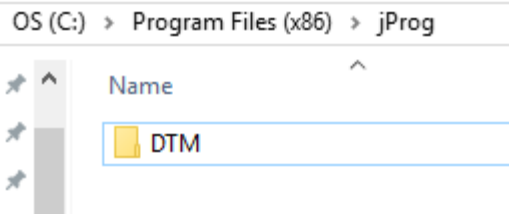# *Data Translation Module*
User manual

Overview

The Data Translation Module is a utility designed to parse files and create an Access database template file that can be easily imported into CAREWare through the Provider Data Import (PDI). It can process flat text files in a CSV format, or Excel files.

The translator runs as an installed service on the host computer that monitors a specified location for files. When a known file is placed into this directory, the translator will parse the file, create a PDI template file in the specified output directory, and move the original file to a completed file directory. All events are logged in an event log. There is also an optional email notification system to help with automating processing of files.
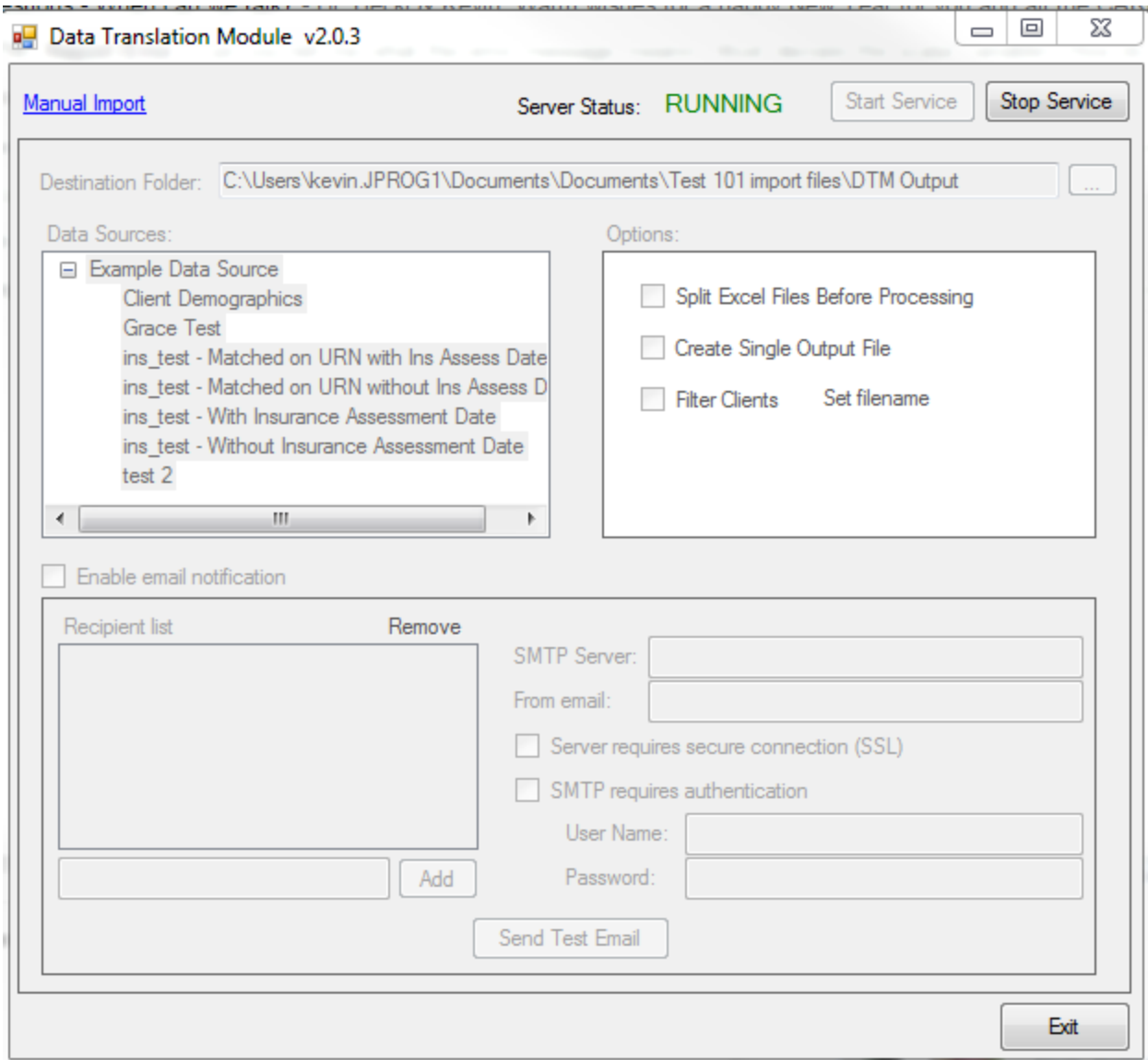
Files are parsed according to a user-defined list of field mappings. The user interface provides an easy mechanism for creating these mappings, as well as configuring the various settings the translator uses.

Setup

Once installed, open the translator interface from the Start Menu > This PC > Program Files (x86) > jProg > DTM:

This opens the main interface:

Options:

- Split Excel Files - This option is used when translating an Excel file that has multiple worksheets.
- Create Single Output File - Normally when processing, a new file is created for each file that is processed. Checking this option will add data to a single output file for all files that are processed.
- Filter Clients - This is used to filter which client records are processed based on custom reports created in CAREWare.

In order to use the Data Translation Module, the application will have to be run as an administrator.
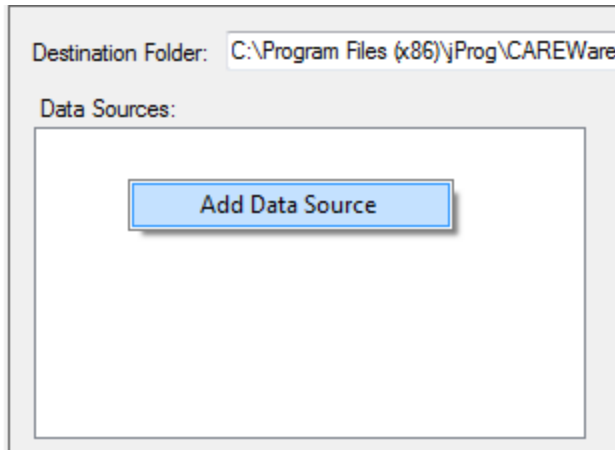
To run the application as administrator:

1. Right click the short cut or the *Data Translation Module.exe*.
2. Click *Run as Administrator*.

Once the Data Translation Module is running as administrator, the service can be stopped to add/edit data sources, configure CSV specifications, or adjust settings.
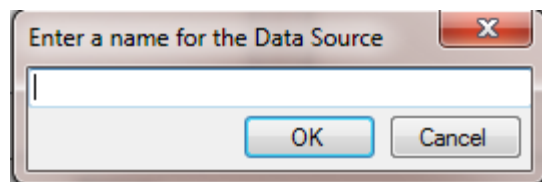
Setting up a Data Source

A **Data Source** represents where the data is coming from. This is often an EMR or some other repository containing client data. A single data source may have any number of different file specifications (See Setting up a CSV Spec).
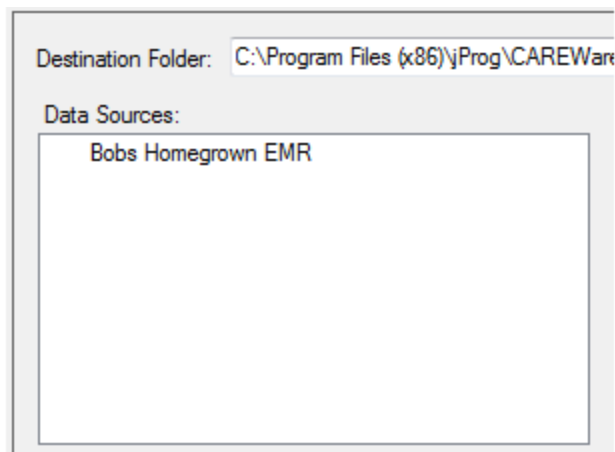
Right-click in the Data Sources box and select Add Data Source to create a new data source.

Destination Folder: C:\Program Files (x86)\jProg\CAREWare

Data Sources:

Add Data Source

Enter the name of the data source and click OK.

Enter a name for the Data Source

OK   Cancel

The data source will show on the list.
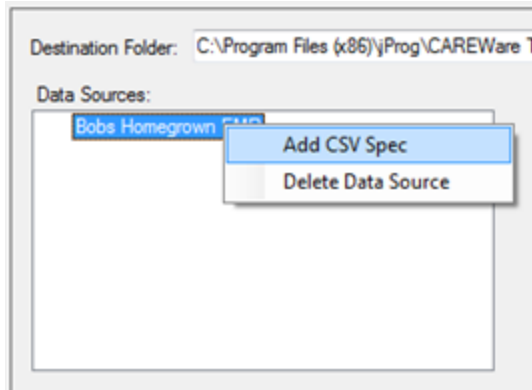
Destination Folder: C:\Program Files (x86)\jProg\CAREWare

Data Sources:
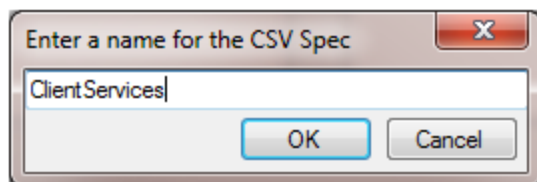
Bobs Homegrown EMR

Setting up a CSV Spec

A **CSV Spec** represents a single file structure. Each file should contain one type of data, and each line in the file should represent a single record. You may have one file for service data, another for labs, and another for medications, etc. Each file would have a consistent data structure, and each of these structures would be created as a different CSV Spec.

