes for each field on the address, phone number, or email.

- d. To discard the incoming value (neither add a new value nor update the existing value), click **Ignore**.

- e. To replace the existing name, address, email, or phone number with the incoming value, click **Update existing** and select whether to update all fields or to select individual fields to update. If you select **Update all name/address/email/phone number fields**, the program moves all fields of that type to the existing constituent. If you select **Select fields to update**, the **Ignore** and **Update current** options appear so you can handle each field individually.

Click **Ignore all** to discard all incoming constituent data.

When you click **Use my organization's rules**, the program applies updates to conflicting fields according to these rules.

Click **Update existing** to overwrite the value on the existing constituent with the incoming date.

Click **Ignore** to discard a specific incoming value.

Click **Add** to add the incoming value to the existing constituent. For addresses, emails, and phones, you can also select whether they're primary or secondary.

Red = Incoming value conflicts with existing constituent
Green = Incoming value will be updated or added to existing constituent
Stricken-through = Incoming value will be ignored

Use the drop-down to select which address displays for comparison.

Click **more** to view all names, addresses, emails, or phone numbers associated with the existing constituent.

3. Click **Save** to save your changes to the existing record, or if you change your mind, you can click **View other potential matches** to return to the previous screen.

Note: If you select **Automatically go to the next duplicate exception**, the program automatically opens the next record in the batch with possible matches when you click **Save**.

Note: For Enhanced Revenue batches, the constituent is updated automatically when you click **Save**.

4. Click **Save and close** to save the batch and return to the Uncommitted batches tab.

Note: For Constituent Update batches, the program updates existing constituents with changes when you commit the batch.

➤ **Resolve duplicate constituents in Constituent, Membership Dues, Revenue, Revenue Update, and Sponsor batches**

1. On the batch data entry screen, click **Validate** under Processes.

Note: The duplicate record check screen appears for Constituent, Membership Dues, Revenue, Revenue Update, and Sponsor batches.

If the validation finds a possible duplicate constituent, "This constituent might be a duplicate" appears under the constituent in the grid.

	Constituent type	Title	First name	Last/org/group/household name	S
1	Individual	Mrs.	Jenny	Mammoth	
2	Individual	Mr.	Manny	Mammoth	
3	Individual	Mr.	Manny	Mammoth	
This constituent might be a duplicate. Click here to view.					

2. Click the message. The Duplicate record check screen appears.

Duplicate record check

Last name: Mammoth
 First name: Manny
 Middle name:
 Address: 1800 Able St
 City: Charleston
 State: SC
 ZIP: 29407

Results (1 record found)

% Match	Name	Address	City	State	ZIP/Postal Co...	Lookup ID
92	Manny Mam...	1802 Able St	Charleston	SC	29407-4702	8-10026918

Warning: The Possible duplicate matches screen will not appear if you turn off matching via the **Enable/disable matching** configuration task in *Administration*.

The box displays the information entered for a new constituent in the batch. The grid displays information about possible duplicate constituents found in your database. In the grid, the **% Match** column displays the likelihood that the constituent from the database is the constituent entered in the batch.

3. To determine whether the constituent entered in the batch is already in your database, compare the constituent information from the batch with the information about the possible duplicate constituents.

- To remove the record from the batch so it does not get added, select the record in the grid and click **Remove from batch**. You return to the batch data entry screen.
- To keep the new information in the batch, click **Ignore**. You return to the batch data entry screen. The program flags the record as new so it does not include the information if you validate the batch again.
- To neither replace nor ignore the information, such as if you require additional research before you decide whether the record is a duplicate, click **Cancel**. You return to the batch data entry screen.

Find Duplicate Constituents

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Despite your best efforts, duplicate constituents will occur in your database, particularly during periods of heavy data entry. The best way to maintain data hygiene is to develop a routine of regular duplicate searches and removals. The program includes duplicate search and merge tools so you can run occasional deep cleanses of the entire database and more frequent cleanups of only part of the database.

Duplicate Search Workflow

Use these steps to find duplicates saved in your database.

- Decide which type of duplicate search process to use.

You can use the SQL Server Integration Services (SSIS) duplicates search packages or the **Full duplicate search** and **Incremental duplicate search** tasks provided on the Duplicates page. Both types of search processes identify possible duplicates based on scoring parameters you configure. For more information, see [Which Search Process Should I Use? on page 49](#).

- Run the full duplicate search process to search the entire database. For more information, see [Run the Full Duplicate Constituent Search Process on page 51](#).

Warning: The duplicate search process can take an extended period of time to run depending on the number of records in your database and the configuration options you select for the process.

- Run the Duplicate Constituents Report to view a list of constituent records identified as potential duplicates by the SSIS package or search process. When you run the report, you select whether to view it for the last SSIS process run or the last full or incremental search process run. For more information, see [Run the Duplicate Constituents Report on page 68](#).
- Verify that the records identified as duplicates in the report are indeed duplicates that should be merged. If records are found that are not duplicates, take appropriate steps to correct or clarify information on their constituent records. For more information, see [Run the Duplicate Constituents Report on page 68](#).

Note: If you make changes to constituent records after viewing the Duplicate Constituents Report, you should run the duplicate search or SSIS process again. After that, run the Duplicate Constituents Report again and verify the constituents listed are duplicates.

- Run the merge process. After the merge process completes, run the full constituent search process again, and then run the Duplicate Constituents Report again. View the report and verify that the duplicate records have been merged. For more information about merges, see [Merge Duplicate Constituents on page 71](#).
- Continue to run search and merge processes until the database is "clean." After you run a full search, you can reduce the time required for subsequent searches by running the incremental or SSIS partial process. The incremental and partial duplicate search processes take less time because they compare only those records that were added or updated since the last search process was run.
- Schedule full and incremental or full and partial SSIS duplicate search processes to run automatically at regular intervals. This strategy, in conjunction with the automatic duplicate searches that run during data entry, will help maintain a clean database. For more information about how to schedule full and incremental search processes, see [Configure Duplicate Search Process Job Schedules on page 65](#). For more information about how to schedule SSIS duplicate search processes, see [SSIS Duplicate Search Processes on page 67](#).

Note: The duplicates search processes and merge processes work in tandem. The groups of duplicates identified by searches provide the data sources for merge processes. For this reason, you should schedule the search and merge processes to run at similar intervals.

Which Search Process Should I Use?

To search the database for duplicate constituents, you can use the Full Search and Incremental Search Processes found on the Duplicates page in *Constituents*, or you can create a custom SQL Server Integration Services (SSIS) search package. Consider the pros and cons of both methods to determine which is better for your organization.

Full Search and Incremental Search Processes

Pros:

Because these searches are built into the program, they do not require special technical knowledge to configure and customize. The options provided in the program allow you to easily select which fields to match on, which types of constituents to include, and how to filter the results. You can also adjust the match confidence thresholds. Some of these options are also available with the SSIS package, but others must be set up manually or are not possible to use at all.

Cons:

- These searches rely on the soundex algorithm to create groups of constituents to compare. Soundex is based on English pronunciation so it may not be a good fit for organizations that have lots of constituents with non-English names.

Furthermore, there may be a small percentage of duplicates that are not found through the full or incremental search processes because misspellings that are phonetically dissimilar are not recognized by the soundex phonetic algorithm. Typically, this is not a problem because most misspellings do not change the beginning phonetic sound of the name. But in some cases, it could be an issue. For example, two constituent records with the same address and the last names "Tanner" and "Manner" will not be flagged as duplicates because the phonetic sound of the last name is too dissimilar. If you encounter this issue frequently, you may consider using the SSIS search processes instead of, or in addition to, the full and incremental searches. The SSIS search processes do not use the soundex component.

- The full and incremental searches run on the application and database servers. The additional load on the application server may result in decreased performance for other processes running at the same time.
- The search algorithm only finds matches based on key names and constituents of the same type. For example, it would not match an Individual with an Organization.

SSIS Duplicate Search Processes

Pros:

- You can select which fields to match on, even including those that are not available in the full and incremental search processes.
- The search algorithm can match constituents of different types. For example, it can match an Individual with an Organization.
- The SSIS package uses a fuzzy matching algorithm that is not language-dependent like soundex. This method may provide better results for your organization. For more information about the benefits of SSIS fuzzy matching, see <http://msdn.microsoft.com/msdnmag/issues/05/09/SQLServer2005/default.aspx>.
- The SSIS package runs on the database server so there is no additional load to the application server.

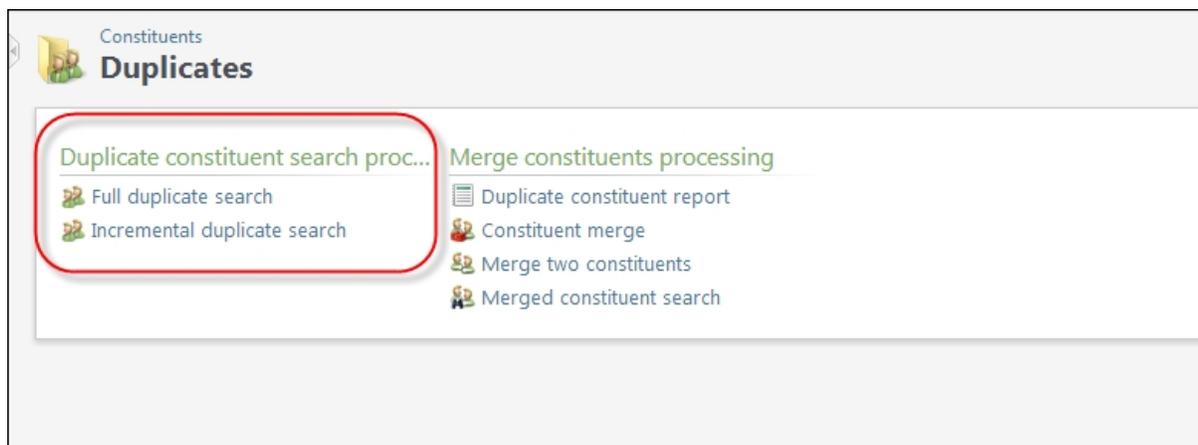
Cons:

- The SSIS package requires significant technical knowledge to implement. You must know how to set up and schedule SSIS packages, and how to use SQL Server.

Full and Incremental Duplicate Search Processes

The full and incremental constituent search processes help you accurately and efficiently locate duplicate constituent records in your database. The full process searches the entire database for duplicates, while the incremental search compares only those records that were added or updated since the last search process was run. You can run both processes in different modes. The "fast process" and "detailed process" modes have pre-configured matching options, filters, and match confidence levels. The "custom" mode allows you to manually configure the matching options and filters and fine-tune the match confidence levels to best suit your needs. In most cases, we recommend that you use the fast or detailed process because custom settings can make the search processes take longer to run.

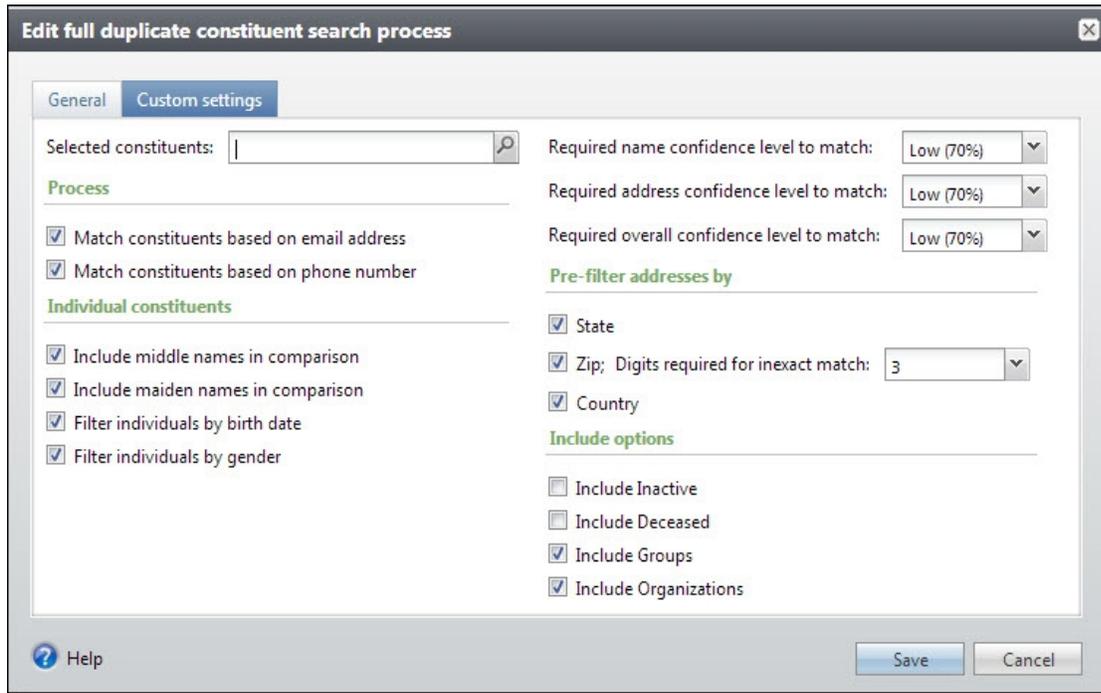
To identify duplicates, the constituent search processes leverage the soundex phonetic algorithm. This algorithm helps the system locate names that sound the same but have minor differences in spelling. These minor spelling differences coupled with other matching criteria like address, phone, and email are used to identify possible duplicate records. For a detailed explanation of the algorithm and matching calculations, see [Full and Incremental Duplicate Search Algorithm on page 61](#).



Run the Full Duplicate Constituent Search Process

You can run the full duplicate search process to compare and identify possible duplicate constituent records in your database. After you run a full search, you can reduce the time required for subsequent searches by running the incremental process, which compares only those records that were added or updated since the last search process was run. The first run of an incremental search process will take as long as the full search process.

Note: The search results include constituent records with updates to these personal information fields: Last name, First name, Middle name, Title, Suffix, Nickname, Maiden name, Martial status, Birth date, Gender, Social Security Number, Is inactive, Gives anonymously, Website, Image. Results also include constituents with updates to these contact information fields: Do not mail, Do not email, Do not phone, Primary address, Primary phone, and Primary email. At the database level, these are changes to the CONSTITUENT table and primary entries on the ADDRESS, PHONE, and EMAILADDRESS tables.



6. Click **Save**. You return to the Full Duplicate Constituent Search Process screen.
7. To begin the duplicate search process, click **Start process**. The Recent status tab displays information about the process as it runs. After the process is done, the "Completed" status is displayed along with a green checkmark.

Warning: The time required to run the search process can be lengthy. The duration depends on multiple factors, including the number of records being compared and the search process mode you select. If you run the process with custom settings, the custom settings you choose can also effect the process duration.

8. After the search process is complete, run the Duplicate Constituents Report to view a list of constituent records identified as potential duplicates by the process. For more information, see [Run the Duplicate Constituents Report on page 68](#).

Run the Incremental Duplicate Constituent Search Process

After you run a full search, you can reduce the time required for subsequent searches by running the incremental search process. The incremental duplicate constituent search process compares only those records that were added or updated since the last incremental search process was run. The first run of an incremental search process will take as long as the full search process.

A constituent record is included in the search results when:

- A personal information field is updated, including: Last name, First name, Middle name, Title, Suffix, Nickname, Maiden name, Martial status, Birth date, Gender, Social Security Number, Is inactive, Gives anonymously, Website, Image.

- A contact information field is updated, including: Do not mail, Do not email, Do not phone, Primary address, Primary phone, and Primary email. At the database level, these are changes to the CONSTITUENT table and primary entries on the ADDRESS, PHONE, and EMAILADDRESS tables.
- The constituent record is updated due to a business process, such as import or global change.

➤ Run the incremental duplicate constituent search process

1. From *Constituents*, click **Duplicates**. The Duplicates page appears.
2. Click **Incremental duplicate search**. The Incremental Duplicate Constituent Search Process screen appears.
3. Click **Edit process**. The Edit incremental duplicate constituent search process screen appears.

Edit incremental duplicate constituent search process

General Custom settings

Fast process Details:

Detailed process This process will exclude as many matches as it can based on matching parts of the constituent name, email, phone, address, and other features. If two records are matched by this process, there's a high likelihood that they are duplicates. This type of process will generate fewer results than the detailed process, so there's a possibility that some duplicates may be overlooked.

