EasyMatch

User Manual

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1. Getting Started

1.1 Introduction to EasyMatch

EasyMatch is a software application designed to match records between two sets of data. This software can be used to match the records in any two documents (CSV files or spreadsheets) or databases.

The software is designed to provide you with a quick and easy way to match large numbers of records from multiple sources. The software also provides the functionality to manually match the records in addition to the automatic matching.

Typical uses for EasyMatch are:

- General Ledger reconciliations, including:
  - Bank reconciliations
  - Pending report/GRIR reconciliations
  - Unpresented checks
  - Method of Payment reconciliations
- Match purchase orders to deliveries
- Match products received to supplier invoices
- Match payable invoices to supplier statements
- Match stock deliveries to inventory systems
- Match customer payments to debtors
- Match payroll data, including:
  - Duplicate pays
  - Duplicate employees
  - Ghost employees
- Match emails to mailing lists
- Duplicate data removal

1.2 Installing EasyMatch

The pre-requisites to install EasyMatch are:

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- Microsoft .NET Framework version 4
- SQLite - relational database management system

These are also a part of the EasyMatch installation process. If you have not installed Microsoft .NET Framework version 4 and SQLite prior to installing EasyMatch, these will be installed during the installation.

To install the EasyMatch application:

1. Download the **EasyMatch.exe** file to your computer.
2. Double-click the **EasyMatch.exe** file.

The EasyMatch installation wizard is displayed.

3. Click **Next** on the **Welcome to the EasyMatch Setup Wizard** window.
4. Click the checkbox next to **I accept the terms of the agreement** option and click **Next**, as shown in **Figure 1.2.1**.

Figure 1.2.1: Accepting the Terms of the Agreement

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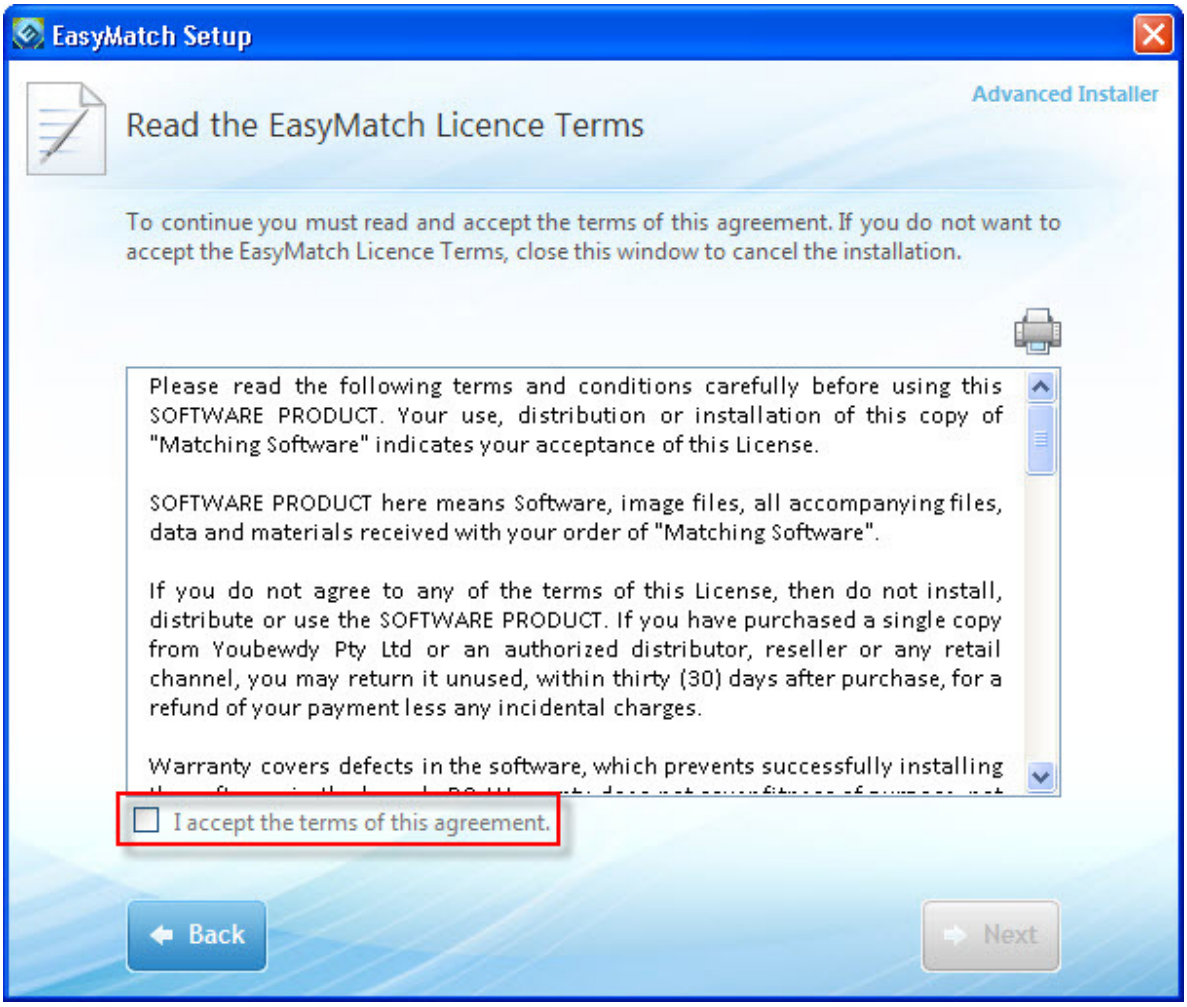

5. Click **Install Now** in the **Choose the installation you want** window.
6. Click **Browse** to change the location where EasyMatch will be installed and click **Next**.
7. Click Install in the **Begin installation of EasyMatch** window.

The EasyMatch installation will display a progress bar indicating the progress of the installation.

8. Click **Close** when the installation is complete.

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1.3 Matching with EasyMatch

EasyMatch uses deterministic matching to match records. Deterministic matching uses a combination of algorithms and business rules to determine when two or more records match.

Specifying how EasyMatch will match your data revolves around matching rules. In a matching rule you specify which columns or fields EasyMatch will match on, and the type of match you want. The two types of matches in EasyMatch are:

a. One to One match: For each record in the first table, one matching record is sought in the second table. If the sought record meets the criteria of the current matching rule, both records are matched together.

- Many to Many match: For each record in the first table, many matching records are sought in both tables. If all records meet the criteria of the current matching rule, they are all matched together.

1.4 Running EasyMatch for the First Time

When you open EasyMatch for the first time after its installation, a license file and serial key should be entered to unlock the application. To do so:

1. Open the application from **Start** > **All Programs** > **EasyMatch**.

   The **License** pop-up window is displayed, as shown in **Figure 1.4.1** .

Figure 1.4.1: License Pop-up Window

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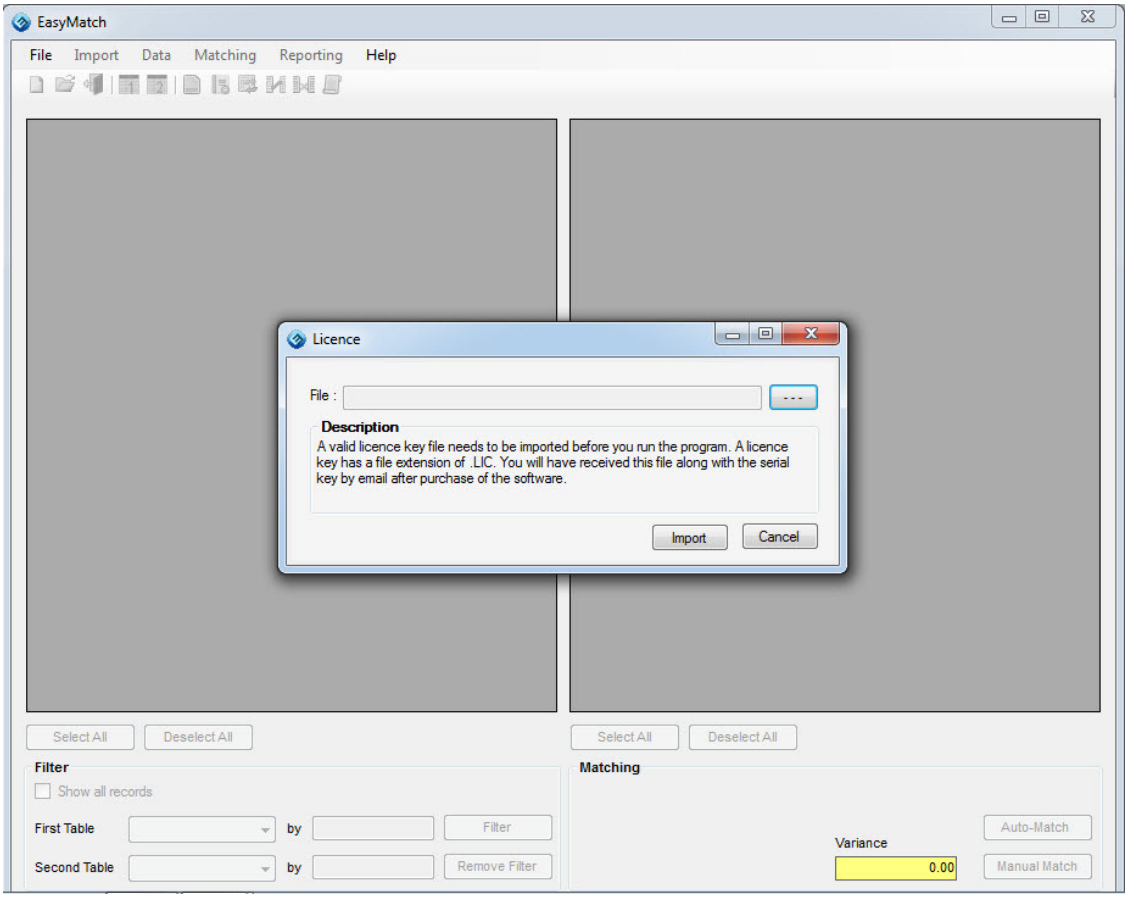

2. Browse through the computer and provide the path to the license file that you received when you purchased the software and click **Import** .

If the license file is correct, the **Serial Key** pop-up window is displayed.

