

# General Quick Start Tutorial

<https://cms.pilotfishtechnology.com/node/4084>

eiConsole v.23R1

**The General Quick Start Tutorial is the prerequisite for all new users.** It is a simple [interface](#) where you'll be taking a flat file from a directory and converting it to XML. In 15-20 minutes you will have configured an end-to-end interface with the eiConsole.

Before you begin the Quick Start Tutorial we suggest that you browse through the eiConsole [OVERVIEW](#) for a quick look at the overall process for configuring an interface. If you have not installed the eiConsole recently, click eiConsole [Update](#) to download and install the latest slipstream release. Then, visit [eiConsole Bundles](#) to download the latest Industry Bundles which include all the sample files that you'll need to do the industry-specific tutorials. For additional information, click here for tutorials on Importing a [Bundle](#). After that, you'll be ready to start.

## eiConsole Basic Terminology

Before we begin configuring an interface let's review some eiConsole terminology:

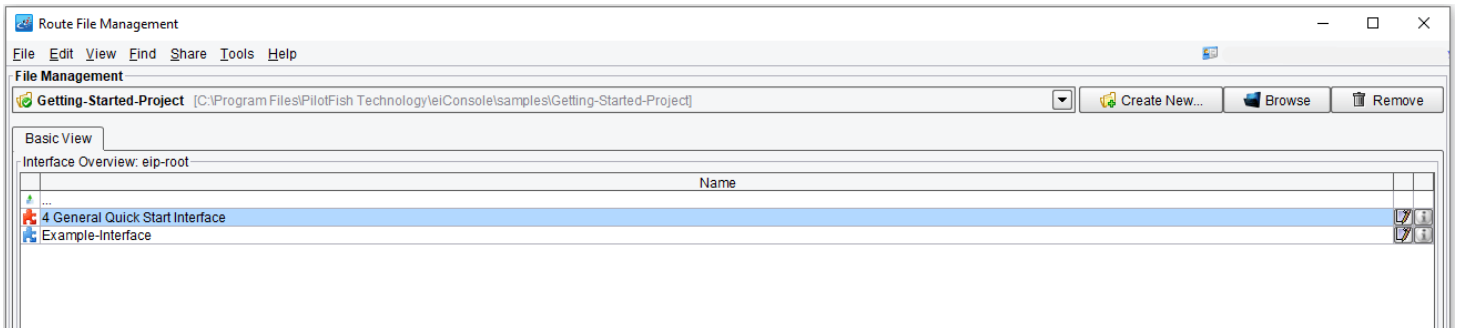
- A **Working Directory (aka Workspace)**: is a project directory that contains at a minimum the 4 directories required by the eiConsole: data, [formats](#), lib and [routes](#).
- An **Interface**: is one or more routes.
- A **Route**: is an interface or a part of the interface that defines how the data moves from any number of source systems to any number of target systems.
- An **Interface Package (Interface Context)**: is a group of routes and [interfaces](#) that can be categorized by functional tasks. ( An Interface Package can consist of any number of routes, a collection of interface templates, and partially or fully configured interfaces.)

Next, let's expand on the **Working Directory**. In the eiConsole, a Working Directory is a set of directories and files utilized by eiConsole instances and by a running eiPlatform. The directory structure dictates a hierarchy to be used for determining which Routes and Formats belong to particular interfaces. If you select an empty directory, the eiConsole will ask you if you wish to initialize it. In doing so, it will create the necessary directories – data, formats, lib and routes:

- The "**data**" folder is used to store user-defined and managed data, such as sample files for testing or documents describing interfaces.
- The "**Lib**" directory may contain JAR files (files with a ".jar" extension), which are used for defining new types or newer versions of eiPlatform / eiConsole modules.
- Each "**routes**" folder (under "routes") contains a "route.xml" file, which is where the definition of a particular Route is stored (including configuration settings and topology).
- Each "**formats**" folder (under "formats") contains a "[format.xml](#)" file, which is where the definition for a particular Format is stored. This folder will also include [XSLT](#) transformations and [File Specification Editor](#) definitions (in XML).

For additional information on the Working Directory, visit the Module: [\(1\) The Working Directory](#).

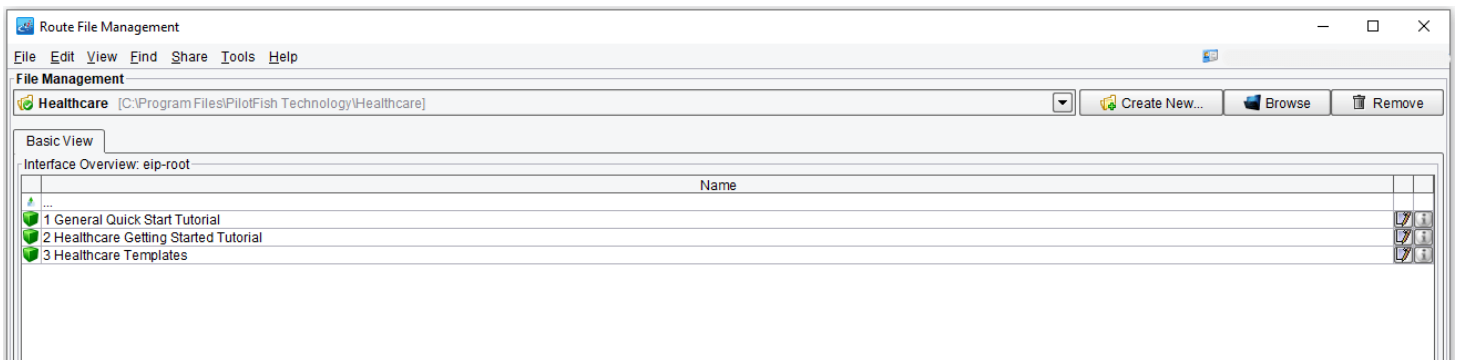
## Identifying Interfaces



In the **Route File Management** window, the red icon, next to **4 General Quick Start Interface**, indicates an unconfigured interface. The blue icon, next to the **Example Interface**, indicates a fully configured, end-to-end interface.

## The Route File Management Window

### PC Users View



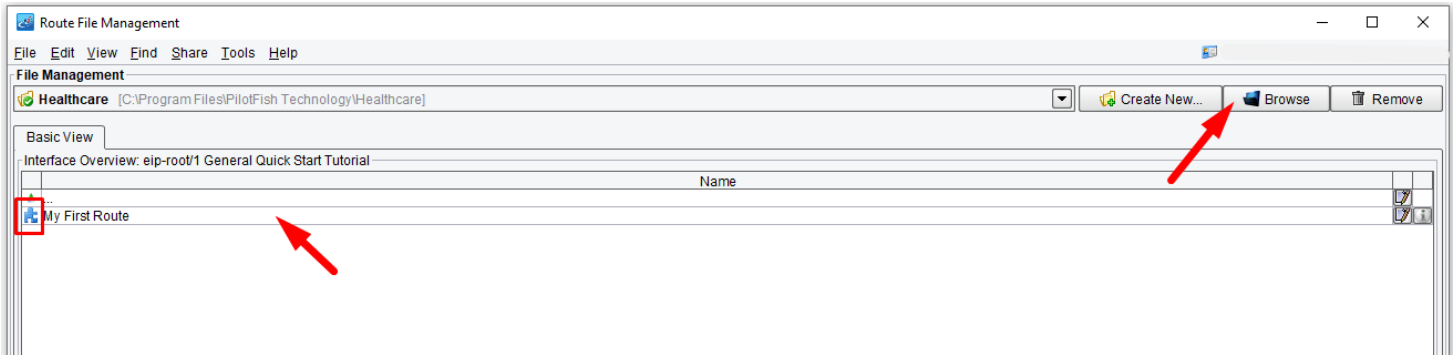
When you launch an eiConsole bundle, the **Route File Management** window opens. In the Basic View of the Interface Overview grid, you'll see 1-3 "**Packages**", depending on which bundle you have downloaded. In the eiConsole, packages are identified by a **green cube icon**. Here we see the contents of the eiConsole for Healthcare bundle (the bundles for ACORD are similar.)

The 3 Packages that an eiConsole Industry-Specific Bundle may include:

- **1 General Quick Start Tutorial** includes a simple, fully configured interface and all of the sample files you will need to complete your first interface.
- **2 Industry Specific (Healthcare, ACORD PCS, etc.) Getting Started Tutorial** includes a more complex, and fully configured industry-specific interface along with all the sample files that you will need to configure the interface.
- **3 Interface (Healthcare, ACORD, etc.) Templates** include examples of interface templates that provide users with a head start for configuring an interface. Free interface templates are available for download off of the PilotFish Interface Exchange ([PIE](#)). Click this [LINK](#) for how to download additional templates from the PIE and to learn how to leverage these.

To begin to configure an interface, double click the first row **1 General Quick Start Tutorial**.

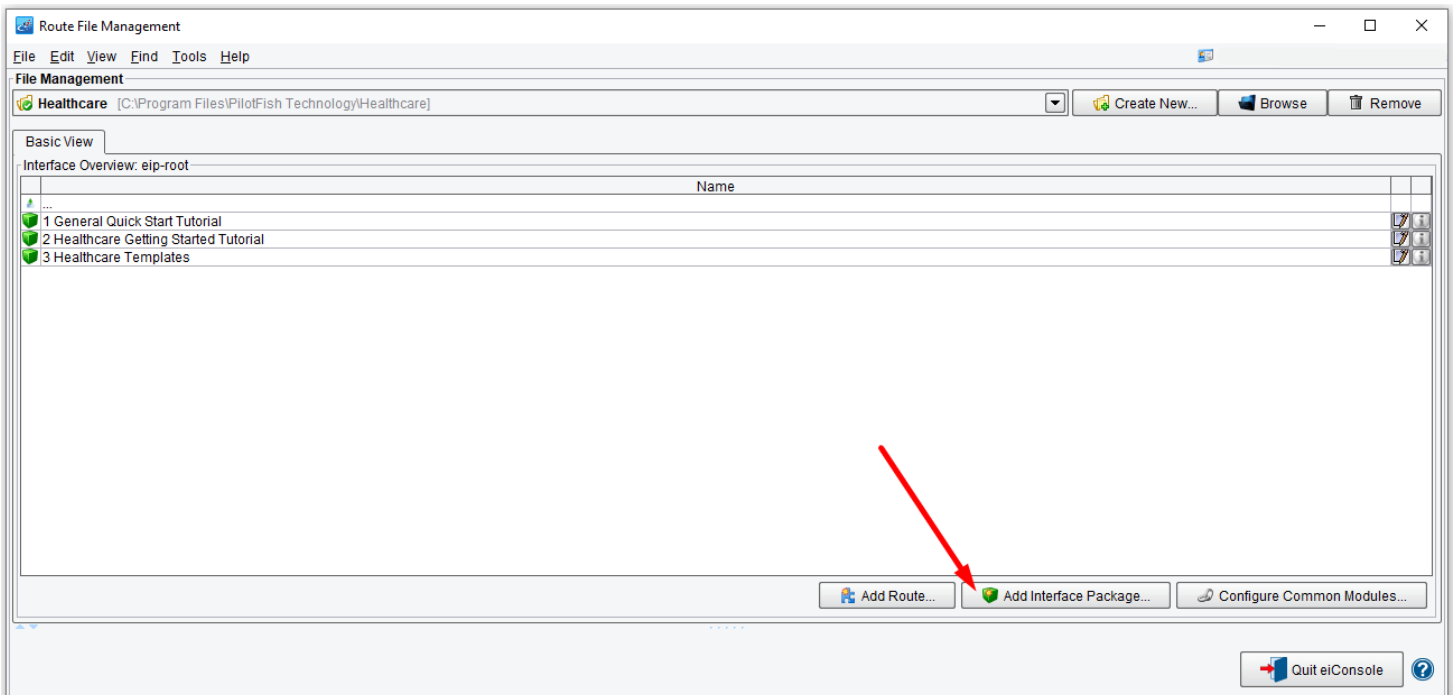
## Configuring an Interface



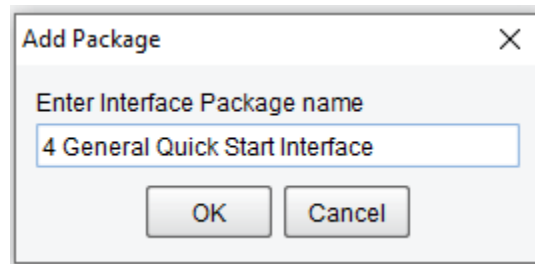
Double-clicking the package reveals **My First Route**, the example Route or fully configured interface (note the blue icon).

Make note of the location of the sample files as you will need them to configure your first Route. If you downloaded an eiConsole bundle, the sample route is located in your distribution, on a Mac: **/Contents/eip-root** folder and on a PC: **eiConsoleeip-root** folder. This sample configured interface consists of a single route.

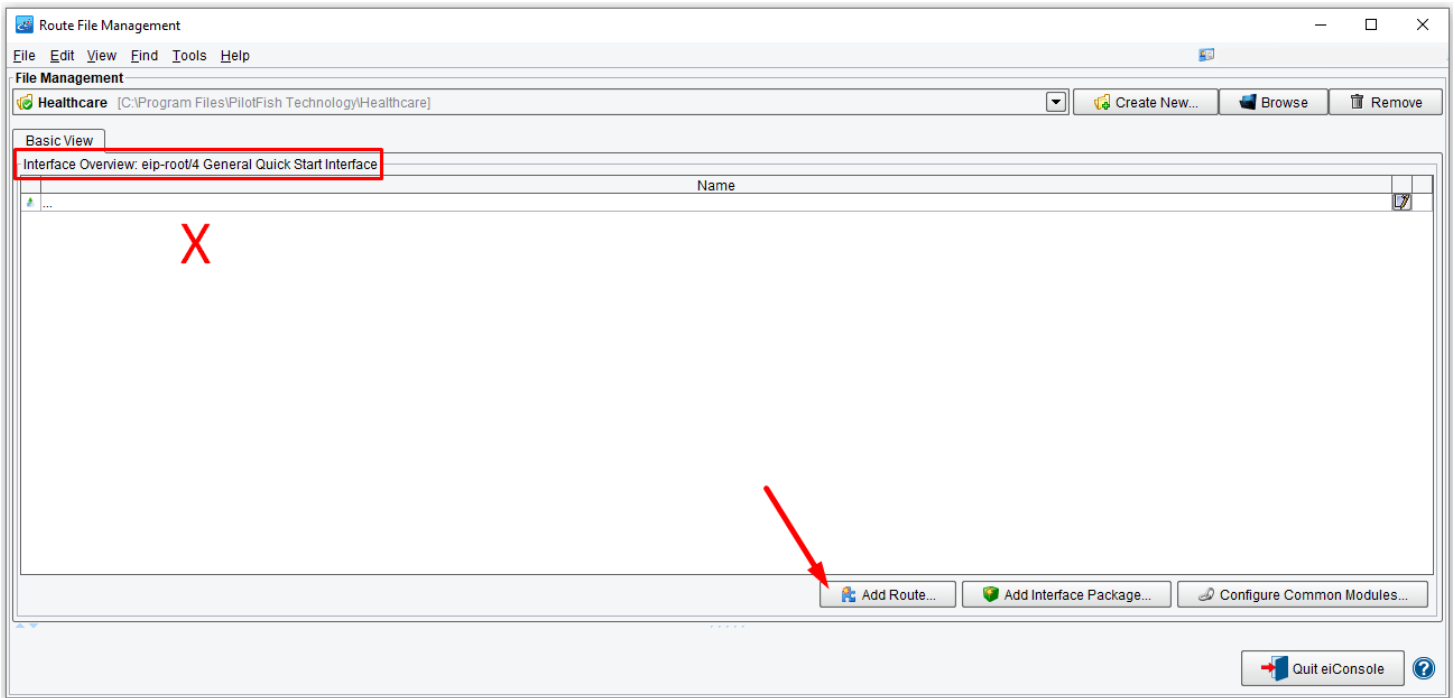
To return to the main Working Directory (eip-root), double click anywhere in the row above **My First Route**.