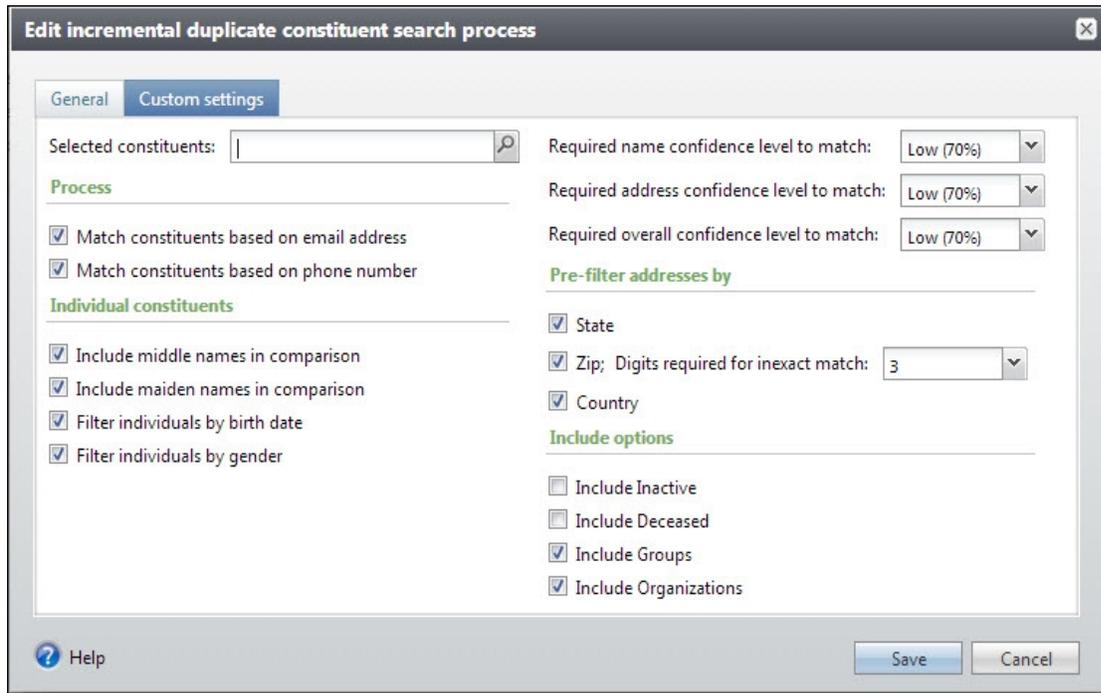
Custom settings

Save Cancel

4. On the General tab, select **Fast process**, **Detailed process**, or **Custom settings**. For more details about each type, see [Fast Process, Detailed Process, and Custom Settings on page 55](#).
 - The **Fast process** duplicate search is designed for speed and efficiency. In this mode, the search process filters out as many records as it can based on matching parts of the constituent name, email, phone, address, and other features. This type of process will generate fewer results than the detailed process, so there is a possibility that some duplicates may be overlooked.
 - The **Detailed process** duplicate search will take longer than the “fast process” but can potentially find more duplicates. This process uses fewer filters to exclude potential matches. It will generate more results than the fast process and may catch some duplicates that the fast process misses.
 - Select **Custom settings** to run a duplicate search based on comparison settings you define. You can choose which constituents to compare, which filters to apply, and the minimum

confidence level for two records to be considered a match. Because the selections you make on the Custom settings tab can cause the search process to run for an extended period time, we recommend that you use the fast process or detailed process option

- If you select **Custom settings** on the General tab, review and configure search process options on the Custom settings tab. For detailed information about each setting option, see the [Full and Incremental Duplicate Search Matching Options and Filters on page 57](#).



- Click **Save**. You return to the Incremental Constituent Duplicate Search Process screen.
- To begin the duplicate search process, click **Start process**. The Recent status tab displays information about the process as it runs. After the process is done, the “Completed” status is displayed along with a green checkmark.

Warning: The time required to run the search process can be lengthy. The duration depends on multiple factors, including the number of records being compared and the search process mode you select. If you run the process with custom settings, the custom settings you choose can also effect the process duration.

- After the search process is complete, run the Duplicate Constituents Report to view a list of constituent records identified as potential duplicates by the process. For more information, see [Run the Duplicate Constituents Report on page 68](#).

Fast Process, Detailed Process, and Custom Settings

The full and incremental processes can run in “fast process” mode, “detailed process” mode, or with custom settings you define. The selected mode determines the settings and filters used for the search process. For more information about specific options and settings, see [Full and Incremental Duplicate Search Matching Options and Filters on page 57](#).

Fast Process

The **Fast process** duplicate search is designed for speed and efficiency. In this mode, the search process filters out as many records as it can based on matching parts of the constituent name, email, phone, address, and other features. If two records are matched by this process, there is a high likelihood that they are duplicates. This type of process will generate fewer results than the detailed process, so there is a possibility that some duplicates may be overlooked.

Matching thresholds used:

- Required name confidence level to match: Set at 70%
- Required address confidence level to match: Set at 70%
- Required overall confidence level to match: Set at 70%

Other options used:

- Match constituents based on email address
- Match constituents based on phone number
- Include middle names in comparison
- Include maiden name in comparison
- Filter individuals by gender
- Include Groups
- Include Organizations

Additional options not used by the fast process:

- Filter individuals by birth date
- Pre-filter addresses by state
- Pre-filter addresses by zip code (3 digits required for inexact match)
- Pre-filter addresses by country

Detailed Process

The **Detailed process** duplicate search will take longer than the “fast process” but can potentially find more duplicates. This process uses fewer filters to exclude potential matches. It will generate more results than the fast process and may catch some duplicates that the fast process misses. For example, it is much better at finding duplicate constituents with different addresses or phone numbers. Because the detailed process uses fewer filters to exclude records, there is a greater possibility of getting results that are not really duplicates.

Matching thresholds used:

- Required name confidence level to match: Set at 70%
- Required address confidence level to match: Set at 70%
- Required overall confidence level to match: Set at 70%

Other options used:

- Match constituents based on email address
- Match constituents based on phone number
- Include middle names in comparison
- Include maiden name in comparison
- Filter individuals by gender
- Include Groups
- Include Organizations

Additional options not used by the detailed process:

- Include Inactive
- Include Deceased

Custom Settings

Select **Custom settings** to run a duplicate search based on comparison settings you define manually on the Custom settings tab. You can choose which constituents to compare, which filters to apply, and the minimum confidence level for two records to be considered a match. In most cases, we recommend that you use the fast or detailed process as the selections you make on the Custom settings tab can have lengthy running times.

Tip: If you choose to adjust the match confidence levels on the Custom settings tab, we recommend you start with a low match percentage (the default is 70%). After you run the search process and view the Duplicate Constituents Report, you can compare the results (potential duplicates) to known duplicate records. If all known duplicates are identified, and most potential duplicates are actual duplicates, your match percentage is tuned appropriately. To decrease the similarity required to flag constituents as duplicates, lower the match percentage. To increase the similarity, raise the percentage. By tuning this percentage you minimize the number of duplicate results to manually review. For example, if your initial match percentage is 80% and many of the results are not duplicates, raise the percentage. If all of the results are duplicates, but not all known duplicates are found, lower the percentage.

Full and Incremental Duplicate Search Matching Options and Filters

When you use the "Custom settings" mode for a full or incremental search process, you select the matching options and filters for the search on the Custom settings tab of the Edit Duplicate Constituent Search Process Screen.

When you use the “fast process” mode or “detailed process” mode, matching options and filters are set for you.

The table below describes each matching option and filter available for searches. For more information about how matches are calculated, see [Full and Incremental Duplicate Search Algorithm on page 61](#).

Screen Item	Description
-------------	-------------

Selected constituents	<p>If you select the “Custom settings” mode, on the Custom settings tab, in the Selected constituents field, you can choose a constituent query selection to compare for duplicates. This allows you to search for duplicates within a specific selection of constituent records, which is especially helpful if you have a large database as it allows you to run the duplicate search in manageable waves. For example, you can create queries that group constituents by last names that start with A-B, C-D, etc.</p>
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NOTE: The program compares the subset of constituents in the selection to all constituents in the database. While you cannot restrict which constituents the selection is compared to during the duplicate search, you can limit those they are merged to. On the Add constituent merge process screen, in the **Excluded constituents** field, select the group of constituents you want to restrict from the merge process.

For information about selections, see the *Query and Export Guide*.

Screen Item	Description
Match constituents based on email address	<p>Address is always included as matching criteria for potential duplicate constituents. To also include email address as matching criteria, select this option.</p> <p>This option is used for fast and detailed processes.</p>
Match constituents based on phone number	<p>Address is always included as matching criteria for potential duplicate constituents. To also include phone number as matching criteria, select this option.</p> <p>This option is used for fast and detailed processes.</p>
Include middle names in comparison	<p>To include full middle names in the name matching calculation, select this option. If you enter only a middle initial on constituent records, you can clear this option to possibly save process running time.</p> <p>This option is used for fast and detailed processes.</p>
Include maiden names in comparison	<p>To include full maiden names the name matching calculation, select this option. You can clear this option to possibly save process running time.</p> <p>This option is used for fast and detailed processes.</p>
Filter individuals by birth date	<p>If you record birthdays on constituent records, select this option to filter out potential constituents if their birth dates do not match, regardless of their possible match percentage. For example, two constituents have the exact same name and address, but their birth dates are different. Filter individuals by birth date is selected, this potential match is excluded from the results. However, a constituent without a birth date recorded can still potentially match another constituent without a birth date recorded when this option is selected.</p> <p>This option is used for fast processes.</p>
Filter individuals by gender	<p>If you record gender on constituent records, select this option to filter out potential constituents if their genders do not match, regardless of their possible match percentage. For example, two constituents have the exact same name and address, but their genders are different. Filter individuals by gender is selected, this potential match is excluded from the results. However, a constituent without a gender recorded can still potentially match another constituent without a gender recorded when this option is selected.</p> <p>This option is used for fast and detailed processes.</p>

Screen Item	Description
Required name confidence level to match	<p>Select Low (70%), Medium (80%), High (90%), or Exact (100%). This controls the threshold of potential duplicates returned based on name comparison. "Low" returns more potential duplicates but will also include some that are not true duplicates, while "Exact" returns less and may miss some that are potential duplicates.</p> <p>This option is set to 70% for fast and detailed processes.</p>
Required address confidence level to match	<p>Select Low (70%), Medium (80%), High (90%), or Exact (100%). This controls the threshold of potential duplicates returned based on address comparison. "Low" returns more potential duplicates but will also include some that are not true duplicates, while "Exact" returns less and may miss some that are potential duplicates.</p> <p>This option is set to 70% for fast and detailed processes.</p>
Required overall confidence level to match	<p>Select Low (70%), Medium (80%), High (90%), or Exact (100%). This controls the threshold of potential duplicates returned based on the average of the name, address, and secondary (email or phone) scores. "Low" returns more potential duplicates but will also include some that are not true duplicates, while "Exact" returns less and may miss some that are potential duplicates.</p> <p>This option is set to 70% for fast and detailed processes.</p>
Pre-filter addresses by State, Zip, or Country	<p>Under Pre-filter addresses by, select State, Zip, or Country to filter out potential constituents if their state, zip code, or country does not match, regardless of their possible match percentage. For example, two constituents have the exact same name and address, but their states are different. If Pre-filter addresses by State is selected, this potential match is excluded from the results. However, a constituent without an address can still potentially match another constituent without an address when this option is selected.</p> <p>This option is used for fast processes. For zip codes, the first 3 digits are required.</p>
Include Inactive	<p>To include constituents marked as inactive in the duplicate search, select this option.</p> <p>This option is used for detailed processes.</p>
Include Deceased	<p>To include constituents marked as deceased in the duplicate search, select this option.</p> <p>This option is used for detailed processes.</p>
Include Groups	<p>To include constituent groups in the duplicate search, select this option.</p> <p>This option is used for fast and detailed processes.</p>
Include Organizations	<p>To include organization constituents in the duplicate search, select this option.</p> <p>It is important to note that you should have consistent data entry policies for entry of organization names to avoid duplicate issues. Specifically, you should either always or never include an article at the beginning of an organization name. For example, "The Boys and Girls Club" and "Boys and Girls Club" will not be identified as duplicates due to the phonetic differences of the first word. If you have organizations in your database that may have an article as the first word of their name, you should manually search for possible duplicates.</p> <p>This option is used for fast and detailed processes.</p>

Full and Incremental Duplicate Search Algorithm

To identify duplicates, the full and incremental search processes leverage the soundex phonetic algorithm and Damerau-Levenshtein distance algorithm to calculate the similarity between constituent records.

This is a summary of the matching process:

1. The program prepares the results table. For a full duplicate search, all data is cleared from previous searches. For an incremental search, the program only clears constituents that no longer exist in the database. If **Include inactive** is not selected for the search process, the program also clears inactive constituents.
2. The program creates groups of constituents to compare by running the soundex algorithm on the constituent key names (Last name for individuals or the Org/Group/Household name for organizations/groups/households). This algorithm finds names that sound the same but have minor differences in spelling. For example, the last names Hendericks, Hendershot, Henderson, and Hunter all have the soundex value of H536. They are included in the same group for comparison, while constituents with last names like Anderson, Johnson, Cooke, or Higgins are included in other groups. For a detailed explanation of the soundex algorithm, see <http://en.wikipedia.org/wiki/soundex>. The program divides these groups by constituent type (Individuals, Groups, and Organizations) and then compares each group separately.

Note: Because the soundex algorithm matches records based on phonetic similarity, you should use articles at the beginning of organization names consistently—either always or never include them. For example, “The Boys and Girls Club” and “Boys and Girls Club” are not identified as duplicates by the full or incremental duplicate search processes due to the phonetic differences of the first word.

3. The program then uses four calculations to compare the key name of each constituent to every other constituent in that group. For more information about those calculations, see [Matching Score Calculations on page 63](#).

If the key names on two constituents are similar enough to meet or exceed the match confidence threshold for names, the program then runs calculations for email addresses, phone numbers, and addresses:

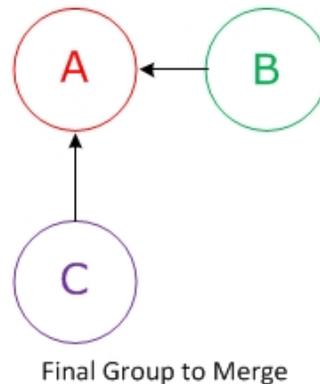
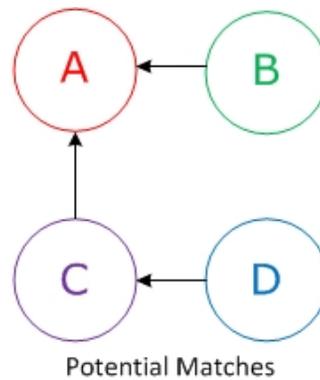
- If **Match constituents based on email address** is selected for the search process, the program also compares email addresses. If they match exactly, the program uses this calculation for the matching score: $(1 + \text{Name Score}) / 2$. For example, if the Name Score is .8, the result is $(1 + .8) / 2 = .9$ (90% match). If they do not match exactly, the score is zero.
- If **Match constituents based on phone number** is selected for the search process, the program also compares phone numbers. If they match exactly, the program uses this calculation for the matching score: $(1 + \text{Name Score}) / 2$. For example, if the Name Score is .95, the result is $(1 + .95) / 2 = .975$ (98% match). If they do not match exactly, the score is zero.
- If neither the email nor phone number is an exact match, the program compares addresses. If the addresses are similar enough to meet or exceed the match confidence

threshold for addresses, the program uses this calculation for the matching score: (Name Score + Address Score) / 2.

- Constituents identified as duplicates are added to the table, while invalid matches are filtered from the results. Invalid matches include: constituents with a relationship to one another, constituents in the same Group/Household, and constituents that only matched themselves and no other constituents. If a constituent qualifies as a duplicate for multiple constituents, it is only matched to the constituent with the highest score.
- After scoring each match, the program creates matching groups that determine which constituents are merged and in what order. This can get complicated when you have four or more potential matches and not one of them matches every other record in the group. For example, a group includes: Mark P. Gardner (A), Mark Gardner (B), M P. Gardner (C), and M Gardner (D).

- A Mark P. Gardner
- B Mark Gardner
- C M P. Gardner
- D M Gardner

<u>Potential Matches</u>	<u>Score</u>
C M P. Gardner	1.0000
A Mark P. Gardner	0.9207
B Mark Gardner	1.0000
A Mark P. Gardner	0.9571
D M Gardner	1.0000
C M P. Gardner	0.9571
<u>Final Group to Merge</u>	<u>Score</u>
A Mark P. Gardner	1.0000
B Mark Gardner	0.9587
C M P. Gardner	0.9207



The program designates Mark P. Gardner as the anchor record and compares it to every other record in the match group. Based on the matching scores, M P. Gardner and Mark Gardner match Mark P. Gardner. And M Gardner matches M P Gardner. Because M Gardner does not match the anchor record (Mark P. Gardner), the program excludes M Gardner and will not merge it with the others.

Matching Score Calculations

To calculate match confidence scores, the program uses the Damerau-Levenshtein distance algorithm to make four comparisons.

1. The first calculation uses the Damerau-Levenshtein distance algorithm to compare strings (full name, address, email, and phone) and identify the number of changes necessary to make the strings match exactly. Changes include adding, removing, or changing characters and transposing a pair of characters. For example, if you compare "Christopher" vs. "Chrstopher," you would need to transpose the "si" in "Chrstopher" to fix the misspelling (one change). To learn more about this algorithm, see http://en.wikipedia.org/wiki/Damerau-Levenshtein_distance.
2. The second calculation breaks each string (email, phone, and address) into individual words and applies the Damerau-Levenshtein distance algorithm to each word pair on the matching constituents. It then averages the scores calculated for all words pairs. If a string on one constituent contains all the words of the string of a matching constituent, the words are considered exact matches. For example, "32 Broad St" and "32 Broad" are matches.
3. The third calculation breaks each string (full name, address, email, and phone) into words and each word into groups of four characters (q-grams) and then applies the Damerau-Levenshtein distance algorithm to each q-gram on the matching constituents. It then averages the scores calculated for all q-grams. To learn more about q-grams, see http://www.sound-ex.com/alternative_qgram.htm.
4. The final calculation breaks the string (full name, address, email, and phone) into q-grams without first breaking it into words and then applies the Damerau-Levenshtein distance algorithm to each q-gram on the matching constituents.