3. Enter the serial key that you received via email in the Serial Key field and click **OK**.

1.5 EasyMatch User Interface

EasyMatch provides two methods of navigation. The first method is provided by the menu bar on the top-most section of the application window. The second method of navigation is provided by the tool bar icons below the menu bar. The main matching window where the records are matched also provides filtering, selecting, and matching

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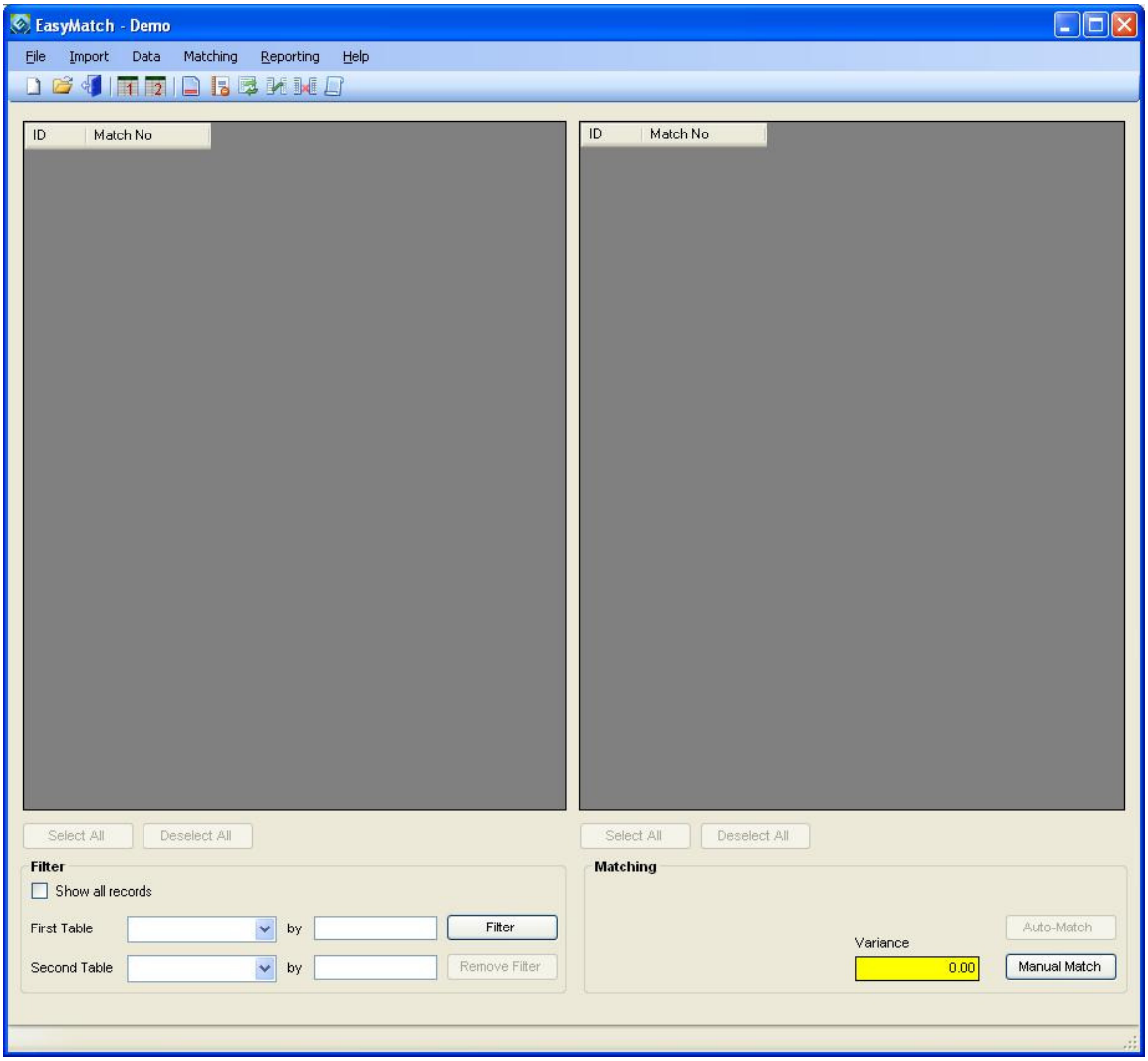
options. The following **Figure 1.5.1** depicts the user interface of the EasyMatch application.

Figure 1.5.1: EasyMatch User Interface



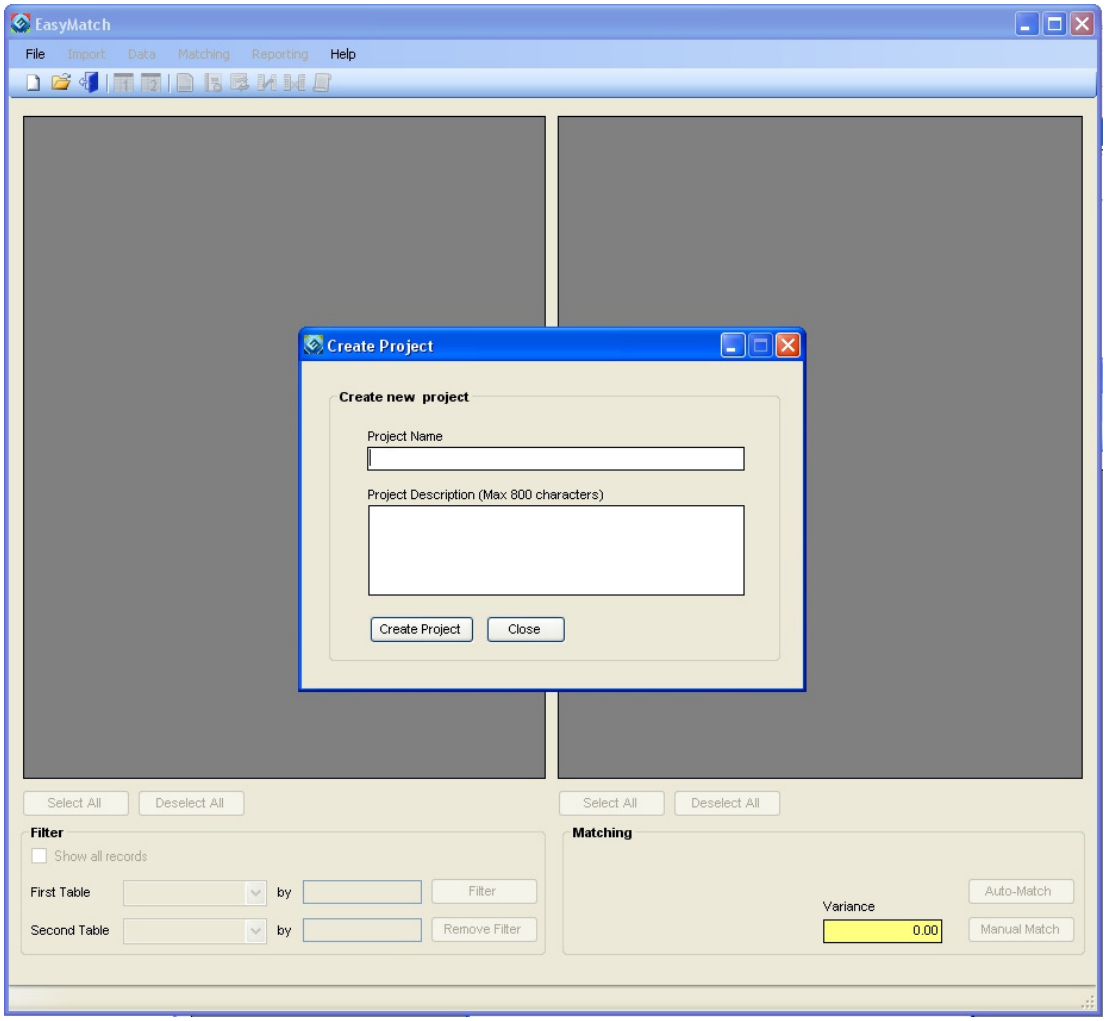
2. Managing Projects

2.1 Creating a New Project

To create a new project:

1. Click the **File** menu and then click **New Project**. The **Create Project** window is displayed, as shown in **Figure 2.1.1** .

Figure 2.1.1: New Project Window



2. Enter the name of the project in the **Project Name** field.

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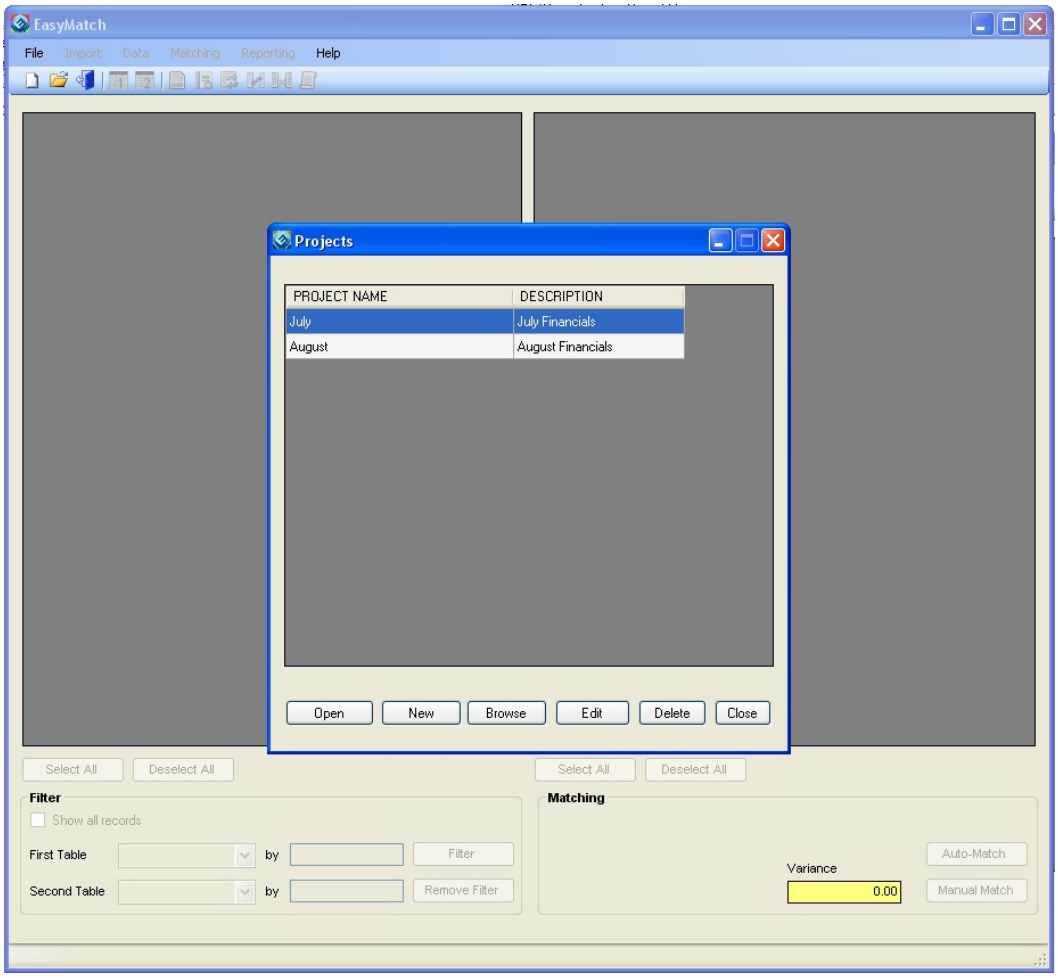
3. Enter the description of the project in the **Project Description** field.
4. Click **Create Project.** A new project is created.

2.2 Opening an Existing Project

To open an existing project:

1. Click the **File** menu and then click **Open Project**. The **Projects** window is displayed, as shown in **Figure 2.2.1** .

Figure 2.2.1: Projects Window



2. Select the project you want to open and click **Open**.

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You can also browse to a project file to open a project from the local computer. To open a project file from the local computer:

3. Click **Browse** on the **Projects** window. The **Browse Project** window is displayed.
4. Enter the project name in the **Project Name** field.
5. Browse the project database file from the **Project File** field. The project database file should be the one with a .db extension.
6. Click **Open**.

2.3 Deleting a Project

To delete an existing project:

1. Click the **File** menu and then click **Open Project**. The **Projects** window is displayed.
2. Select the project you want to delete and click **Delete**.

Note: You cannot delete a project that is currently in use by the application. If you try to delete a project that is in use by the application, a pop-up window alerts you that you are trying to delete a project in use. Open another project and try again.