You'll return the original **Route File Management** window, showing Packages 1-3 in the **Interface Overview** grid. The next thing you'll want to do is to create a new Interface Package. Click the **Add Interface Package** button.

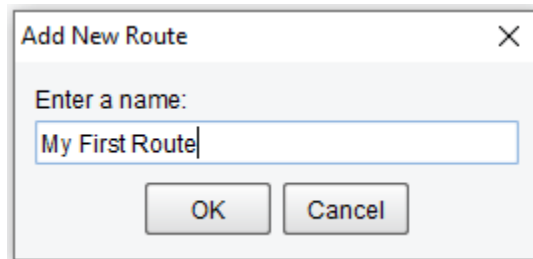


When the **Add Package** dialogue opens, enter the name "**4 General Quick Start Interface**", and click **OK**.

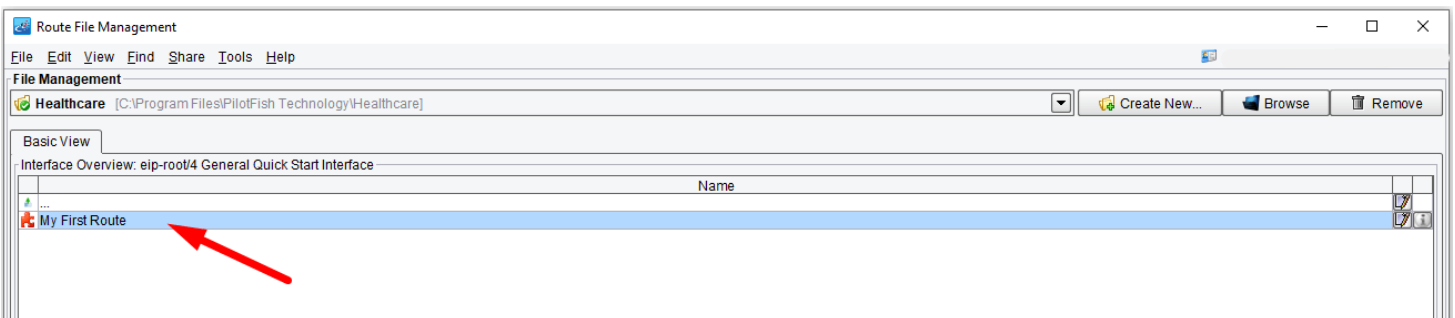


The **Route File Management** window opens. Notice the new Working Directory appears in the Basic View tab, **Interface Overview: eip-root/4 General Quick Start Interface**. You'll also be presented with an empty **Interface Overview** grid.

To create a new interface or route, click anywhere in the interface Overview grid, then, click the **Add Route** button.



When the **Add New** dialogue opens, enter the name "**My First Route**", and click **OK**.

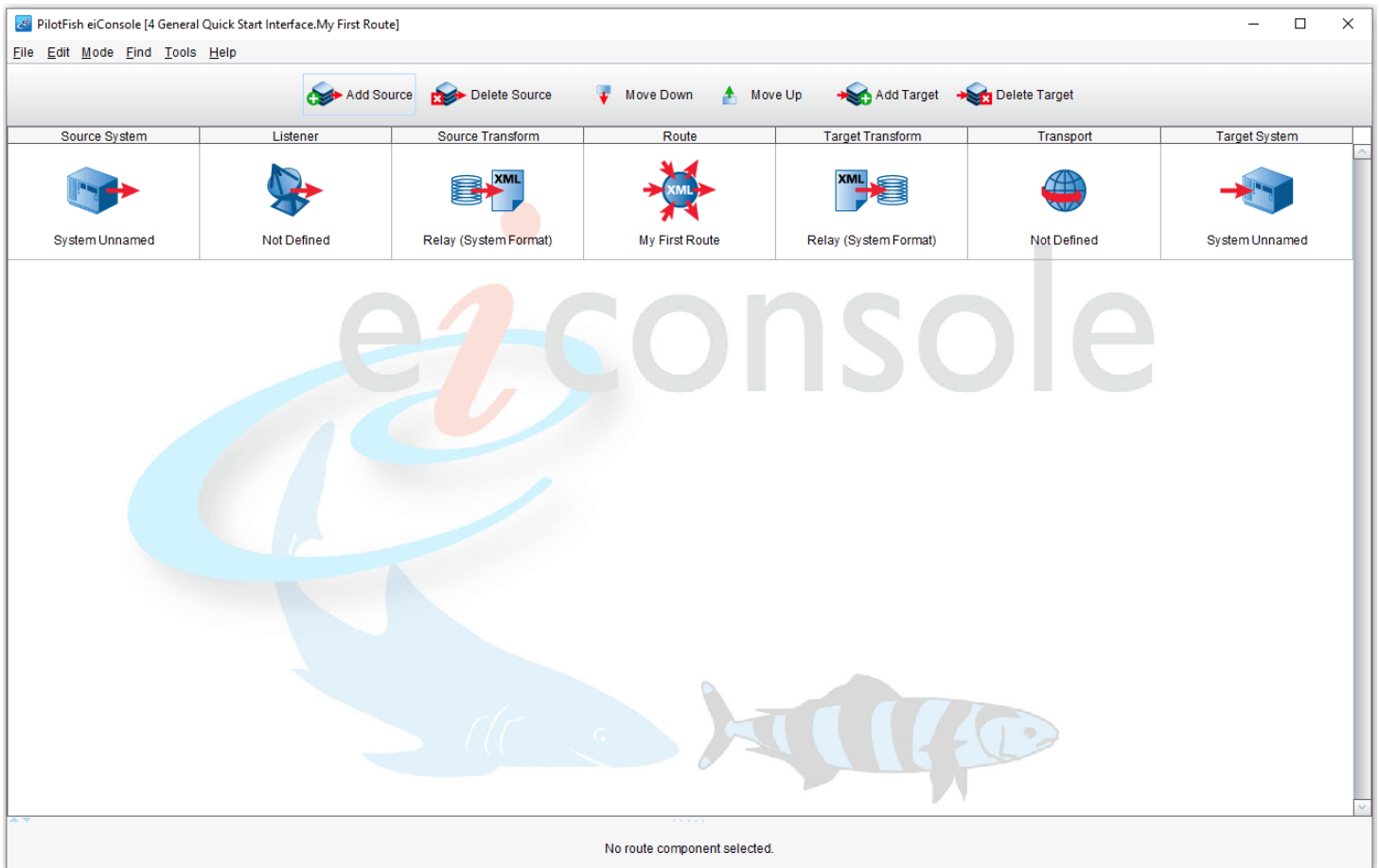


The newly created route will appear in the Interface Overview grid.

**Note:** *The icon next to your route name is red, indicating an unconfigured or incomplete interface.*

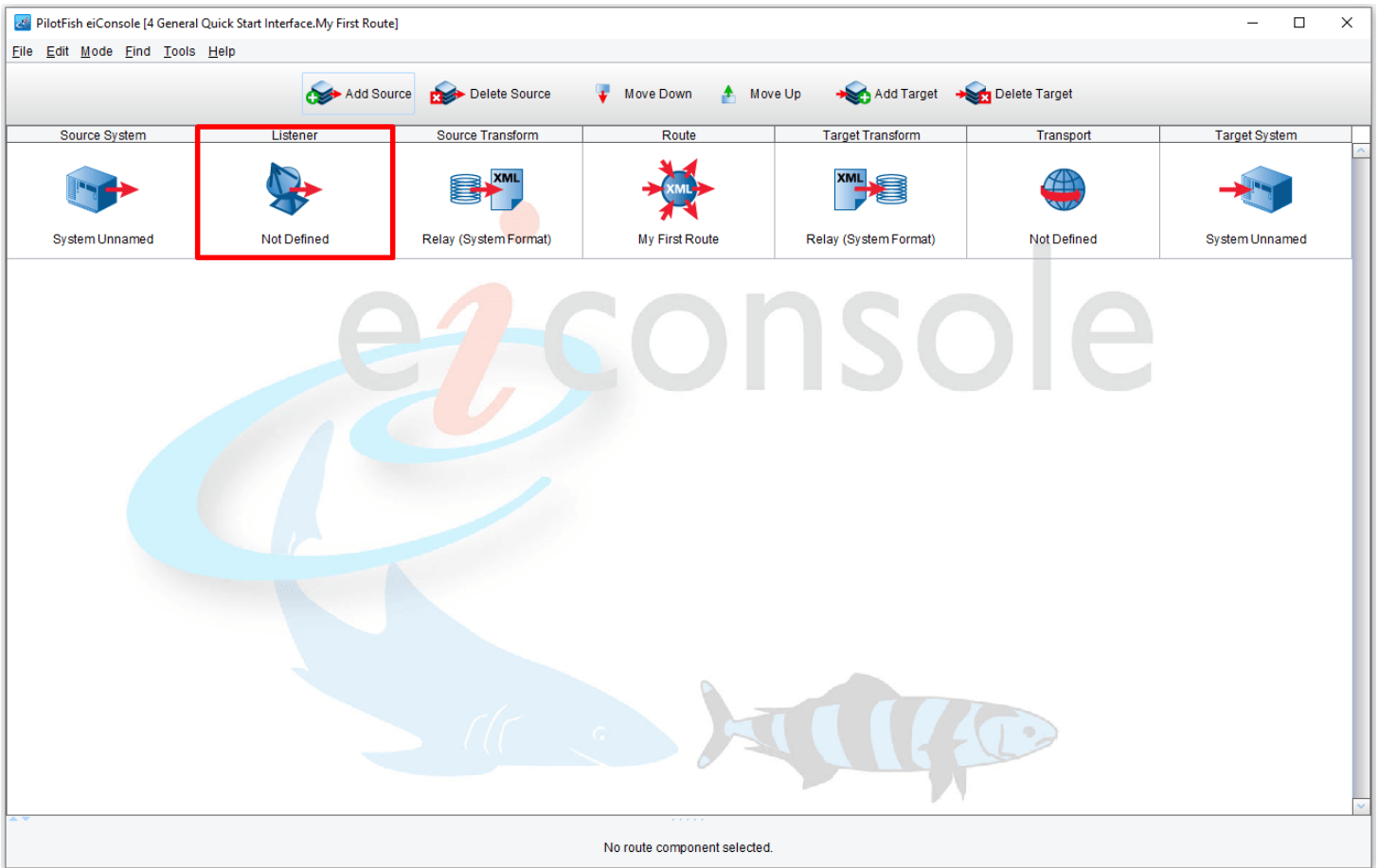
Now, to edit the route and to begin to configure your interface, select the row **My First Route** in the grid and double click.

## The eiConsole's Main Route Grid

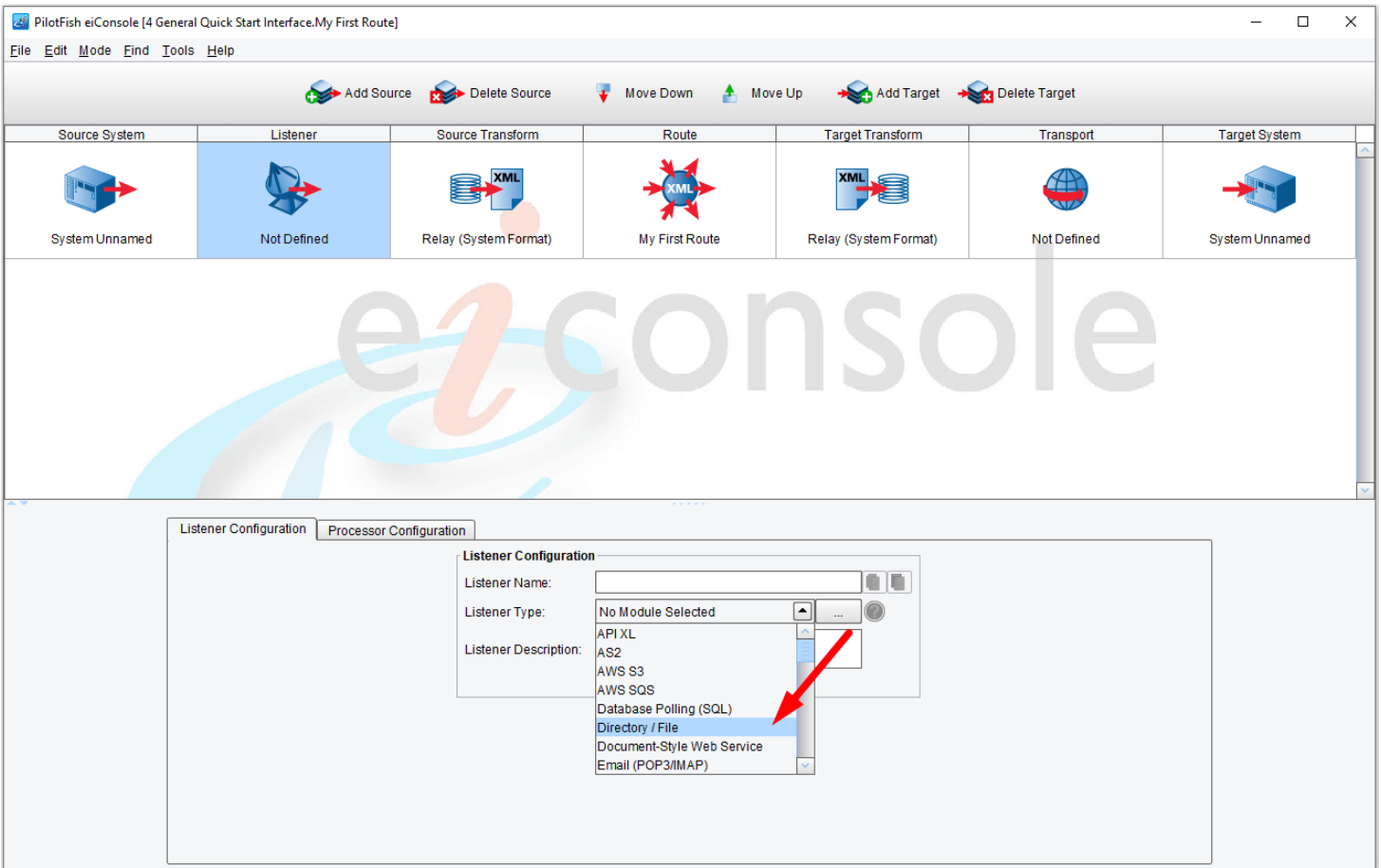


The eiConsole's Main Route grid will open. Now, define a Source and Target for your route. For this first interface, the general idea is to pick up a flat file from a directory, convert it to XML, and then drop it in the Target directory. For this example, the route will use one Source and one Target.