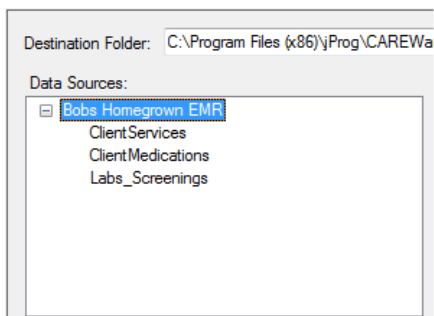Right-click on a Data Source in the list and choose Add CSV Spec.

Note: The Data Source name will appear as the provider name in the exp_provider table in the PDI template created as the output file. To change the name of the Data Source, locate the Data Source folder in the DTM folder. The default location is: C:\Program Files (x86)\jProg\DTM\Data Sources\Example Data Source. In this example, there will be a folder in that file folder path called Bob Homegrown EMR. Changing the name of that folder will change the name of the Data Source.

Enter the name of the CSV Spec.

You can create any number of CSV Specs for a given Data Source.
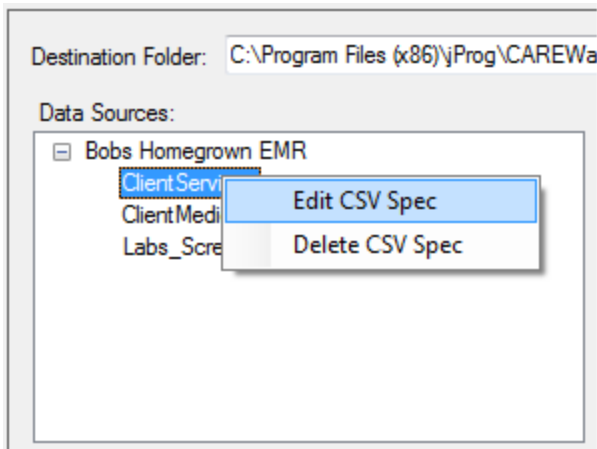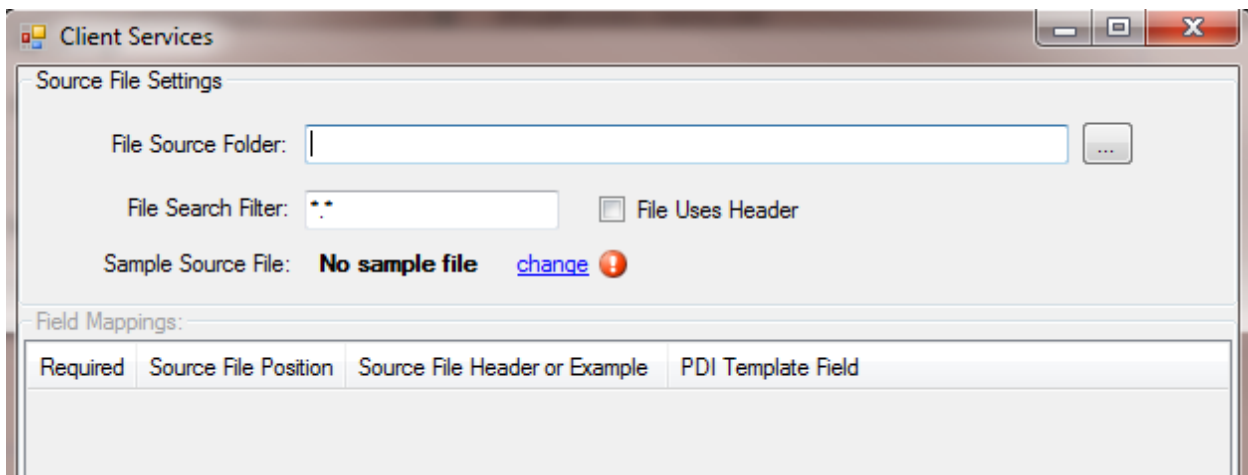
Configuring a CSV Spec

Each CSV Spec will be configured to parse a single known file structure. In order to configure the CSV Spec, you must have a sample CSV file.

IMPORTANT: The structure of files that are being processed must be consistent and must match the sample file!

Right-click the CSV Spec you want to configure and choose Edit CSV Spec.
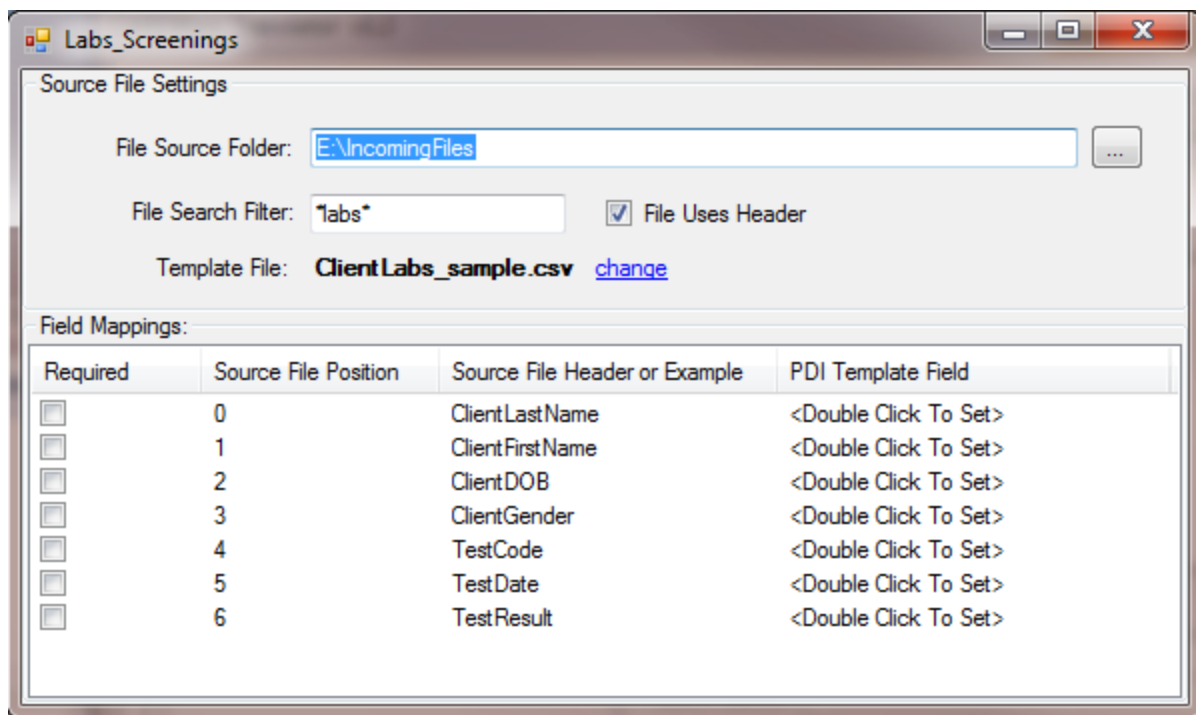

This opens the CSV Spec Editor.

File Source Folder - The translator will monitor this location for files to process with this spec.

File Search Filter - Only files with this string in the file name will be processed. * is a wildcard, so *.* would process all files, while *services* would only process files with "services" anywhere in the file name.

File Uses Header - Check this if the first row of the file is header info instead of real data.

Sample Source File - This is used to take a sample of the source data that the translator will use to parse out the available columns in the source file (It is advisable to use column headers in the sample file!). Clicking *change* opens a file browser dialog to select the file.

Once the sample file is set, the CSV Spec Editor will show all the fields in the sample file.