2.4 Modifying Existing Project Details

To modify the details of an existing project:

1. Click the **File** menu and then click **Open Project**. The **Projects** window is displayed.
2. Select the project you want to edit and click **Edit**. The **Update Project** window is displayed.
3. Modify the project name and/or project description.
4. Click **Update**. A pop-up message is displayed indicating that the project details are modified.

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5. Click **OK** and then click **Close**.

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3. Importing Data

3.1 Importing Data into Either of the Tables

To import data into either of the tables:

1. Click the **Import** menu and then click **Import First Set** or **Import Second Set** depending on the table to which you want to import data. The **Import Data** window is displayed. This window has two sections which include the Import options and the Table description section, as shown in **Figure 3.1.1** .

Figure 3.1.1: Import Data Window

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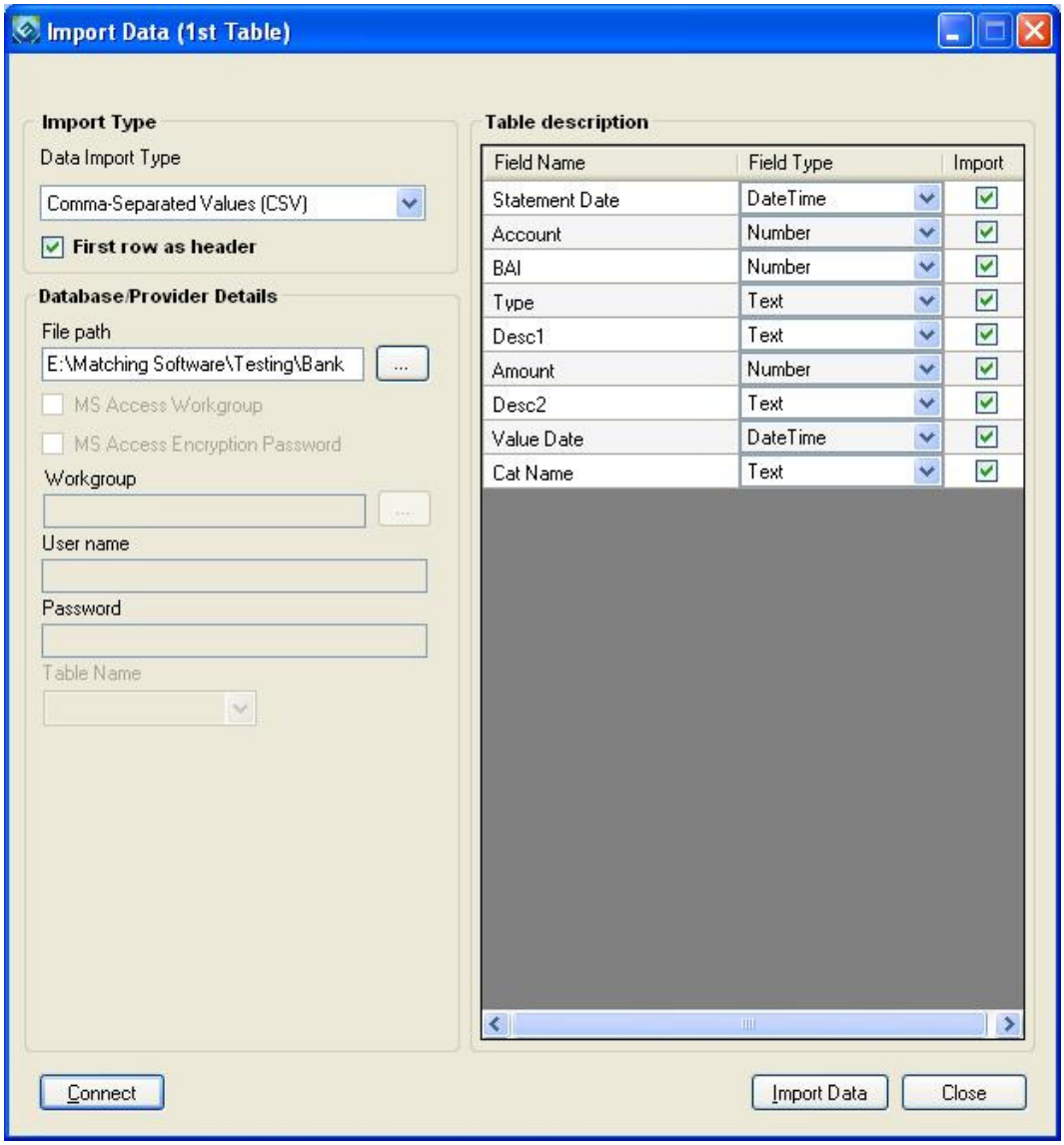

3.2 Import Data File Types

You can import the following data types into the table:

1. Comma-Separated Values (CSV)
2. Excel Files
3. Microsoft Access Database

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Note: If you are importing data into an EasyMatch table that already contains data, the previously imported data will be overwritten. Also, if you are importing data into an EasyMatch table that already contains matched data, the import will fail – You will need to unmatch all records before overwriting the data with a new import.

Note: You will need to ensure that you have the appropriate ODBC drivers for imports. These will typically be installed on your computer by default but you may need to troubleshoot if problems arise.

To import CSV data:

a. Select **Comma-Separated Values (CSV)** from the **Data Import Type** dropdown menu.
b. Uncheck the **First row as header** checkbox if you do not want the first row of the imported data to be the header. This checkbox is ticked by default.
c. Click the **Browse** button next to the **File Path** field.
d. Browse to the CSV file. The path of the CSV file is shown in the **File Path** field.
e. Click **Connect**. The Table description section of the **Import Data** window displays the column headers of the CSV file you want to import, as shown in **Figure 3.2.1** .

Figure 3.2.1: The Import Data Window Displays the Column Headers of the CSV File

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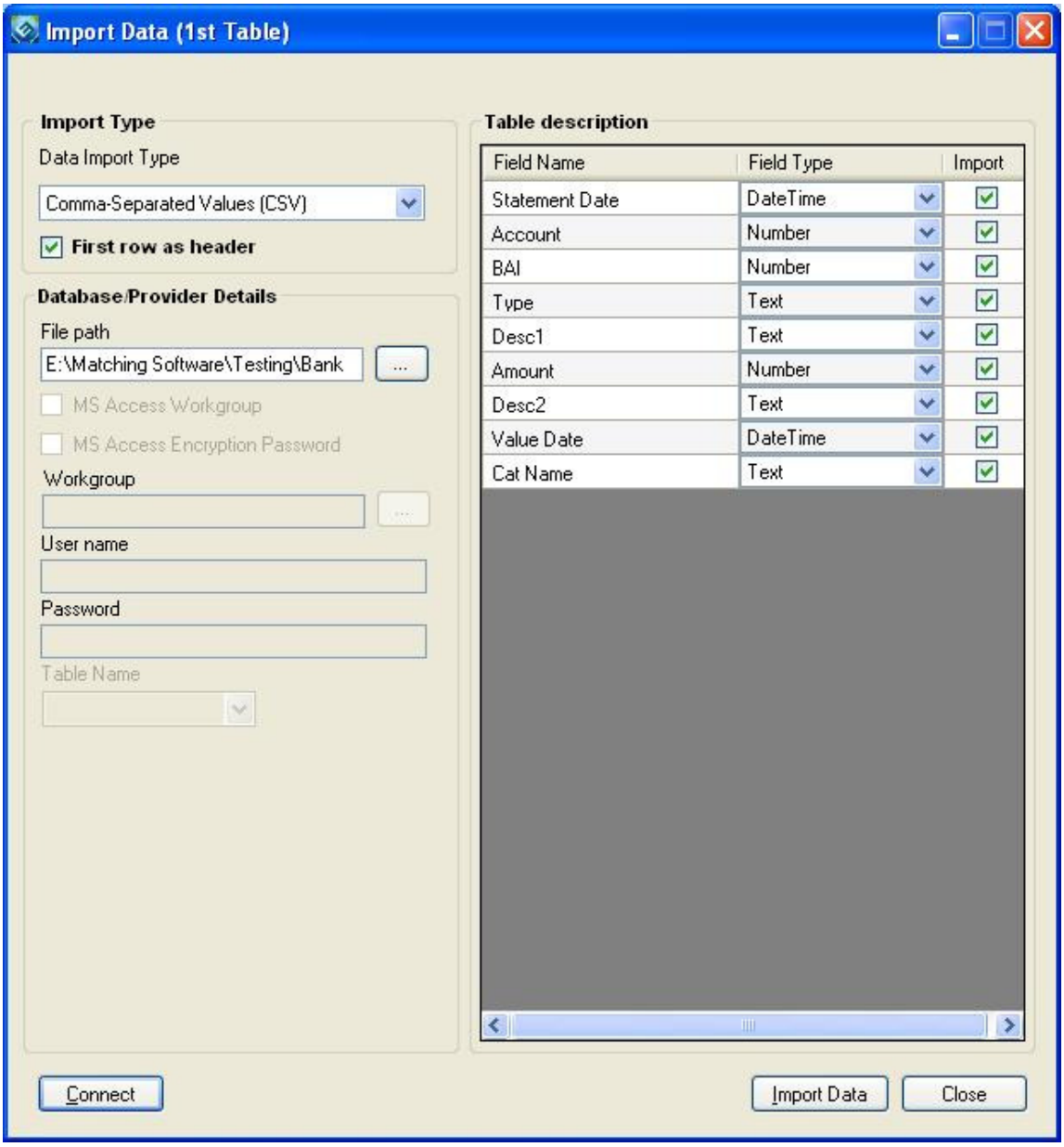

To import Excel spreadsheet data:

1. Select **Excel File** from the **Data Import Type** dropdown menu.
2. Uncheck the **First row as header** checkbox if you do not want the first row of the imported data to be the header. This checkbox is checked by default.
3. Click the **Browse** button next to the **File Path** field.
4. Browse to the Excel file. The path of the Excel file is shown in the **File Path** field.
5. Click **Connect**. The Table description section of the **Import Data** window displays the column headers of the Excel file you want to import.

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6. Select the sheet in the Excel file from which you want to export the data, in the **Sheet Name** dropdown menu.

To import Microsoft® Access Database data:

a. Select **Microsoft Access Database** from the **Data Import Type** dropdown menu.
b. Browse to the MS Access database from the computer. The path of the MS Access database is shown in the **File Path** field.
c. If the Access database has a workgroup file with username and password, check the checkbox next to the **MS Access Workgroup** field. This activates the **User name** and **Password** fields.
d. Enter the user name in the **User name** field.
e. Enter the password in the **Password** field.
f. If the database has an encryption password, check the checkbox next to the **MS Access Encryption Password** field. This activates the **Encryption Password** field.
g. Enter the encryption password in the **Encryption Password** field.
h. Click **Connect.**
i. Select the table you wish to import from the **Table Name** dropdown menu.

Note: You can use either the workgroup file username and password *or* the encryption password to successfully import an Access Database into the EasyMatch application, you cannot use both. This is a limitation of the current version of EasyMatch.

3.3 Setting Column Names and Data Types

The Table description section displays the column headers' details in three distinct columns. The **Field Name** column displays the name of the column. The **Field Type** column displays the type of data (Text, Number, or Date/Time) in the respective column. The **Import** column allows you to either import or not import the column.

Note: If you have unchecked the **First row as header** checkbox earlier, the **Field Name** values will default to Field1, Field2, etc.