## The Listener Stage



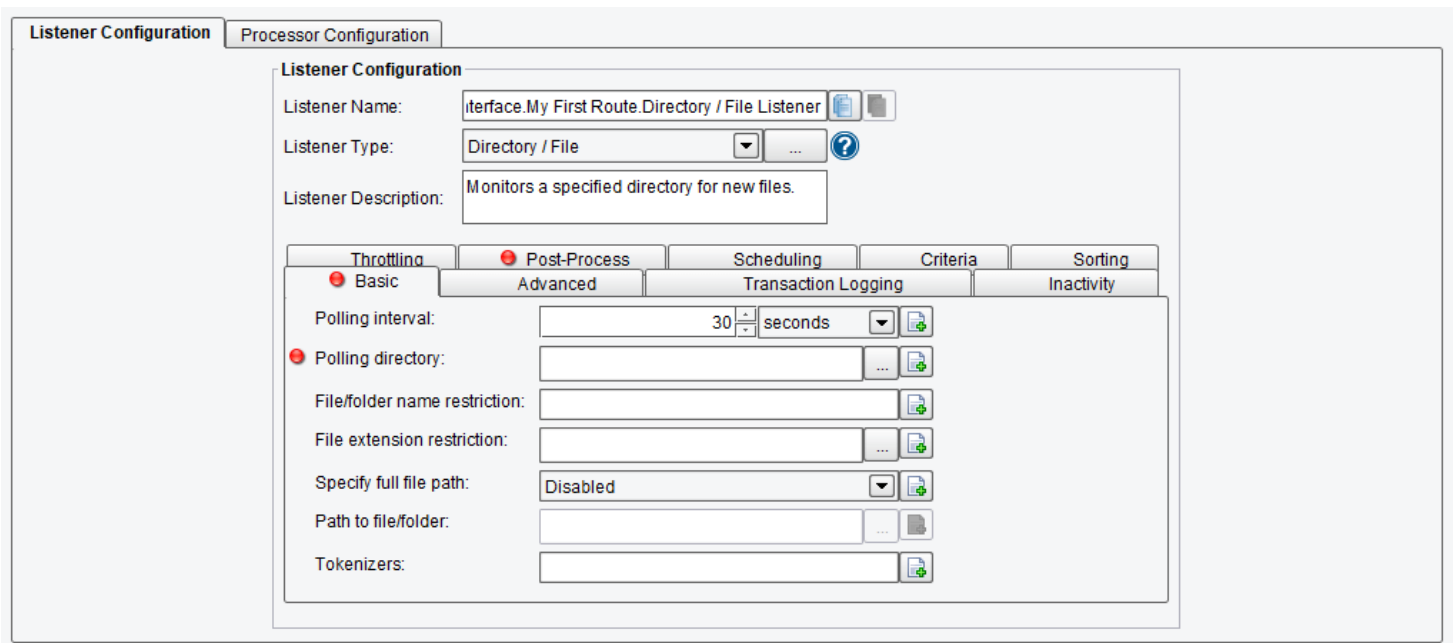
Click on the **Listener** stage.



The Listener configuration panel will appear.

**Note:** When you select a stage, a configuration panel for that particular stage will appear in the bottom half of the screen.

Next, select **Directory / File** from the Listener Type drop-down.

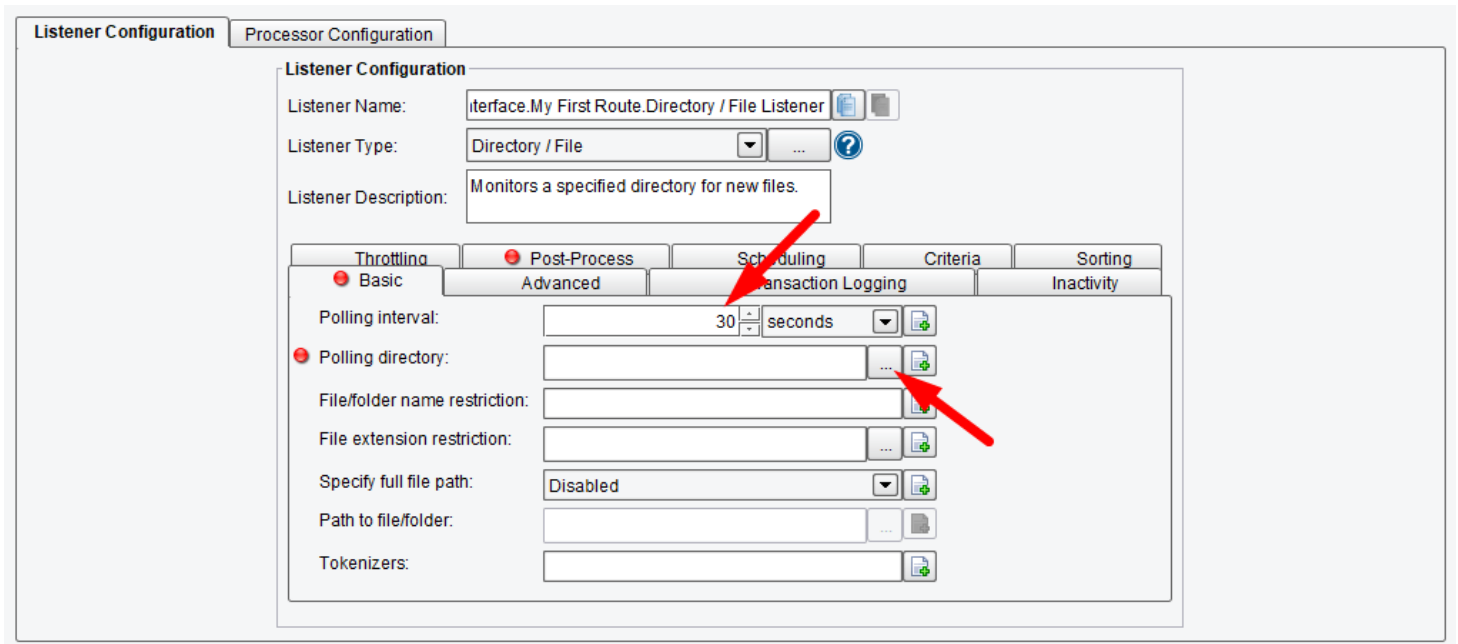


A set of configuration options for the Listener Module will appear.

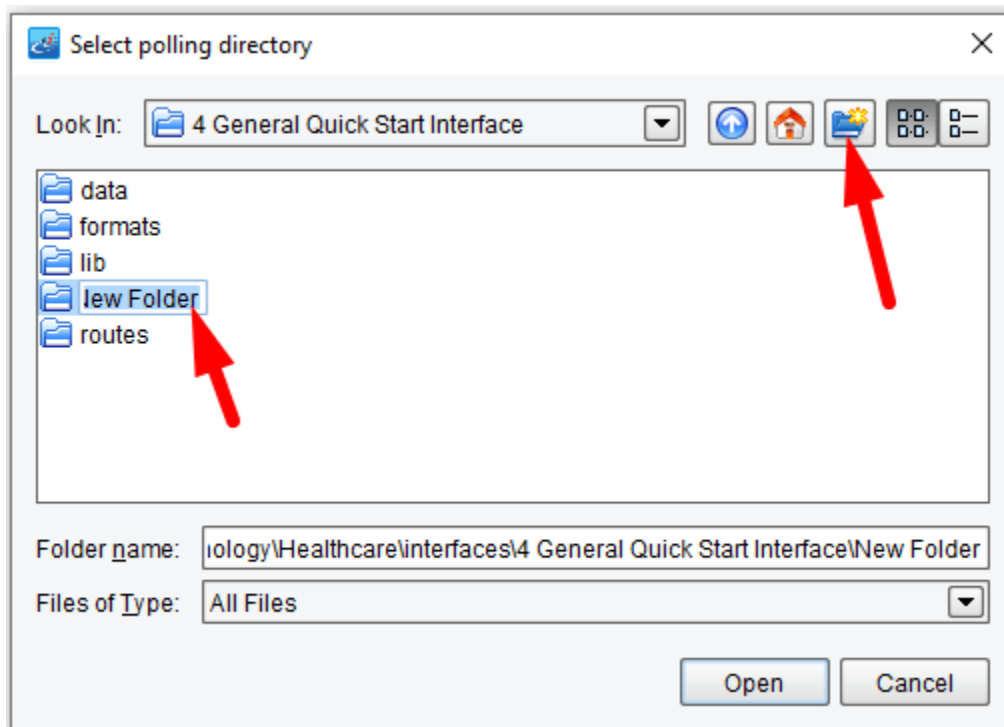
**Note: The eiConsole makes interface configuration very intuitive and provides the user with visual cues. In the panels, items marked with a red dot require configuration.**

Enter "10" in the polling interval text box. (The drop-down lets you select minutes, hours, days or weeks for polling intervals.)

**Note: After you have completed a required field and navigate away, the red dot will disappear.**

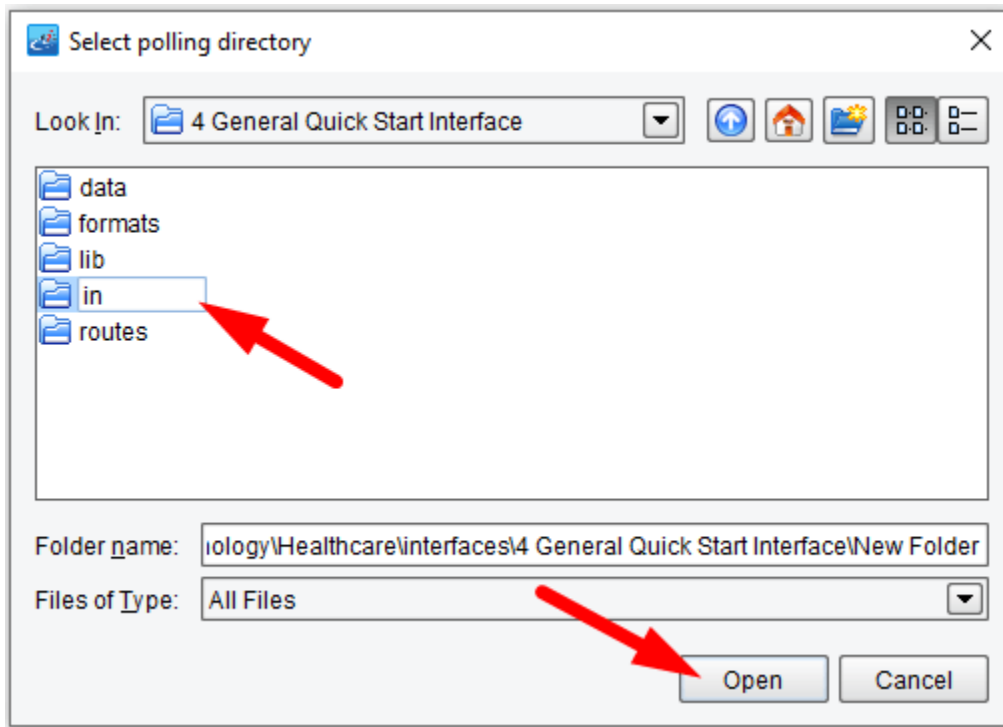


Next, configure the Polling Directory (the directory from which files will be taken). Click the **Ellipsis** button next to the Polling Directory configuration field.

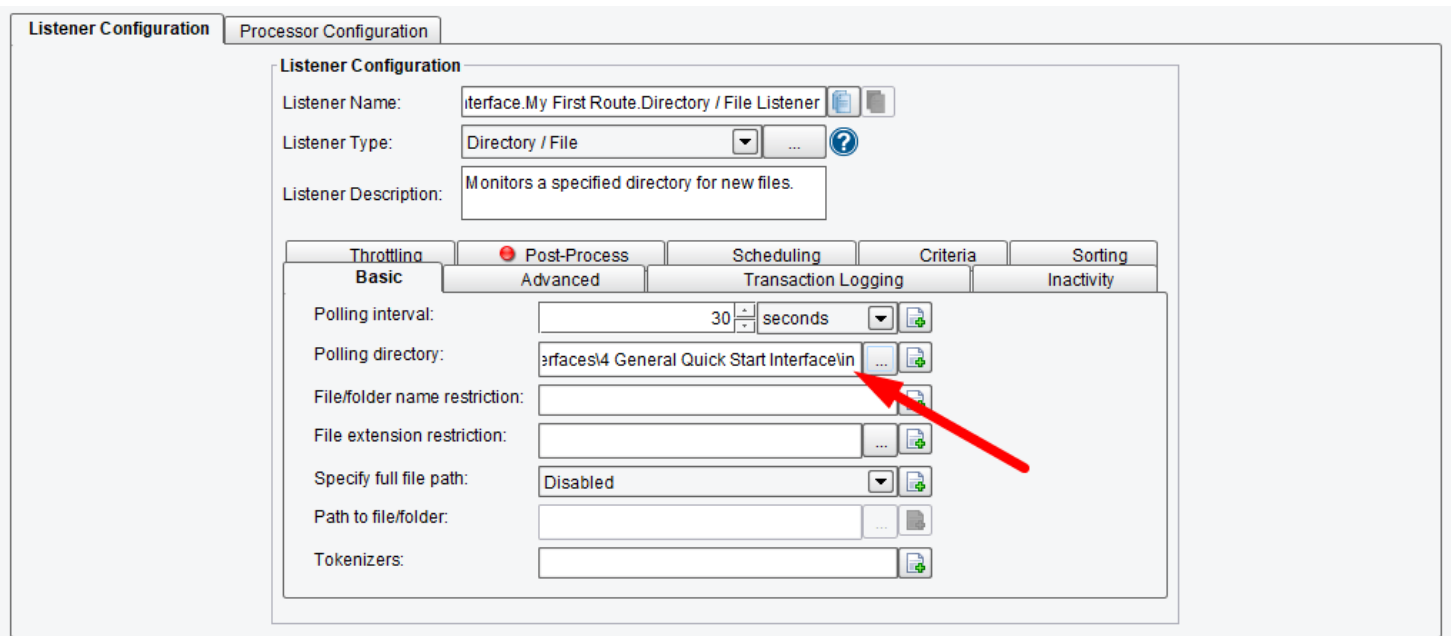


In your Working Directory, you'll find the **4 General Quick Start Interface** folder (or whatever you named your folder). Use the **Create New Folder** button and create a new folder.