The final match confidence score equals the highest score of those four calculations. Some important notes to consider:

- The program runs each calculation in the order listed above. If the first or second calculation produce a matching score of 100%, the constituents are considered perfect matches and the program runs no further calculations, with one exception — in the second calculation, if a string on one constituent contains all the words of a string on a matching constituent, the matching score is 100%. Because this situation may occur for records that are not true perfect matches, the program registers the score as 95% instead and runs no further calculations. This may impact the accuracy of matching scores because the matching score remains 95% even if the third or fourth calculations would have produced scores higher than 95%. This also means that strings such as "John and Jane Doe" and "Jane Doe" will have a score of 95% even though you probably would not want to merge those constituents.
- As another measure to prevent false perfect matches (a true perfect match would be identified in the first or second calculation), the third calculation cannot produce a score of 100%. If the mathematical result equals 100%, the program registers the score as 98%.
- The algorithm compares names as a whole, including middle names and maiden names if **Include middle names in comparison** and **Include maiden names in comparison** are selected for the search. (These options are selected for fast and detailed searches by default.)

For constituents with the same last name, if one constituent has the same first name as the other's middle name, high match scores can occur, which may flag those constituents as

potential duplicates. This is because each part of a name, separated by spaces, is compared with each part of the other's name. For example, John Michael Doe and Michael Doe score high as matches because the 'Michael' part of the first constituent's name is compared to the 'Michael' and 'Doe' part of the other's name. More generally, when part of a constituent's name matches part of another constituent's name, the score increases. If the middle name or maiden name is missing, the match % is reduced accordingly.

Full and Incremental Duplicate Search Process Page

From the Duplicates page, click **Full duplicate search** or **Incremental duplicate search** to access the page for each process. From this page, you can start a new duplicate search process. After you run a process, you can use the tabs on the process page to view the status of the most recent process run and the history of previous process runs. Additionally, if you have the required system role, you can access the Job Schedules tab to schedule the duplicate search processes to run automatically.

The screenshot shows the 'Full Duplicate Constituent Search Process' page. At the top, there is a blue header with the title and a small icon of two people. Below the header, the text 'Type: Fast process of all constituents.' is displayed. There are three tabs: 'Recent status' (selected), 'History', and 'Job schedules'. Under the 'Recent status' tab, the following details are shown:

Status:	Completed	Server name:	INFINITYSERVER2
Status message:	Completed	Total records processed:	15
Started by:	BBNT\JustinBa	Number of exceptions:	0
Started:	10/25/2010 10:44:47 AM	Records successfully processed:	15
Ended:	10/25/2010 10:44:52 AM		
Duration:	5 seconds		

View Duplicate Search Process Status

On the Recent status tab, you can view the details of the most recent instance of the search process. These details include the status of the run; the start time, end time, and duration of the run; the person who last started the process; the name of the server on which the process was run; the total number of constituents processed; and how many constituents processed successfully and how many were exceptions.

View Duplicate Search Process History

On the History tab, you can view the history for each run of the search process. The details provided in the grid include the status of the process; the start time, end time and duration of the process; the

person who last started the process; and the name of the server on which the process was run.

Because this information is recorded each time you run a process, it is likely that you have multiple rows of information in the grid. As the history list grows over time, it may be difficult to find a particular process run. To narrow the list, click **Filter** on the action bar. A **Status** field appears so you can narrow the list by "Completed," "Running," or "Did not finish." Select the status you need and click **Apply**. To remove the **Status** field, click **Filter** again. To make sure you have the latest process information, click **Refresh List**.

Tip: To subscribe to a Really Simple Syndication (RSS) feed, click the orange RSS button on the action bar. Use this to receive a notification when a process completes. For more information about RSS, see the *General Features Guide*.

Depending on your system role, you can perform functions to manage the processes from the action bar. To delete a single instance of the process, select the process in the **History** grid and click **Delete** on the action bar. A message appears to ask whether to delete the merge process history. To delete the instance, click **Yes**.

Configure Duplicate Search Process Job Schedules

Once you feel confident that your search criteria and match confidence levels are fine-tuned for the full and incremental searches, you should schedule both processes to run automatically at regular intervals. For example, you could schedule the incremental process to run once a week and the full process once every 3 months, with a merge process always following each search. During a period of increased data entry, you might run the processes more frequently, such as running the incremental search everyday with an additional full search at the end of the period.

If you have the required system role, you can access the Job Schedules tab to schedule the duplicate search processes to run automatically. This tab appears only for users who are assigned the required system role. The Job schedules tab shows all scheduled jobs that currently exist for the search process. Depending on your system role, you can add new scheduled jobs, edit existing jobs, and delete scheduled jobs on this tab. To make sure you have the latest job schedule information, click **Refresh List**.

Add a Job Schedule for a Duplicate Search Process

To automate a search process, you can use the Create job screen. The Job Schedule feature is built on Microsoft's *SQL Server Agent* functionality. You can use *SQL Server Agent* jobs to automatically run processes and, optionally, run the task on a recurring basis. When you schedule jobs, you define the condition or conditions that cause the job to begin.

Note: The system administrator at your organization typically completes this procedure.

Create Job Screen

Screen Item Description

Job name	Enter a name for the job schedule.
Schedule type	Select how often to run the job schedule. You can run a process once; on a daily, weekly, or monthly basis; whenever <i>SQL Server Agent</i> service starts; or whenever the computer is idle according to <i>SQL Server Agent</i> .
Enabled	By default, the scheduled process is active. To suspend the process, clear this checkbox.
One-time occurrence	For a process that runs just once, select the date and time to run it.
Frequency	For a process that runs on a daily, weekly, or monthly basis, select the number of days, weeks, or months between instances in the Occurs every field. For a weekly process, select the day of the week to run it. For a monthly process, select the day of the month to run it.
Daily frequency	For a process that runs on a daily, weekly, or monthly basis, select whether to run it a single time or at regular intervals on the days when it runs. To run a process once, select Occurs once at and enter the start time. To run a process at intervals, select Occurs every and enter the time between instances, as well as a start time and end time.
Start date	For a process that runs on a daily, weekly, or monthly basis, select a start date and, if necessary, an end date. To run the process indefinitely, select No end date .

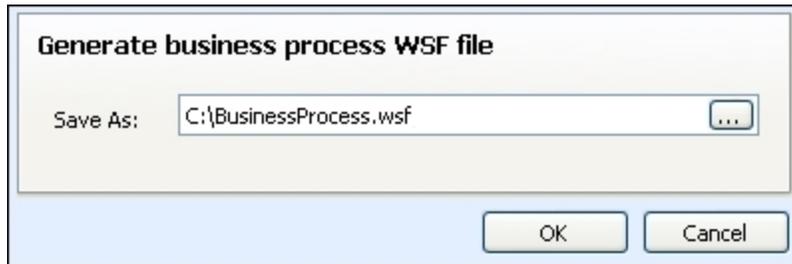
Generate a Windows Scripting File for a Duplicate Search Process

A Windows Scripting File (*.wsf) is an executable script file format for Windows that can incorporate VBScript (*.vbs) routines and include XML elements. On the full and incremental search process pages, you can generate a *.wsf to automate process runs. You can use this file along with *Windows Task Scheduler* or another automated launcher to start the search process without launching the program client. This allows you to schedule the process to run at a time that is most convenient to your organization.

Note: The system administrator at your organization typically completes this procedure.

➤ Generate a Windows Scripting File

1. Go to the process that requires a Windows Scripting File.
2. Under **Tasks**, click **Generate WSF**. The Generate business process WSF file screen appears.



3. In the **Save As** field, enter the path and file name for the WSF file. To browse for a location to save the file, click the ellipsis. The Save As screen appears.
4. Click **OK**. The program saves the WSF file.

Create a User Task for Duplicate Search Processes

To specify security permissions for a selected search process, click **Create Task** on the explorer bar. You can give other users rights to run a process without allowing them full access to the process functional area.

For more information about how to create and edit tasks, see the *Page Designer Guide*.

SSIS Duplicate Search Processes

As an alternative to the full and incremental search processes included in the program, you can run SQL Server Integration Services (SSIS) search packages to identify duplicates. You can run full or partial SSIS search processes at scheduled times. You can also customize the searches. For example, you can adjust the similarity settings for fuzzy matching or add match fields to the search, such as birth date. To use SSIS duplicate search processes, you must first load the package.

Note: For more information about how to load, customize, or schedule the SSIS duplicate search packages, see the [SDK Development Guides](#).

Full search

The full duplicate search evaluates all constituent records in the database. This search returns thorough results, but large databases may require several hours to run it. For that reason, the full search should be run on an infrequent basis.

Partial search

The partial duplicate search evaluates only constituents records added since the specified date.

To view the list of potential duplicates found in the last full or partial SSIS search process, run the Duplicate Constituents Report.

Run the Duplicate Constituents Report

The Duplicate Constituents Report provides a list of constituent records identified as potential duplicates by the last search processes run. When you run the report, you select whether to view results for the last full or partial SSIS process or the last full or incremental search process. When you select "Incremental Duplicate Constituent Search Process Results," the report includes potential duplicates identified by the incremental search process that have not yet been merged.

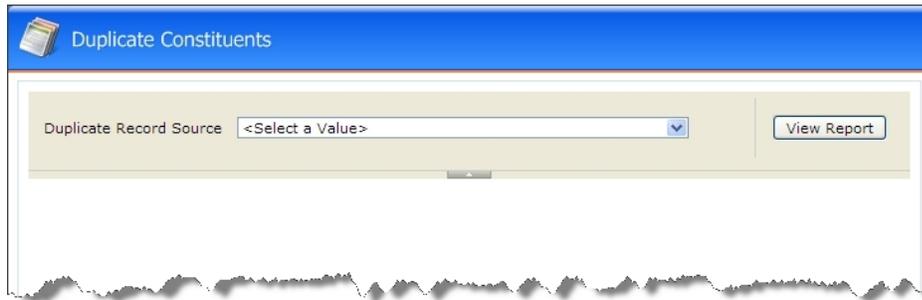
Duplicates of	% Match	Name	Address
4N Healthcare Limited	100%	4N Healthcare Limited	4N Home Marley Street LONGWOOD, SC 84917
	93.99%	4N Healthcare	4N Home Marley Street Longwood, SC 84917
	85.72%	4 N Health Care Limited	Home Marley Street LONGWOOD, SC 84917
A.A. Harbor	100%	A.A. Harbor	Coaley Street Darley, AR 91556
	100%	A.A. Harbor	Coaley Street Darley, AR 91556
ACCI Associates	100%	ACCI Associates	
	100%	ACCI Associates	
Arthur Frederick	100%	Arthur Frederick	1220 Main Street Mobile, AL 38751
	100%	Arthur Frederick	1220 Main Street Mobile, AL 38751
	100%	Arthur Frederick	1220 Main Street Mobile, AL 38751
Ben Alexandrow	100%	Ben Alexandrow	194 Church Lane Loudon, NJ 56123
	98.41%	Ben Alexandrou	194 Church Lane Loudon, NJ 56123

Note: Search results are not available in the report until you run the search process at least once. You can search for duplicates by running the **Full duplicate search** and **Incremental duplicate search** tasks provided on the Duplicates page or you can use the SSIS package to identify duplicates.

When a search process runs, it identifies potential duplicate constituents and divides them into target and source constituents. The target record is the constituent retained after the merge. Source constituents are the records merged into the target record when a merge process is run. The duplicate constituent report displays the target constituents along with their associated duplicate source records for you to review.

➤ Run the Duplicate Constituents Report

1. From *Constituents*, click **Duplicates**. The Duplicates page appears.
2. Click **Duplicate constituent report**. The Duplicate Constituents page appears.



3. In the **Duplicate Record Source** field, select the search process to use as the source for the report.
 - To view the potential duplicates identified by the last SSIS package run, select "Full Duplicate Search Results" or "Partial Duplicate Search Results." These options appear only after the SSIS package is run.
 - To view the potential duplicates identified by the last full search process run, select "Full Duplicate Constituent Search Process Results."
 - To view the potential duplicates identified by the incremental search process that have not yet been merged, select "Incremental Duplicate Constituent Search Process Results."
4. After you select the search process source, click **View Report**. The Duplicate Constituent Report appears.

Duplicates of	% Match	Name	Address
4N Healthcare Limited	100%	4N Healthcare Limited	4N Home Marley Street LONGWOOD, SC 84917
	93.99%	4N Healthcare	4N Home Marley Street Longwood, SC 84917
	85.72%	4N Health Care Limited	Home Marley Street LONGWOOD, SC 84917
A.A. Harbor	100%	A.A. Harbor	Coaley Street Darley, AR 91556
	100%	A.A. Harbor	Coaley Street Darley, AR 91556
ACCI Associates	100%	ACCI Associates	
	100%	ACCI Associates	
Arthur Frederick	100%	Arthur Frederick	1220 Main Street Mobile, AL 38751
	100%	Arthur Frederick	1220 Main Street Mobile, AL 38751
	100%	Arthur Frederick	1220 Main Street Mobile, AL 38751
Ben Alexandrow	100%	Ben Alexandrow	194 Church Lane Loudon, NJ 56123
	98.41%	Ben Alexandrou	194 Church Lane Loudon, NJ 56123

The **Duplicates of** column lists the target constituents that will be retained after the merge process is run. The **% Match** column displays the percentage rating for each potential duplicate constituent. The higher the percentage, the greater the similarity between the constituents. The constituent merge process uses the percentage as a cutoff for the constituents to merge. The cutoff percentage threshold is configured when you add or edit the merge process. The **Name** and **Address** columns display the name and address of the potential source constituents that will be merged in the associated targets.

For more information about merge processes, see [Merge Duplicate Constituents on page 71](#).

5. Carefully view the report and verify that the records identified as duplicates are indeed duplicates that should be merged. If records are found that are not duplicates, take appropriate steps to correct or clarify information on the respective constituent records. For more information, see [Best Practices For Constituent Data Entry on page 14](#).

Note: If you make changes to constituent records after viewing the Duplicate Constituents Report, you should run the duplicate search or SSIS process again. After that, run the Duplicate Constituents Report again and verify the constituents listed are duplicates.

Merge Duplicate Constituents

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After you search for duplicate constituents in the database, you can remove duplicates by consolidating information on matched records through merge processes. You can configure how a merge process handles conflicting data. For example, if names are different on matched constituents, you can choose whether to keep the target's name, source's name, or whichever name is most complete. You can also choose whether to delete the source constituent or mark it inactive after the merge.

The duplicates search processes and merge processes work in tandem. The duplicates identified by searches provide the data sources for merge processes. For this reason, you should schedule the search and merge processes to run at similar intervals.

Merge Duplicates Workflow

After you run duplicate search processes, use these steps to merge matched constituents:

- Add a merge configuration to determine the information to merge from the source record to the target record. For more information, see [Manage Constituent Merge Configurations on page 72](#).
- Add a merge process. This process will merge records identified as duplicate constituents based on the merge configuration you select. For more information, see [Add Constituent Merge Processes on page 75](#).
- Preview the merge process. Before you run the merge, from the process record, select the Preview Merge tab. On this tab, review the source and target records that will be merged. If you notice records that should not be merged, select them and click **Do not merge**. For more information, see [Preview Constituents to Merge on page 81](#).

Warning: You cannot undo a merge process so we highly recommend that you create a backup of your database prior to running the merge and/or run test merges in a non-production environment.

- Run the merge process to merge the source and target records identified as duplicates. For more information, see [Start a Constituent Merge Process on page 79](#).

Warning: The duplicate merge process can take an extended period of time to run depending on the number of records being merged.

- Confirm that the duplicates have been merged. After the merge process completes, run the constituent search or SSIS process again, then run the Duplicate Constituents Report again. View the report and verify that the duplicate records have been merged. Some duplicates may not have been merged due to settings on the merge configuration. In this case, you can access the Preview Merge tab again on the process record and manually merge these.
- Continue to run search and merge processes until the database is "clean." Then schedule merge processes to run automatically following each scheduled full and incremental or full and partial SSIS duplicate search processes. For more information about how to schedule merge processes, see [Configure Merge Process Job Schedules on page 84](#).

Manage Constituent Merge Configurations

Before you can run a merge process you must add a constituent merge configuration or use the default configuration provided. Merge configurations determine the data that is merged from source records to target records when a merge process runs.

Merge configurations allow you to specify the "merge tasks" for a respective merge processes. For example, you can add a merge configuration to merge only demographic data and another configuration to merge only gift data. In this case, you would add a configuration and select only the demographic-related merge tasks. Additionally, you would add a second configuration and select only the gift-related tasks. For information about each merge task you can select, see [Constituent Merge Tasks on page 88](#).

Note: Social Security Numbers are not merged as part of a duplicate constituent merge process. If a source record and a target record have different Social Security Numbers, the number on the target constituent is retained. If the target constituent record has no Social Security Number, the **Social Security Number** field stays blank after the merge. The program does not retain Social Security Number of the source constituent.

To view the merge configurations for your organization, select the Merge configurations tab on the Constituent Merge page. A default configuration is provided. You can add a new configuration or use the default. If you want to use the default, you can edit it as needed to meet your needs.



Under **Merge configurations**, the names and descriptions appear for each configuration that has been added. To update the information in the grid, click **Refresh List** on the action bar. Depending on your security rights, you can add, edit, and delete merge configurations from the grid.

Add Constituent Merge Configurations

Merge configurations determine the data that is merged from source constituent records to target constituent records when a merge process is run. When you add or edit a configuration, you can specify the type of information that is merged by a process.

To merge different types of constituent information, you can add multiple merge configurations and select different "merge tasks" for each. For example, you can add a merge configuration to merge only demographic data and another configuration to merge only gift data. In this case, you would add a configuration and select only the demographic-related merge tasks. Additionally, you would add a second configuration and select only the gift-related tasks. For information about each merge task you can select, see [Constituent Merge Tasks on page 88](#).