If you want to modify the **Field Name** column, **Field Type** column, or the **Import** column, do so by changing the values. If you choose to uncheck some field names from importing, those columns will not be imported.

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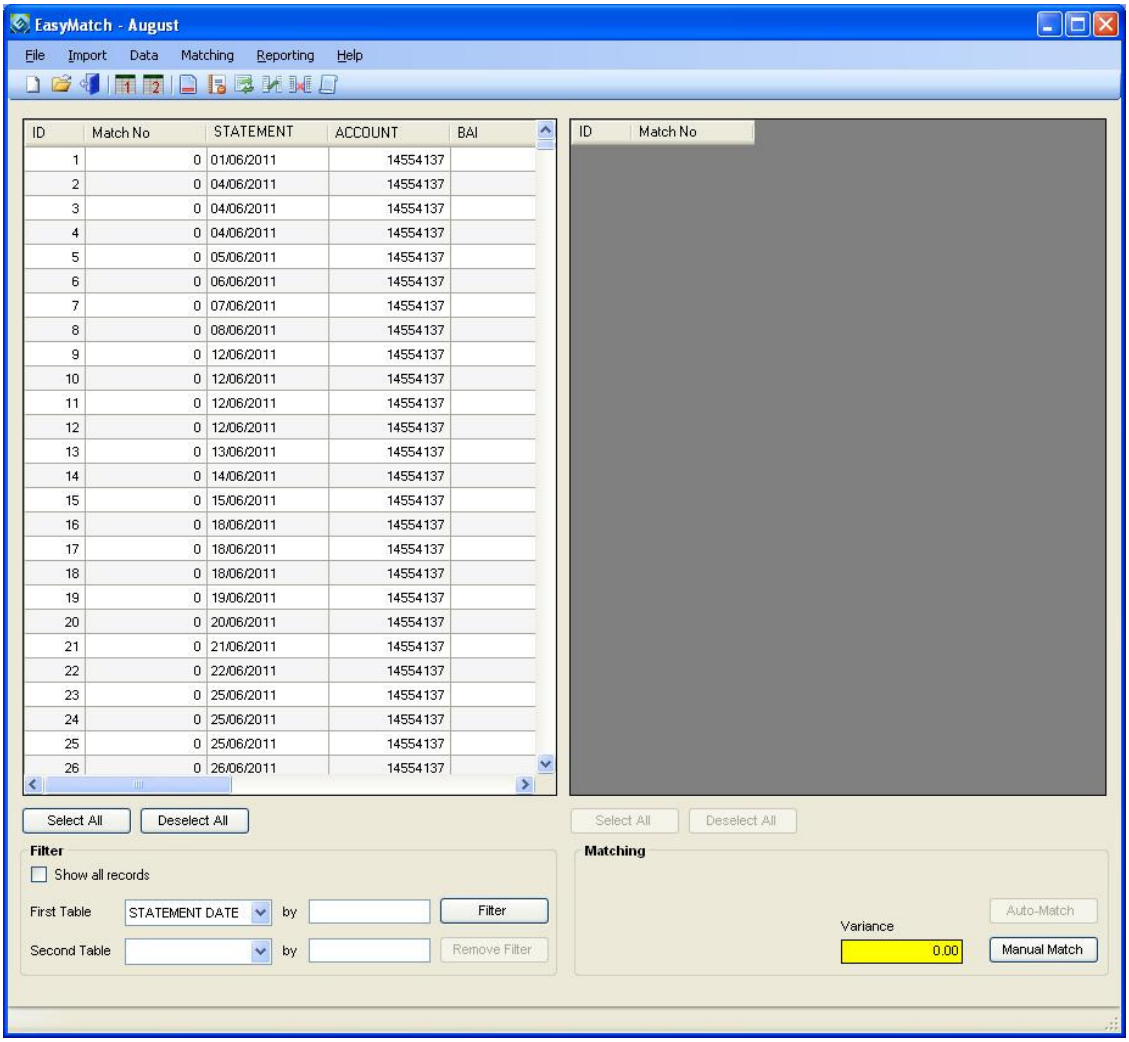
When data is imported, the columns you have chosen for import are displayed in the first table of the main matching window. The EasyMatch application also adds two new columns as the first two columns in the table. The first column is labeled as **ID** and it contains ID numbers from 1 to n where n is the number of rows in the CSV file. The second column is labeled as **Match No.** This column contains the match number. Each record in a unique match receives a match number which identifies all records in a match. Unmatched records have a value of 0 in this column, as shown in **Figure 3.3.1.**

Figure 3.3.2: Data Imported and Displayed in the First table



4. Deduping/Cleaning Records

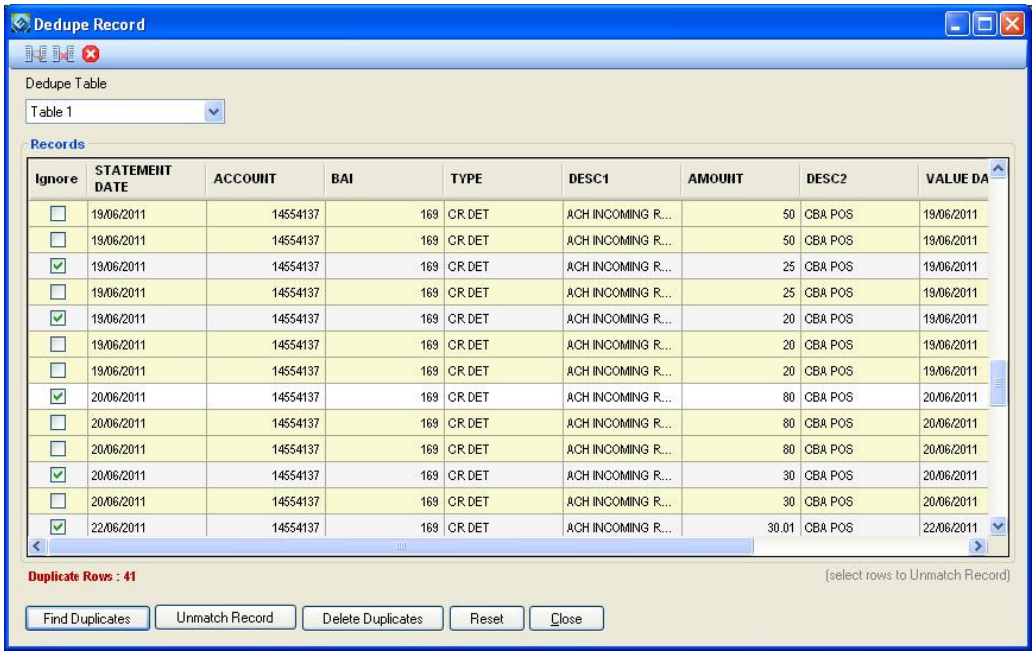
4.1 Deleting Duplicate Records

To delete duplicate records in a table:

1. Click the **Data** menu and then click **Dedupe**. The **Dedupe Record** window is displayed.
2. Select the table from which you wish to remove duplicate records, from the **Dedupe Table** dropdown menu. The table you have selected will be populated in the **Dedupe Record** window.
3. Click **Find Duplicates.** EasyMatch then finds and displays only duplicate records. It also displays the number of duplicate records in the table.

In the following **Figure 4.1.1** , the table has found 41 duplicate records. One copy of each record will be kept by default, and this is denoted by a tick in the **Ignore** column. Any record that is flagged to be ignored will remain; any record **not** flagged will be **deleted** .

Figure 4.1.1: Deduped Records



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4. Click **Delete Duplicates** to delete the records that are not ticked in the **Ignore** column.
5. Click **OK** on the **Confirmation** window.
6. Click **OK** on the **Information** window. The duplicate records are now deleted from the table.
7. Click **Close** .

Note: You can not delete a matched record. In order to delete a duplicate record that is matched, first unmatch the record and try again.

4.2 Cleaning Data

To clean data in a table:

1. Click the **Data** menu and then click **Clean Data**. The **Data Cleaning** window is displayed.
2. Select the table in which you want to clean the records from the **Select Table** dropdown menu. The table you have selected will be populated in the **Data Cleaning** window.
3. Select the column which you want to clean from the **Table Fields (Column)** dropdown menu.
4. Select the cleaning operation you want to perform on the column from the **Operation** dropdown menu, as shown in **Figure 4.2.1** .

Figure 4.2.1: Selecting the Cleaning Operation

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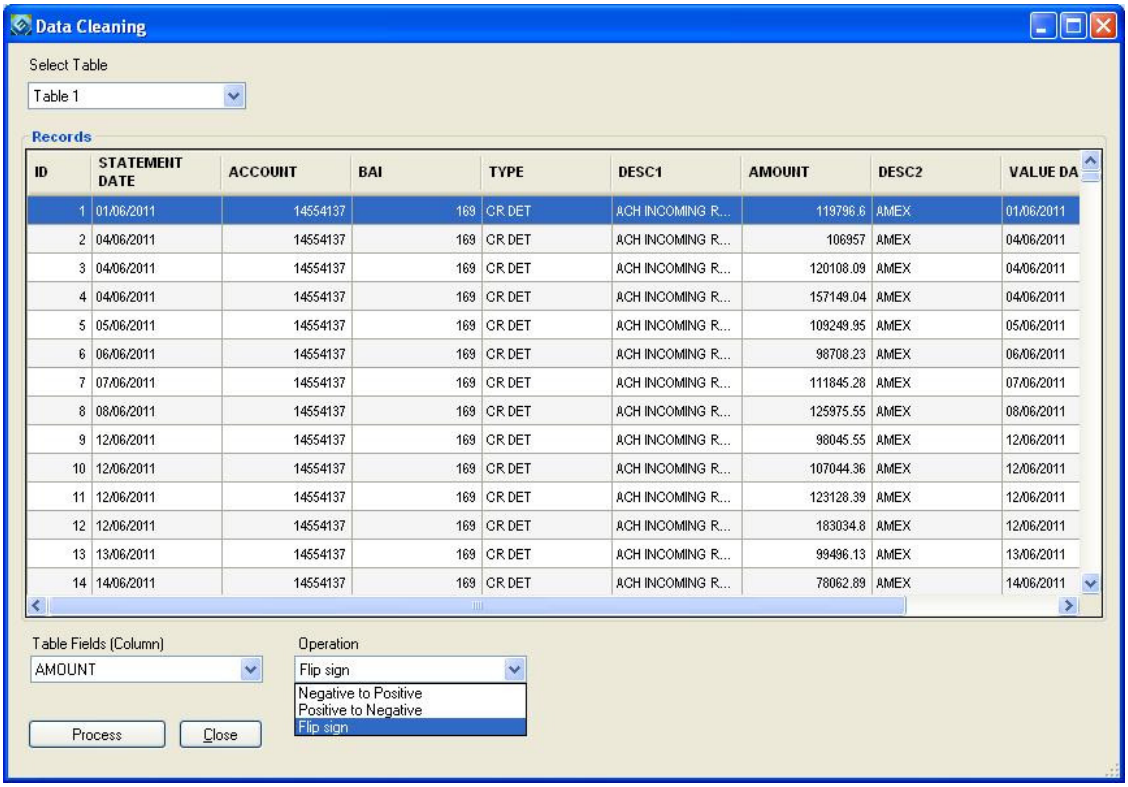

The EasyMatch application allows you to perform the following cleaning operations depending on the type of the field you have chosen in the **Table Fields (Column)** dropdown menu. The following **Table 4.2.1** illustrates the cleaning operations.