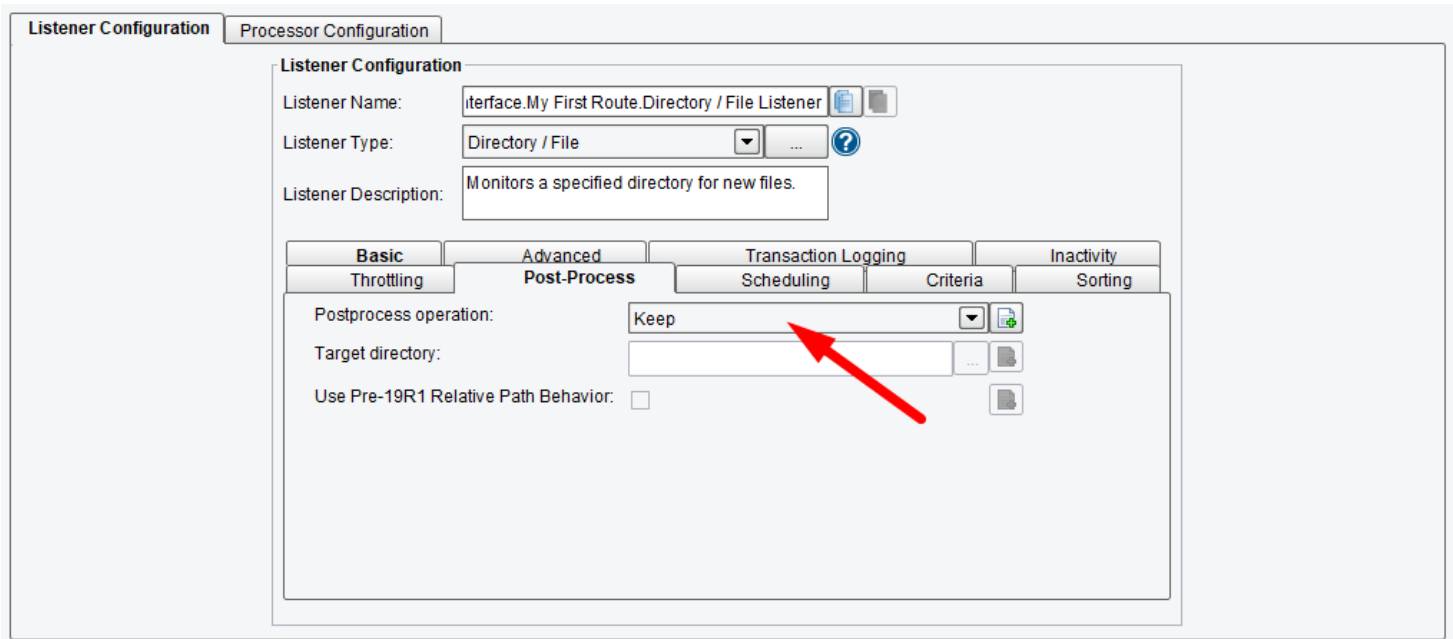




Select it and name it "in". Select it again to highlight and click **Open**.



The path to the "in" folder will appear in the Polling Directory configuration field. The red dot has now disappeared next to Polling Directory, and since all required items have been filled in within the Basic tab, the red dot in the Basic tab is gone, as well.

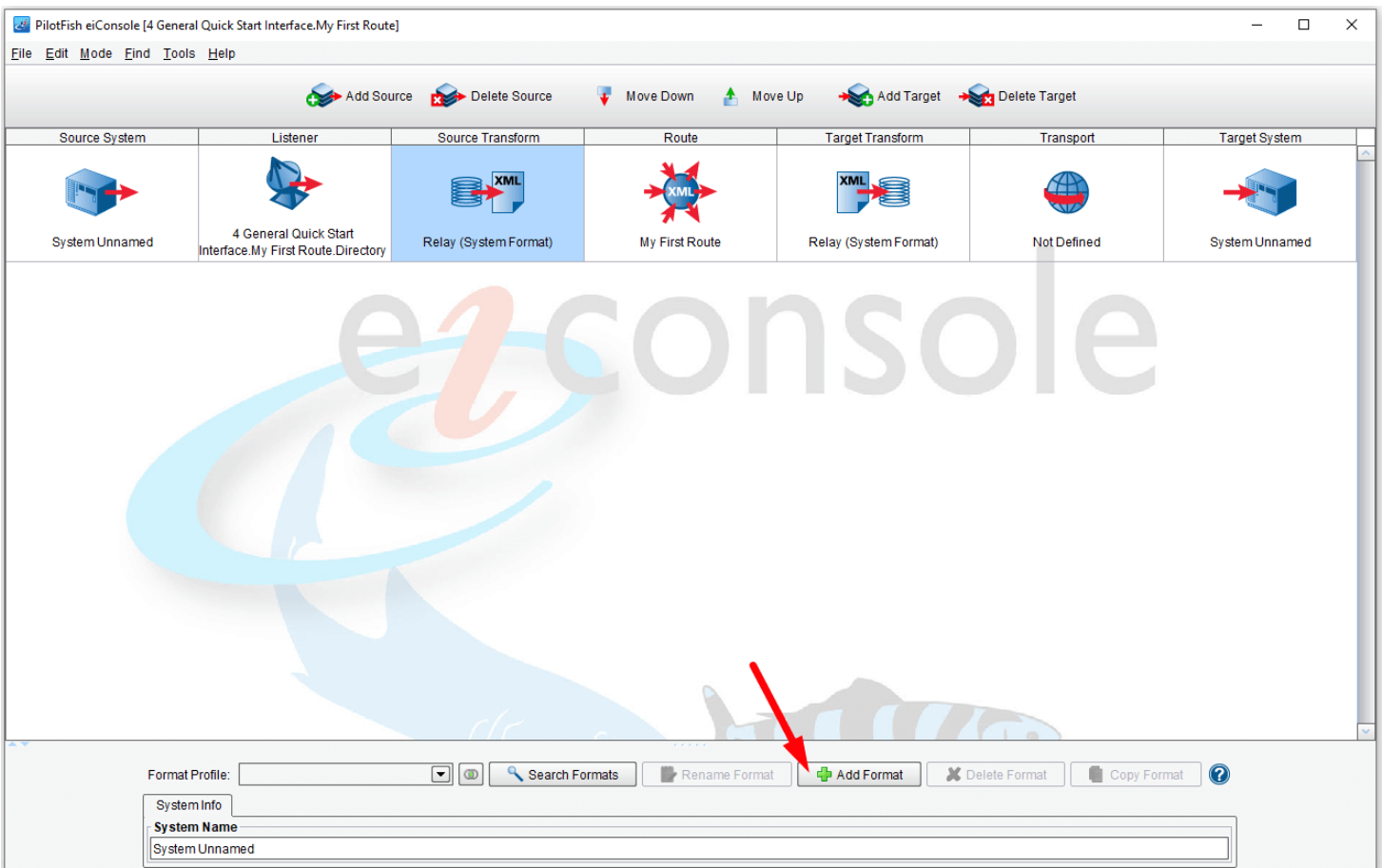


Set the Post-Process operation.

**Note:** As you fill in the configuration items marked with the red dots, all of the red dots are gone, indicating that all the required fields have been filled out.

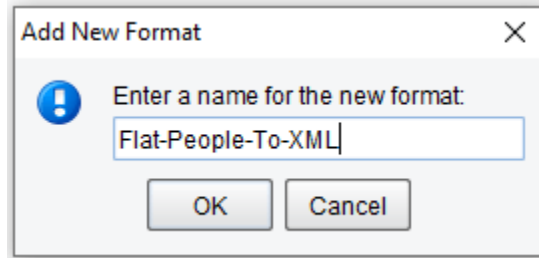
With the Listener stage configured we'll move on to the next stage, the [Source Transform](#).

## The Source Transform Stage

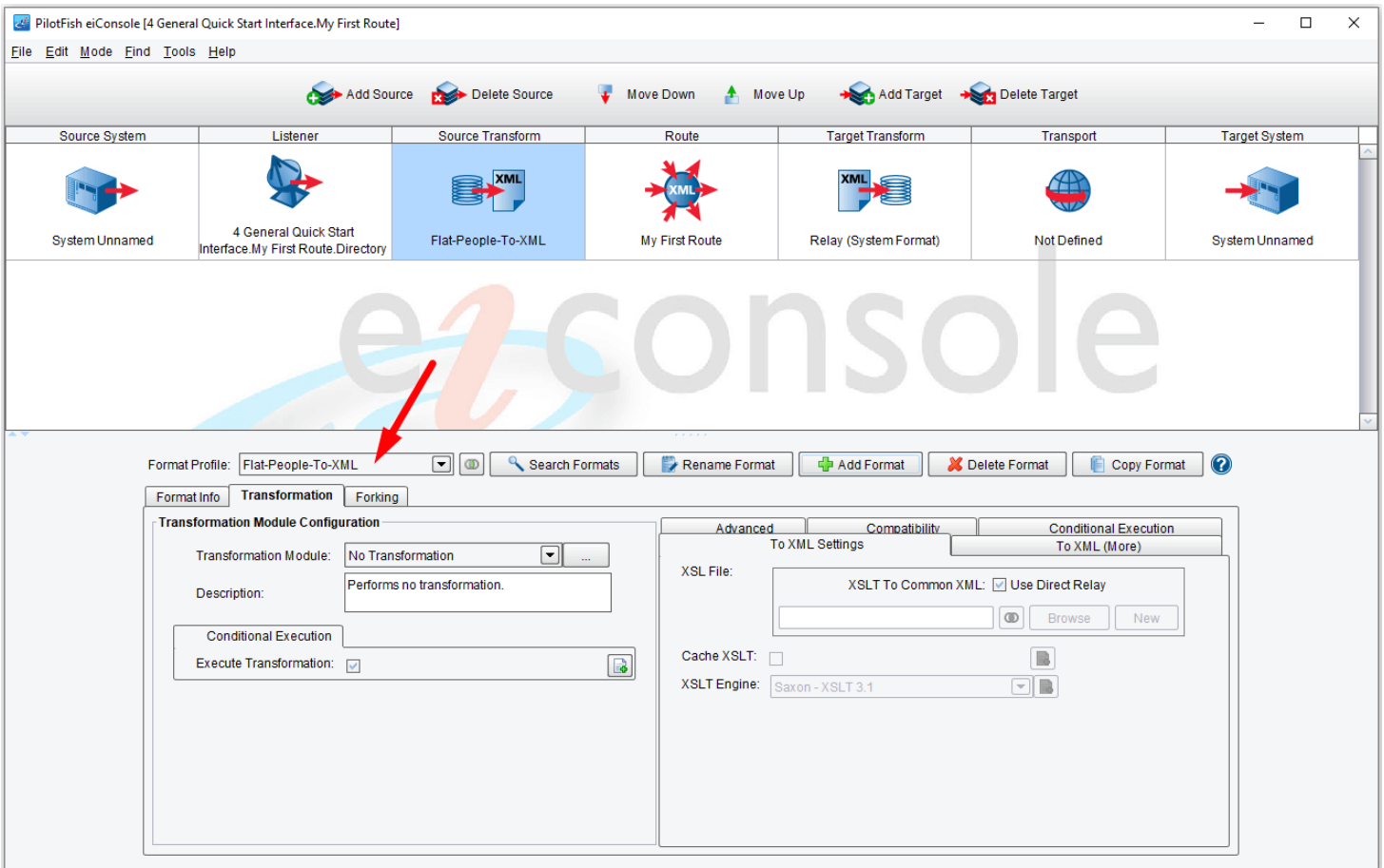


Next, click the **Source Transform** icon.

To create a new transformation, click the **Add Format** button.



Our first transformation will be responsible for converting a flat file to XML. When prompted, add the format name "**Flat-People-To-XML**" and click **OK**.



The "Flat-People-To-XML" will become selected in the Format Profile drop-down. And now the [Transformation Module](#) and XSLT Configuration panels will appear. Configure both the Transformation Module and an XSLT data mapping.

**Note:** [Transformation Modules](#) are responsible for converting non-XML data into an XML format so they can later be mapped.

Line	First Name	Last Name	Age
1	Sally	Jones	21
2	Thomas	Smith	45
3	Sandy	Ocean	37
4			

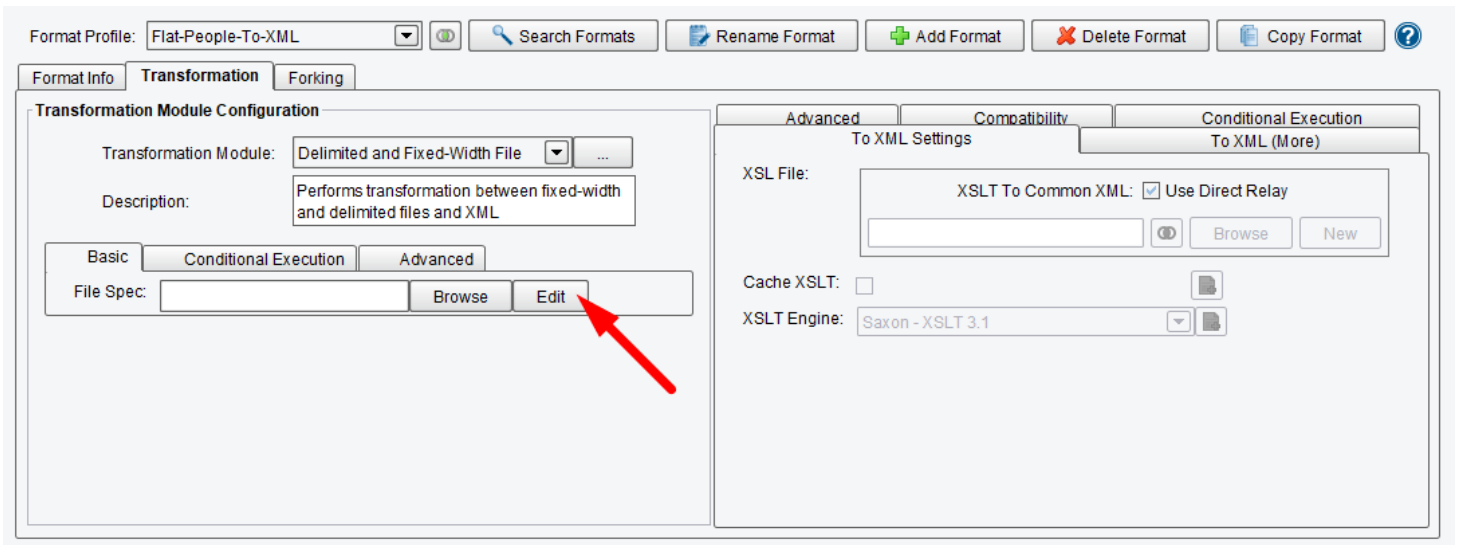
Our input document will be a text file, **people-ages.txt**, from the distribution **data** folder. This distribution data folder is your {eiConsole-installation-directory}/samples/Getting-Started-Project/interfaces/1 General Quick Start Tutorial/data. It contains a set of fixed-width records containing a first name, last name, and age.