In this example, the translator will monitor the E:\IncomingFiles directory for any files with "labs" in the file name. The sample file is set; here is a view of the contents of the sample file:
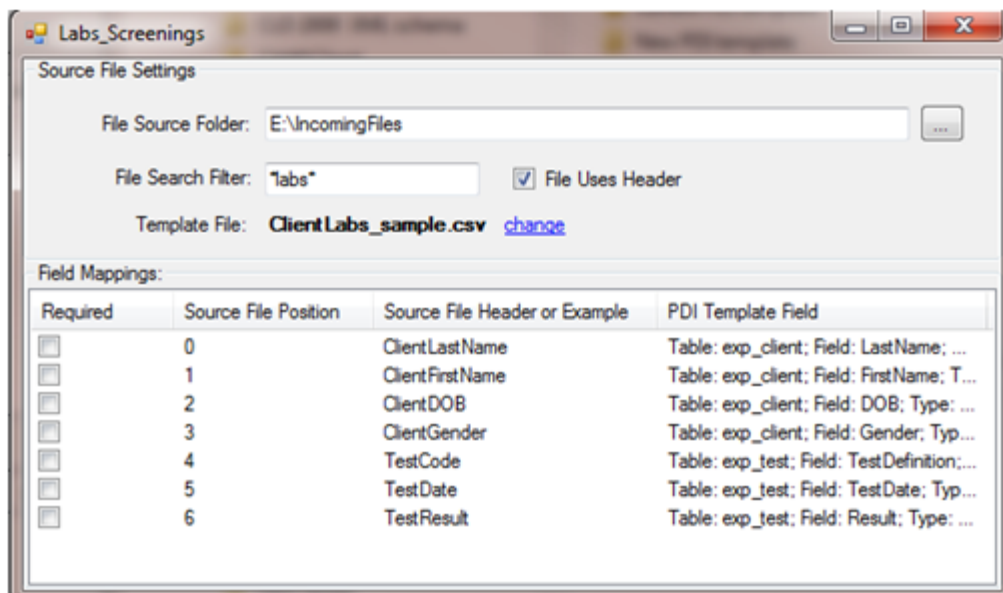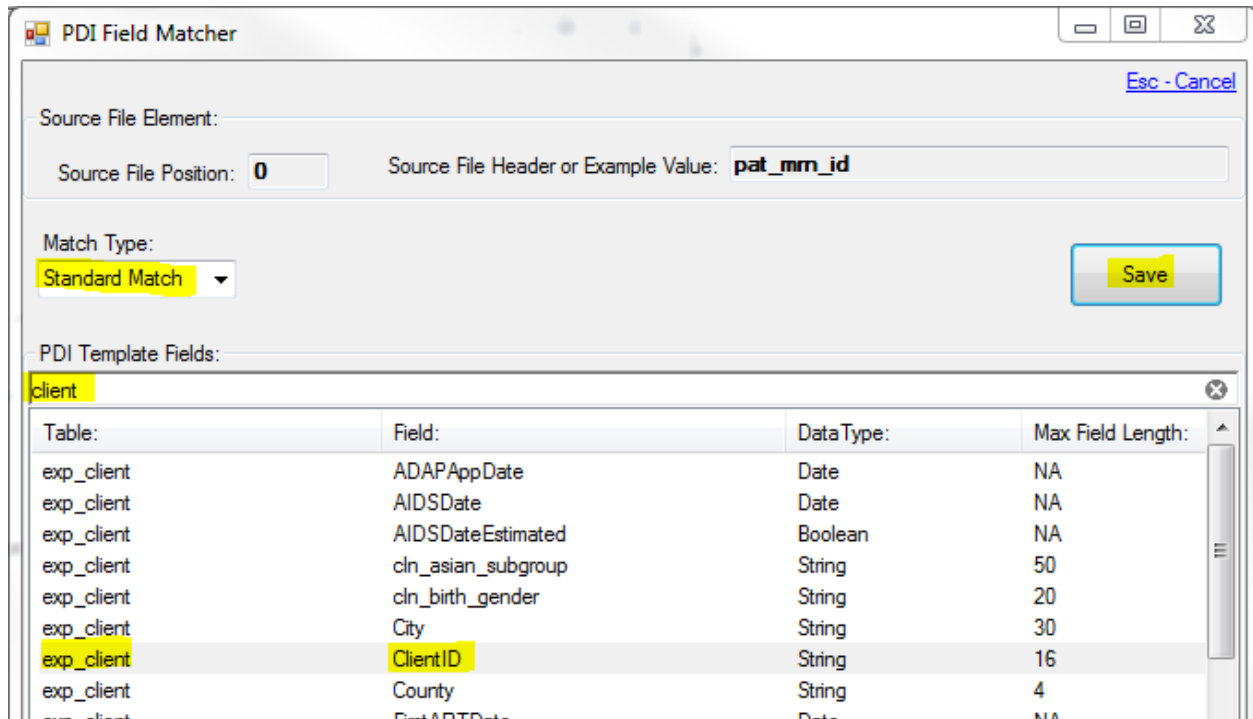
ClientLastName,ClientFirstName,ClientDOB,ClientGender,TestCode,TestDate,TestResult
DOE,JOHN,1/1/1990,1,CD4,2/25/2014,0
DOE,JOHN,1/1/1990,1,ViralLoad,2/25/2014,344

The first row is a header row, so the *File Uses Header* is checked. The Field Mappings table shows all the fields that are in the sample file. The *Required* column allows a user to flag the field as required, so that a record without a value for that field will be flagged as an error during translation.
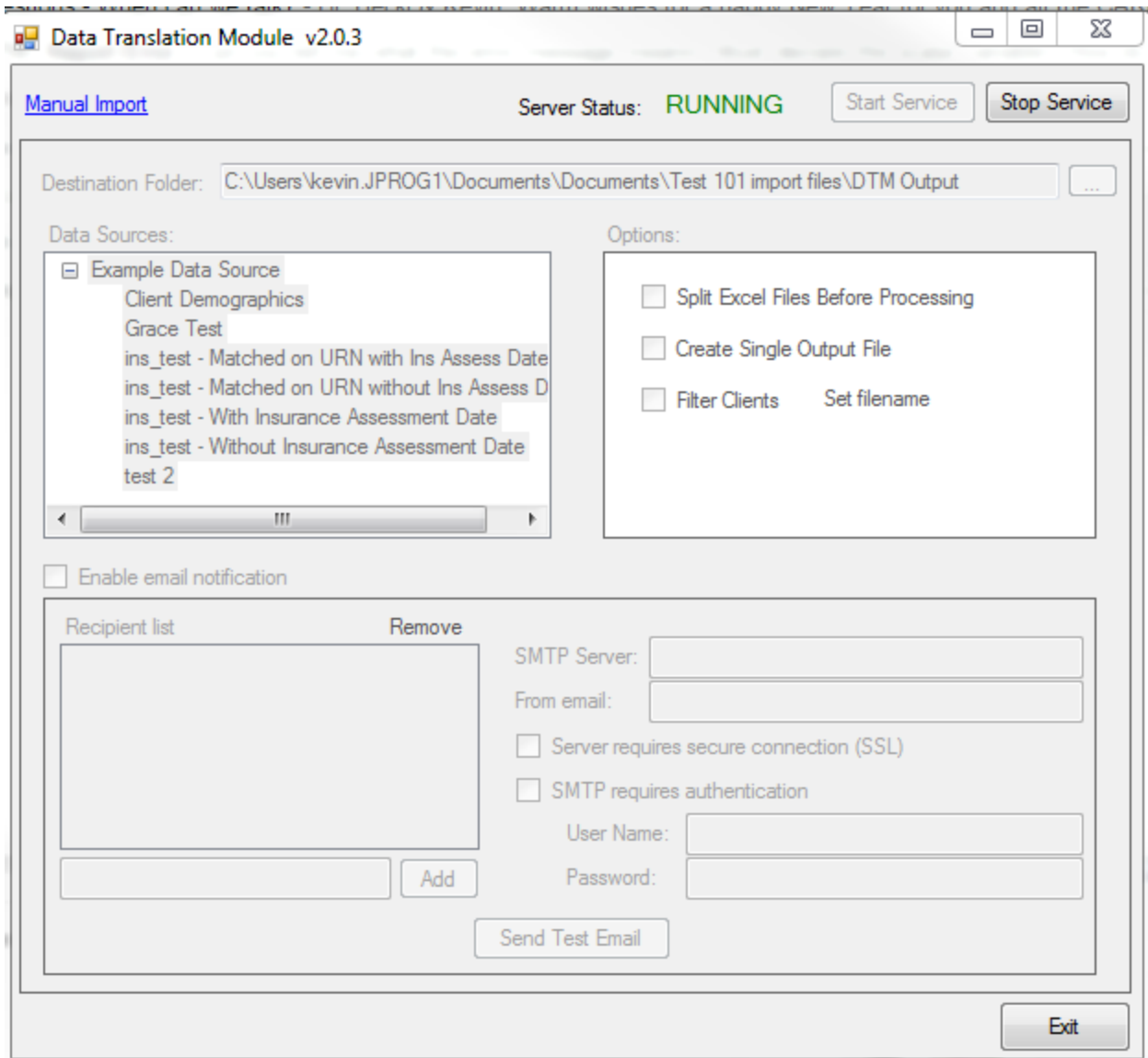
The next step is to map each field in the sample file to an available PDI Template Field.
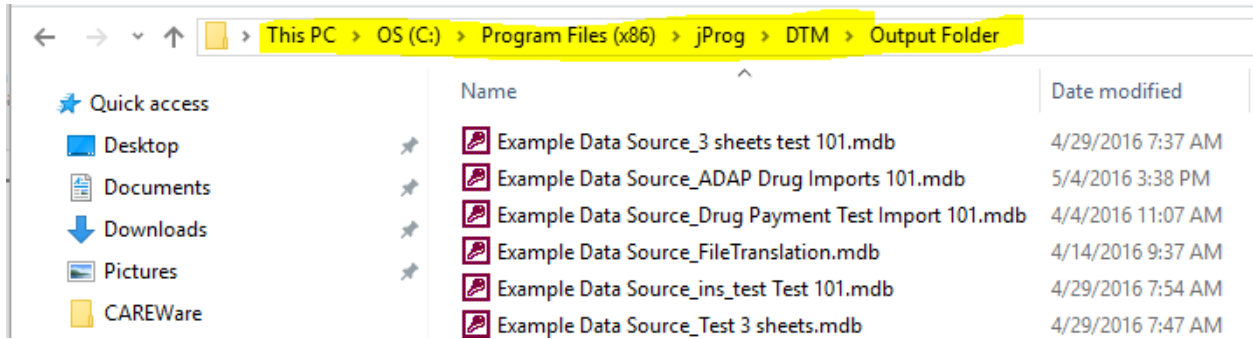
Double clicking on a row opens the PDI Field Matcher.