Table 4.2.1: Cleaning Operations

Field Type	Cleaning Operation	Description
Text	Upper Case	Converts all text in the column to upper case.
	Lower Case	Converts all text in the column to lower case.
	Proper Case	Converts all text in the column to sentence case.
Numbers	Negative to Positive	Negative numbers will be changed to positive. Positive numbers are unchanged.
	Positive to Negative	Positive numbers will be changed to negative. Negative numbers are unchanged.
	Flip Sign	Positive numbers are changed to negative. Negative numbers are changed to positive.
Date	NA	When the Field tupe is a date, no cleaning operation can be performed.

5. Click **Process**. The cleaning operation is performed and the column in the table will change according to the cleaning operation performed.

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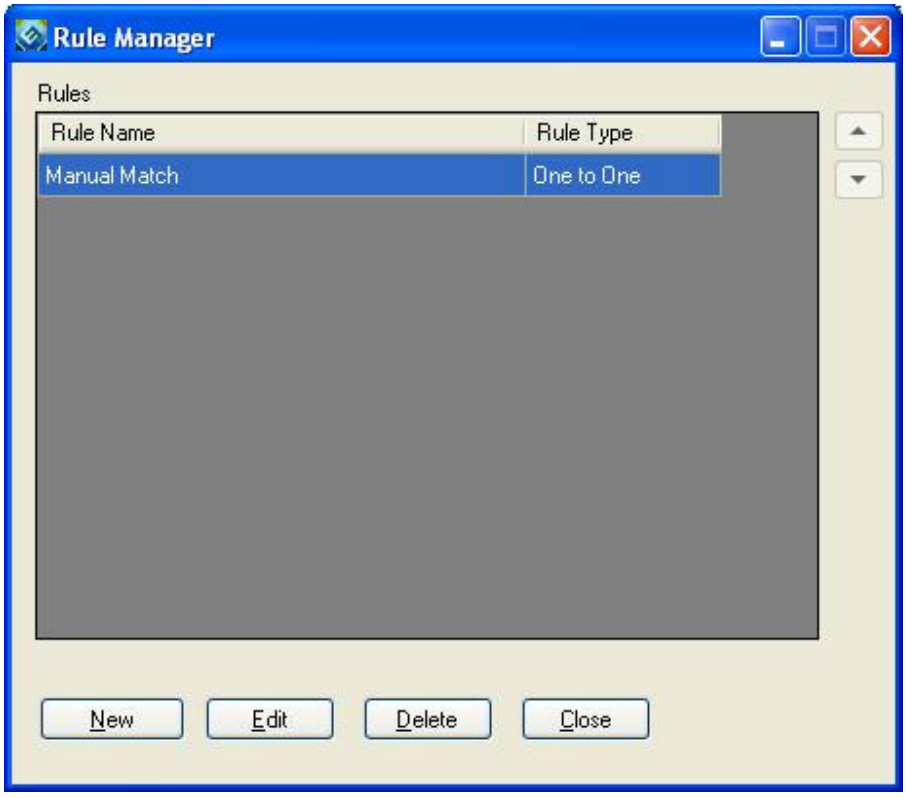
5. Match Rules

5.1 Creating a Match Rule

To create a new match rule:

1. Click the **Matching** menu and then click **Matching Rules**. The **Rule Manager** window is displayed, as shown in **Figure 5.1.1** .

Figure 5.1.1: Rule Manager



2. Click **New**. The **Create Match Rule** window is displayed, as shown in **Figure 5.1.2**.

Figure 5.1.2: Create Match Rule Window

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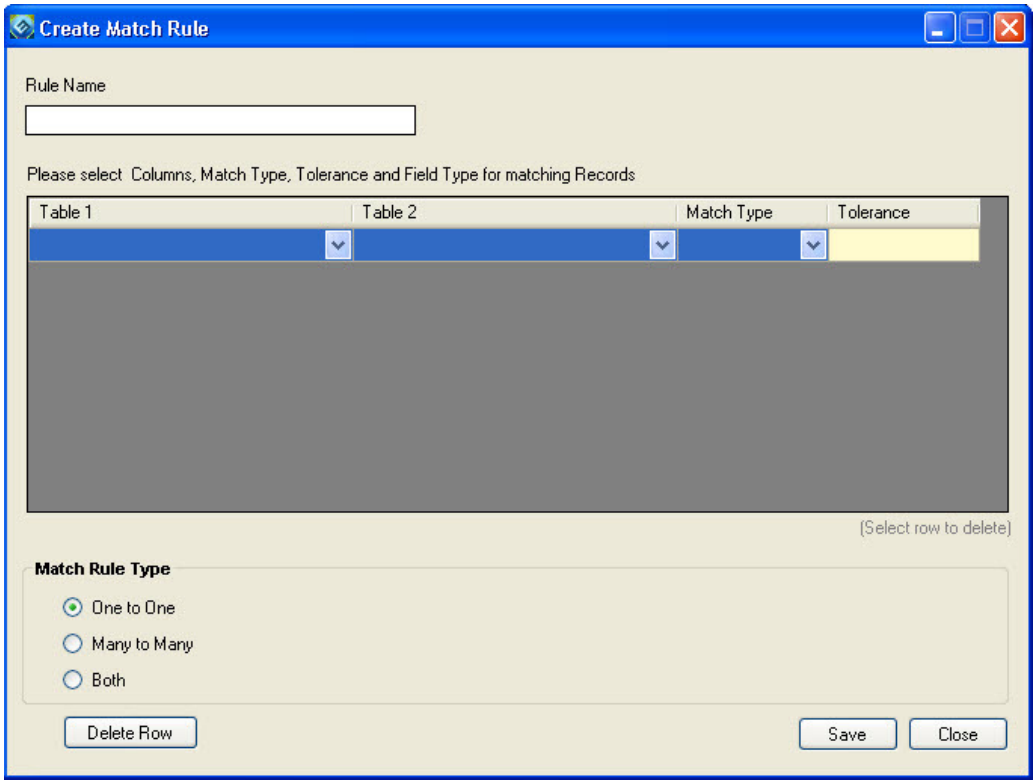

3. Enter the name of the rule in the **Rule Name** field.
4. Select the column in the first table that should be a part of the rule from the **Table 1** dropdown menu, as shown in **Figure 5.1.3** .

Figure 5.1.3: Create a Match Rule

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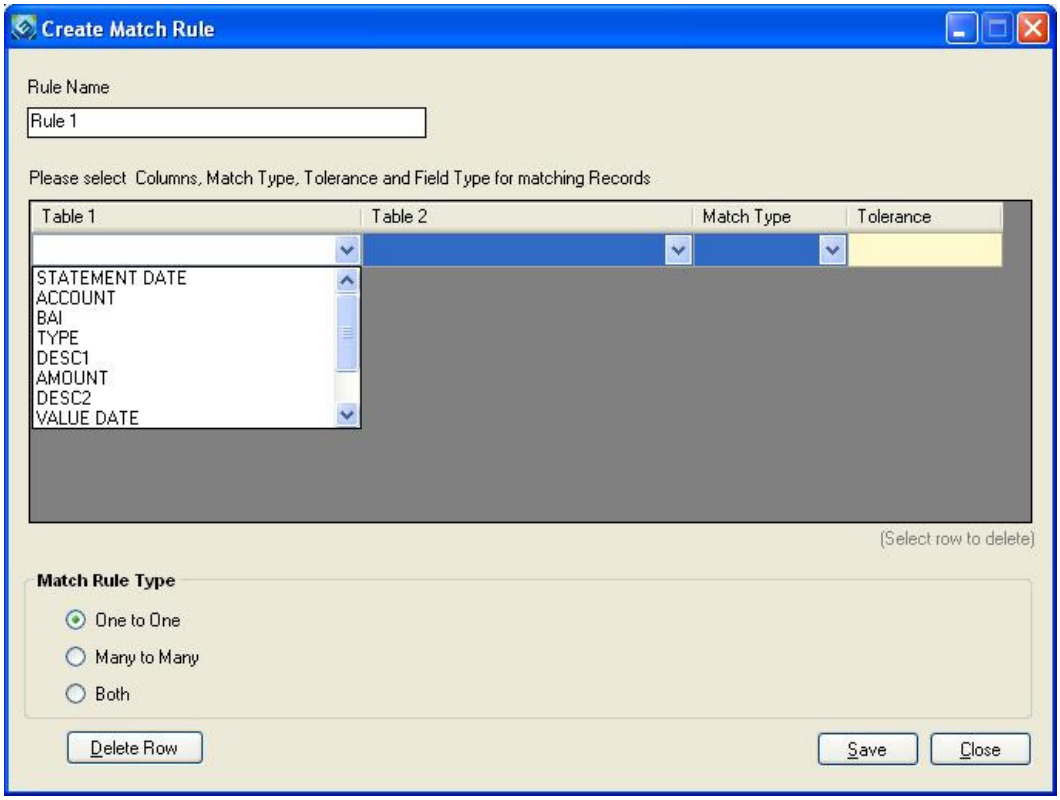

Note: In this figure, you will notice that the Amount field in Table 1 will be chosen as part of the match rule.

5. Select the column in the second table that should be a part of the rule from the **Table 2** dropdown menu.
6. Select the type of match you want to perform from the **Match Type** dropdown menu. The following **Table 5.1.1** provides a description of the different match types.

Table 5.1.1: Match Types

Match Type	Description
EQUAL	The values in both must match exactly.
WITHIN	The values in both fields must match +/- the tolerance provided. This match type can be used only with date/time or numeric fields.
CONTRA	The sum of the field values comes to 0 +/- the tolerance. This match type can only be used with numeric values.

7. If you have selected WITHIN or CONTRA as the Match Type, enter a tolerance value in the **Tolerance** field.

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Note: You must ensure that you select fields of the same type (text, number or date/time) to create a match rule. For example, you cannot select a Text field in Table 1 and Number field in Table 2 to create the match rule.

Once a rule is added successfully, a new row is added below the rule you have just created. You can add as many fields to the match rule as you like using Step 4 to Step 8.

8. Select the type of rule in the **Match Rule Type** section. The following T**able 5.1.2** provides a description of the rule types.

Table 5.1.2: Matching Rule Types

Type of Rule	Description
One to One	For each record in the first table, one matching record is sought in the second table. If the sought record meets the criteria in the matching algorithm, both records are matched together.
Many to Many	For each record in the first table, many matching records are sought in both tables. If all records meet the criteria in the matching algorithm, they are all matched together.
Both	For each record in the first table, match One to One first and, if no match is found, match Many to Many.

9. Click **Save**. The new rule is created and this rule will be used to match the records in table 1 and table 2 during the matching process.

Note: You can create as many match rules as required to get the most accurate match. EasyMatch will try each match rule in sequence to try to match your data. You can control the order EasyMatch tries each match rule by reordering the match rules in the **Rule Manager** .

Note: The topmost match rule in the **Rule Manager** is the Manual Match rule. This is a special rule used to control the Manual Match process and is ignored when the Auto-Match function is performed. You cannot reorder or delete the Manual Match rule; it always remains at the top of the **Rule Manager**.

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5.2 Editing a Match Rule

To edit a match rule:

1. Click the **Matching** menu and then click **Matching Rules**. The **Rule Manager** window is displayed.
2. Select the rule you want to edit and click **Edit**. The **Match Rule** window is displayed.
3. Select the rule you want to edit and make the modifications.
4. Click **Update**.