➤ Add a constituent merge configuration

1. From *Constituents*, click **Duplicates**. The Duplicates page appears.
2. Click **Constituent merge**. The Constituent Merge page appears.
3. On the Merge configurations tab, click **Add**. The Add constituent merge configuration screen appears.

4. Enter a name and description for the merge configuration.
5. Under **Merge tasks**, select the constituent information to merge with processes that use the configuration. For information about each merge task you can select, see [Constituent Merge Tasks on page 88](#).
6. For each merge task included in the configuration, highlight the task under **Merge tasks** and, under **Task options**, select how to handle the duplicate information during the merge. For example, select **Aliases** and select whether to retain the aliases of the source constituent or the target constituent after the merge.
7. Click **Save**. You return to the Constituent Merge page.

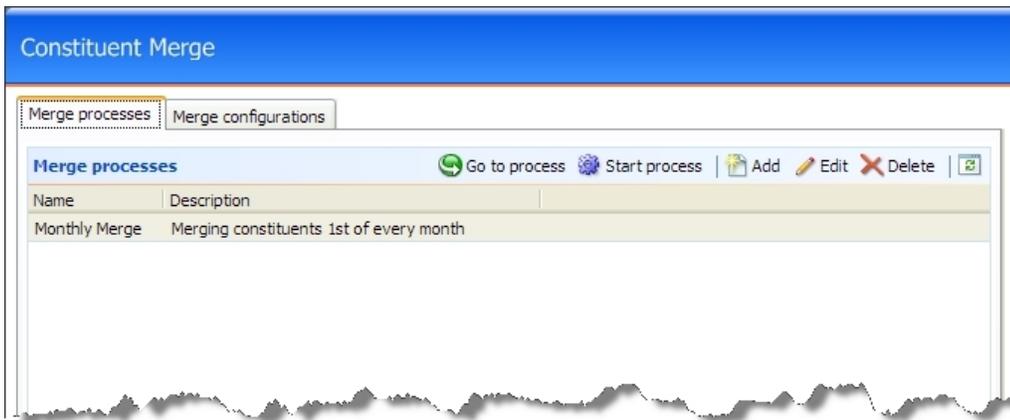
Manage Constituent Merge Processes

A constituent merge process merges duplicate constituent records by moving data from a source record to a target record. Each process you add uses a merge configuration you select to determine which data is moved from source to target records. The source and target records are determined by a duplicate record source you select. The record sources are generated when you run a search process.

You can add multiple processes as needed to merge records in different ways. Additionally, you can run a constituent merge process manually or schedule them to run automatically. To view and manage

the constituent merge processes for your organization, select the Merge Processes tab on the Constituent Merge page.

Warning: When you start the process from the Constituent Merge page, the process merges all potential duplicates. To preview constituents to be merged beforehand, you can go to the process page and scan the preview tab. Otherwise, you can view the Duplicate Constituents Report for potential matches. From the process page, you can also start the process.



Under **Merge processes**, the names and descriptions appear for your constituent merge processes. Depending on your system role, you can add, edit, delete, and start merge processes from this page. To update the grid, click **Refresh List**.

To view additional information about a process, including the status of the most recent run or to preview and edit the constituents to be merged in the next run, select a process in the grid and process and click **Go to process**. The merge process page appears. For information about this page, see [Constituent Merge Process Page on page 81](#).

Add Constituent Merge Processes

A constituent merge process merges duplicate constituent records by moving data from a source record to a target record. The process uses the merge configuration you select to determine which data is moved from source to target records. The source and target records are determined by the record source you select. The record source is generated when you run a search process.

You can use the default process included with the system or create your own. Before you can add and start a merge process, you must run the SSIS package or the full or incremental search process to identify potential duplicates. This provides the record source that the process uses to merge constituents. For more information about the workflow and steps to take before your add and start a merge process, see [Duplicate Search Workflow on page 48](#).

Note: Social Security Numbers are not merged as part of a duplicate constituent merge process. If a source record and a target record have different Social Security Numbers, the number on the target constituent is retained. If the target constituent record has no Social Security Number, the **Social Security Number** field stays blank after the merge. The program does not retain Social Security Number of the source constituent.

➤ Add a constituent merge process

1. From *Constituents*, click **Duplicates**. The Duplicates page appears.
2. Click **Constituent merge**. The Constituent Merge page appears.
3. On the Merge processes tab, click **Add**. The Add constituent merge process screen appears. For information about the items on this screen, see [Add Constituent Merge Process Screen on page 77](#).

Add constituent merge process

Name:

Description:

Criteria

Merge configuration:

Duplicate record source:

Target constituent criteria:

Excluded constituents:

Minimum match %:

Only merge individuals

Omit individual/organization matches

Delete source constituent

Mark source constituent inactive

Inactive reason:

Inactive details:

Results

Create selection from results

Selection name:

Overwrite existing selection

4. Enter a name and description for the merge process.
5. In the **Merge configuration** field, select a merge configuration for the process. The merge configuration determines the information to merge from the source constituent to the target constituent. For information about merge configurations, see [Manage Constituent Merge Configurations on page 72](#).
6. Next, select the source and target to include.
 - a. In the **Duplicate record source** field, select whether to use the duplicate constituents identified by the last SSIS package run, or the last full or incremental duplicate search process run.

- b. In the **Target constituent criteria**, select the criteria to determine the target constituents. Target constituents receive data from source constituents during the merge. To use the anchor record identified in the Duplicate constituent search process as the target, select "Automatic." For information about the determination of the anchor constituent, see [Full and Incremental Duplicate Search Algorithm on page 61](#). Alternatively, you can select target constituents based on when they were added to the database, when they were last updated, or based on the number of gifts on the constituent record.
- c. To exclude constituents from the process, enter a selection in the **Excluded constituents** field. To search for a selection, click the binoculars. A search screen appears.
- d. In the **Minimum match %** field, enter the minimum match percentage to include source constituents in the process.
- e. To merge individuals only, select **Only merge individuals**.
- f. To exclude individuals matched with organizations, select **Omit individual/organization matches**.

Note: **Omit individual/organization matches** does not apply to record sources from full or incremental duplicate searches.

- g. To delete source constituents after the merge, select **Delete source constituent**.
- h. To mark source constituents as inactive after the merge, select **Mark source constituent inactive**. If you select this checkbox, in the **Inactive reason** field, select a reason code to explain why you mark constituents inactive. In the **Inactive details** field, enter any additional information about the inactive status.

Note: You cannot merge records into inactive records that were previously a source record in a merge.

For information about how to configure reason codes for inactive constituents, see the *Administration Guide*.

7. Under **Results**, to create a selection of target constituents in the process, select **Create selection from results**. In the **Selection name** field, enter a name for the selection. To replace any existing selection with the same name, select **Overwrite existing selection**.
8. Click **Save**. You return to the Constituent Merge page.

Add Constituent Merge Process Screen

Screen Item Description

Screen Item	Description
Name and Description	Enter a name to identify the process and a description to explain when to use the process.

Screen Item Description

Merge configuration	Select a merge configuration for the merge process. The configuration determines the information to merge from the source to the target constituent. For information about configurations, see Manage Constituent Merge Configurations on page 72 .
Duplicate record source	Select whether to use the duplicate constituents identified by the last SSIS package run, or the last full or incremental duplicate search process run. For information about the report, see Run the Duplicate Constituents Report on page 68 .
Target constituent criteria	<p>Select the criteria to determine the target constituents. Target constituents receive data from source constituents during the merge.</p> <p>To retain the anchor constituent records determined by the Duplicate constituent search process, select "Automatic." To view the target constituent records used by the "Automatic" option, run the Duplicate constituent report using the same Duplicate constituent search process selected for the merge. For information about the determination of the anchor constituent, see Full and Incremental Duplicate Search Algorithm on page 61.</p> <p>To include constituents with a match percentage of 100 percent, select "Automatic." If multiple constituents have a 100 percent match, the program uses the top, most relevant match. To view the percentages for the potential duplicates found by the search process, view the % Match column in the Duplicate Constituents Report. For information about the report, see Run the Duplicate Constituents Report on page 68.</p> <p>Alternatively, you can also include target constituents based on when they were added to the database, when they were last updated, or based on the number of gifts on the constituent record.</p>
Excluded constituents	<p>To exclude constituents from the process, click the binoculars. A search screen appears. Select the selection of constituents to exclude.</p> <p>For information about selections, see the <i>Query and Export Guide</i>.</p>
Minimum match %	<p>Enter the minimum match percentage required to include constituents in the merge process. To view the percentages for the potential duplicates found by the search process, view the % Match column in the Duplicate Constituents Report. For information about the report, see Run the Duplicate Constituents Report on page 68.</p> <p>The program excludes constituents with match percentages below this value. By default, the minimum match percentage is 80 percent.</p>
Only merge individuals	To include only individual constituents, select this checkbox.
Omit individual/organization matches	<p>To exclude individuals matched to organizations, select this checkbox.</p> <p>NOTE: This option does not apply to record sources from full or incremental duplicate searches.</p>
Delete source constituent	To delete source constituents after a merge, select this option.

Screen Item Description

Mark source constituent inactive	To mark source constituents as inactive after a merge, select this option. You cannot merge records into inactive records that were previously a source record in a merge.
Inactive reason	If you select Mark source constituent inactive , select a reason code to explain the inactive status. For information about how to configure reason codes for inactive constituents, see the <i>Administration Guide</i> .
Inactive details	If you select Mark source constituent inactive , enter any additional information about the inactive status of source constituents.
Create selection from results	To create a selection of target constituents in the process, select this checkbox. In the Selection name field enter a name for the selection. To replace any existing selection with the same name, select Overwrite existing selection .

Start a Constituent Merge Process

To merge source and target constituents, you can manually start a constituent merge process. However, before you start a merge process, make sure you have reviewed the Duplicate Constituent Report for the selected duplicate record source and verified that the source and target records that will be merged are indeed duplicates. For more information about using the report, see [Run the Duplicate Constituents Report on page 68](#).

You can also access the Preview merge tab on the process page to verify and edit the duplicate matches that will be merged. For more information about previewing the records to be merged, see [Preview Constituents to Merge on page 81](#).

Warning: You cannot undo a merge process so we highly recommend that you create a backup of your database prior to running the merge and/or run test merges in a non-production environment.

Warning: When you start the process from the Constituent Merge page, the process merges all potential duplicates. To preview constituents to be merged beforehand, you can go to the process page and scan the preview tab. Otherwise, you can view the Duplicate Constituents Report for potential matches. From the process page, you can also start the process.

Warning: The duplicate merge process can take an extended period of time to run depending on the number of records being merged.

➤ Manually start a constituent merge process

Warning: You cannot undo a merge process so we highly recommend that you create a backup of your database prior to running the merge and/or run test merges in a non-production environment.

1. From *Constituents*, click **Duplicates**. The Duplicates page appears.
2. Click **Constituent merge**. The Constituent Merge page appears.

3. On the Merge processes tab, select a process and click **Start process**. The Run constituent merge process screen appears.

Run constituent merge process

Process name: Monthly Merge

Criteria

Duplicate record source: Full Constituent Duplicate Search Pro

Excluded constituents: [Search Icon]

Minimum match %: 95

Delete source constituent

Mark source constituent inactive

Inactive reason: [Dropdown]

Inactive details: [Text Area]

Results

Create selection from results

Selection name: [Text Field]

Overwrite existing selection

[Start] [Cancel]

4. The information displayed on this screen defaults in from the options configured when the process was added or last edited. Make changes as necessary.
 - a. In the **Duplicate record source** field, select whether to use the duplicate constituents identified by the last SSIS package run, or the last full or incremental duplicate search process run.
 - b. In the **Target constituent criteria**, select the criteria to determine the target constituents. Target constituents receive data from source constituents during the merge. To use the anchor record identified in the Duplicate constituent search process as the target, select "Automatic." For information about the determination of the anchor constituent, see [Full and Incremental Duplicate Search Algorithm on page 61](#). Alternatively, you can select target constituents based on when they were added to the database, when they were last updated, or based on the number of gifts on the constituent record.
 - c. To exclude constituents from the process, enter a selection in the **Excluded constituents** field. To search for a selection, click the binoculars. A search screen appears.
 - d. In the **Minimum match %** field, enter the minimum match percentage to include source constituents in the process.
 - e. To merge individuals only, select **Only merge individuals**.
 - f. To exclude individuals matched with organizations, select **Omit individual/organization matches**.
 - g. To delete source constituents after the merge, select **Delete source constituent**.

- h. To mark source constituents as inactive after the merge, select **Mark source constituent inactive**. If you select this checkbox, in the **Inactive reason** field, select a reason code to explain why you mark constituents inactive. In the **Inactive details** field, enter any additional information about the inactive status.

Note: You cannot merge records into inactive records that were previously a source record in a merge.

For information about how to configure reason codes for inactive constituents, see the *Administration Guide*.

5. Before you continue, it is important to that the duplicate merge process can take an extended period of time to run depending on the number of records being merged. When you are ready to begin the merge, click **Start**. The program runs the process. Once complete, the merge process page appears.
6. After the merge process completes, you should confirm that the duplicates have been merged. To do this, run the constituent search or SSIS process again, then run the Duplicate Constituents Report again. View the report and verify that the duplicate records have been merged. Some duplicates may not have been merged due to settings on the merge configuration. In this case, you can access the Preview Merge tab on the process record and manually merge these.

Constituent Merge Process Page

Each merge process you add to the system has a page you can access to manage the process and view status. Each page contains multiple tabs on which you can preview the source and target constituents to be merged during the next run, view the status of the most recent process run, and view the history of previous process runs. Additionally, if you have the required system role, you can access the Job Schedules tab to schedule the duplicate search processes to run automatically.

To access a merge process page, from *Constituents*, click **Constituent merge**. On the Merge processes tab, select the process to view and click **Go to process**. The selected merge process page appears. The top half of the page contains the parameters and properties for the constituent merge process while the bottom half contains tabs you can access.

Preview Constituents to Merge

On the Preview Merge tab of a process record, you can view the constituents that will be merged when the process runs. You can view the target and source constituent of each merge and specify exceptions for the current merge process.

Constituent merge process list
Monthly Merge

Name: Monthly Merge
Description: Merging constituents 1st of every month
Merge configuration: Merge All Constituent Data
Duplicate record source: Full Duplicate Search Results Delete duplicates: Yes
Target constituent criteria: Automatic Only merge individuals: No
Excluded constituents: Create selection from results: No
Minimum match %: 80 Selection name:
Omit individual/organization matches: Yes Overwrite existing selection: No

Recent status | **Preview Merge** | History | Job schedules

Go to source constituent | Go to target constituent | Do not merge | Delete match

Source	Target
Eric G. Bennett 111 Mill Lane Pueblo, NM 41721	Eric G. Bennett 111 Mill Lane Apt. 5 Pueblo, NM 41721
Ersly 20 Clinton Terrace Hartford, CT 24861	E R. Sly 20 Clinton Terrace Hartford, CT 24861
Fred Grigsby 1 White Ark Plaza Philadelphia, PA 67544	Fred Grigsbey 1 White Ark Plz. Philadelphia, PA 67544

Depending upon the number of duplicate constituents found, the Preview merge tab displays the pairs of constituents as a list. A detail pane appears at the bottom of the tab to show the details of each source and target match pair you select. To hide the detail pane, on the action bar, click the **Hide Details** button.

Constituent merge process list
Monthly Merge

Name: Monthly Merge
Description: Merging constituents 1st of every month
Merge configuration: Merge All Constituent Data
Duplicate record source: Full Duplicate Search Results Delete duplicates: Yes
Target constituent criteria: Automatic Only merge individuals: No
Excluded constituents: Create selection from results: No
Minimum match %: 80 Selection name:
Omit individual/organization matches: Yes Overwrite existing selection: No

Recent status | **Preview Merge** | History | Job schedules

Go to source constituent | Go to target constituent | Do not merge | Delete match

Source Constituent	Target Constituent	Will be merged
Arthur Frederick	Arthur Frederick	Yes
Arthur Frederick	Arthur Frederick	Yes
Ben Alexandrou	Ben Alexandrow	Yes
C Brown	C Brown	Yes
C Brown	C H. Brown	Yes

Source Target

Arthur Frederick 1220 Main Street Mobile, AL 38751	Arthur Frederick 1220 Main Street Mobile, AL 38751
--	--

Note: By default, the number of constituent matches required for the Preview Merge tab to display the records as a list is 60. If less than 60 matches are returned, the standard non-list view of

constituent matches is displayed. Your system administrator can change this number with Page Designer. For more information about Page Designer, see the *Page Designer Guide* or the Page Designer section of the help file.

If you are assigned the required system role, from the Preview Merge tab, you can open and view source and target records, mark record matches as “Do not merge” and remove matches from the merge. These actions allow you to fine tune the constituents included in the merge process before you merge the records. The following table provides details about each action you can take when viewing the Preview Merge tab.

Preview merge action Description

Go to source constituent	To view a selected merge’s source constituent, click Go to source constituent on the action bar. The source constituent page appears. A source constituent is the constituent record from which data merges. If you question whether a record is a duplicate, viewing the source record directly and comparing it with the target can sometimes provide clarification.
Go to target constituent	To view a selected merge’s target constituent, click Go to target constituent on the action bar. The target constituent page appears. A target constituent is the constituent record into which data merges. If you question whether a record is a duplicate, viewing the target record directly and comparing it with the source can sometimes provide clarification.
Do not merge or Merge	To specify that selected constituents must not be merged during the merge process, click Do not merge on the action bar. When the merge process runs, the match is removed from the duplicate search results. If you later decide to merge the constituents, click Merge on the action bar.
Delete match	To remove the selected merge from the process, click Delete match on the action bar. When this process runs, the source and target pair of constituents are not merged. They will, however, be picked up in the next duplicate search.