This shows all available fields that the PDI can process (Note: This list is very long, so it's advisable to use the Filter box to help find specific fields). Double click on the appropriate field to map it to the incoming field. Do this for all fields in the incoming file.
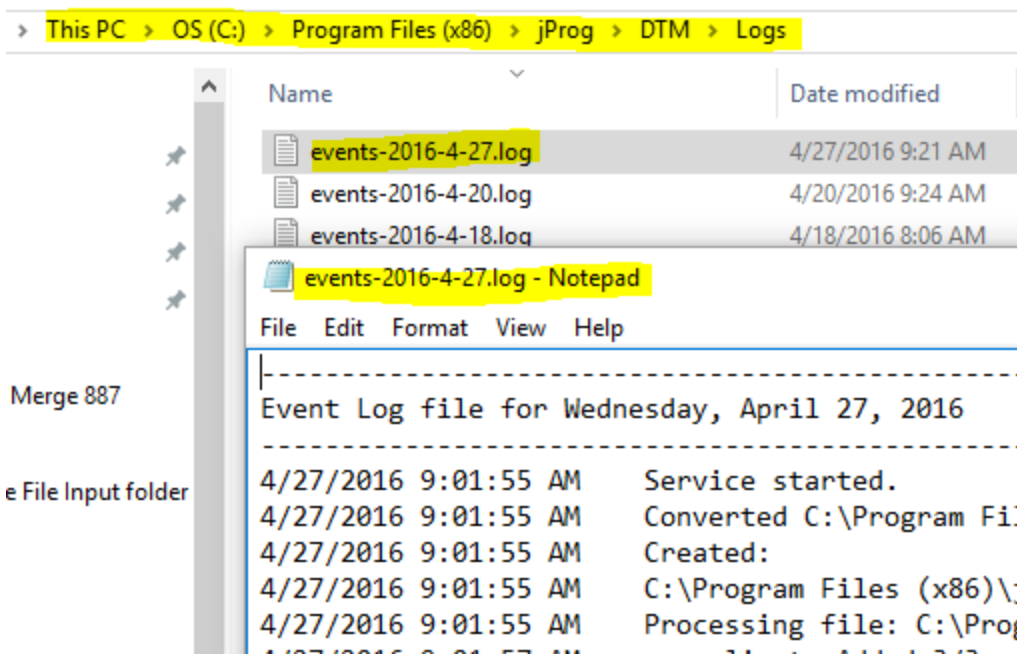
Once the configuration is complete, click the Start Service button on the main interface to start the service.

Now any time a file is placed in the directory that was specified for each CSV Spec, that file will get processed. When a file is processed, an Access .mdb file will get created in the specified output directory. The file name is in the format: *datasource_filename*.mdb.

The log files are located at: C:\Program Files (x86)\jProg\DTM\Logs by default. The log file will show all events.
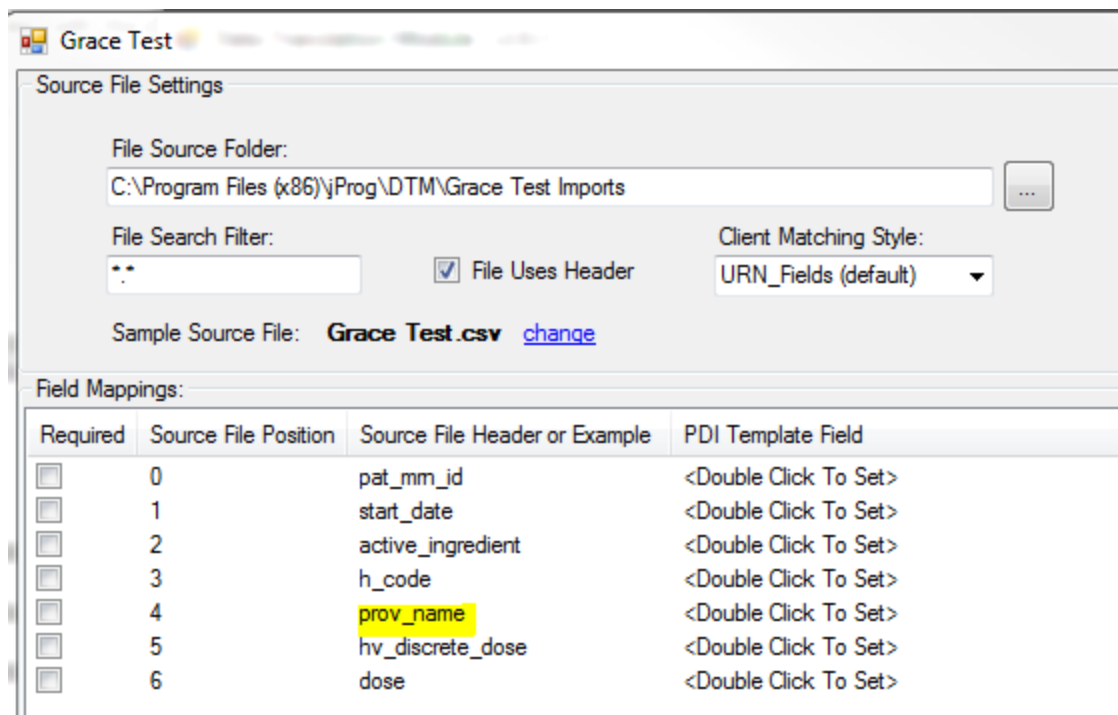

NOTE: If the same file is processed more than once, then the result .mdb file will be overwritten with the new data.
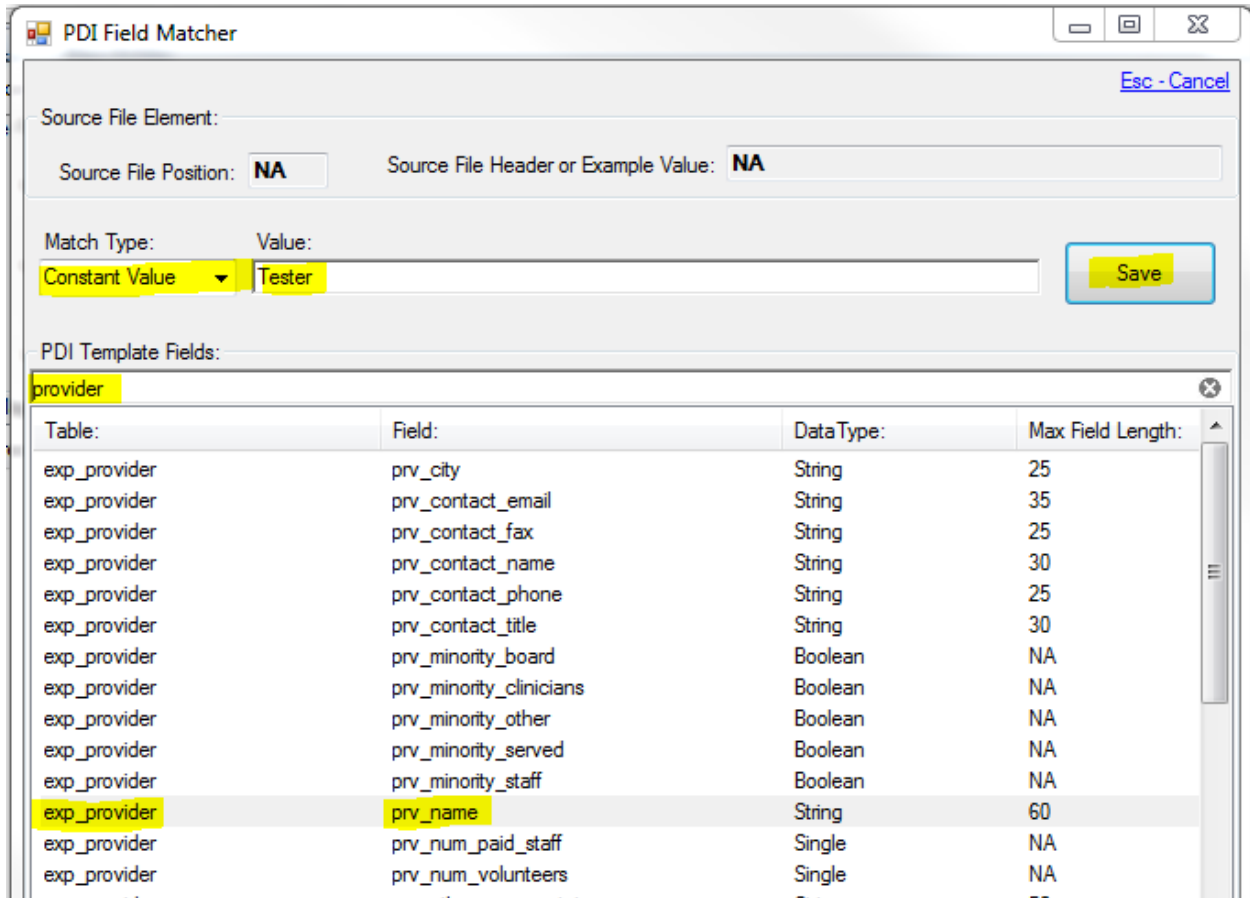
Mapping a Constant Value

It is possible to map a PDI template field to a constant value. When this is done, a specified constant value will be entered for the mapped template field in every record that is processed. Constant values can be set for any template field, even ones that have no matching field in the source file being translated.