5.3 The Manual Match Rule

The first rule in the Rule Manager is the Manual Match rule. This rule governs how records are matched manually, and it cannot be reordered or deleted.

You edit the Manual Match Rule the same way you do any other rule, except that you cannot change the name.

The rule will be checked when you perform a manual match, and if the records you have selected to match do not meet the criteria of the rule, an error message will be displayed.

Map columns with the Contra Match Type in the Manual Match Rule and EasyMatch will use the values in those columns to calculate the variance when you select records to be matched.

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5.4 Deleting a Match Rule

To delete a match rule:

1. Click the **Matching** menu and then click **Matching Rules** . The **Rule Manager** window is displayed.
2. Select the rule you want to delete and click **Delete**.
3. Click **Yes** on the **Confirmation** window. The rule is now deleted.

6. Matching Process

6.1 Auto-matching Records

To perform an auto-match of the records in the tables:

1. Click **Auto-match** after you have created appropriate Auto-Match rules in the Rule Manager and populated both tables with relevant records.

EasyMatch will start matching the records in both the tables depending on the rules you have set in the Rule Manager. You will be able to see a progress bar indicating the progress of the matching as shown in **Figure 6.1.1** .

Figure 6.1.1: Auto-match Progress Bar

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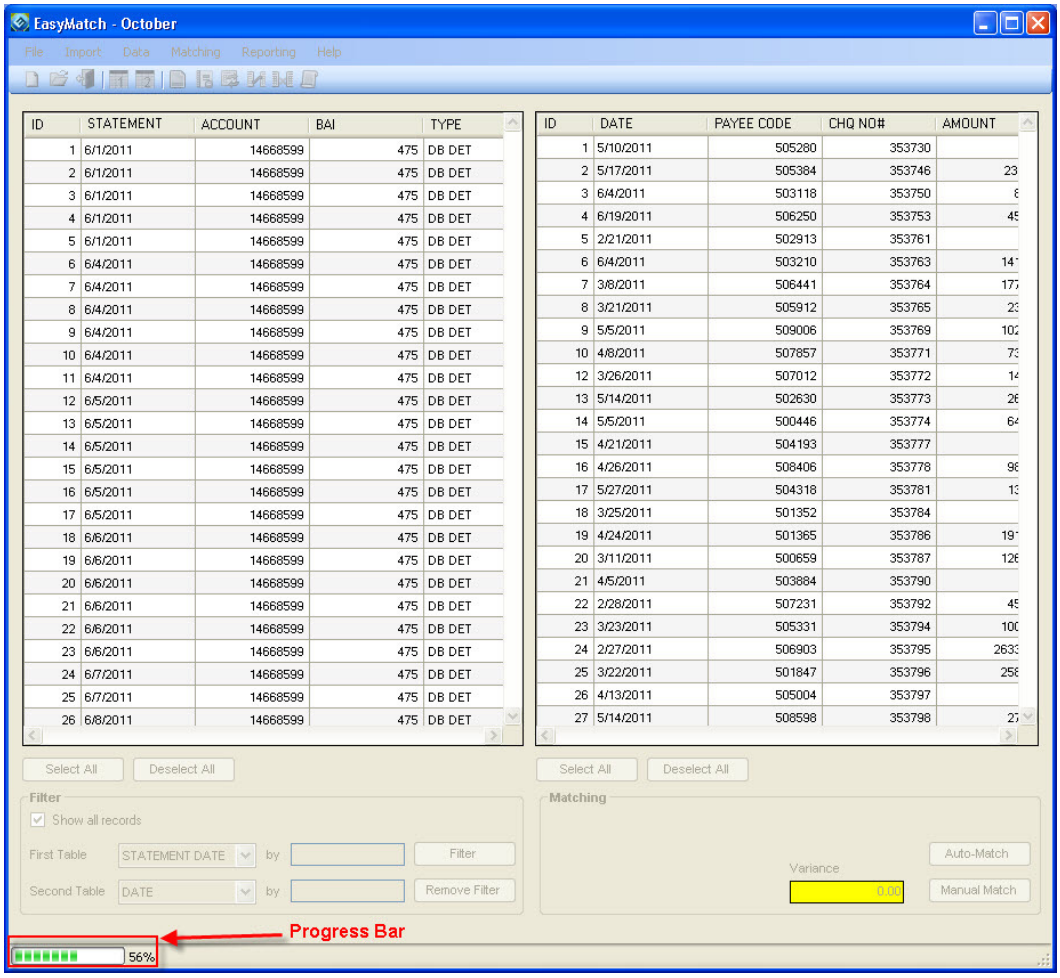

2. You will see a pop-up window indicating that the auto-match process is complete. Click **OK** .

You will now see the records which did not meet the matching criteria defined by the matching rules, as shown in **Figure 6.1.2** .

Figure 6.1.2: Records That did not Match the Matching Criteria

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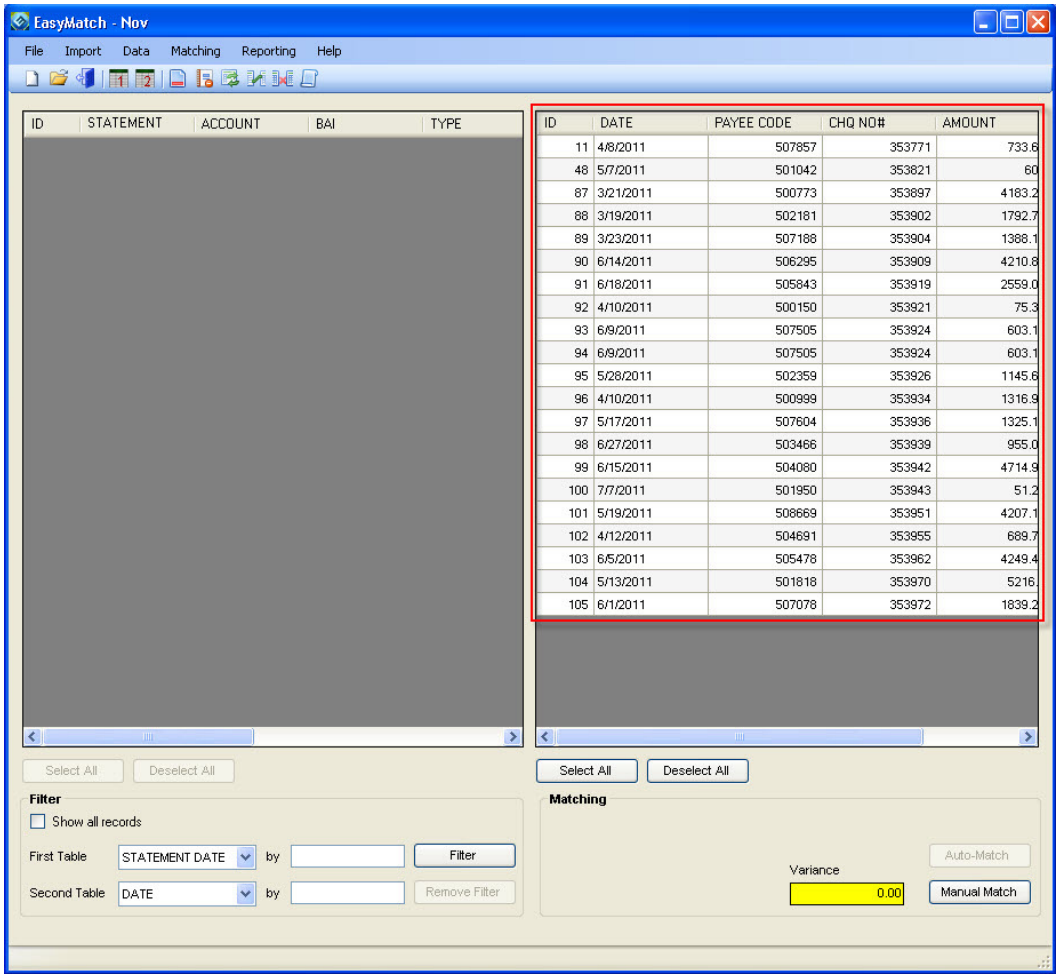

3. If you wish to view both matched and unmatched records, click the checkbox next to **Show All Records** .

All the matched records in both the tables will be displayed now. You will also notice that the matching process allocates a match number to the matched records. Match No. is a new column that EasyMatch inserts in both tables, as shown in **Figure 6.1.3** . Notice in the following figure that the last columns in both tables are **Match No** columns with match numbers assigned for each matched record. For example, in this case we used a One to One rule to match the "DESC2" column in table 1 to "CHQ NO#" column in table 2. Since the value in the "DESC2" column in the sixth record in table 1 matched with the value of the "CHQ NO#" column in the second row in table 2, both are assigned the same match number, i.e. 6. Also notice the match number 9 highlighted in the following figure.

Figure 6.1.3: Match Numbers

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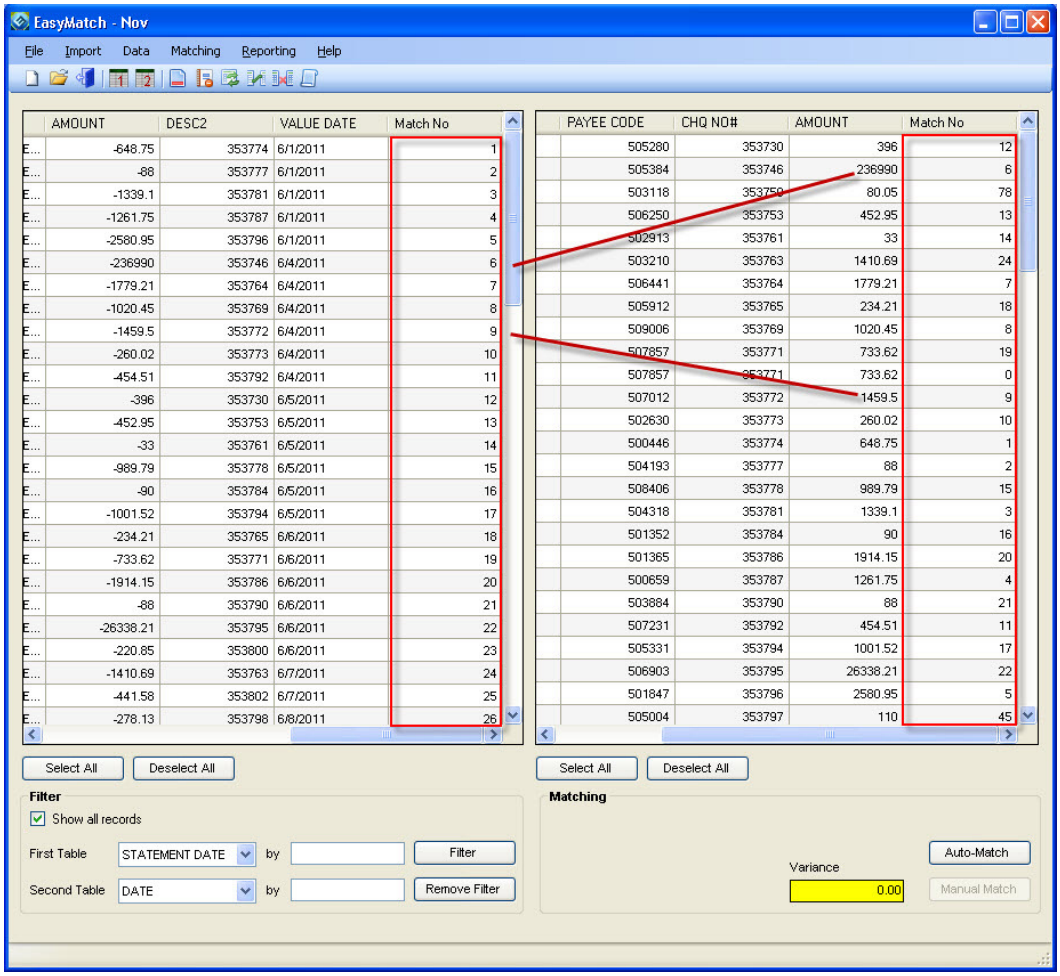

6.2 Manually Matching Records

To perform a manual match of the records in the tables:

1. Select the two records on which you want to perform a manual match and click **Manual Match**.

The two records which you have chosen for the manual match process will be assigned the same match number. You will also notice that these records will not be shown in tables once manual match is performed, as by default EasyMatch shows only unmatched records .