The screenshot shows the PilotFish eiConsole interface. At the top, a route configuration table is visible:

Source System	Listener	Source Transform	Route	Target Transform	Transport	Target System
System Unnamed	4 General Quick Start Interface.My First Route.Directory	Flat-People-To-XML	My First Route	Relay (System Format)	Not Defined	System Unnamed

Below the route configuration, the 'Transformation Module Configuration' dialog is open for the 'Flat-People-To-XML' format profile. The 'Transformation Module' dropdown is set to 'Delimited and Fixed-Width File'. In the 'Advanced' tab, under 'To XML Settings', the 'XSLT To Common XML: Use Direct Relay' checkbox is checked and highlighted with a red box.

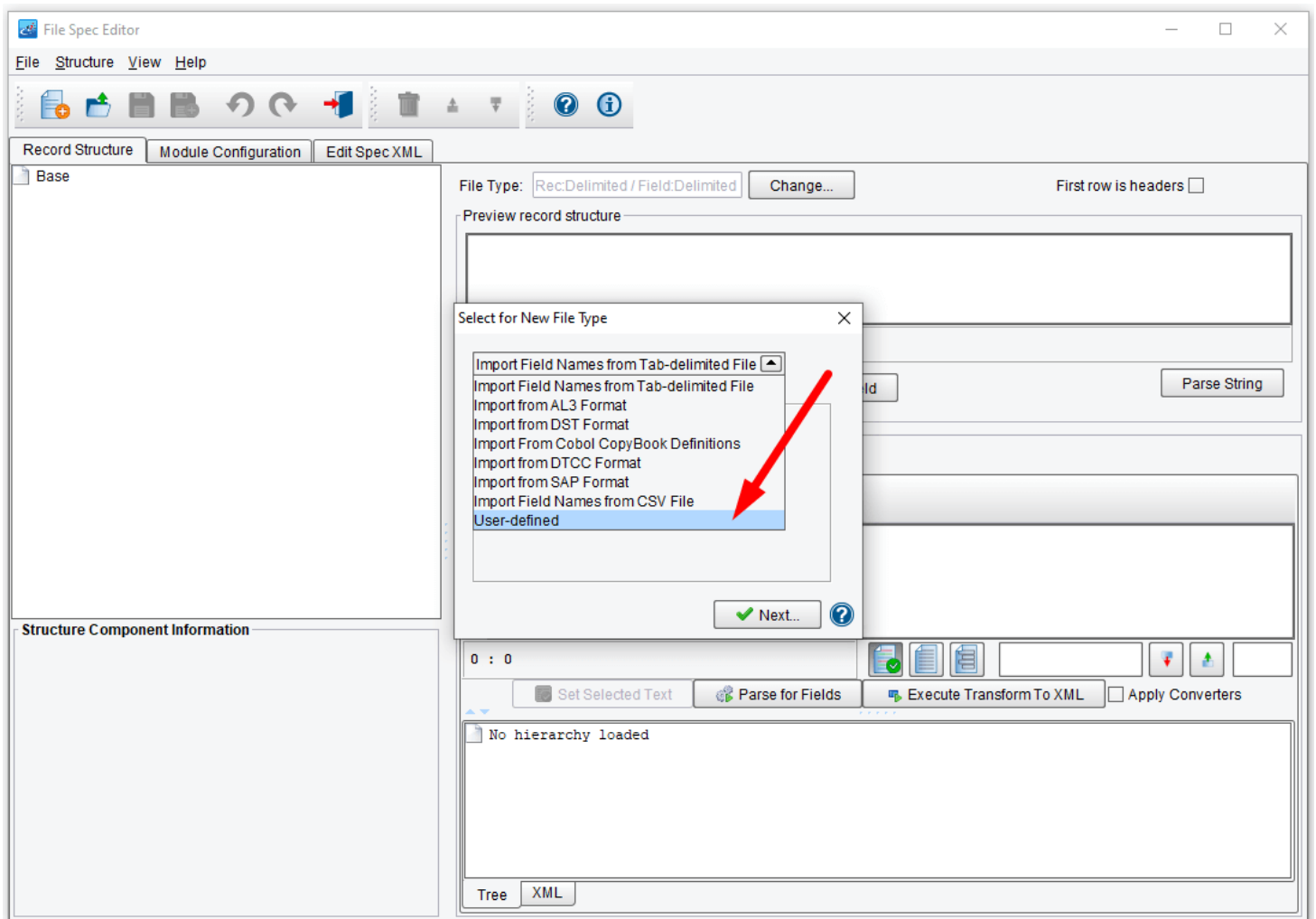
To work with this type of data, choose the **Delimited and Fixed-Width File Transformation Module** from the dropdown. Leave the **Use Direct Relay** box checked.



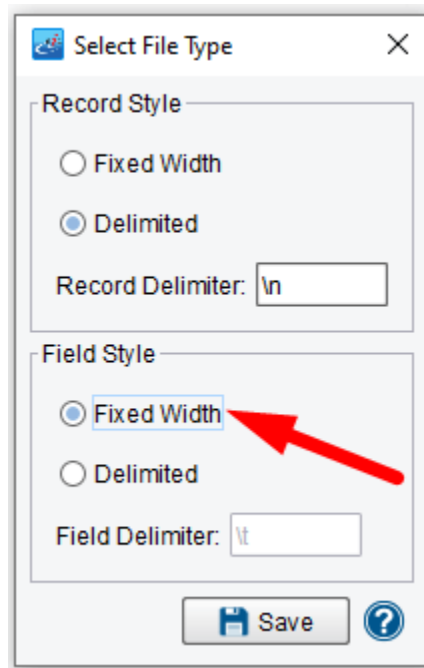
Next, click the **Edit** button in the File Spec configuration panel.

This will launch the File Specification Editor.

## The eiConsole File Specification Editor

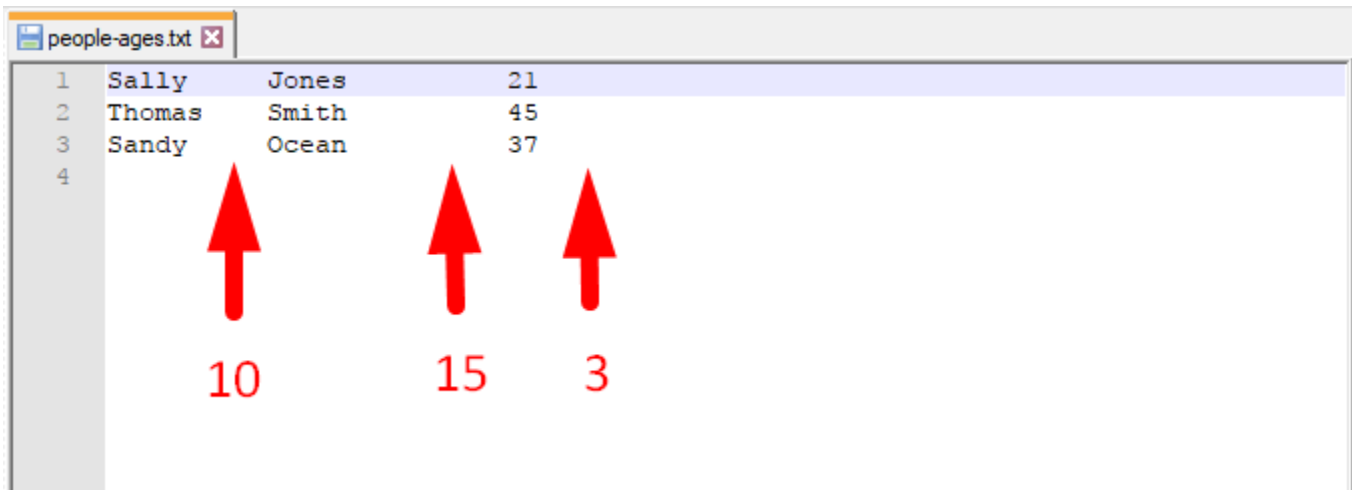


The Select for New File Type wizard will appear. Select **User-defined** from the drop-down, and click **Next**.



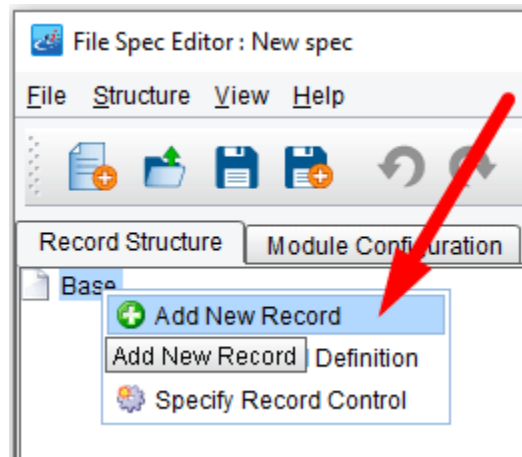
Now, describe the type of file that the transformation module will be parsing. Since the file contains records that are Delimited with new lines, leave that option as is.

However, our fields are fixed width. So, select the Fixed Width Field Style radio box and click **Save**.

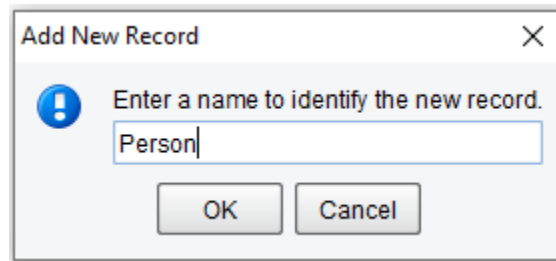


To describe the structure of the flat file that will be parsed, let's take a look at the **people.ages.txt** file.

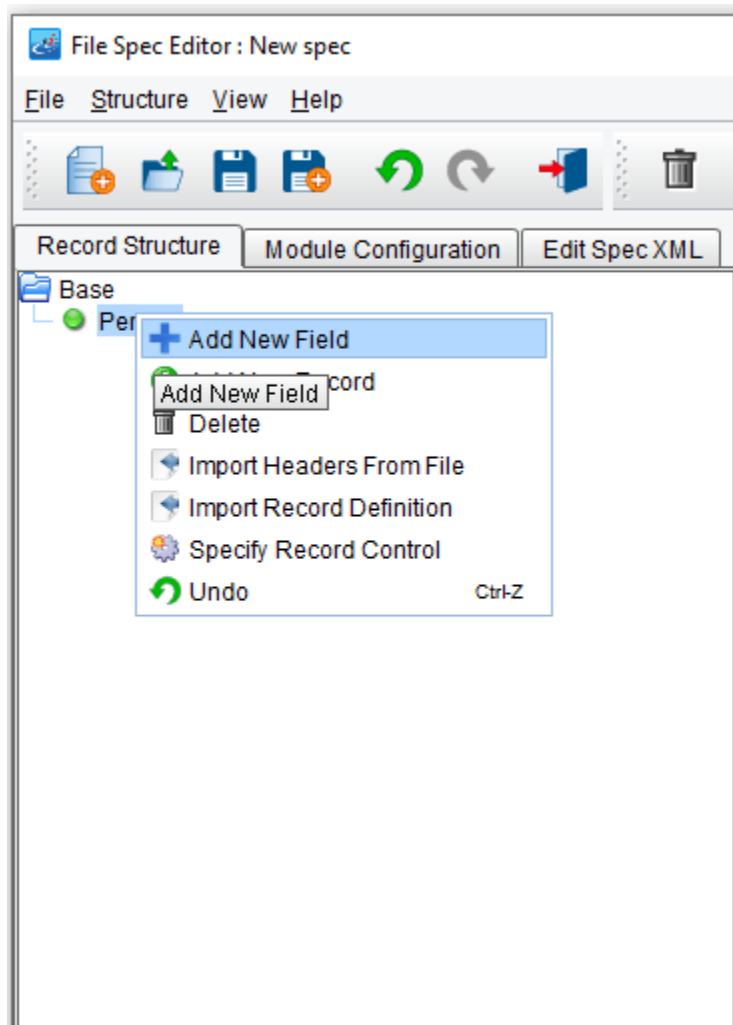
The first 10 bytes of each line will be the first name. The following 15 bytes are the last name. The final 3 are the age.



To configure this in the File Specification Editor, right-click the Base icon in the record structure panel, then click **Add New Record**.



Since each record represents a person, enter the name "**Person**" in the Add New Record dialogue and click **OK**.



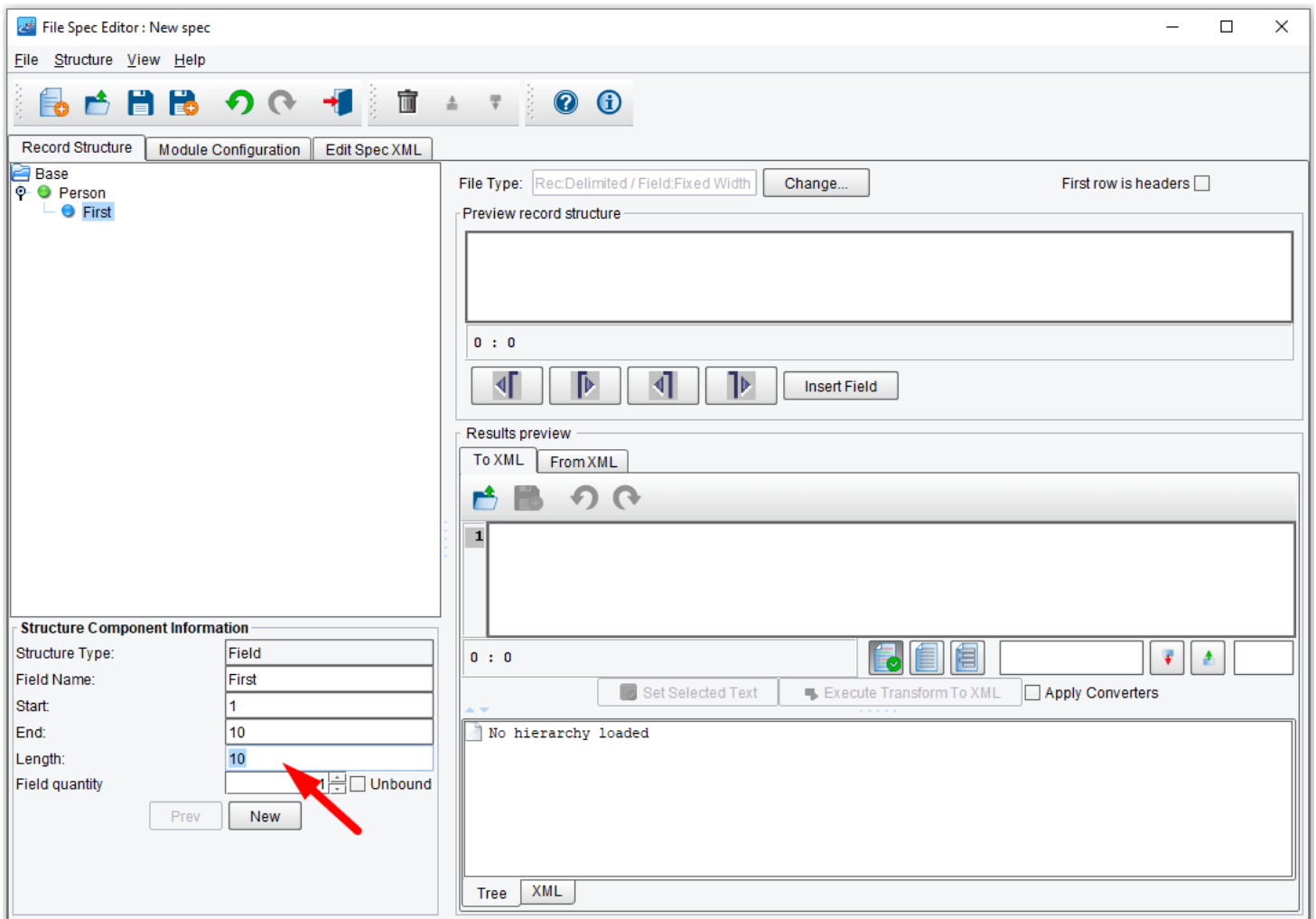
A green node will appear in the record structure tree.