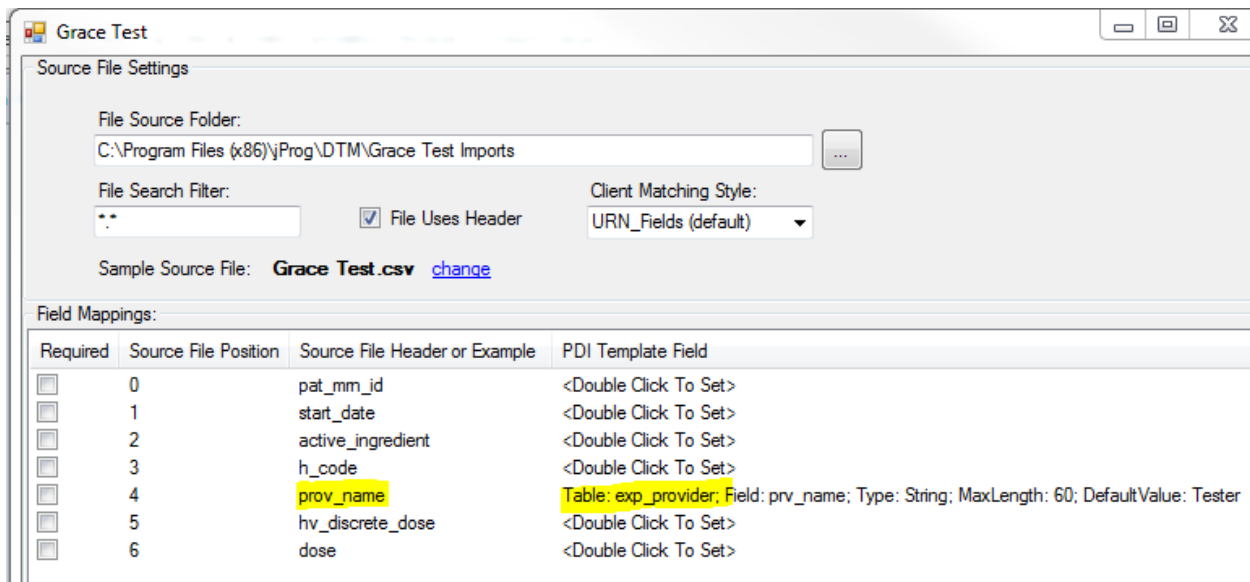To map a constant value to a source field:

1.Double-click the field you want to map.

2. Click the drop down menu for *Match Type.*
3. Click *Constant Value*.
4. In the Value field, enter a value for the constant value.
5. Select the PDI Template field you want to map that value to from the list of template fields.
6. Click *Save*.

The DefaultValue for prov_name is now "Tester".

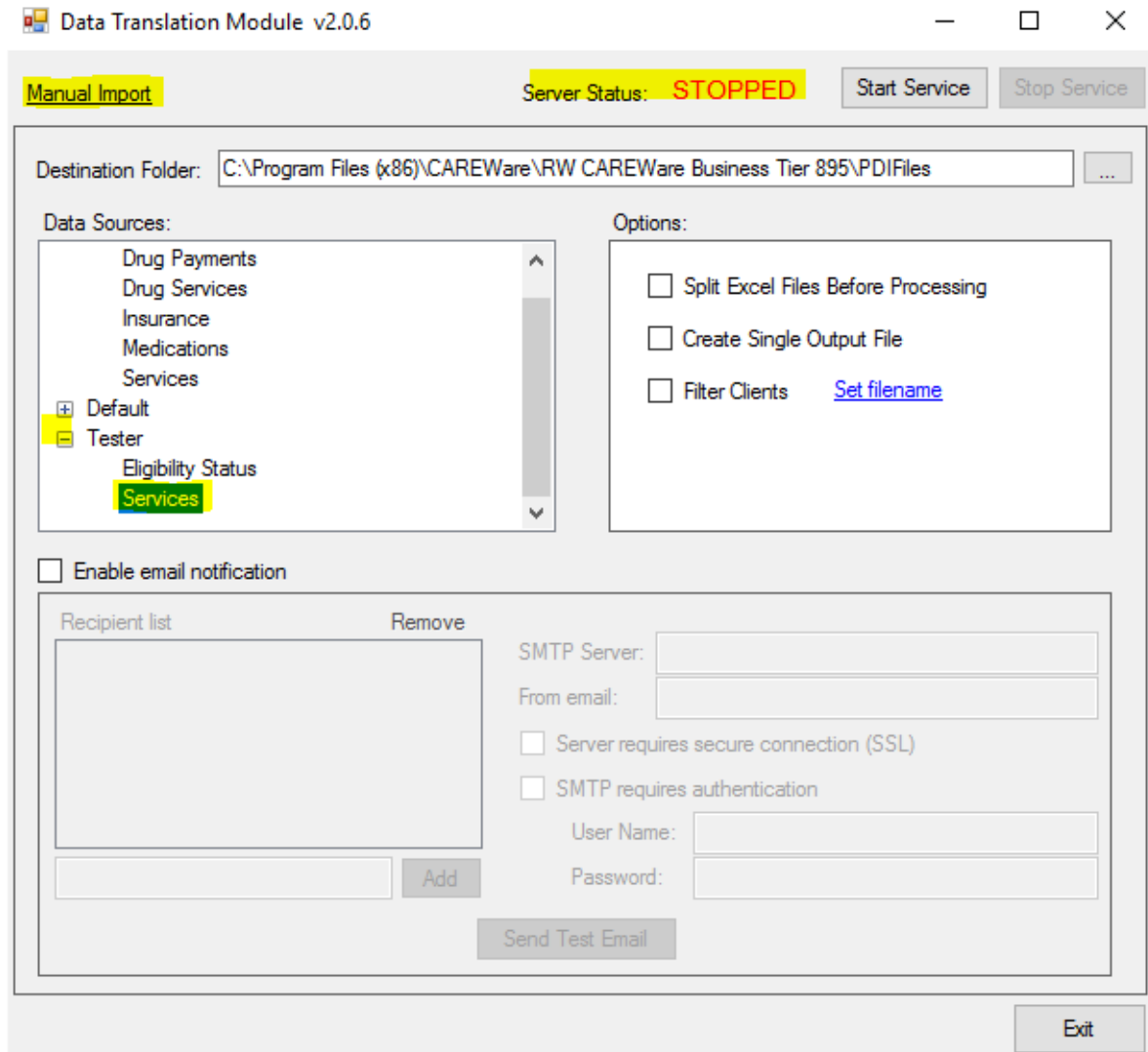NOTE: To add a constant value for a field that is not in the source file:

1. Right click on an open spot in the bottom of the list of mapped fields.
2. Click *Add Mapping*.
3. Click the drop down arrow for Match Type.
4. Select *Constant Value*.
5. In the Value field, enter a value for the constant value.
6. Select the PDI Template field you want to map that value to from the list of template fields.
7. Click *Save*.