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Manual match can usually be usually performed after an auto-match process to minimize the involvement in matching all records manually. Manually matching records after the auto-match process can help you match any of the records that were not matched during the auto-match process.

2. If you wish to view both matched and unmatched records, click the checkbox next to **Show All Records.**

All records (both matched and unmatched) in both the tables will be displayed now. By default, only unmatched records are displayed.

6.3 Filtering Records in a Table

To filter the records in the table:

1. Select the field that you want to filter in the first or second table by choosing the field from the appropriate dropdown menu.
2. Enter the filtering criteron in the adjacent field.
3. Click **Filter**. You will see that the records in the field you have chosen for filtering will be filtered according to the filtering criterion.

You can choose to remove the filter on the field by clicking the **Remove Filter** button.

6.4 Selecting/Unselecting All Records

To quickly and conveniently select and unselect all records in a table:

1. Click the **Select All** button beneath either table to select all records.
2. Click the **Unselect All** button beneath either table to unselect all records.

Note: When used in conjunction with the manual match rule, the variance box, and the filters, you can quickly match records manually and perform analysis on the data using the Select/Unselect All buttons.

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6.5 Unmatching Records

To unmatch a record after matching:

1. Select the record you wish to unmatch. You only need to select one record in a match, even though there are two or more.
2. Click the **Matching** menu and then click **Unmatch** .
3. Click **Yes** on the **Confirmation** pop-up window.
4. Click **OK** on the Information pop-up window.

All records in the match are now unmatched and returned to the state when they were first imported. You may also notice that the match numbers are now set to "0", as shown in **Figure 6.5.1** .

Figure 6.5.1: Matched Records After Unmatching

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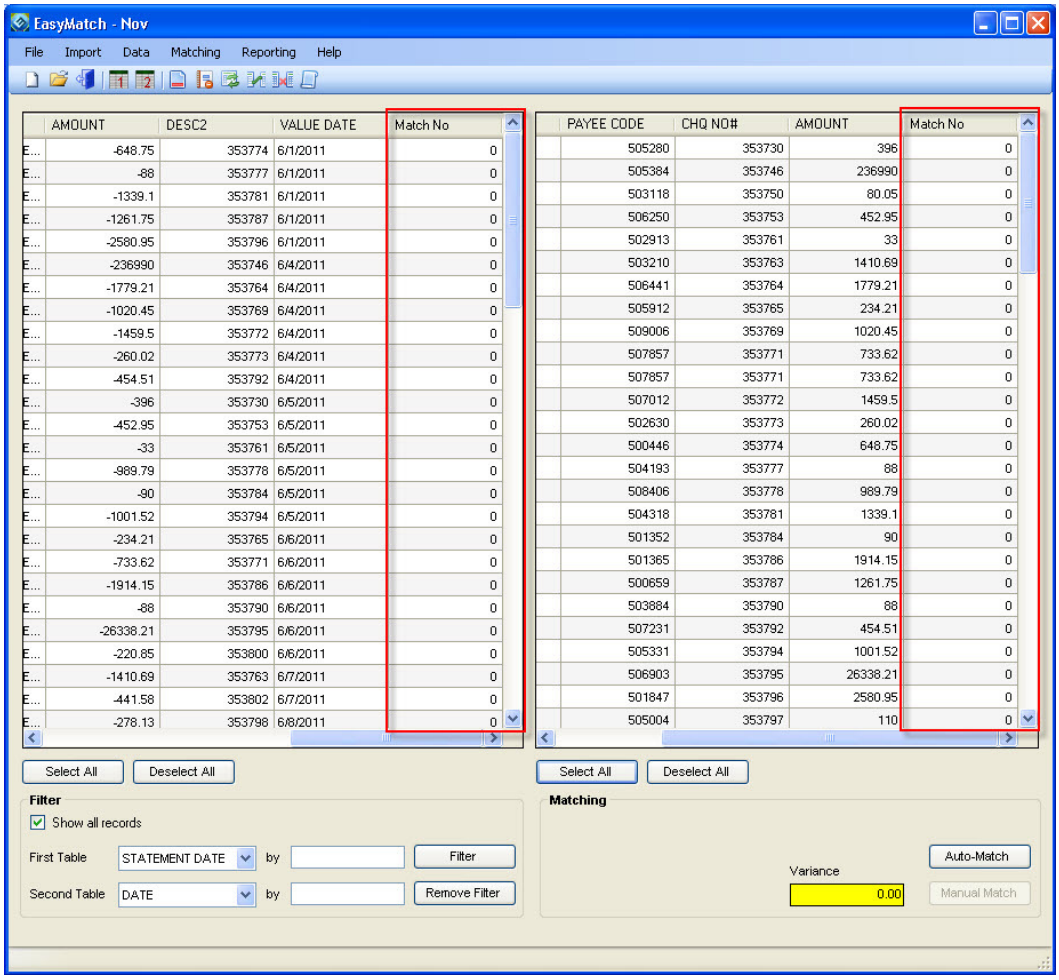

Note: Sometimes you won't always get it right. It might take a while to refine your match rules to get the most accurate match without matching the wrong records. You might also manually match the wrong records accidentally. The Unmatch feature can be used to "undo" a match when necessary.

6.6 Reordering and Sorting Columns

To reorder columns and sort the data:

1. Click and hold on the column you wish to move, and drag it to the position you wish to place it.

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2. You can also click on the column without dragging it to reorder the table in ascending or descending order.

7. Reporting

7.1 Searching Records

To search for specific records in a table:

1. Click **Reporting** and then click **Open Query**.

The Report window is displayed, as shown in **Figure 7.1.1**.

Figure 7.1.1: Reporting Window

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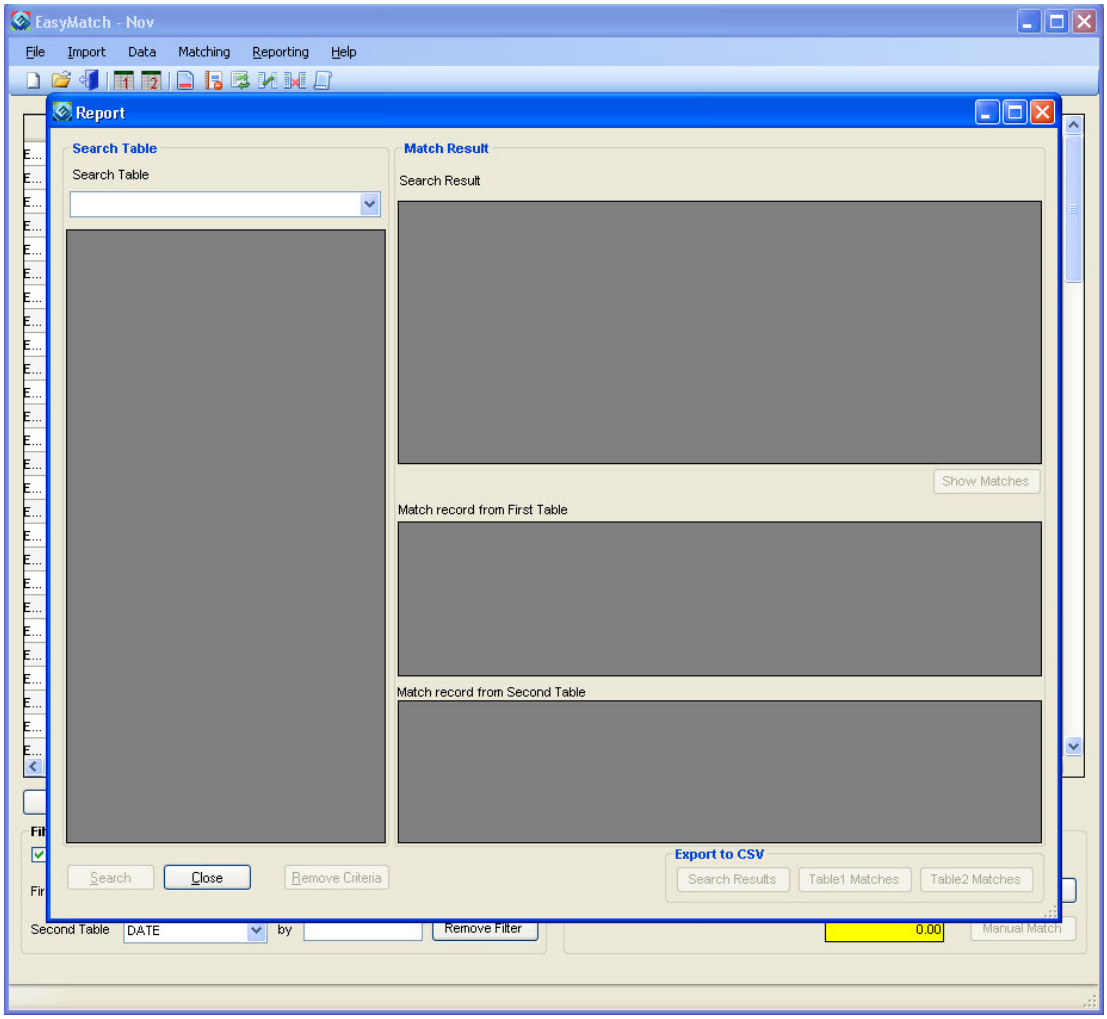

2. From the **Search Table** dropdown menu, select the table on which you want to perform the search operations.

You will see that three columns are now displayed below the dropdown menu. You will use these columns to define the search criteria.

3. From the **Column** dropdown menu, select the column on which you want to perform the search.
4. From the **Condition** dropdown menu, select the appropriate operator used to perform the search.
5. Enter the value for which the search has to be performed, in the **Value** field.

You can also specify multiple search criteria by adding multiple rows one below the other. Records must meet all criteria to be included in the result.