View Merge Process Status

On the Recent status tab of a process record, you can view the details of the most recent merge process run. These details include the status of the run; the start time, end time, and duration of the run; the person who last started the process; the name of the server used to process the run; the total number of constituents processed; and how many constituents processed successfully and how many were exceptions.

Tip: To save a copy of the output file in comma separated values (*.csv) format, click **Download output file**. The Save as screen appears so you can name and save your file.

View Merge Process History

On the History tab of a process record, you can view the history for each run of the merge process. The details provided in the grid include the status of the process; the start time, end time and duration of

the process; the person who last started the process; and the name of the server on which the process was run.

Because this information is recorded each time you run a process, it is likely that you have multiple rows of information in the grid. As the history list grows over time, it may be difficult to find a particular merge process. To narrow the list, click **Filter** on the action bar. A **Status** field appears so you can narrow the list by “Completed,” “Running,” or “Did not finish.” Select the status you need and click **Apply**. To remove the **Status** field, click **Filter** again. To make sure you have the latest process information, click **Refresh List**.

Tip: To subscribe to a Really Simple Syndication (RSS) feed, click the orange RSS button on the action bar. Use this to receive a notification when a process completes. For more information about RSS, see the *General Features Guide*.

Depending on your system role, you can perform functions to manage the processes from the action bar. To delete a single instance of the process, select the process in the **History** grid and click **Delete** on the action bar. A message appears to ask whether to delete the merge process. To delete the instance, click **Yes**.

Tip: To save a copy of the output file, in a comma separated values (*.csv) format, select a process from the **History** grid and click **Download output file** on the action bar. The Save as screen appears so you can name and save the file.

Configure Merge Process Job Schedules

The duplicates search processes and merge processes work in tandem. The groups of duplicates identified by searches provide the data sources for merge processes. For this reason, you should schedule the search and merge processes to run at similar intervals. For example, you could schedule the incremental process to run once a week and the full process once every 3 months, with a merge process always following each search. During a period of increased data entry, you might run the processes more frequently, such as running the incremental search everyday with an additional full search at the end of the period.

If you have the required system role, you can access the Job Schedules tab to schedule the merge process to run automatically. This tab appears only for users who are assigned the required system role. The Job schedules tab shows all scheduled jobs that currently exist for the merge process. Depending on your system role, you can add new scheduled jobs, edit existing jobs, and delete scheduled jobs on this tab. To make sure you have the latest job schedule information, click **Refresh List**.

Add a Job Schedule for a Constituent Merge Process

To automate a merge process, you can use the Create job screen. The Job Schedule feature is built on Microsoft's *SQL Server Agent* functionality. You can use *SQL Server Agent* jobs to automatically run processes and, optionally, run the task on a recurring basis. When you schedule jobs, you define the condition or conditions that cause the job to begin.

Note: The system administrator at your organization typically completes this procedure.

> Create a job schedule

1. Select the process to schedule.
2. From the Job schedules tab click **Add** or from **Tasks** click **Create job schedule**. The Create job screen appears.

Create job

Job name:

Schedule type: Enabled

One-time occurrence

Date: Time:

Frequency

Occurs every: day(s)

Daily frequency

Occurs once at:

Occurs every: Starting at: Ending at:

Duration

Start date: End date: No end date

3. In the **Job name** field, enter a descriptive name for the scheduled process.
4. To suspend the scheduled process, unmark **Enabled**. To make the process active, mark **Enabled**. By default, this checkbox is marked.
5. In the **Schedule Type** field, select the desired frequency on which to run the process.
6. Make any necessary changes to the job's frequency and duration.
7. To save the changes, click **Save**.

Create Job Screen

This table explains the items on the Create job screen. Options on this screen vary depending on your selection in the **Schedule Type** field. The **Schedule Type** field determines the options available in the **Frequency** and **Daily Frequency** frames.

Generate a Windows Scripting File for a Constituent Merge Process

A Windows Scripting File (*.wsf) is an executable script file format for Windows that can incorporate VBScript (*.vbs) routines and include XML elements. From each merge process page, you can generate a *.wsf to automate process runs. You can use this file along with *Windows Task Scheduler* or another automated launcher to start the merge process without launching the program client. This allows you to schedule merge processes to run at a time that is most convenient to your organization.

Note: The system administrator at your organization typically completes this procedure.

➤ Generate a Windows Scripting File

1. On the process that requires a Windows Scripting File, click **Generate WSF** under **Tasks**.
2. Your browser prompts you to open or save the file. To save the file, choose the file location.

Note: The download process varies according to the browser you use.

Create a Task for a Constituent Merge Process

To specify security permissions for a selected merge process, click **Create Task** on the explorer bar. You can give other users rights to run a process without allowing them full access to the process functional area.

For more information about how to create and edit tasks, see the *Page Designer Guide*.

Merge Two Constituents

To merge only two duplicate constituents, you can manually merge the source and target constituents and not run an entire merge process.

➤ Manually merge two constituents

1. From *Duplicate constituents*, click **Merge two constituents**. The Merge two constituents screen appears.

Merge two constituents

Source constituent:

Target constituent:

Merge configuration:

Delete source constituent

Mark source constituent inactive

Inactive reason:

Inactive details:

2. In the **Source constituent** field, click the binoculars and use the Constituent Search screen to select the constituent record from which to merge data.
3. In the **Target constituent** field, click the binoculars and use the Constituent Search screen to select the constituent record into which to merge data.
4. In the **Merge configuration** field, select the configuration to use with the merge. The merge configuration determines which information on the target and source constituent records to merge. For information about configurations, see [Manage Constituent Merge Configurations on page 72](#).
5. In the **Merge configuration** field, select the configuration to use with the merge. The merge configuration determines which information on the target and source constituent records to merge.
6. Select whether to delete the source constituent after the merge. If you do not select **Delete source constituent**, the program automatically marks the source constituent as inactive after the merge.
7. Select whether to delete the source constituents or mark them as inactive after the merge.

If you select **Mark source constituent inactive**, in the **Inactive reason** field, select the reason code to explain the need to mark the constituent as inactive. In the **Inactive details** field, enter any additional information about the inactive status of the constituent. For information about how to configure reason codes for inactive constituents, see the *Administration Guide*.

Note: You cannot merge records into inactive records that were previously a source record in a merge.

8. Click **Merge**. The program merges the information from the source constituent record with the target constituent record. After the merge is complete, the target constituent record appears.

Merged Constituent Search

On the Merged Constituent Search screen, you can use the lookup ID to trace a merged constituent to the target constituent record into which it merged. If your organization reuses lookup IDs, you can limit the search dates to avoid old matches in the search results.

➤ Search for a merged constituent

1. From *Duplicate constituents*, click **Merged constituent search**. The Merged Constituent Search screen appears.

The screenshot shows the 'Merged Constituent Search' interface. At the top, there is a blue header with the title 'Merged Constituent Search'. Below the header, there are two input fields: 'Lookup ID' with the value '8-10000358' and 'Minimum Date' with the value '04/02/2007'. To the right of these fields are two buttons: 'Search' and 'Clear'. Below the input fields, there is a section titled 'Results (1 record found)' with a 'Select' button. The results are displayed in a table with two columns: 'Name' and 'Lookup ID'. The table contains one row with the name 'Dianne D. Cone' and the lookup ID '8-10000412'.

2. In the **Lookup ID** field, enter the lookup ID of the merged source constituent to find.
3. If your organization reuses lookup IDs, in the **Minimum Date** field, enter a cutoff date for the search to avoid reused IDs.
4. Click **Search**. In the **Results** grid, any merged constituents with the entered lookup ID appear.
5. In the **Results** grid, select the constituent and click **Select**. The target constituent record appears.

Constituent Merge Tasks

When you run a constituent merge process to merge records in your database, the process uses a merge configuration to determine what data to merge from source constituent records to target constituent records. In turn, the merge configuration uses constituent merge tasks to select the fields and records to include in the merge process, how to handle duplicate data, and what to do with source records after the merge.

When you create a merge configuration, you select merge tasks to include. Each merge task handles data associated with constituent records, such as phone numbers and sales orders. If you do not

include a merge task in the merge configuration, you exclude the data that the task handles from the merge process. For some merge tasks, you can edit how the task merges data. For example, with the **Addresses** merge task, you can select whether to retain duplicate addresses and whether to maintain the primary indicator on the source or target's address.

Merge Behavior

In general, merge tasks compare source constituent records to target constituent records. If the source includes data that the target does not, the merge task associates the data with target and removes it from the source. Otherwise, the merge task does not change either record.

However, some merge tasks follow additional rules or allow you to edit the behavior. For records with primary indicators, such as addresses and education history, the merge tasks allow you to select whether to keep the primary indicator from the source target.

When merge tasks encounter duplicate records, they can handle them according to program constraints on duplicate records, allow you to keep the source or target constituent's record, or allow you to exclude duplicate records. How a merge task handles duplicate records depends on the type of data it processes. For example, the program allows duplicate address records but does not allow duplicate registrant records for an event.

Records with date ranges can create situations where source and target records have dates that overlap. For example, constituency records have start and end dates. In many cases, the program does not allow these dates to overlap. When this happens, merge tasks defer to one record and determine the record that remains active for the constituent.

After you run a merge task, data can remain on source constituent records. On the merge process, you can select **Delete source constituent** to remove source constituents after the merge task. This removes the source constituent records and any information that was not removed from the source during the merge tasks.

Addresses Merge Task

The **Addresses** merge task associates the source constituent's addresses with the target constituent. You can use three fields to edit the behavior of the merge task: **Primary address criteria**, **Exclude duplicate addresses**, and **Include mail preferences**. A fourth field, **In case of duplicates, keep**, is available when you select **Include mail preferences**.

Note: The **Addresses** merge task does not update contact addresses.

Note: If a source has any changes in a change of address batch, the **Addresses** merge task updates the batch to point to the target.

Primary Address Criteria

A constituent can only have one primary address. In the **Primary address criteria** field, you select whether to preserve the primary indicator for the source or target's primary address. If you select "Target's Primary Address," the task associates the source's address with the target, but preserves the

primary indicator on the target's primary address. If you select "Source's Primary Address," the merge task preserves the primary indicator on the source's primary address.

Warning: If you select "Source's Primary Address" in the **Primary address criteria** field and select **Exclude duplicate addresses**, the merge task preserves the target's primary address when the source's primary address is a duplicate of a target's address. In this case, the target's primary address keeps its primary indicator.

Exclude Duplicate Addresses

The program allows duplicate addresses for constituents. Select **Exclude duplicate addresses** to prevent duplicate addresses during a merge.

Note: If you select **Exclude duplicate addresses**, the **Addresses** merge task runs slower because it compares each source address to each target address.

The **Addresses** merge task regards addresses as duplicates when they have the same values in each of the following fields:

- **Type**
- **Country**
- **Address**
- **City**
- **State**
- **Zip code**
- **DPC**
- **CART**
- **LOT**

If a field is blank on the source and target address, the merge task ignores it. If the merge task excludes a source address, the merge task does not delete it. Instead, the **Addresses** merge task does not associate it with the target. The excluded address remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the address along with the source.

Note: The merge task also updates any sales order addresses if the merge task deletes duplicates that appear on sales orders.

Include Mail Preferences

If you select **Include mail preferences**, you select whether to preserve the source or target's mail preferences. In the **In case of duplicates, keep** field, if you select "Target's Mail Preference," the merge task deletes the source's mail preference if it is a duplicate. When you select "Source's Mail Preference," the merge task deletes the target's mail preference when it is a duplicate. The mail preferences fields include:

- Mail type

- **Send** or **Do not send**
- **Send by**
- **Selected address**
- **Send to seasonal address when valid**
- **Comments**

Note: The merge task does not handle all mail preferences. You must also run the **Personal information** merge task to merge mail preferences.

Aliases Merge Task

The **Aliases** merge task associates the source constituent's aliases with the target constituent. You can use the **In case of duplicates keep** field to edit the behavior of the merge task.

In Case of Duplicates Keep

In the **In case of duplicates keep** field, you select whether to preserve the source or target's alias. The program does not allow constituent's to have duplicate aliases. The program regards aliases as duplicates when they have the same values in the following fields:

- **Last name**
- **First name**
- **Middle name**
- **Title**
- **Title 2**
- **Suffix**
- **Suffix 2**

Note: The merge task regards aliases as duplicates even if they have different values in the **Alias Type** fields.

If a source alias is a duplicate of a target alias and you select "Source's Aliases" in the **In case of duplicates keep** field, the **Aliases** merge task removes the target alias and associates the source alias with the target. If you select "Target's Aliases," the **Aliases** merge task preserves the target alias and excludes the source alias.

If the merge task excludes a source alias, the merge task does not delete it. Instead, the **Aliases** merge task does not associate it with the target. The excluded alias remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the alias along with the source.

Alternate Lookup IDs Merge Task

The **Alternate lookup IDs** merge task associates the source constituent's alternate lookup IDs with the target constituent. You can use the **In case of duplicates keep** field to edit the behavior of the merge task.

In Case of Duplicates Keep

The program allows duplicate alternate lookup IDs for constituents. In the **In case of duplicates keep** field, you select how to handle duplicate alternate lookup IDs. You can preserve the source's alternate lookup IDs, the target's alternate lookup IDs, or both.

Target's Alternate Lookup IDs

This option associates the source's alternate lookup IDs with the target unless the target already has an alternate lookup ID of the same type. If the merge task excludes a source alternate lookup ID, the merge task does not delete it. Instead, the **Alternate lookup IDs** merge task does not associate it with the target. The excluded alternate lookup ID remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge task, the merge removes the alternate lookup ID along with the source constituent.

Source's Alternate Lookup IDs

This option associates the source's alternate lookup IDs with the target. If the target and source have alternate lookup IDs of the same type, this option deletes the target's alternate lookup IDs.

Target and Source's Alternate Lookup IDs

This option associates the source's alternate lookup IDs with the target, even if the target has alternate lookup IDs of the same type.

Appeals Merge Task

The **Appeals** merge task associates the source constituent's appeals with the target constituent. You can use the **Exclude duplicate appeals** field to edit the behavior of the merge task.

Note: All marketing effort data for a constituent is merged during the Appeals merge task. For example, if you merge Constituent A into Constituent B, then B receives all marketing effort data from A, including source analysis rules (SAR), finder numbers, constituent appeals, etc.

Exclude Duplicate Appeals

The program allows duplicate appeals for constituents. To prevent duplicate appeals during the merge task, select **Exclude duplicate appeals**.

Note: If you select **Exclude duplicate appeals**, the **Appeals** merge task runs slower because it compares each source appeal to each target appeal.

The Appeals merge task considers appeals records as duplicates if they have the same values for the **Appeal** and **Segment** fields.

If a field is blank on the source and target appeal, the merge task ignores it. If the merge task excludes a source appeal, the merge task does not delete it. Instead, the **Appeals** merge task does not associate it with the target. The excluded appeal remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the appeal along with the source constituent.

Blackbaud Internet Solutions

When you use **Blackbaud Internet Solutions**, this merge task associates most of the website profile information of the source constituent with the target constituent. After the merge, the target constituent has one website profile that has information combined from both the source and the target constituents. The website login information for the target constituent remains associated with the constituent's website profile and the website login information for the source constituent (and the associated website profile account) no longer exist.

Note: The website user account itself is not merged, but the related profile information, such as website traffic, is merged.

Board Membership Merge Task

The **Board membership** merge task associates the source constituent's board member constituencies with the target constituent.

Note: The merge task only handles board member constituencies. Other merge tasks handle user-defined constituencies and other program-defined constituencies such as staff, fundraiser, and volunteer.

Overlapping Board Member Constituencies

The program does not allow constituents to have board memberships with date ranges that overlap. If the source and target constituents have board memberships with overlapping dates, the merged constituent will have a board membership with the earliest start and the latest end dates. If the two constituents have board memberships with dates that do not overlap, the merged constituent will have the dates of the most recent board membership and will not keep the historical board membership information.

Active Board Member Constituencies

An active board member constituency has no end date. If the source has an active board member constituency that overlaps a target's board member constituency, the merge task does not associate it with the target due to the program's constraint against constituencies that overlap. However, it is important to preserve the fact that the constituent is an active member of the board. To preserve the active status, the merge task makes the target's most recent board member constituency active. In

other words, remove the end date. This is because the source's board member constituency, as an active constituency, must overlap the target's most recent board member constituency. Furthermore, the presence of an overlapping active board member constituency for the source indicates the constituent was an active board member prior to the target board member constituency's end date.

Committees Merge Task

The **Committees** merge task associates the source constituent's committees with the target constituent. It also adds group goals that do not exist on the target record.

Overlapping Committee Membership Dates

The program does not allow constituents to have committee memberships with date ranges that overlap. If the source and target constituents have committee memberships with overlapping dates, the merged constituent will have a committee membership with the earliest start and the latest end dates. If the two constituents have committee memberships with dates that do not overlap, the merged constituent will have the dates of the most recent committee membership and will not keep the historical committee membership information.

Active Records

An active committee record has no end date. If the source has an active committee record that overlaps with a target committee record, the merge task does not associate it with the target due to the program's constraint against committee records that overlap. However, it is important to preserve the fact that the constituent is an active committee member. To preserve the active status, the merge task makes the target's most recent committee record active. In other words, it removes the end date. This is because the source's committee record, as an active record, must overlap the target's most recent committee record. Furthermore, the presence of an overlapping active committee record for the source indicates the constituent was an active committee member prior to the target committee record's end date.