The new mapping will be added to the list without a source file position or source file header, since this field will be added in addition to the columns in the import file.
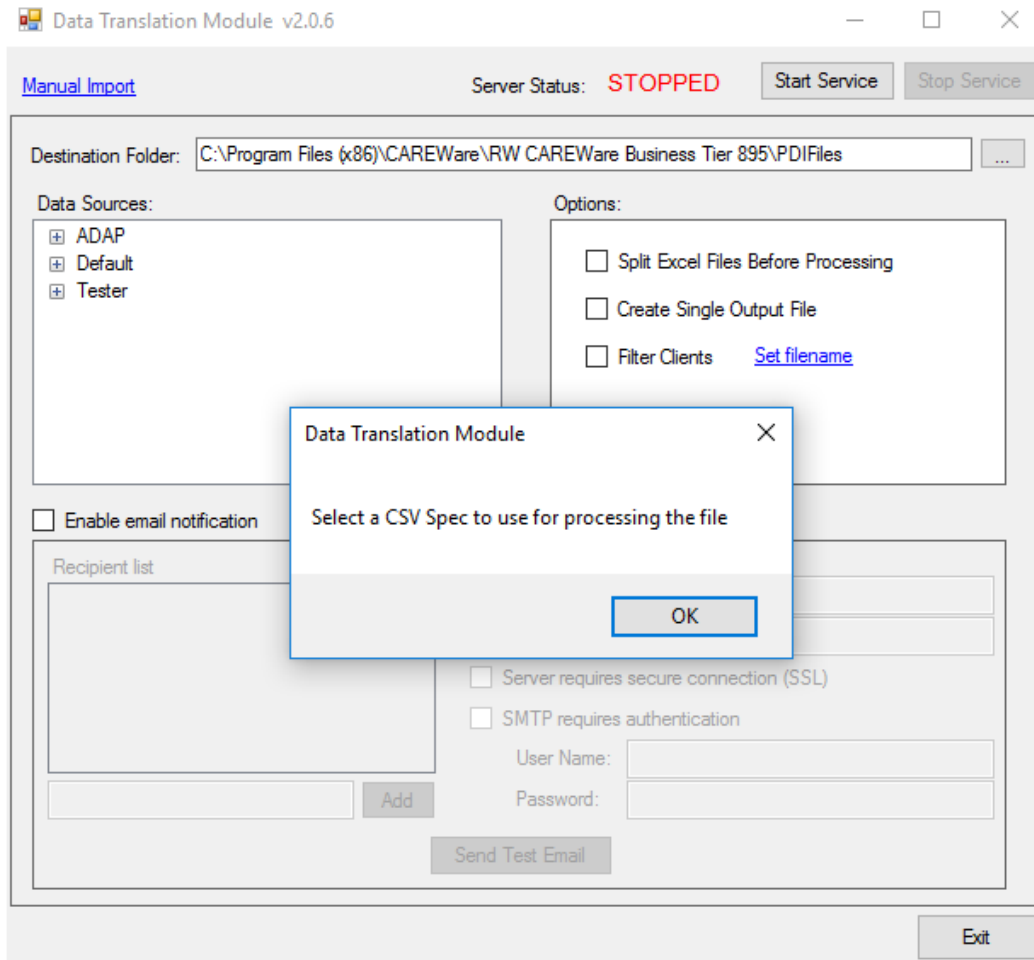
Manual Import

The Data Translation Module manual import feature allows users to manually complete the translation process by selecting a CSV specification and an import file.
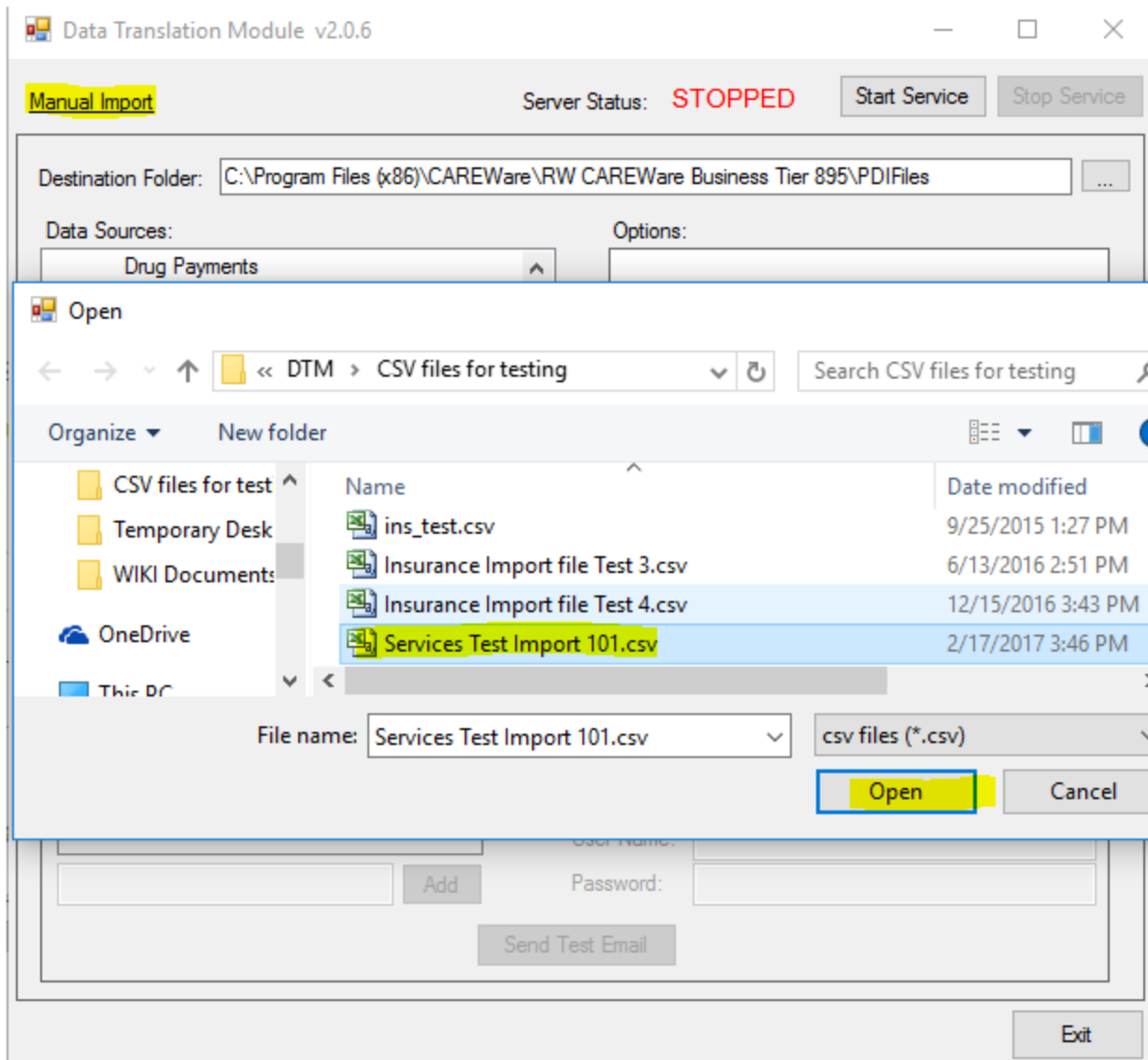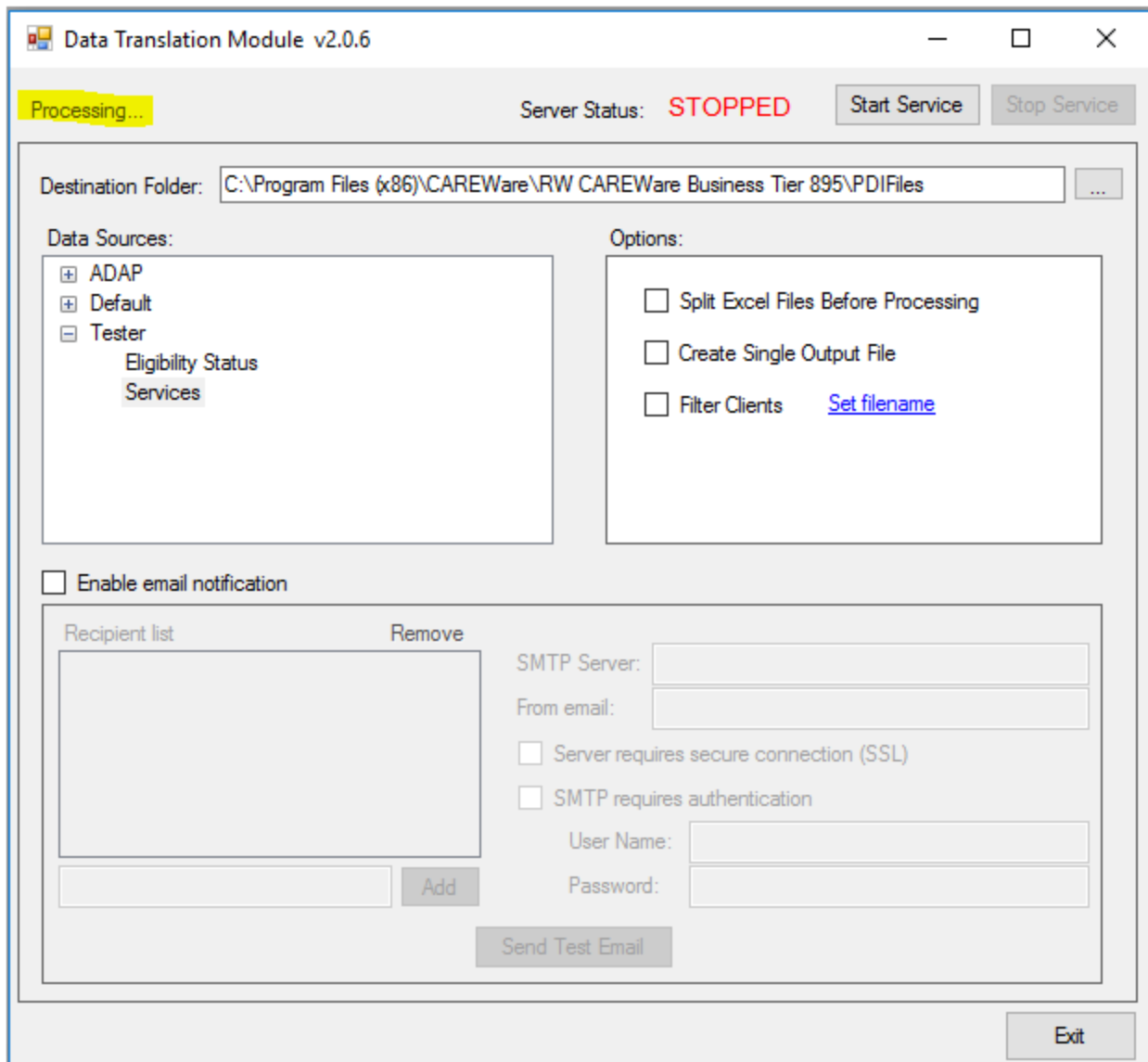
1. Select a CSV Spec.