To describe each field in the Person record, right-click the Person node and select **Add New Field**.



Provide the field name "**First**" in the Add New Field Dialogue, and click **OK**.

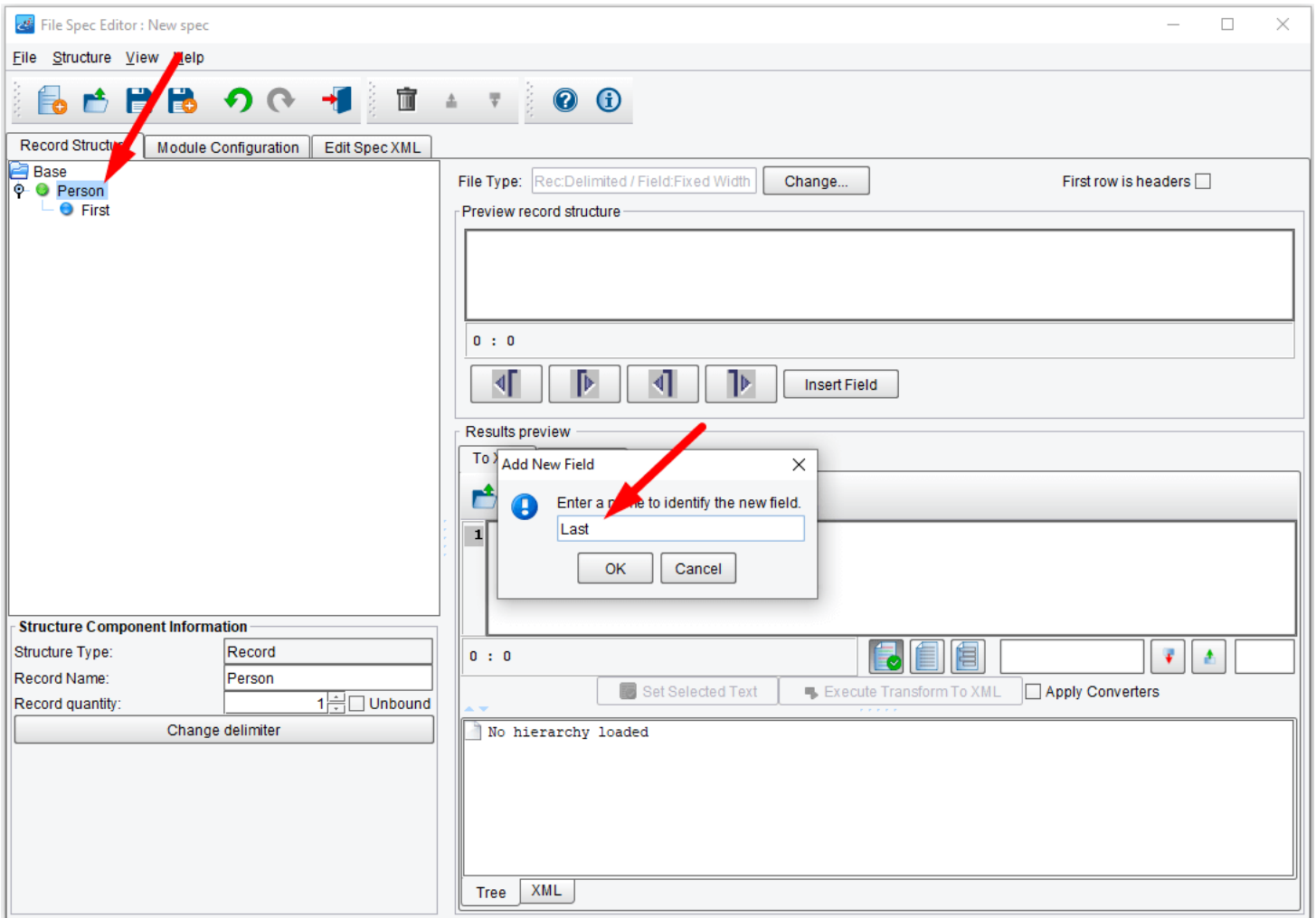




In the Structure Component Information area underneath the Record Structure panel, specify the start position, end position, or length of the field.

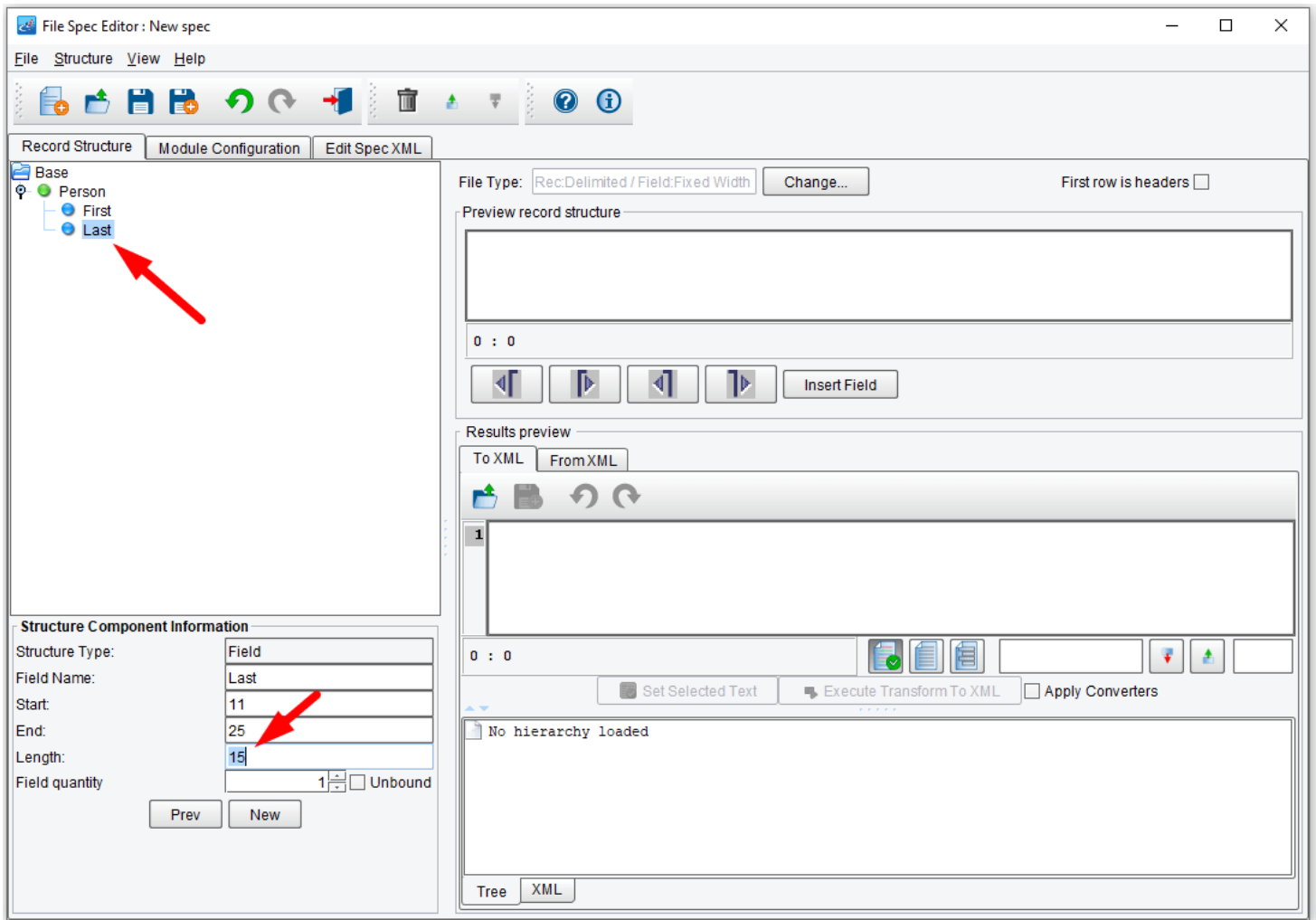
Type in "10" bytes for length and click enter/return.

**Note: The end positions are automatically updated based on the length entered.**

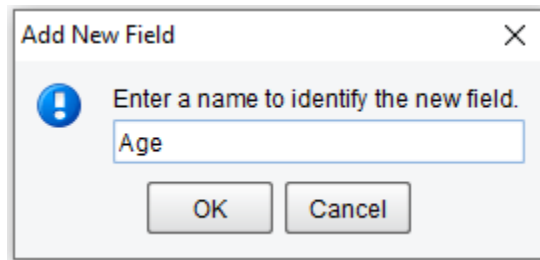


Right-click the person record and select **Add New Field**.

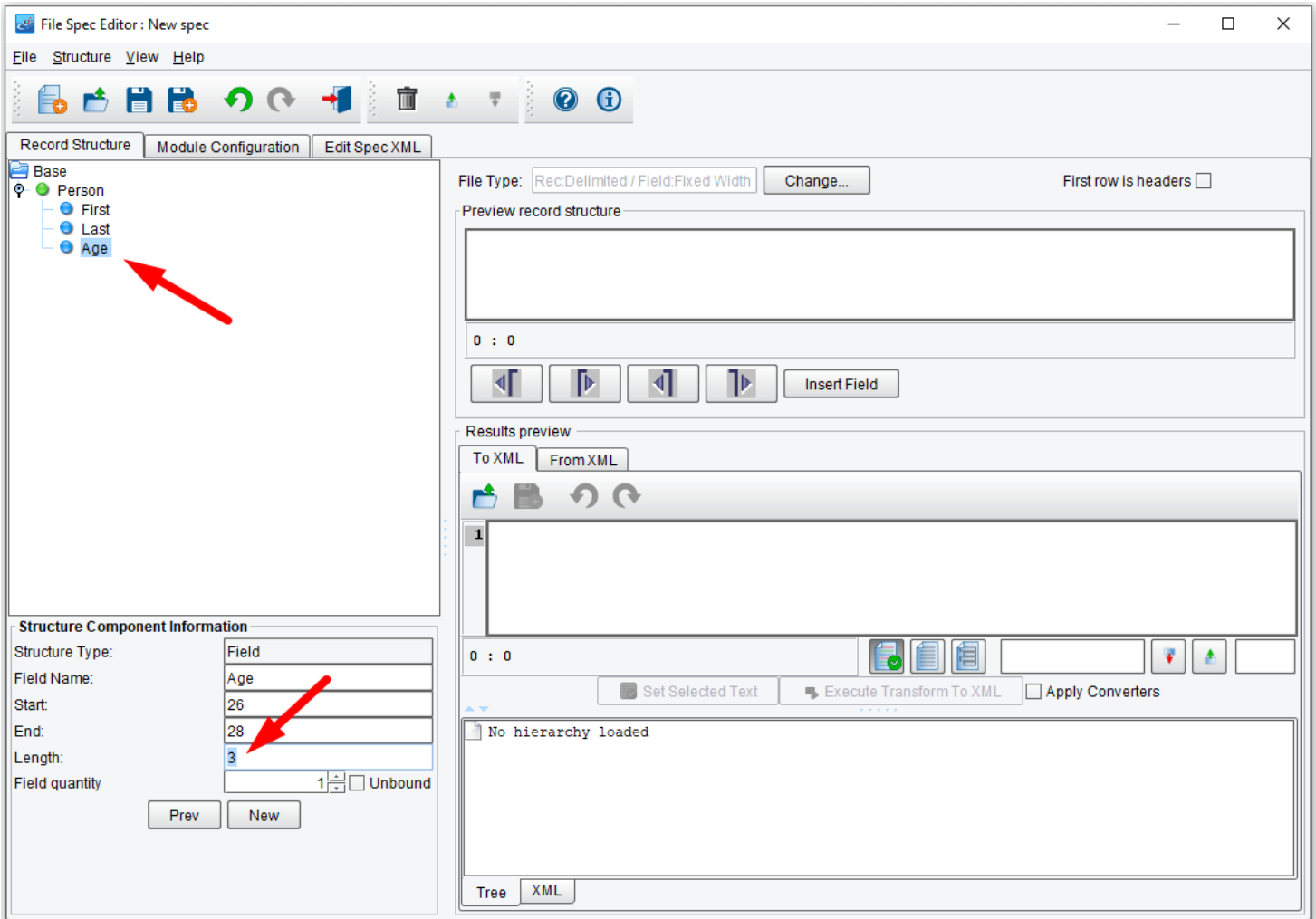
Type the field name "**Last**" and click **OK**.