Other Committees Information

The **Committees** merge task associates the source constituent's committees information such as attributes and group goals with the target constituent. If the source and target are members of the same committee, the merge task performs the following actions:

Committee Attributes

If the source or target have committee attributes that the other does not, the **Committees** merge task sets the target's committee attribute. For example, if the following are true before the merge:

- Source can coordinate events
- Target cannot coordinate events
- Source cannot solicit revenue

- Target can solicit revenue

After the merge, the target can coordinate events and solicit revenue.

Group Goals

If the source has a group goals for fundraising that do not have the same name as a goal on the target, the program copies those to the target. If the source has other group goals that do not have the same name an unit type as a goal on the target, the program copies those to the target.

Campaign Fundraisers

The program considers campaign fundraisers as duplicates if they have the same name, are associated with the same campaign, and do not have date ranges that overlap. If the source has campaign fundraisers that are not duplicates, the merge task copies them to the target. If the merge task excludes a campaign fundraiser, the merge task does not delete it. Instead, the **Committees** merge task does not copy it to the target. The excluded campaign fundraiser remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the board member constituency along with the source.

Constituencies Merge Task

The **Constituencies** merge task associates the source constituent's user-defined constituencies with the target constituent.

Note: The merge task only handles user-defined constituencies. Other merge tasks handle program-defined constituencies such as staff, fundraiser, and volunteer.

Overlapping Constituencies

The program does not allow constituents to have user-defined constituencies of the same type with date ranges that overlap. If the source and target have user-defined constituencies of the same type with date ranges overlap, the merge task excludes the source's constituency. If the merge task excludes a source user-defined constituency, the merge task does not delete it. Instead, the **Constituencies** merge task does not associate it with the target. The excluded constituency remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the user-defined constituency along with the source.

Active Constituencies

An active constituency has no end date. If the source has an active constituency that overlaps with a target constituency, the merge task does not associate it with the target due to the program's constraint against constituencies that overlap. However, it is important to preserve the fact that the constituency is active. To preserve the constituency's active status, the merge task makes the target's most recent user-defined constituency of the same type active. In other words, it removes the end date. This is because the source's constituency, as an active constituency, must overlap the target's

most recent constituency of the same type. Furthermore, the presence of an overlapping active constituency for the source indicates the constituency was active prior to the target constituency's end date.

Constituent Attributes Merge Task

The **Constituent attributes** merge task copies the source constituent's attributes to the target constituent.

One-per-Record Attributes

If the target does not have a one-per-record attribute and the source constituent does have one of that type, the program copies the source's one-per-record attribute to the target.

Duplicate One-per-Record Attributes

The program does not allow constituents to have one-per-record attributes of the same type. If the source and target have attributes of the same type that only support one attribute per record, the merge task excludes the source's attribute.

Constituent Record Attributes

Constituent record attributes are attributes whose data type is a constituent record. Do not confuse them with constituent attributes, which are attributes that belong to a constituent. If any constituent record attributes reference the source constituent, the **Constituent attributes** merge task edits them to reference the target constituent instead.

Correspondences Merge Task

The **Correspondences** merge task associates the source constituent's correspondences with the target constituent. You can use the **Exclude duplicate correspondences** field to edit the behavior of the merge task.

Exclude Duplicate Correspondences

The program allows duplicate correspondence records for constituents. To prevent duplicate correspondence records during a merge, select, **Exclude duplicate correspondences**.

Note: If you select **Exclude duplicate correspondences**, the **Correspondences** merge task runs slower because it compares each source correspondence to each target correspondence.

The **Correspondences** merge task regards correspondences as duplicates when they have the same values in each of the following fields:

- Correspondence code

- Date sent
- **Comments**

If a field is blank on the source and target, the merge task ignores it. If the merge task excludes a source correspondence, the merge task does not delete it. Instead, the **Correspondences** merge task does not associate it with the target. The excluded correspondence remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the correspondence along with the source.

Demographic Merge Task

The **Demographic** merge task associates the source constituent's demographics with the target constituent. If the target includes demographic information, the task maintains the target values except where blank or null. For blank or null values, the task updates the target with the source values. If the target includes no demographics, the task updates the target with the source values. Here is a list of fields that the **Demographic** merge task updates:

- **Target**
- **Income**
- **Birthplace**
- **Ethnicity**
- **Religion**

Note: The **Demographic** merge task deviates from the standard logic for merge tasks. Demographics always remain on the source constituent after the merge task.

Documentation Merge Task

The **Documentation** merge task associates the source's constituent documentation with the target constituent. This merge task only handles constituent documentation. Other merge tasks handle other types of documentation. Constituent documentation records include notes, media links, and attachments.

If the source is the author of any constituent documentation, the **Documentation** merge task edits the documentation to list the target as the author.

Donor Challenge Merge Task

The **Donor challenge** merge task associates all of the source constituent's donor challenge records with the target constituent. After the merge, those records are no longer associated with the source.

Email Addresses Merge Task

The **Email addresses** merge task associates the source constituent's email addresses with the target constituent. You can use the **Primary email criteria**, **Exclude duplicate email addresses**, **Include mail**

preferences, and **In case of duplicates, keep** fields to edit the behavior of the merge task.

Primary Address Criteria

A constituent can only have one primary email address. In the **Primary email criteria** field, you select whether to preserve the primary indicator on the source or target's primary email address. If you select "Target's Primary Address," the merge task associates the source's primary email address with the target but preserves the primary indicator on the target's primary email address. If you select "Source's Primary Address," the merge task preserves the primary indicator on the source's primary email address.

Warning: If you select "Source's Primary Address" in the **Primary email criteria** field and select **Exclude duplicate email addresses** and the source's primary email address is a duplicate of a target email address, the merge task preserves the target's primary email address. In this case, the target's primary email address keeps its primary indicator.

Exclude Duplicate Email Addresses

The program allows duplicate email addresses for constituents. To prevent duplicate email addresses during a merge task, select **Exclude duplicate email addresses**.

Note: If you select **Exclude duplicate email addresses**, the **Email addresses** merge task runs slower because it compares each source email address to each target email address.

The **Email addresses** merge task regards email addresses as duplicates when they have the same values in the **Type** and **Email address** fields.

If a field is blank on the source and the target email address, the merge task ignores it. If the merge task excludes a source email address, the merge task does not delete it. Instead, the **Email addresses** merge task does not associate it with the target. The excluded email address remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the email address along with the source.

Note: The merge task also updates sales order email addresses if the merge task deletes duplicates that appear on sales orders.

Include Email Preferences

If you select **Include mail preferences**, you select whether to preserve the source or target's email preferences. In the **In case of duplicates, keep** field, select "Target's Mail Preference," the merge task deletes the source's mail preference if it is a duplicate. When you select "Source's Mail Preference," the merge task deletes the target's mail preference if it is a duplicate. The following are mail preferences for email:

- **Set as primary email address**
- **Do not send email to this address**

Note: The merge task does not handle all email preferences. You must also run the **Personal information** merge task to merge for mail preferences.

Event Information Merge Task

The **Event information** merge task associates the source constituent's events with the target constituent. You can associate several aspects of events with constituents and so the merge task performs several operations.

Event Registrants

The **Event information** merge task associates the source constituent's event registrant records with the target constituent.

Duplicate Event Registrants

The program does not allow constituents to have multiple registrant records for an event. If the source and target are registrants for the same event, the **Event information** merge task merges the values of the fields on the registrant records and associates records that are associated with the source's registrant record with the target registrant record. If the target and the source are registrants for the same event, the merge task performs the following actions:

Will Not Attend

If the **Will not attend** field is set to "No" on the source or target registrant record, the merge task sets the target registrant record's field to "No."

Attended

If the **Attended** field is set to "Yes" on the source or the target registrant record, the target registrant record's field is set to "Yes."

Host

If the target registrant record has no value for its **Host** field, the merge task sets the field to the value in the source registrant record. The program does not allow registrants to be guests of a registrant and hosts for other registrants. So if a target is a host, the merge task saves the value of the source registrant record's **Host** field.

Guests

The merge task adds any guests of the source registrant to the target registrant. However, if the target is a guest and the source is a host, the merge task does not associate the source's guests with the target.

Payments

If both the source constituent and the target constituent are registered for the same event and each has one or more payments for the registration, the constituents will not be merged. If both constituents are registered for the same event, but have different registration options, and there is at least one event registration payment for either one, the constituents will not be merged. If both constituents are registered for the same event with the same registration options, the constituents will

be merged and the payment from the source or the target constituent will be associated with the event registration.

Batch Revenue Applications

Batch revenue applications are handled as though they are payments, so follow the same merge logic.

Registration Options

If the target registrant is not associated with any registration options, the merge task associates the source registrant's registration options with the target registrant. If the target is a guest of another registrant, the merge task does not associate the source's registration options with the target registrant.

Registrant Benefits

The merge task associates the source registrant's benefits with the target. However, if the target has benefits, the merge task does not associate the source registrant's benefits with the target.

Registrant Preferences

If the target registrant has no preferences, the merge task associates the source registrant's preferences with the target registrant. However, if the target has preferences, the merge task does not associate the source's preferences with the target.

Registrant Packages

The merge task associates the source registrant's packages with the target registrant.

Event Seating

If the target registrant has no assigned seat, the merge task assigns the source registrant's seat to the target. However, if the target has a seat, the merge task does not associate the source's seats with the target.

Group Membership

If the target registrant is not a member of a group, the merge task associates the source registrant's group membership with the target. However, if the target has a group membership, the merge task doesn't associate the source's membership with the target.

Registrant Attributes

The merge task associates the source registrant's attributes with the target registrant.

Duplicate One-per-Record Attributes

The program does not allow registrants to have one-per-record attributes of the same type. If the source and the target registrant have attributes of the same type that only support one attribute per record, the merge task excludes the source's attribute.

Deletion of Source Registrants

The merge task deletes the source's registrant record after it merges its data with the target's registrant record.

Constituent Record Attributes

Constituent record attributes are attributes whose data type is a constituent record. Do not confuse these with constituent attributes, which are attributes that belong to a constituent. If any registrant constituent record attributes reference the source, the **Event information** merge task edits them to reference the target.

Event Invitees

The **Event information** merge task associates the source constituent's event invitee records with the target constituent.

Duplicate Event Invitees

The program does not allow a constituent to have two invitee records for an event. If the source and target are invitees for the same event, the **Event information** merge task merges the fields on the invitee records and associates records that are associated with the source's invitee record with the target invitee record. If the source and target are invitees for the same event, the merge task performs the following actions:

Declined

If the **Declined** field is set to "Yes" on the source or target invitee record, the merge task sets the target invitee record's **Declined** field to "Yes."

Sent On

The merge task sets the target invitee record's **Sent on** field to the most recent value in the source and target invitees' **Sent on** fields.

Include in Next Send

If the source invitee is flagged to receive the next send of invitations and the target invitee is not, the merge task associates the source invitee's **Include in next send** field with the target invitee. However, if the target is flagged to receive an invitation, the merge task does not associate the source's field with the target.

Deletion of Source Invitees

The merge task deletes the source's invitee record after it merges with the target's invitee record.

Invitee History

The **Event information** merge task associates source constituent's invitee history with the target constituent.

Other Information

Event Coordinator

If the source is the coordinator of an event, the **Event information** merge task edits the event to list the target as the coordinator.

Event Instructor

If the source is an instructor at an event, the **Event information** merge task edits the event to list the target as the instructor.

Event Notes

If the source is the author of an event note, the **Event information** merge task edits the event note to list the target as the author.

Event Tasks

If the source is the owner of an event task, the **Event information** merge task edits the event task to list the target as the owner.

Event Location Contact

If the source is the contact for an event location, the **Event information** merge task edits the event to list the target as the contact.

Event Expense Vendor

If the source is the vendor for an event expense, the **Event information** merge task updates the event expense record to list the target as the vendor.

Financial Accounts Merge Task

The **Financial accounts** merge task associates the source constituent's financial accounts with the target constituent.

Duplicate Accounts

The program does not allow constituents to have duplicate financial accounts. The program regards accounts as duplicates when they have the same values in the **Financial institution** and **Account number** fields.

If the source has a financial account that is a duplicate of a target financial account, the merge task excludes it. If the merge task excludes a source's financial account, the merge task does not delete it. Instead, the **Financial accounts** merge task does not associate it with the target. The excluded financial account remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the financial account record along with the source.

Revenue Payment Records

If the merge task excludes a financial account record, payments tied to the account should not be lost. Therefore, if the merge task excludes a source financial account because it is a duplicate a target

financial account, the merge task associates the excluded account's revenue payments with the target. Revenue payment records include following types:

- Check payment
- Direct debit payment
- Scheduled direct debit payment

For example, if the source and target have financial account records for the same account and each record is tied to several payments, the **Financial accounts** merge task preserves the target financial account and associates it with all payments from the source financial account. The merge task also associates any source financial accounts that are not duplicates with the target.

Fundraising Purposes Merge Task

The **Fundraising purposes** merge task associates the source constituent's fundraising purposes with the target constituent. Although constituents are not directly tied to fundraising purposes, they can be administrators, documentation authors, and recipients for fundraising purposes.

Fundraising Purpose Administration

If the source is the administrator of a fundraising purpose, the **Fundraising purposes** merge task edits the fundraising purpose to list the target as the administrator.

Fundraising Purposes Documentation

If the source is the author of a fundraising purpose note, attachment, or media link, the **Fundraising purposes** merge task edits the fundraising purpose note, attachment, or media link to list the target as the author.

Fundraising Purpose Receipt

If the source is the recipient of a fundraising purpose, the **Fundraising purposes** merge task edits the fundraising purpose to list the target as the recipient.

Interactions Merge Task

The **Interactions** merge task associates the source constituent's interactions with the target constituent. You can use the **Exclude duplicate interactions** to edit the behavior of the merge task.

Exclude Duplicate Interactions

The program allows duplicate interactions for constituents. Select **Exclude duplicate interactions** to prevent duplicate interactions during a merge.

Note: If you select **Exclude duplicate interactions**, the **Interactions** merge task runs slower because it compares each source interaction to each target interaction.

The **Interactions** merge task regards interactions as duplicates when they have the same values in each of the following fields:

- **Contact method**
- **Expected date**
- **Actual date**
- **Event** (if it applies to the constituent)

If a field is blank on the source and target interaction, the merge task ignores it. If the merge task excludes a source interactions, the merge task does not delete it. Instead, the **Interactions** merge task does not associate it with the target. The excluded interaction remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the interaction along with the source.

Interaction Owners

If the source is the owner of an interaction, then the **Interactions** merge task edits the interaction to list the target as the owner.

Interaction Documentation

If the source is the author of an interaction documentation, the **Interactions** merge task edits the documentation to list the target as the author. Documentation includes notes, media links, and attachments.

Interaction Participants

If the source is a participant on an interaction, the **Interactions** merge task edits the participant record to list the target as the participant, unless the target is already a participant. If the target is a participant, the merge task does not edit the interaction participant record.

Interests Merge Task

The **Interests** merge task associates the source constituent's interests with the target constituent. You can use the **Exclude duplicate interests** field to edit the behavior of the merge task.

Exclude Duplicate Interests

The program allows duplicate interests for constituents. Select **Exclude duplicate interests** to prevent duplicate interests during the merge task.

Note: If you select **Exclude duplicate interests**, the **Interests** merge task runs slower because it compares each source interest to each target interests records.

The **Interests** merge task considers interests records as duplicates if they have the same values as the **Interest type** field.

If a field is blank on a source and target interest, the merge task ignores it. If the merge task excludes a source interest from the merge, the merge task does not delete it. Instead, the **Interests** merge task does not associate it with the target. The excluded interest remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the interest along with the source.

Lookup IDs Merge Task

The **Lookup IDs** merge task associates the source constituent's lookup ID with the alternate lookup IDs for the target constituent. In the **Alternate lookup ID type** field, select the alternate lookup ID type to merge. If you do not select an alternate lookup ID type, the task throws an error. The task also throws an error if a target has an alternate lookup ID is the same as the source lookup ID.

The **Lookup IDs** merge task does not delete the lookup ID from the source's record. The lookup ID remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the lookup ID along with the source.

Major Giving Merge Task

The **Major giving** merge task associates the source constituent's major giving records with the target constituent. You can associate several aspects of major giving with constituents, so the merge task must performs several operations.

Prospects

The **Major giving** merge task associates the source constituent's prospect record with the target constituent.

Duplicate Prospects

The program does not allow two prospect records for constituents. If the source and target are prospects, the **Major giving** merge task merges the fields on the prospect records and associates the source's prospect constituency records with the target.

Prospect Record Fields

The Major giving merge task merges the following prospect record fields:

- **Prospect manager**
- **Prospect status**
- **Annual gift likelihood**
- **Annuity likelihood**
- **Bequest likelihood**

- **CRT likelihood**
- **Major gift likelihood**
- **Planned gift likelihood**
- **Target ask month**
- **Past giver type**

If a target prospect's field has a non default value, the merge task preserves it and ignores the source's field. Otherwise, the merge task assigns the source prospect's field's value to the target prospect's field.

Note: Prospect manager history is only merged to the target record only when there are no overlapping dates. In addition, historical prospect manager information from the source target is not added if the start date is greater than the active prospect manager of the target record.

Deletion of Source Prospects

The merge task deletes the source prospect record after it assigns its data to the target prospect record.

Prospect Constituency Records

The **Major giving** merge task associates the source's prospect constituencies with the target.