6. Click **Search**.

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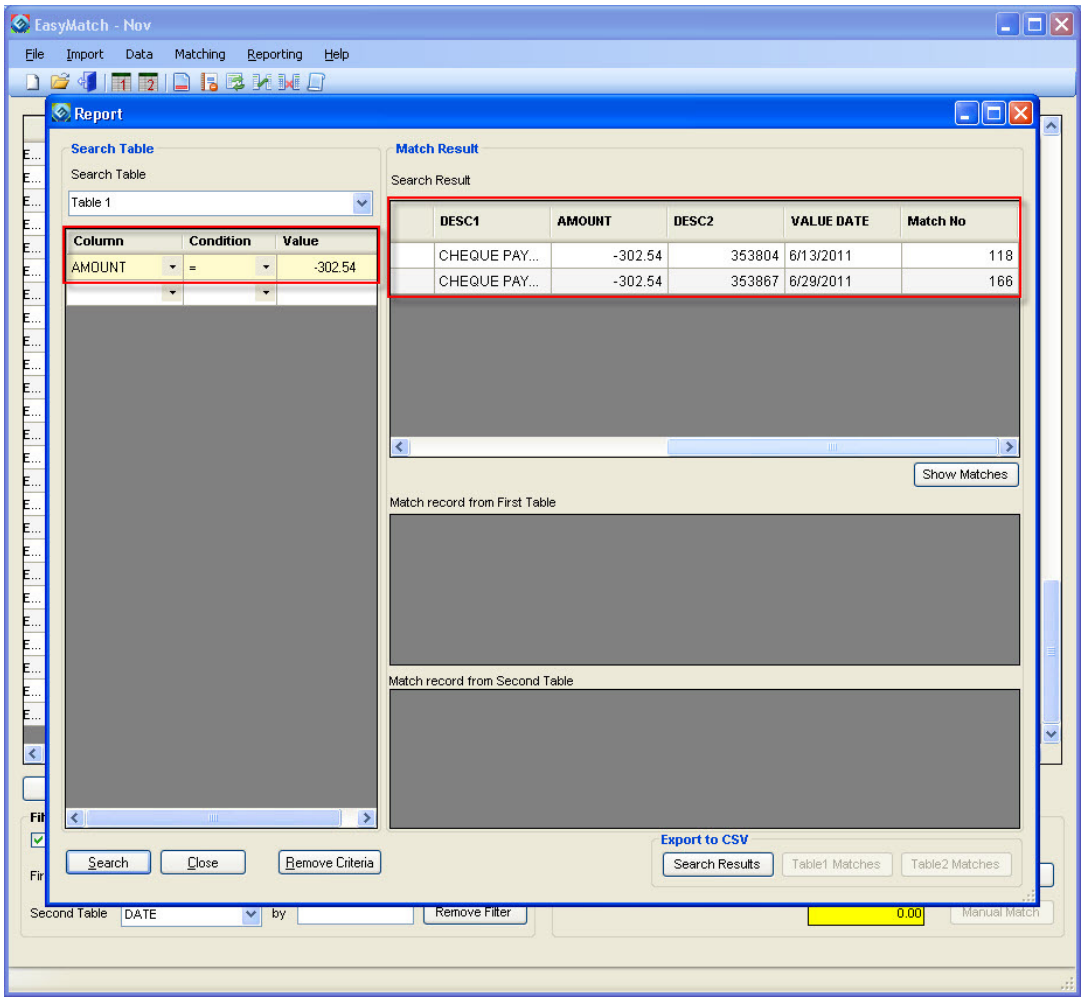
The **Search Result** section on the right displays all records in the chosen table that match all the search criteria, as shown in **Figure 7.1.2**.

Figure 7.1.2: Search Result



Note: If you are performing the search operations after performing the matching process, you can use the Reporting feature to report on matched and unmatched records.

Note: If you wish to display all records of a table in the query, enter **ID > 0** in your criteria. If you wish to display all matched records, enter **Match No > 0** in your criteria. If you wish to display all unmatched records, enter **Match No = 0** in your criteria.

7. Select the record that you want to investigate in the matched records and click **Show Matches.**

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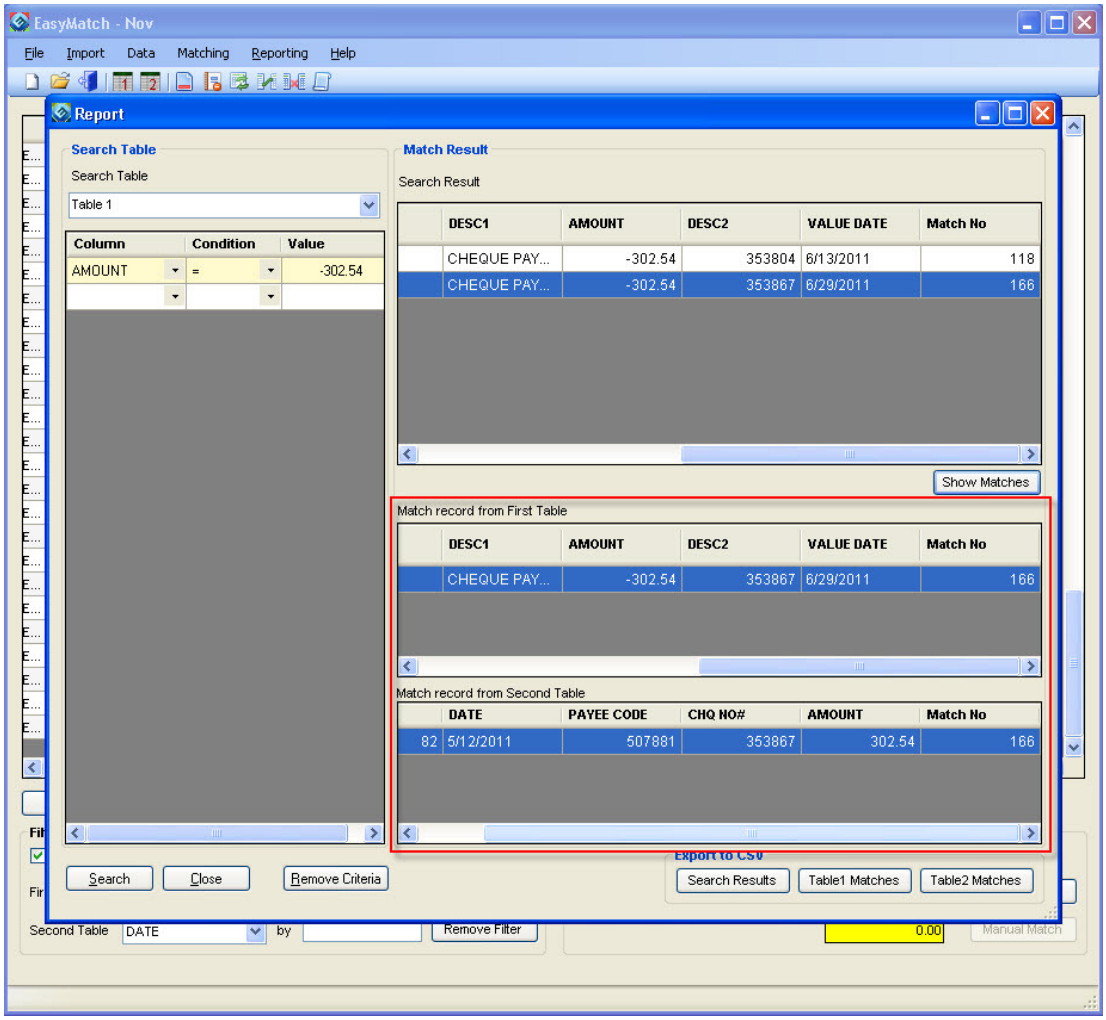
The **Match record from First Table** and **Match record from Second Table** show the records involved in the match of the selected record, as shown in **Figure 7.1.3**.

Figure 7.1.3: Records Matching the Search Results in Table 1 and Table 2



Note: You can click the **Remove Criteria** button to remove a criteria row.

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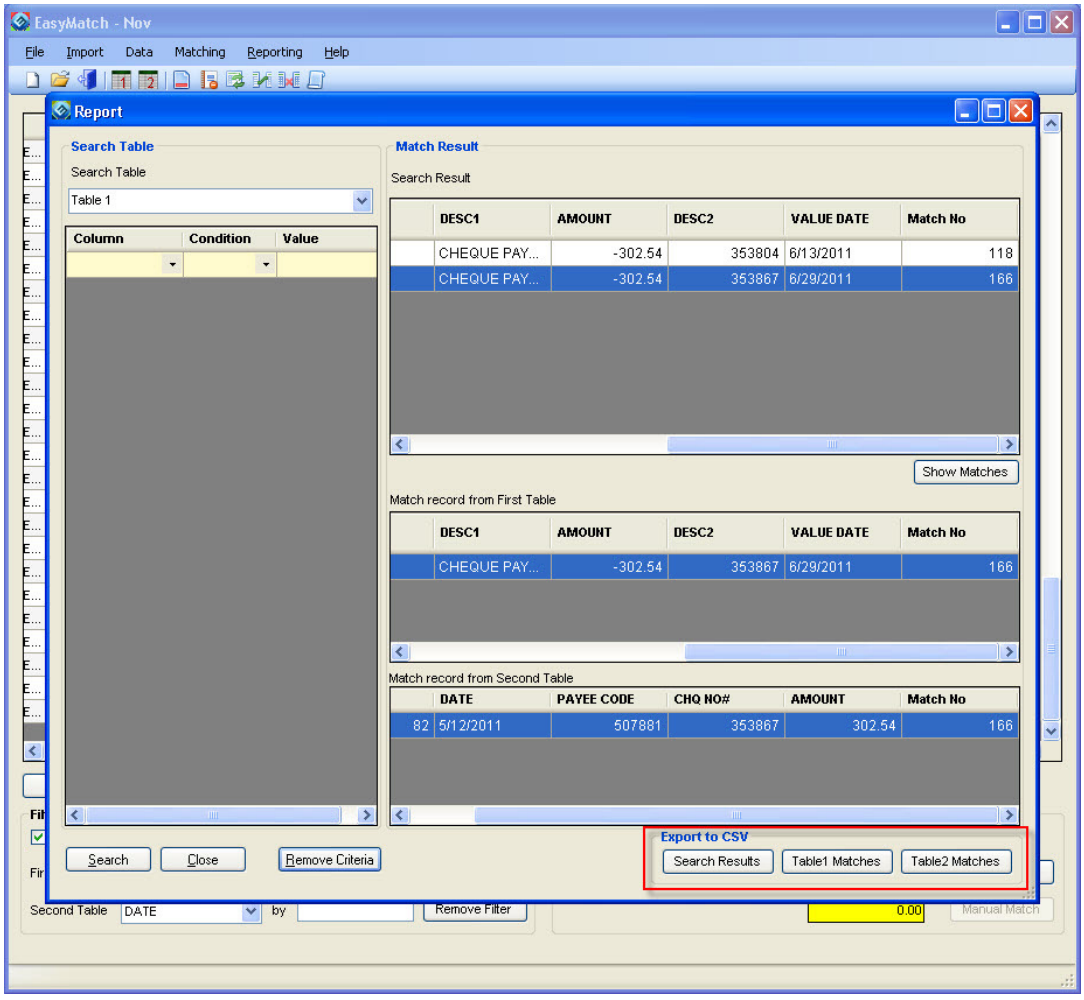
7.2 Exporting Search Results

To export search results:

1. In the **Export to CSV** section, click **Search Results** to download all the records from the **Search Result** section, in CSV format.
2. Navigate to the appropriate location on the local computer and click **Save**.
3. If you want to save the records in the **Match Record from First Table** section, click **Table 1 Matches** and save the CSV file on the computer.
4. If you want to save the records in the **Match Record from Second Table** section, click **Table 2 Matches** and save the CSV file on the computer.

The following **Figure 7.2.1** shows the buttons used to export the search results.

Figure 7.2.1: Exporting Search Results



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