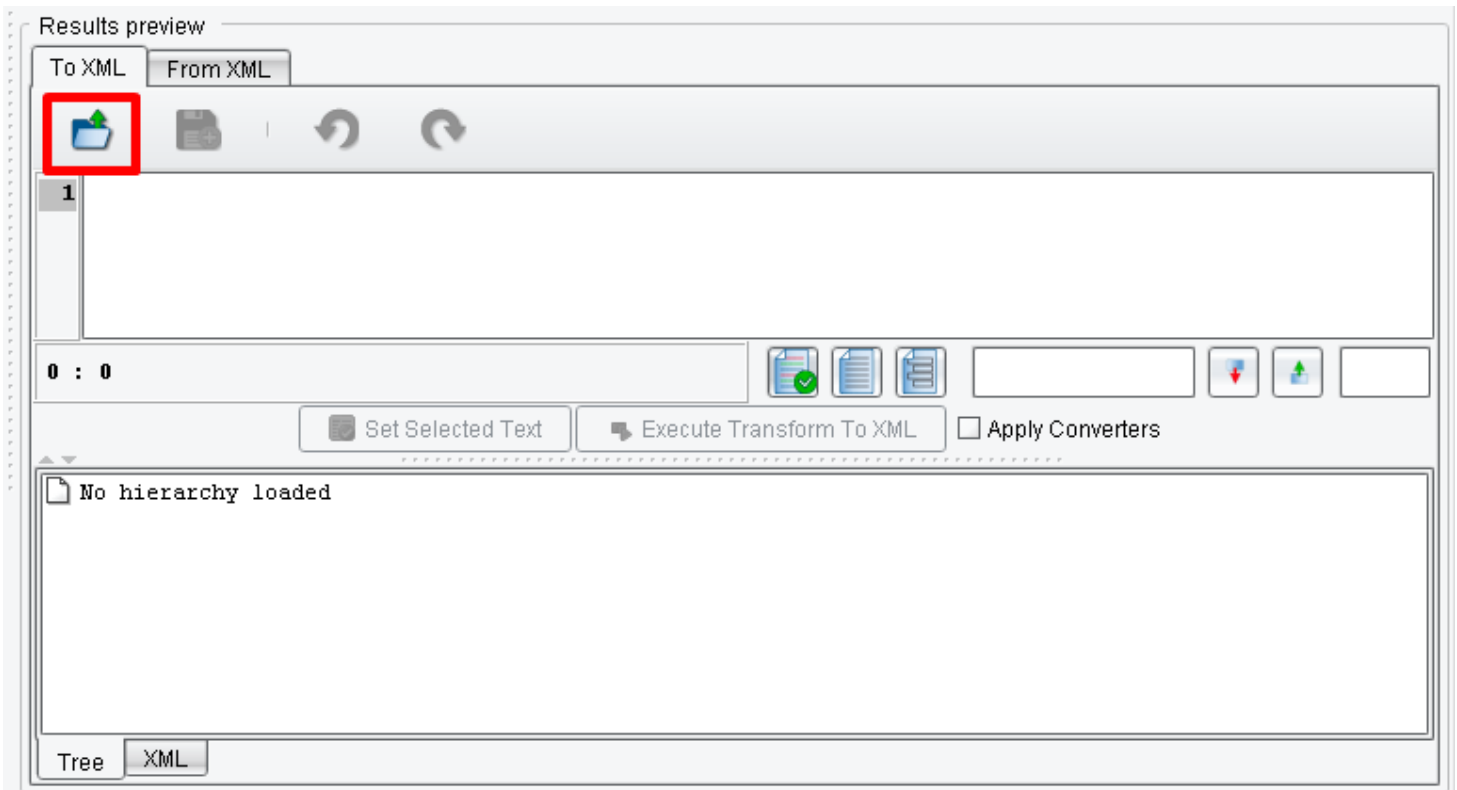
Select the blue Last node and type "15" into the length field.



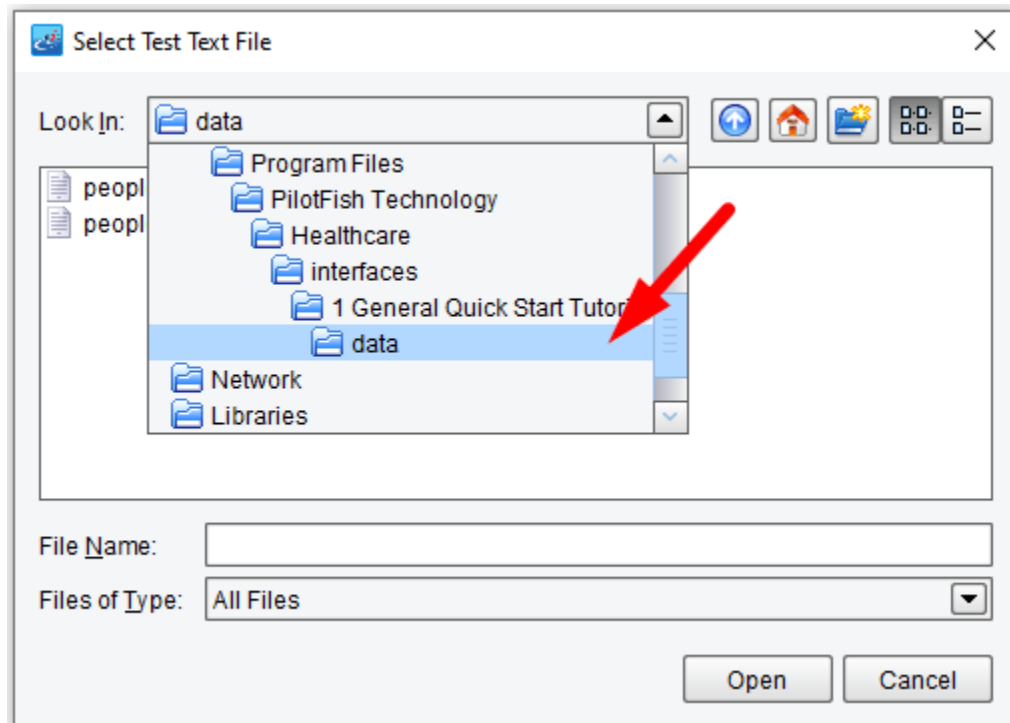
Finally, repeat the process one more time. Select the green Person node, right click and select **Add New Field**, type in "Age", click **OK**.



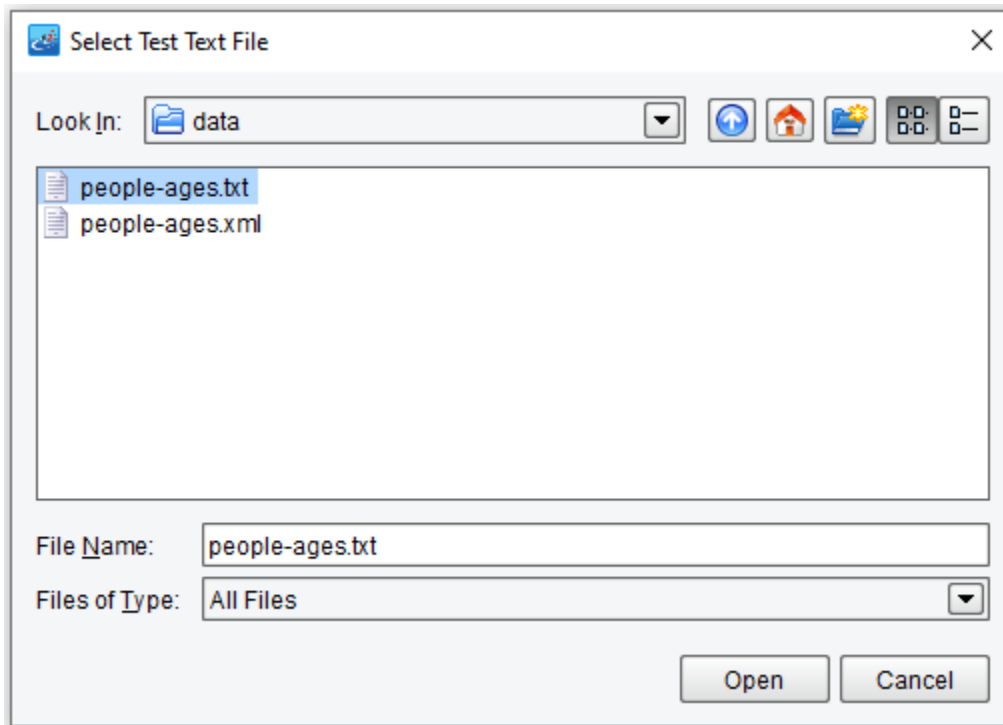
Next, select the blue **Age** node and type in "3" in the length field. Then click enter/return.



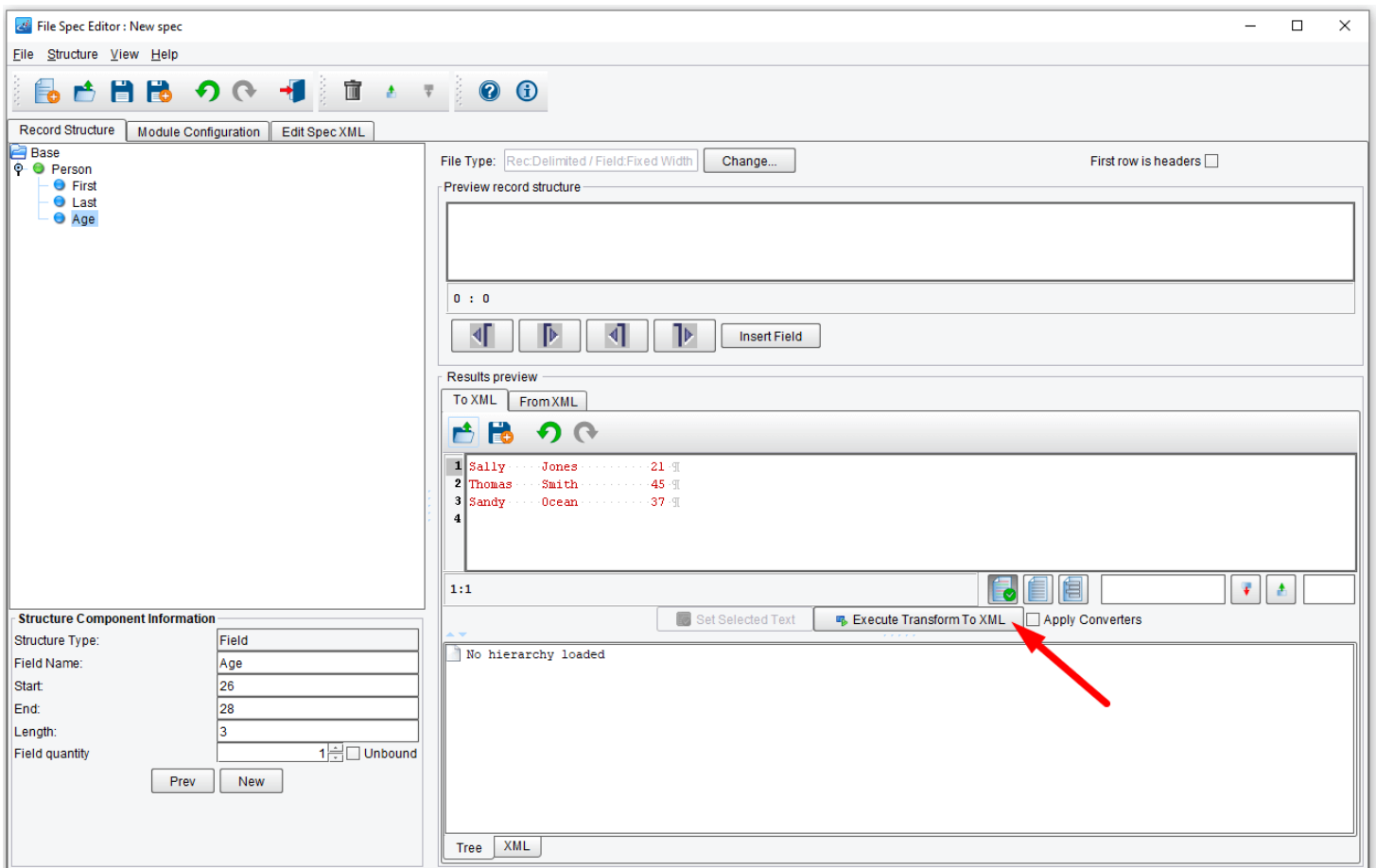
With our record defined, let's test the parsing. To do this, load a sample file into the results preview area. Click the **Folder** icon.



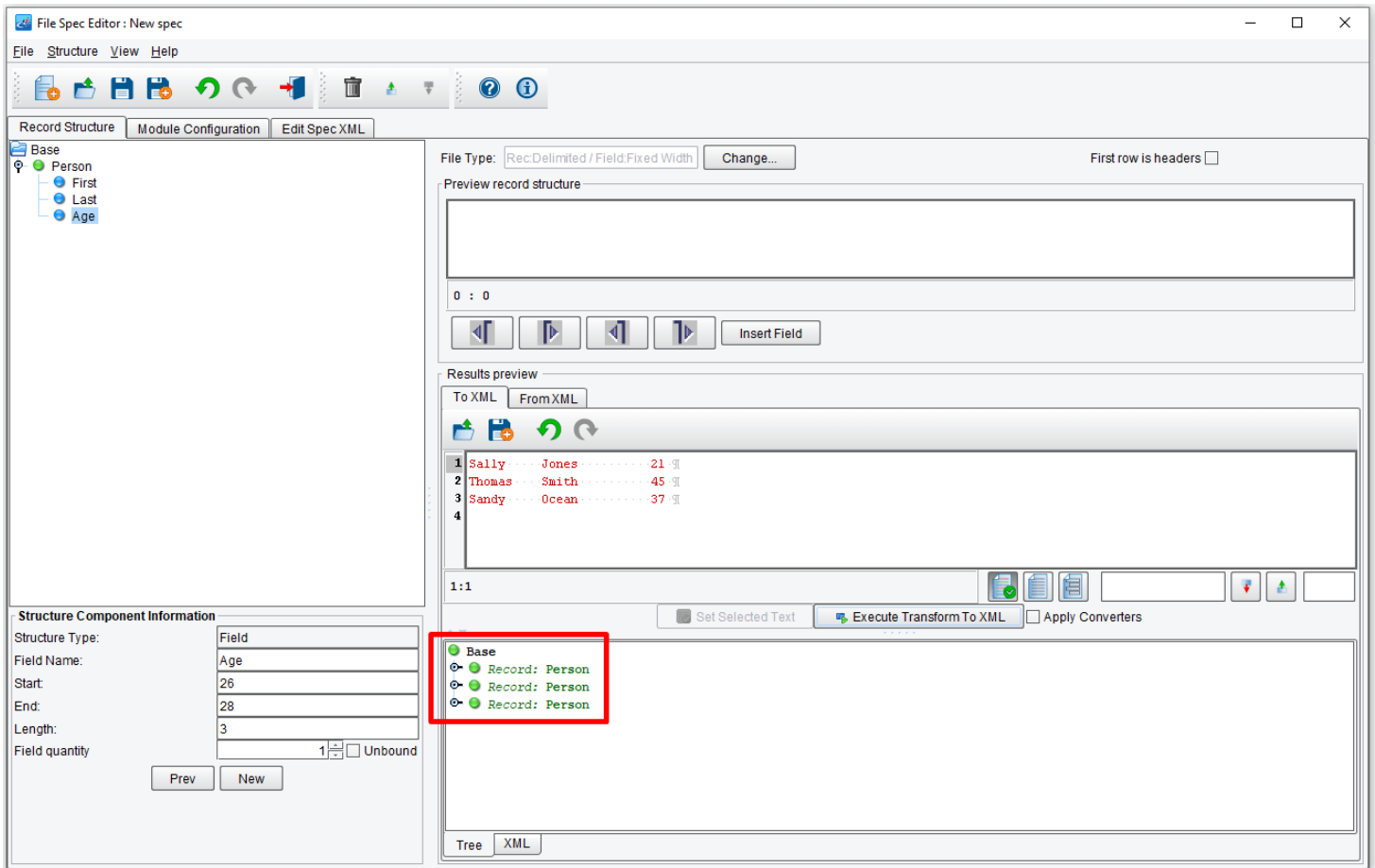
Navigate to the **people-ages.txt** file in the data folder of your distribution.