Overlapping Prospect Constituencies

The program does not allow constituents to have prospect constituencies with date ranges that overlap. If the source and target have prospect constituencies with date ranges overlap, the merge task excludes the source's prospect constituency.

Active Prospect Constituencies

An active prospect constituency has no end date. If the source has an active prospect constituency that overlaps with a target prospect constituency, the merge task does not associate it with the target due to the program's constraint against constituencies that overlap. However, it is important to preserve the fact that the constituent is an active prospect. To preserve the active status, the merge task makes the target's most recent prospect constituency active. In other words, the task removes the end date. This is because the source's prospect constituency, as an active constituency, must overlap the target's most recent prospect constituency. Furthermore, the presence of an overlapping active prospect constituency for the source indicates the constituent was an active prospect prior to the target prospect constituency's end date.

Deletion of Source Prospect Constituency Records

After the merge task associates the source's prospect constituency records with the target, the merge task deletes any remaining source prospect constituency records.

Prospect Plans

The **Major giving** merge task associates the source's prospect plans with the target.

Duplicate Prospect Plans

When merging constituents who have prospect plans, you can determine how to handle plans of the same type.

Merge plans. Identical plans from the source constituent will have a sequential number appended to the plan name to prevent plans with the same name and type.

If the user opts to merge these plans, the merge process would alter the Prospect Plan 'Plan Name' for redundant plans coming from the source constituent in order to preserve uniqueness among the Prospect Plan records. The plan name is appended with a sequential number.

Do not merge identical prospect plans. The user opts to not merge redundant major giving plans. The constituents will be merged, but any redundant major giving plans will be ignored.

Do not merge constituents. The merge process will provide an exception noting the constituents with identical prospect plans so they may be reviewed. The user will receive an exception after the merge process runs that will show which constituents have the redundant plans, and the constituent will be required to resolve the conflict in order to complete the merge.

Prospect Plan Manager Assignments

The **Major giving** merge task associates the source's prospect plan manager assignments with the target.

Prospect Team Members

The **Major giving** merge task associates the source's team members with the target unless they have the same role, start date, and end date. The task deletes the teams from the source.

Planned Gifts

The **Major giving** merge task associates the source's planned gifts with the target.

Fundraisers

The **Major giving** merge task associates the source constituent's fundraiser records with the target constituent.

Fundraiser Constituencies

The **Major giving** merge task associates the source's fundraiser constituencies with the target.

Overlapping Fundraiser Constituencies

The program does not allow constituents to have fundraiser constituencies with date ranges that overlap. If the source and target have fundraiser constituencies with date ranges overlap, the merge task excludes the source's fundraiser constituency. If the merge task excludes a source fundraiser constituency, the merge task does not delete it. Instead, the **Major giving** merge task does not associate it with the target. The excluded constituency remains in the program until you delete the

source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the constituency record along with the source.

Active Fundraiser Constituencies

An active Fundraiser constituency has no end date. If the source has an active fundraiser constituency that overlaps a target fundraiser constituency, the merge task does not associate it with the target due to the program's constraint against constituencies that overlap. However, it is important to preserve the fact that the constituent is an active fundraiser. To preserve the active status, the merge task makes the target's most recent fundraiser constituency active. In other words, the merge task removes the end date. This is because the source's fundraiser constituency, as an active constituency, must overlap the target's most recent fundraiser constituency. Furthermore, the presence of an overlapping active fundraiser constituency for the source indicates that the constituent was an active fundraiser prior to the target fundraiser constituency's end date.

Prospect Plan Fundraiser Assignment

If the source is a fundraiser for a prospect plan, the **Major giving** merge task edits the source's prospect to list the target as the fundraiser. Three different types of fundraiser records can associate a constituent with prospect plans: Primary manager, Secondary manager, and Secondary fundraiser.

Prospect Plan Step Owners

The **Major giving** merge task edits the source's prospect plan steps to list the target as the owner.

Other Major Giving Information

The **Major giving** merge task associates the source constituent's major giving information such as documentation and relationships with the target constituent.

Prospect Plan Step Documentation

If the source is the author of prospect plan step documentation, the **Major giving** merge task edits the documentation to list the target as the author. Documentation includes notes, media links, and attachments.

Planned Gift Documentation Authorship

If the source is the author of planned gift documentation, the **Major giving** merge task edits the documentation to list the target as the author. Documentation includes notes, media links, and attachments.

Planned Gift Relationships

The **Major giving** merge task associates the source's planned gift relationships with the target.

Beneficiary Relationship Assignment

The **Major giving** merge task associates the source's beneficiary relationships with the target constituent.

Plan Participants

If the source is a participant on a plan but the target is not, the **Major giving** merge task edits the participant record to list the target constituent as the participant. If the target is a participant on the plan, the merge ignores the source's plan participant record.

Opportunity Designations

If the source is a constituent on an opportunity designation, the **Major giving** merge task associates the opportunity designation with the target unless the target is already a constituent on the opportunity designation.

Memberships Merge Task

The **Memberships** merge task associates the source constituent's memberships with the target constituent. To merge memberships on source and target constituents, make sure the **Memberships** checkbox is selected on the Add or Edit Constituent Merge Configuration screen. If this checkbox is not selected, memberships are not merged on source and target constituents.

Edit constituent merge configuration

Name:

Description:

Merge tasks

- Demographic
- Documentation
- Donor challenge
- Email addresses
- Event information
- Event restrictions
- Financial accounts
- Fundraising purposes
- Interactions
- Interests
- Lookup ID
- Major giving
- Memberships**
- Member formats
- Networking
- Personal information
- Phone numbers
- Recognition defaults

Memberships merge task
This merge task merges the memberships associated with two constituents.

Task options

Exclude duplicate memberships

Warning: When you select the **Memberships** merge task on the Add or Edit Constituent Merge Configuration screen, the **Exclude duplicate memberships** checkbox is displayed. By default, this checkbox is not selected and we recommend that you leave it unchecked. If you are considering selecting this checkbox, you must understand how it will affect the merge process. For more information see, [Exclude Duplicate Memberships on page 110](#).

When you run a merge process using a merge configuration that includes the **Memberships** merge task, all membership transactions are combined into a single membership history for the target constituent and are ordered by transaction date.

The join date and expiration date for the target constituent are calculated by the system based on a comparison of the memberships on each constituent record. The transaction with the earliest start date becomes the join. The resulting expiration date for the target membership is calculated based on a comparison of the duplicate memberships and their respective start and expiration dates.

Other actions associated with each transaction, including renew, rejoin, upgrade, and downgrade are determined by the level and renewal window of the respective previous transaction. These actions are how the system identifies what has occurred with a membership. The combined membership history is viewable on the Transactions tab of the target constituent's membership record.

Additionally, all membership transactions and revenue are retained and attached to the target constituent after the merge.

If there are active membership cards on the memberships being merged, those cards stay active and are attached to the target constituent. This is true until the membership card limit is reached on the target membership. The cards that are brought over from the source constituent can still be used by the target constituent. If presented at the guest services desk, they would be recognized and associated with the respective active membership.

When merging constituents with lifetime memberships, the resulting expiration date is determined by several factors:

- If a lifetime membership exists for the source constituent and there is not a cancel action after the lifetime membership join date on the source, the expiration date will be blank after the merge. Otherwise, the expiration date will be determined by the last applicable membership transaction.
- If a lifetime membership exists on the target constituent and there is not a cancel action after the lifetime membership join date on the target, the expiration date will be blank after the merge. Otherwise, the expiration date will be determined by the last applicable membership transaction.
- If a lifetime membership exists on the target or source constituent and there is no cancel action on that record, but there is a cancel action on the other duplicate constituent record, then the expiration date will be blank after the merge. For example, if the source constituent has a lifetime membership but no cancel action, and the target constituent has a membership cancel action, then the expiration date is blank after the merge.

Exclude Duplicate Memberships

The **Exclude duplicate memberships** checkbox appears in the Task options section when you select the **Memberships** merge task on the Add or Edit Constituent Merge Configuration screen. By default, this checkbox is not selected and we recommend that you leave it unchecked. If you are considering selecting this checkbox, continue reading and make sure you understand how it will affect the merging of memberships for duplicate constituents.

Edit constituent merge configuration

Name:

Description:

Merge tasks

- Demographic
- Documentation
- Donor challenge
- Email addresses
- Event information
- Event restrictions
- Financial accounts
- Fundraising purposes
- Interactions
- Interests
- Lookup ID
- Major giving
- Memberships
- Name formats
- Netcommunity
- Personal information
- Phone numbers
- Recognition defaults

Memberships merge task
This merge task merges the memberships associated with two constituents.

Task options

- Exclude duplicate memberships

Save Cancel

The **Exclude duplicate memberships** checkbox has no bearing on the merge process when the memberships on the source and target constituents are from the same program and that program allows multiple memberships. In that scenario, the source memberships are moved to the target constituent and exist alongside the existing memberships on the target. This happens whether or not the **Exclude duplicate memberships** checkbox is selected.

However, if the source and target memberships are from programs that do not allow multiple memberships, which is a typical scenario, the behavior is much different. Review the following to understand how the **Exclude duplicate memberships** checkbox affects the membership merge task.

- If **Exclude duplicate memberships** is not selected and you run a merge process, the source constituent memberships from programs that do not allow multiple memberships are merged from the source to the target constituent. This is the recommended setting.
- If **Exclude duplicate memberships** is selected and you run a merge process, the source constituent memberships from programs that do not allow multiple memberships are ignored and not merged to the target constituent.

If the merge task excludes a source membership, it is not deleted. It is also not associated with the target constituent. The excluded membership remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the membership along with the source.

Model Scores and Ratings Custom Ratings Merge Task

Use the Model scores and ratings custom ratings merge task to copy the source constituent's model scores and ratings attributes to the target constituent.

If the target does not have a one-per-record attribute and the source constituent does have one of that type, the program copies the source's one-per-record attribute to the target.

The program does not allow constituents to have one-per-record attributes of the same type. If the source and target have attributes of the same type that only support one attribute per record, the merge task excludes the source's attribute. If the merge task excludes a source's attribute, it deletes it from the source.

Name Formats Merge Task

The **Name formats** merge task associates the source constituent's name formats with the target constituent. You can use the **In case of duplicates keep** field to edit the behavior of the merge task.

Note: The **Name formats** merge task preserves the target's primary salutation and primary address.

In Case of Duplicates Keep

In the **In case of duplicates keep** field, you select whether to preserve the source or target's name format. The program does not allow constituents to have duplicate name formats. The program regards name formats as duplicates if they have the same values in the **Name format type** field.

If a source name format is a duplicate of a target name format and you select "Source's Name Formats" in the **In case of duplicates keep** field, the **Name formats** merge task removes the target name format and associates the source name format with the target. If you select "Target's Name Formats," the merge task preserves the target name format and excludes the source name format.

If the merge task excludes a source name format, the merge task does not delete it. Instead, the **Name formats** merge task does not associate it with the target. The excluded name format remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the name format along with the source.

Naming Opportunity Recognition Merge Task

The **Naming opportunity recognition** merge associates all of the source constituent's naming opportunity recognitions with the target constituent.

Personal Information Merge Task

The **Personal information** merge task merges fields in the CONSTITUENT table in the database and will probably be included in most merge configurations. The task is named after the Personal tab on the constituent record, where most of the fields appear.

These fields can only have one value, so the merge task uses criteria to decide whether to preserve the source or target value for each field. For the constituent's name, you can select to keep the most complete name information. The merge process looks at both the source name fields and the target name fields to determine which is the most complete.

Name Fields

In the **Name to keep** field, you select whether to preserve the source's name field, the target's name field, or the most complete of the two. For example, if you select "Source's Name," the merge task preserves the values of all of the source's name fields on the target record. You can also select to keep the names from one record if the name fields on the other record are blank. For example, if you select "Target's name" in the **Name to keep** field, the merge keeps the target's first and last name and inherits the source's middle name, as shown below.

Values before merge:

Source: First name = "John" Middle name = "David" Last name = "Smith"

Target: First name = "James" Middle name = [blank] Last name = "Smith"

Values after merge:

Target: First name = "James" Middle name = "David" Last name = "Smith"

This option applies to these name fields:

First name	Maiden name
Last name	Nickname
Organization name	Title code
Group name	Title code 2
Organization name prefix	Suffix code
Middle name	Suffix code 2

Deceased Information

Under **Task options**, select whether to merge deceased information if only the source record is marked as deceased. Deceased information includes the deceased date, confirmation of the deceased status, and the source, such as an obituary. If you select **Do not merge deceased information if only source record is marked as deceased**, the merge process does not add deceased information from the source record to the target unless the target is marked as deceased. If you do not select this option and only the source record is marked as deceased, the process marks the target as deceased and adds any deceased information from the source to the Personal tab of the target.

If both the target and source records are marked as deceased, the process adds deceased information from the source record to any blank deceased fields on the target record. If deceased information already exists on the target record, the target's deceased fields remain unchanged.

Indicators

Indicators have "Yes" or "No" values. The merge task prefers "Yes" values on the source or target. For example, if the source Is active indicator has a value of "Yes" but the target has a value of "No," the merge task preserves the "Yes" value on the target record.

- Is active
- Gives anonymously
- Do not mail
- Do not email
- Do not phone

Other Fields

For these fields, the merge task preserves the target's value, but if the target has no value in a field, the merge task preserves the source's value. For example, if the target does not have a value in the **Birth date** field and the source does, the merge task preserves the source's birth date target record. However, if the source and target have birth dates, the merge task preserves the target's value.

- **Marital status**
- **Image**
- **Gender**
- **Birth date**
- **Website**
- **Lookup ID**

Omitted Fields

The merge task does not merge the **Social Security Number** field or the **NetCommunity ID** fields.

Other Information

In addition to fields on the target and source constituent records, the **Personal information** merge task merges some other data as well.

Origination Information Source

The **Personal information** merge task is separate from the **Revenue** merge task. Whether the process merges revenue information is outside **Personal information** merge task's scope. However, if the target has no origination data and the source has no revenue ID, the merge task adds origination data from the source to target.

Documentation Authorship

If the source is the author of documentation for constituent, interaction, job, planned gift, revenue, or volunteer records, the merge task edits the documentation to list the target constituent as the author. Documentation includes notes, media links, and attachments.

Volunteer Sponsorship

If the source is the sponsor for any volunteers, the merge task edits the volunteer records to list the target as the sponsor.

Constituent Record Attributes

If any constituent record attributes reference the source, the **Personal information** merge task edits them to reference the target. Do not confuse them with constituent attributes, which are attributes that belong to a constituent. Constituent record attributes are attributes whose data type is a constituent record.

Constituent Groups

If the source is a member of constituent groups, the merge task associates the group member information with the target, unless the target is already a current member of the same group. If the source is a current member and the target is a former member of the same group, the target becomes a current member. If the source is the primary member of a group, the target becomes the primary member.

Note: Members of the same household cannot be merged.

If the source and target constituents are assigned to the same group membership role with dates that overlap, the merge process now uses the widest possible range for those dates. Here are examples of possible scenarios:

Scenario 1: If the date ranges overlap, the process uses the widest range between the two.

Values before merge:

Source: Role A: 01/01/2001 to 01/01/2002

Target: Role A: 06/01/2001 to 01/01/2003

Value after merge:

Target Role A: 01/01/2001 to 01/01/2003

Scenario 2: If the dates overlap and one of the start dates is blank, the process uses the existing start date and the later end date.

Values before merge:

Source: Role B: [blank] to 01/01/2002

Target: Role B: 06/01/2001 to 01/01/2003

Value after merge:

Target: Role B: 06/01/2001 to 01/01/2003

Scenario 3: If the dates overlap and one or more of the end dates is blank, the process uses the earliest start date and the blank end date.

Values before merge:

Source: Role C: 01/01/2001 to 01/01/2002

Target: Role C: 06/01/2001 to [blank]

Value after merge:

Target: Role C: 01/01/2001 to [blank]

Scenario 4: If the dates overlap and the start or end dates are blank on the source and target, the merge leaves the missing values blank and creates the widest possible range based on the dates available.

Values before merge:

Source: Role D: [blank] to 01/01/2002

Target: Role D: [blank] to 01/01/2003

Value after merge:

Target: Role D: [blank] to 01/01/2003

Application Users

If the source constituent has a link to an application user, but the target does not, the link is added to the target during the merge.

Phone Numbers Merge Task

The **Phone numbers** merge task associates the source constituent's phone numbers with the target constituent. You can use the **Primary phone criteria** field to edit the behavior of the merge task.

Duplicate Phone Numbers

The program does not allow a constituents to have duplicate phone numbers. The program regards phone numbers as duplicates when they have the same values for the **Type** and **Number** fields.

If a source phone number is a duplicate of a target phone numbers, the merge task excludes it. If the merge task excludes a source phone numbers, the merge task does not delete it. Instead, the **Phone numbers** merge task does not associate it with the target. The excluded phone number remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the phone number record along with the source.

Primary Phone Criteria

A constituent can only have one primary phone number. In the **Primary phone criteria** field, you select whether to preserve the primary indicator on the source or target's primary phone number. If you select "Target's Primary Phone," the merge task associates the source's primary phone number with the target but preserves the primary indicator on the target's primary phone number. If you select "Source's Primary Phone," the merge task preserves the primary indicator on the source's primary phone number.

Other Items

The merge task also updates sales order phone numbers if the merge task deletes duplicates that appear on sales orders.

Recognition Defaults Merge Task

The **Recognition defaults** merge task associates the source constituent's recognition defaults with the target constituent.