Note: If a user clicks *Manual Import* before selecting a CSV Spec, a quality check message will appear.

2. Select an import file that matches the CSV Specifications.
3. Click *Open*.

The Data Translation Module will begin processing the file.

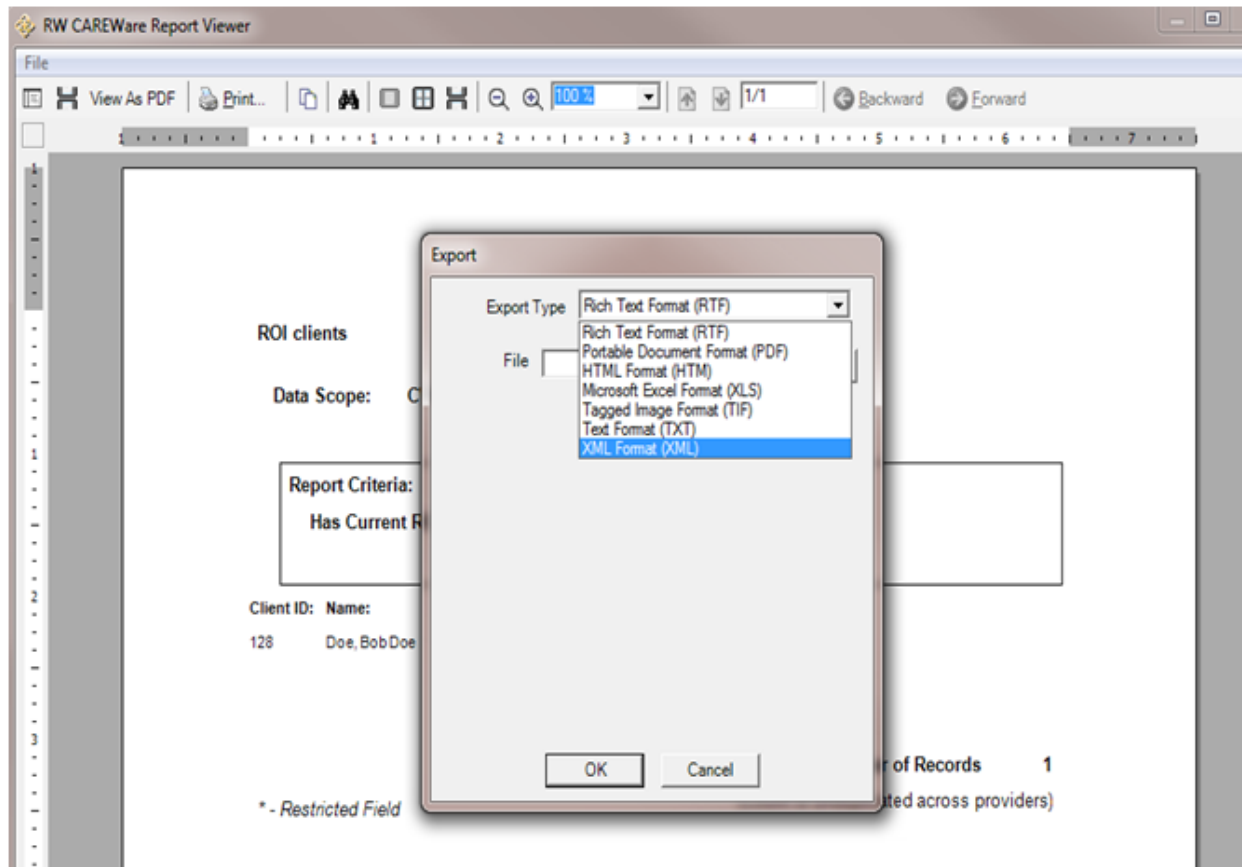4. Verify the PDI file was created in the *Destination Folder*.

Filter Clients

This option allows the translator to only process certain clients that match a filter that can be set up in the translator. The basic idea is that a user can create a custom report in CAREWare to create a filtered list of clients. This is saved as an XML file which is supplied to the translator and configured to match a field in that file to a field in the incoming data files. During the translation, only clients who have a matching value in the report file be processed.
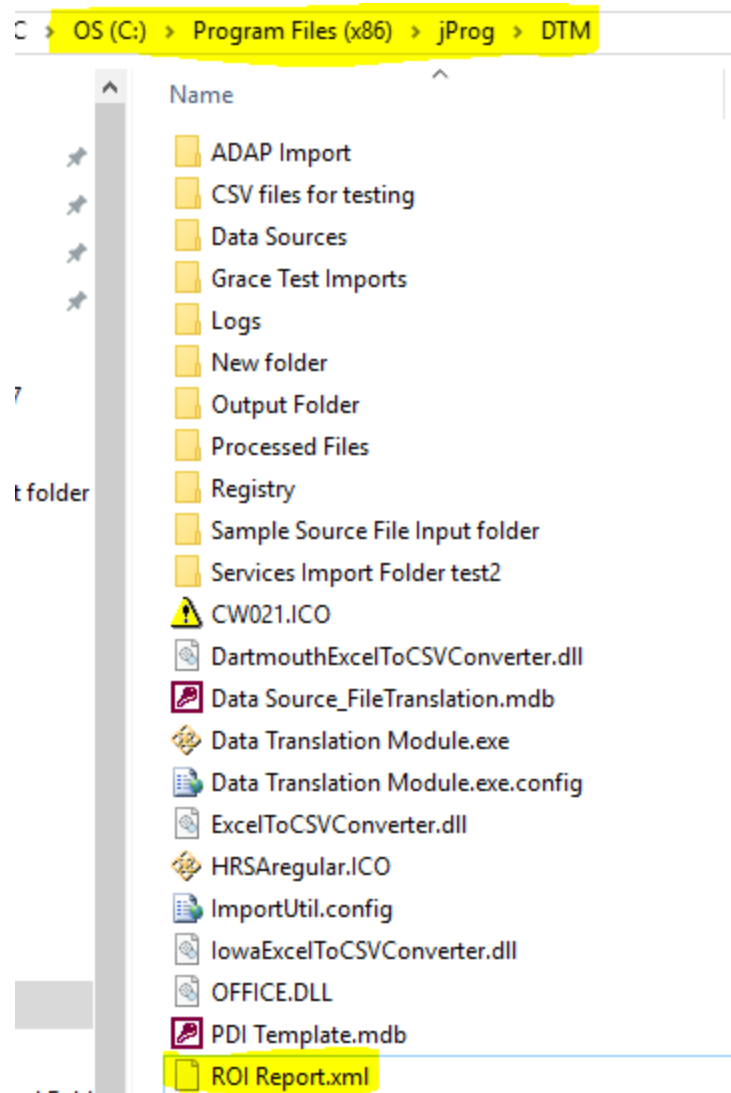
Step 1 - Create a custom report in CAREWare. This report can use any filter, and should contain at least the field that will be used to identify clients in the import files. Knowing the name of this field is an important step.