Duplicate Recognition Defaults

The program does not allow constituents to have duplicate recognition defaults. The program regards recognition defaults as duplicates when they have the same values in the following fields:

- **Source constituent:** This is the recognition default's source constituent. It is not the merge task's source constituent.
- **Recipient constituent**

If a source recognition default is a duplicate of a target recognition default, the merge task excludes the source recognition default.

If the recognition default's source constituent is the merge task's source constituent and the recipient constituent is the target constituent or vice-versa, the merge task excludes the recognition default.

If the merge task excludes a source recognition default, the merge task does not delete it. Instead, the **Recognition defaults** merge task does not associate it with the target. The excluded recognition default remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the recognition default along with the source.

Recognition Programs Merge Task

The **Recognition programs** merge task associates the source constituent's recognition programs with the target constituent. You can use the **Exclude duplicate memberships** to edit the behavior of the merge task.

When you merge constituents with annual recognition programs at the same level and with the same date achieved, the source's recognition record is copied to the target and the status of the program record is set to "Inactive (Merge)." When merging constituents with lifetime recognition programs at the same level, the source's recognition record is also copied to the target the status of the program.

Exclude Duplicate Recognitions

The program allows duplicate recognitions for constituents. To prevent duplicate recognitions during a merge, select **Exclude duplicate recognitions**.

Note: If you select **Exclude duplicate recognitions**, the **Recognition programs** merge task runs slower because it compares each source recognition to each target recognition.

If a field is blank on the source and target recognition, the merge task ignores it. If the merge task excludes a source recognitions, the merge task does not delete it. Instead, the **Recognition programs** merge task does not associate it with the target. The excluded recognition remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the recognition along with the source.

Relationships Merge Task

The **Relationships** merge task associates the source constituent's relationships with the target constituent. You can use the **Primary business relationship criteria** and **Spouse relationship criteria** fields to edit the behavior of the merge task.

Primary Business Relationship Criteria

A constituent can only have one primary business relationship record. In the **Primary business relationship criteria** field, you select whether to preserve the primary indicator on the source or target's primary business relationship. If you select "Target's Primary Business," the merge task associates the source's primary business relationship with the target but preserves the primary indicator on the target's primary business relationship. If you select "Source's Primary Business," the merge task preserves the primary indicator on the source's primary business relationship.

If the target or source, but not both, have a primary business relationship, the merge task preserves that primary indicator regardless of the selection in the **Primary business relationship criteria** field.

Warning: If you select "Source's Primary Business" from **Primary business relationship criteria** and the source's primary business relationship is a duplicate of a target business relationship, the target's primary business relationship is preserved. In this case, the target's business relationship keeps its primary indicator.

Spouse Relationship Criteria

A constituent can only have one spouse relationship. In the **Spouse relationship criteria** field, you select whether to preserve the source or target's spouse. If you select "Target's Spouse," the merge task preserves the spouse indicator on the target's spouse relationship after the task associates the source's spouse relationship with the target. If you select "Source's Spouse," the merge task preserves the spouse indicator on the source's spouse relationship.

If the source or target, but not both, has a spouse relationship, the merge task preserves that spouse relationship regardless of the selection in the **Spouse relationship criteria** field.

Note: If you select "Source's Spouse" from **Spouse relationship criteria** field and the source's spouse relationship is a duplicate of one of the target's spouse relationships, the target's spouse relationship is preserved.

Duplicate Relationships

The program does not allow constituents to have duplicate relationships. The program regards relationships as duplicates if they have the same values for the reciprocal relationship fields.

If a source relationship is a duplicate of a target relationship, the merge task excludes the source relationship. If the merge task excludes a source relationship, the merge task does not delete it. Instead, the **Relationships** merge task does not associate it with the target. The excluded relationship remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the relationship along with the source.

Include Mail Preferences

If you select **Include mail preferences**, you select whether to preserve the source or target's mail preferences. In the **In case of duplicates, keep** field, if you select "Target's Mail Preference," the merge task deletes the source's mail preference if it is a duplicate. When you select "Source's Mail Preference," the merge task deletes the target's mail preference when it is a duplicate. The mail preferences fields include:

- Mail type
- **Send** or **Do not send**
- **Send by**
- **Selected address**
- **Send to seasonal address when valid**
- **Comments**

Note: The merge task does not handle all mail preferences. You must also run the **Personal information** merge task to merge mail preferences.

Revenue Merge Task

The **Revenue** merge task associates the source constituent's revenue with the target constituent. The merge task includes all of the source's revenue records.

Recognition Credits

The **Revenue** merge task associates the source's recognition credits with the target.

Solicitors

If the source is associated with revenue solicitor records, which means the source is a solicitor for a piece of revenue, the merge task associates the source's revenue solicitor records with the target.

Acknowledgement Letters

The **Revenue** merge task associates the source's acknowledgment letters with the target.

Origination Data

If the target has no origination data, the **Revenue** merge task associates the source's origination data with the target. In this case, the program deletes the source's origination data. If the target has origination data, the merge task ignores the source's origination data.

Security Groups Merge Task

The **Security groups** merge task associates the source constituent's security group attributes with the target constituent.

Duplicate Security Group Attributes

The program does not allow constituents to have duplicate security group attributes. The program regards security group attributes as duplicates when they have the same values in the **Group** field. If a source security group attribute is a duplicate of a target security group attribute, the merge task excludes the source security group attribute. If the merge task excludes a source security group attribute, the merge task does not delete it. Instead, the **Security groups** merge task does not associate it with the target. The excluded security group attribute remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the security group attribute along with the source.

Sites Merge Task

The **Sites** merge task associates the source constituent's sites with the target constituent. After the merge, those records are no longer associated with the source. If the site records are already associated with the target, the sites remain associated with both the source and target.

Solicit Codes Merge Task

The **Solicit codes** merge task associates the source constituent's solicit codes with the target constituent. After the merge, those records are no longer associated with the source. The merge task preserves the active status for the most recent target solicit code.

Overlapping Solicit Codes

If the source and target constituent have the same solicit code with overlapping dates, the merge process assigns the widest possible date range to the target. Here are examples of possible scenarios:

Scenario 1: If the date ranges overlap, the process uses the widest range between the two.

Values before merge:

Source: Code A: 01/01/2001 to 01/01/2002

Target: Code A: 06/01/2001 to 01/01/2003

Value after merge:

Target Code A: 01/01/2001 to 01/01/2003

Scenario 2: If the dates overlap but one of the start dates is blank, the process uses the existing start date and the later end date.

Values before merge:

Source: Code B: [blank] to 01/01/2002

Target: Code B: 06/01/2001 to 01/01/2003

Value after merge:

Target: Code B: 06/01/2001 to 01/01/2003

Scenario 3: If the dates overlap but one or more of the end dates is blank, the process uses the earliest start date and the blank end date.

Values before merge:

Source: Code C: 01/01/2001 to 01/01/2002

Target: Code C: 06/01/2001 to [blank]

Value after merge:

Target: Code C: 01/01/2001 to [blank]

Scenario 4: If the dates overlap and the start or end dates are blank on the source and target, the merge leaves the missing values blank and creates the widest possible range based on the dates available.

Values before merge:

Source: Code D: [blank] to 01/01/2002

Target: Code D: [blank] to 01/01/2003

Value after merge:

Target: Code D: [blank] to 01/01/2003

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Sponsorship Merge Task

The **Sponsorship** merge task associates the source constituent's sponsorships with the target constituent.

Active or Pending Sponsorships

The program does allow constituents to have multiple active or pending sponsorships to the same sponsorship opportunity. If the source constituent and the target constituent have active or pending sponsorships to the same opportunity, the merge task throws an error.

Gifts and Non Gifts

The **Sponsorship** merge task associates the source constituent's gifts and non gifts with the target constituent.

Commitments

The **Sponsorship** merge task associates the source constituent's commitments with the target constituent. The task also renumbers the commitments.

Gift Financial Sponsors

The **Sponsorship** merge task associates the source constituent's gift financial sponsor records with the target constituent. If this causes the corresponding and gift financial sponsors to be the same constituent, the task clears the gift financial sponsor.

Sponsor Records

The **Sponsorship** merge task copies the source constituent's sponsor records to the target sponsor's sponsor records and deletes the source's sponsor records. The merge task also updates sponsor date ranges.

Documentation

If the source is the author of opportunity documentation, the **Sponsorship** merge task edits the source's opportunity notes, media links, attachments, and affiliated programs to list the target as the author.

Staff Record Merge Task

The **Staff records** merge task associates the source constituent's staff records with the target constituent. After the merge, those records are no longer associated with the source. The merge task preserves the active status for the most recent target's staff record.

Overlapping Staff Records

The program does not allow constituents to have staff records with date ranges that overlap. If the source and target have staff records with date ranges that overlap, the merge task excludes the source's staff record. If the merge task excludes a source staff record, the merge task does not delete it. Instead, the **Staff records** merge task does not associate it with the target. The excluded staff record remains in the program until you delete the source constituent. If you select **Delete source constituent** when you configure the merge process, the merge removes the staff record along with the source.

Active Staff Records

An active staff record has no end date. If the source has an active staff record that overlaps a target staff record, the merge task does not associate it with the target due to the program's constraint against staff records that overlap. However, it is important to preserve the fact that the staff record is active. To preserve the active status, the merge task makes the target's most recent staff record active. In other words, the merge task removes the end date. This is reasonable since the source's staff record, as an active staff record, must overlap the target's most recent staff record. Furthermore, the presence of an overlapping staff record for the source indicates the staff record was active prior to the target staff record's end date.

Stewardship Plans Merge Task

The **Stewardship plans** merge task associates the source constituent's stewardship plans with the target constituent. The merge task updates the stewardship plans to list the target as manager and constituent. If the target does not have a stewardship plan, the task adds one and updates the plan manager.

Surveys Merge Task

The **Surveys** merge task associates all of the source constituent's surveys with the target constituent. After the merge, those records are no longer associated with the source.

Tributes Merge Task

The **Tributes** merge task associates the source constituent's tributes and acknowledgements with the target constituent. The merge task updates the source's records to list the target as the tributee or acknowledgee. After the merge, those records are no longer associated with the source.

Vendor Merge Task

The **Vendor** merge task associates the source constituent's vendor details with the target constituent. The merge task updates the source's records to list the target as the vendor. After the merge, vendor

details in *Marketing and Communications* are associated with the target constituent.

Volunteer Information Merge Task

The **Volunteer information** merge task associates the source constituent's volunteer records with the target constituent.

Duplicate Volunteers

The program does not allow constituents to have multiple volunteer records. If the source and target are volunteers, the **Volunteer information** merge task merges the values of the fields on the volunteer records and associates source volunteer's records with the target volunteer record. If the target and the source are volunteers, the merge tasks performs the following actions:

Sponsor

If the target volunteer has no value in the **Sponsor** field, the merge task sets it to the value in the source's **Sponsor** field.

Emergency Contact Name and Phone

If the target does not have a value in the **Emergency contact name** or **Phone** fields, the merge task sets the target volunteer record's **Emergency contact name** and **Phone** fields to the respective values of the source volunteer record's fields.

Availability Comment

If the target does not have a value for its **Availability comment** field, the merge task sets the target volunteer record's **Availability comment** field to the value of the source volunteer record's **Availability comment** field.

Unavailable From and To

If the target does not have a value in either the **Unavailable from** or **to** fields, the merge task sets the target volunteer record's **Unavailable from** and **to** fields to the respective values of the source volunteer record's **Unavailable from** and **to** fields.

Deletion of the Source Volunteer

After the merge task merges all of the data from the source volunteer record to the target volunteer record, the merge task deletes the source volunteer record.

Volunteer Constituency Records

The **Volunteer information** merge task associates the source constituent's volunteer constituencies with the target constituent.

Overlapping Volunteer Constituencies

The program does not allow constituents to have volunteer constituencies with date ranges that overlap. If the source and target have volunteer constituencies with date ranges that overlap, the merge task excludes the source's volunteer constituency.

Active Volunteer Constituencies

An active volunteer constituency has no end date. If the source has an active volunteer constituency that overlaps a target volunteer constituency, the merge task does not associate it with the target due to the program's constraint against constituencies that overlap. However, it is important to preserve the fact that the constituent is an active volunteer. To preserve the active status, the merge task makes the target's most recent volunteer constituency active. In other words, the merge task removes the constituency's end date. This is because the source's volunteer constituency, as an active constituency, must overlap the target's most recent volunteer constituency. Furthermore, the presence of an overlapping active volunteer constituency for the source indicates the constituent was an active volunteer prior to the target volunteer constituency's end date.

Deletion of Source Volunteer Constituencies

After the merge task associates the source's volunteer constituencies with the target, the merge task deletes any remaining source volunteer constituencies.

Volunteer Administrative Traits

The **Volunteer information** merge task associates the source constituent's volunteer administrative traits with the target volunteer.

Duplicate Administrative Traits

The program does not allow volunteers to have administrative traits of the same type. If the source and target have volunteer administrative traits of the same type, the merge task does not associate the source's administrative trait with the target. However, if the source's administrative trait has a later expiration date, the merge task updates the target's administrative trait with that date.

Volunteer Certification Traits

The **Volunteer information** merge task associates the source constituent's volunteer certification traits with the target constituent.

Duplicate Certification Traits

The program does not allow volunteers to have certification traits of the same type. If the source and target have volunteer certification traits of the same type, the merge task does not associate the source's certification trait with the target. However, if the source's certification trait has a later expiration date, the merge task updates the target's certification trait with that date.

Volunteer Course Traits

The **Volunteer information** merge task associates the source constituent's volunteer course traits with the target constituent.

Duplicate Course Traits

The program does not allow volunteers to have course traits of the same type. If the source and target have volunteer course traits of the same type, the merge task does not associate the source's course

trait with the target. However, if the source's course trait has a later expiration date, the merge task update the target's certification trait with that date.

Volunteer Interest Traits

The **Volunteer information** merge task associates the source constituent's volunteer interest traits with the target constituent.

Duplicate Interest Traits

The program does not allow volunteers to have interest traits of the same type. If the source and target have volunteer interest traits of the same type, the merge task does not associate the source's interest trait with the target.

Volunteer License Traits

The **Volunteer information** merge task associates the source constituent's volunteer license traits with the target constituent.

Duplicate License Traits

The program does not allow volunteers to have license traits of the same type. If source and target have volunteer license traits of the same type, the merge task does not associate the source's license trait with the target. However, if the source's course trait has a later expiration date, the merge task updates the target's course trait with that date.

Volunteer Medical Traits

The **Volunteer information** merge task associates the source constituent's volunteer medical traits with the target constituent.

Duplicate Medical Traits

The program does not allow volunteers to have medical traits of the same type. If the source and target have volunteer medical traits of the same type, the merge task does not associate the source's medical trait with the target. However, if the source's medical trait has a later expiration date, the merge task updates the target's medical trait with that date.

Volunteer Special Need Traits

The **Volunteer information** merge task associates the source constituent's special need traits with the target constituent.

Duplicate Special Need Traits

The program does not allow volunteers record to have special need traits of the same type. If the source and target have volunteer special need traits of the same type, the merge task does not associate the source's special need trait with the target.

Volunteer Skill Traits

The **Volunteer information** merge task associates the source constituent's volunteer skill traits with the target constituent.

Duplicate Skill Traits

The program does not allow volunteers to have skill traits of the same type. If the source and target have volunteer skill traits of the same type, the merge task does not associate the source's skill trait with the target. However, if the source's skill trait has a higher level, the merge task updates the target's skill trait with that level.

Volunteer Job Assignments

The **Volunteer information** merge task associates the source volunteer's volunteer job assignments with the target volunteer.

Duplicate Job Assignments

The program does not allow volunteers have the same job assignment twice. If the source and target have volunteer job assignments for the same job, the merge task does not associate the source's job assignment with the target.

Volunteer Screening Plans

The **Volunteer information** merge task associates the source constituent's screening plans with the target constituent.

Duplicate Screening Plans

The program does not allow volunteers to have screening plans of the same type. If source and target have volunteer screening plans of the same type, the merge task does not associate the source's screening plan with the target.

Volunteer Timesheets

The **Volunteer information** merge task associates all of the source constituent's volunteer timesheets with the target constituent.

Volunteer Types

The **Volunteer information** merge task associates the source constituent's volunteer types with the target constituent.

Duplicate Volunteer Types

The program does not allow volunteers to have duplicate volunteer types. If the source and target have duplicate volunteer types, the merge task does not associate the source's volunteer type with the

target. The program regards volunteer types as duplicates when they have the same values in the following fields:

- **Volunteer type**
- **Start date**
- **End date**

Volunteer Location Records

The **Volunteer information** merge task associates the source constituent's volunteer locations with the target constituent.

Duplicate Locations

The program does not allow volunteers to have the same location twice. If the source and target have the same volunteer location, the merge task associates the source's location with the target.

Volunteer Documentation

The **Volunteer information** merge task associates the source constituent's volunteer documentation with the target constituent. Documentation includes notes, media links, and attachments.

If the source is the author of any documentation, the merge task edits the records to list the target constituent as the author.

Volunteer Awards

The Volunteer information merge task associates the source constituent's volunteer awards with the target constituent. After this, the merge task deletes the source constituent's volunteer award records. This does not delete the source constituent. To delete the source constituent after the merge, select **Delete source constituent** from the merge process.

Duplicate Awards

If the source volunteer has the same award on the same date as the target volunteer, the merge task deletes the source volunteer's duplicate award. Awards without dates are not considered duplicates. For example, if both the source and target volunteer have one of the same award with no date, after the merge, the target will have two of that award with no date. Also, the merge task only compares duplicates between source and constituent. Multiples of the same award on the source only or the target only convey.