IMPORTANT NOTE: The report exporter does not export spaces in the field names. So, if your field name has a space in it, the name of the field you use in the translator will not have the spaces removed. For example, if you use the field 'Client ID', in the translator that will be 'ClientID' (no space).
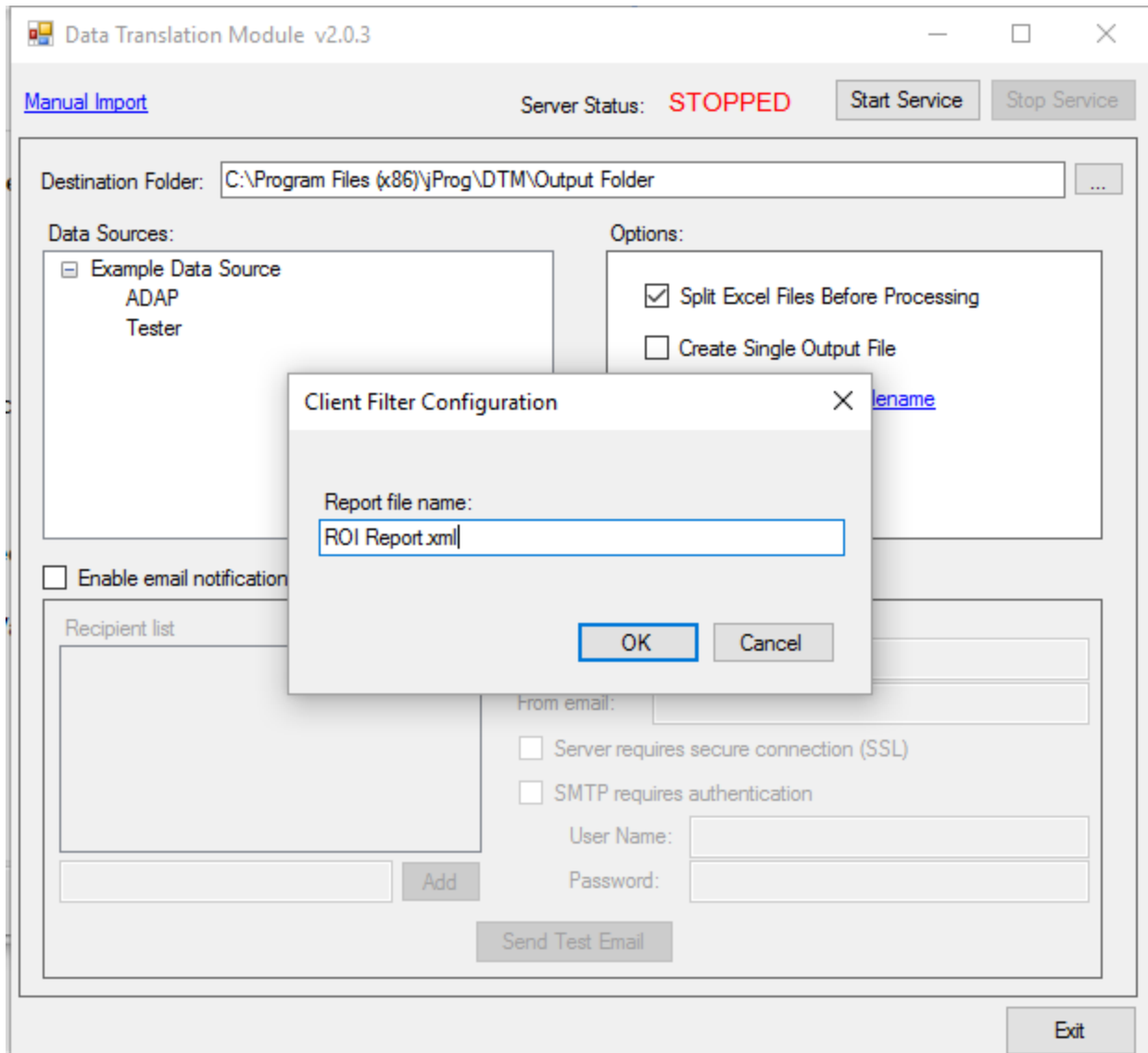
Step 2 - Run the report and in the report display choose File -> Export. For the Export Type, choose **XML Format (XML)**.
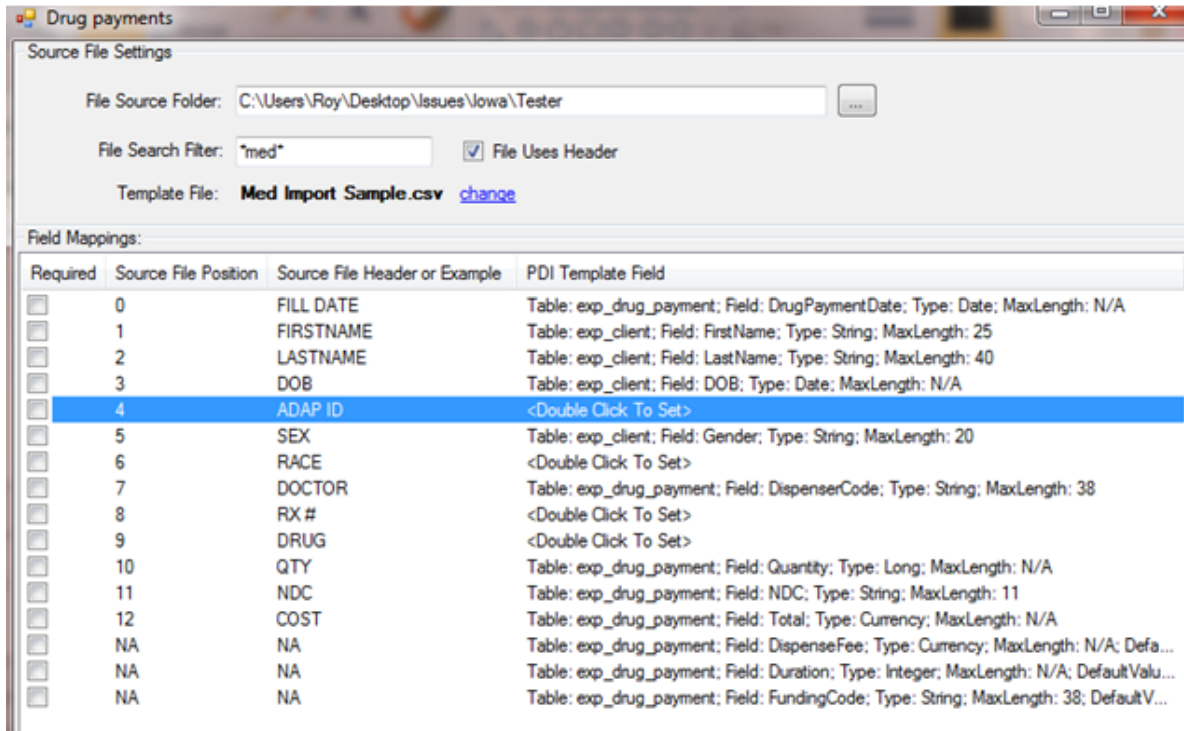
Save the file in the installation directory of the translator utility, It is important to remember the file name (in this example, the file name will be **ROI Report.xml**):

Step 3 - Configure the translator to use the file. Check **Filter Clients** and click **Set filename** to set the name of the file that will be used to filter clients.

Double-click the CSV Spec to configure the fields. Then double-click (or right-click and choose **Add Mapping**) on the source field you will use to match clients (this is the field in the incoming files).
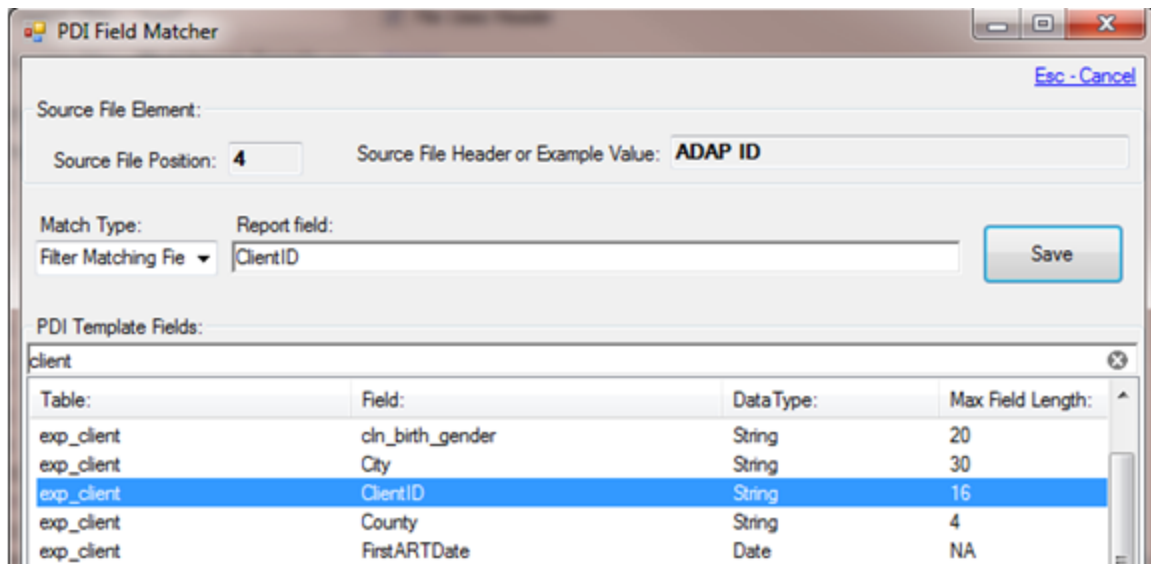
On the PDI Field Matcher, choose:

Match Type: Choose the *Filter Matching Field* option.
Report Field: Type in the name of the field in the custom report. (*without spaces!*)
PDI Template Field: This is the field in the resulting PDI file this value will populate.

That's it! Now, when the translator runs, it will check the report file and will only process an incoming record for a client if that client has a matching record in the report file. Because of the generic nature of this matching, and the versatility of the CAREWare custom report engine, this filtering can be used to filter the data on any nearly any field in CAREWare.