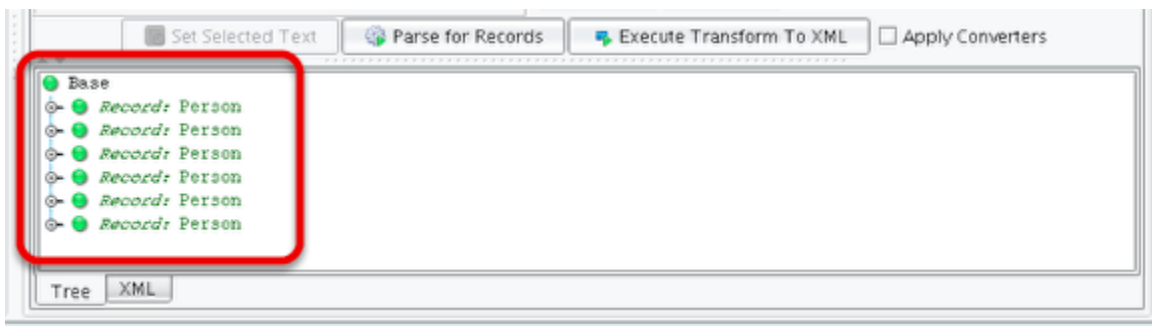
Click the **Open** button.



Finally, to test the XML transformation, click on the **Execute Transform to XML** button. The parsed representation of the data will be displayed.



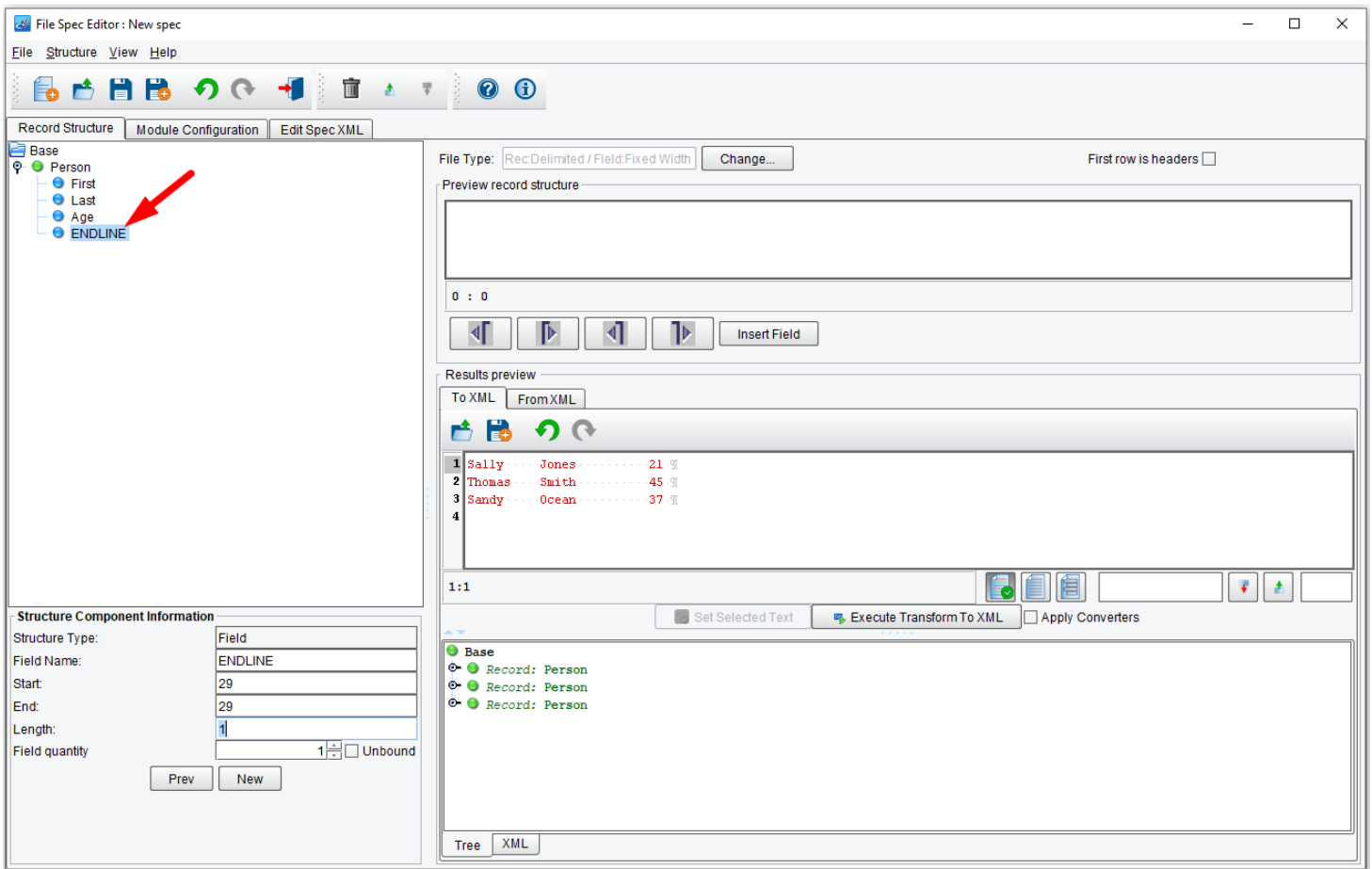
Displayed are all 3 person records from our sample file. If it doesn't look like this, still go ahead and move on to the next step.



If your output looks like this instead, you'll need to add one more step.

**NOTE: Some filesystems use a 2-character newline sequence (carriage return + linefeed), where others use a single character. For this reason, you may be required to add an extra field to your record definition to consume the additional character. If empty records appear in your output, add an additional record called "ENDLINE" with a length of 1 byte. This should stop the empty records from appearing in your output.**

Repeat the previous processes by selecting the green Person node. Right-click and select **Add New Field**, type in **"ENDLINE"**, click **OK**. Leave the Length at "1". Click enter/return then click **Execute Transform to XML**.



Your output should now look like that above. You can now proceed to the next step.



The screenshot shows the File Spec Editor interface. On the left, a tree view shows a 'Person' record with fields 'First', 'Last', and 'Age'. Below this is the 'Structure Component Information' panel, which shows 'Record Name: Person' and 'Record quantity: 1'. The main area displays a 'Preview record structure' section with a table of three records: Sally Jones (21), Thomas Smith (45), and Sandy Ocean (37). Below the preview is a 'Results preview' section with tabs for 'To XML' and 'FromXML'. The 'To XML' tab is active, showing a tree view of the XML structure. A red arrow points to the 'XML' tab at the bottom of the tree view.

Line	Field	Value	Age
1	Sally	Jones	21
2	Thomas	Smith	45
3	Sandy	Ocean	37

```
Base
├── Record: Person
│   ├── Field: First = Sally
│   ├── Field: Last = Jones
│   └── Field: Age = 21
├── Record: Person
│   ├── Field: First = Thomas
│   ├── Field: Last = Smith
│   └── Field: Age = 45
└── Record: Person
    ├── Field: First = Sandy
    └── Field: Last = Ocean
```

Click the [nodes](#). You see that each is correctly parsed, containing a first, last, and age field. To view the XML representation, click on the **XML** tab.

The screenshot shows the File Spec Editor interface. On the left, a tree view shows a 'Person' record with fields: First, Last, Age, and ENDLINE. Below this is the 'Structure Component Information' panel for the 'ENDLINE' field, showing it is a 'Field' type with a length of 1. The main area displays a 'Preview record structure' which is currently empty. Below that is a 'Results preview' section showing a table of data:

Line	Field 1	Field 2	Field 3
1	Sally	Jones	21
2	Thomas	Smith	45
3	Sandy	Ocean	37
4			

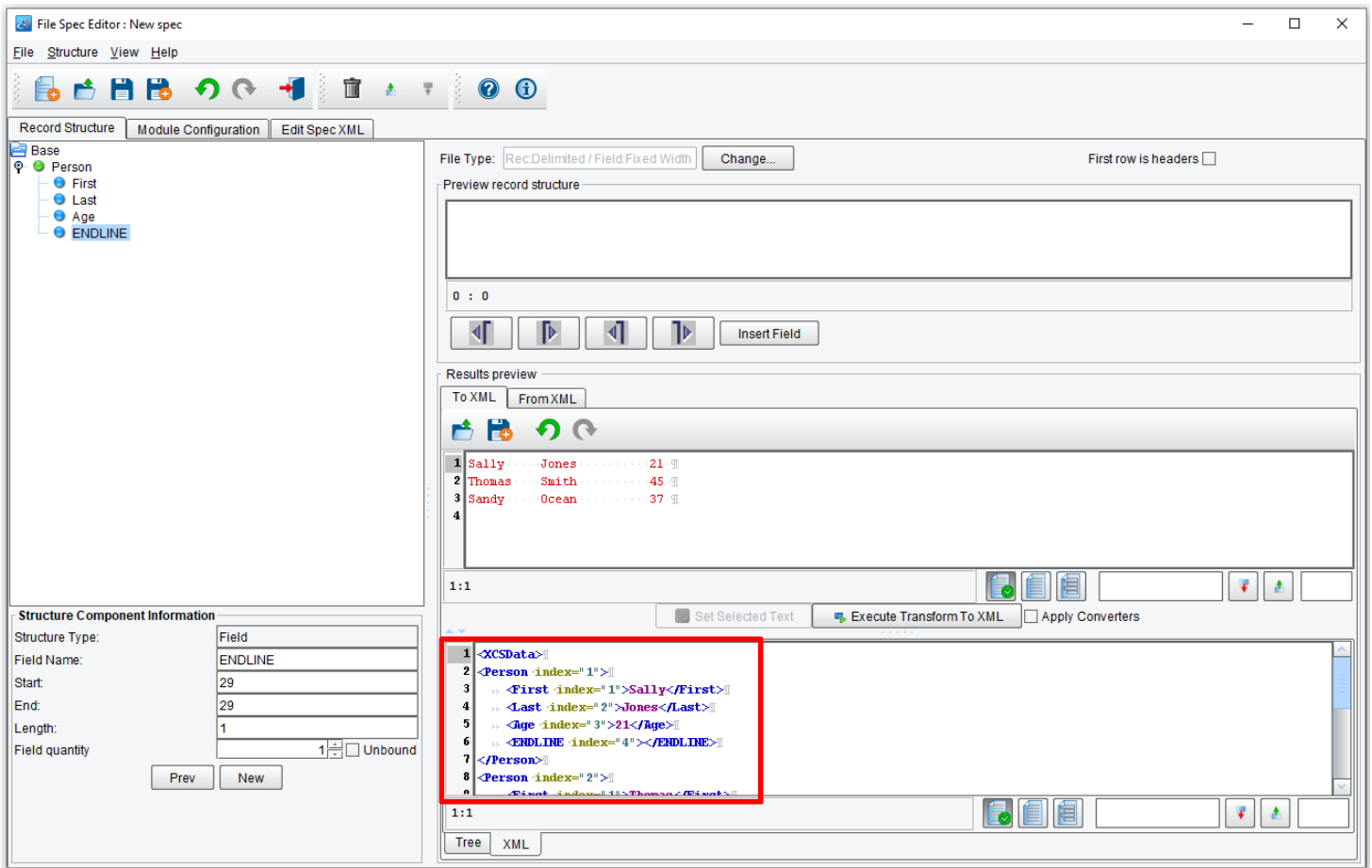
At the bottom, a tree view shows the XML representation of the data. Two red arrows point to the 'Field: ENDLINE =' nodes in the tree. The 'XML' tab is selected at the bottom of the tree view.

For those who added "ENDLINE", clicking the nodes will reveal the output above. To view the XML representation we can click on the XML tab.

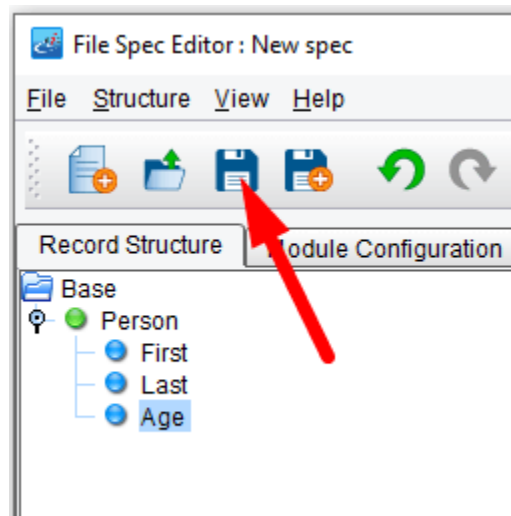
The screenshot shows the File Spec Editor interface. On the left, a tree view shows a 'Person' record with fields 'First', 'Last', and 'Age'. Below this, 'Structure Component Information' shows 'Record Name: Person' and 'Record quantity: 1'. The main area displays 'File Type: Rec.Delimited / Field.Fixed Width' and a 'Preview record structure' table with three rows of data. Below the preview, the 'Results preview' section shows the 'To XML' output, which is highlighted with a red box. The XML output is as follows:

```
1 <<CDATA>||
2 <Person index="1">||
3   <<First index="1">Sally</First>||
4   <<Last index="2">Jones</Last>||
5   <<Age index="3">21</Age>||
6 </Person>||
7 <Person index="2">||
8   <<First index="1">Thomas</First>||
9   <<Last index="2">Smith</Last>||
10  <<Age index="3">45</Age>||
11 </Person>||
```

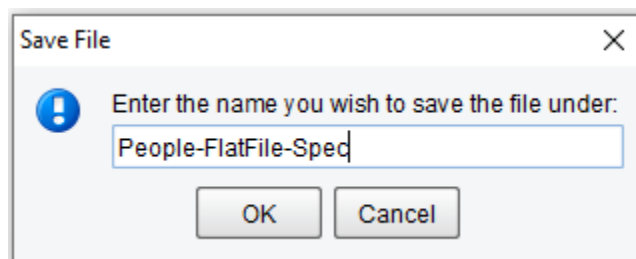
Use the scroll bar to view the XML.



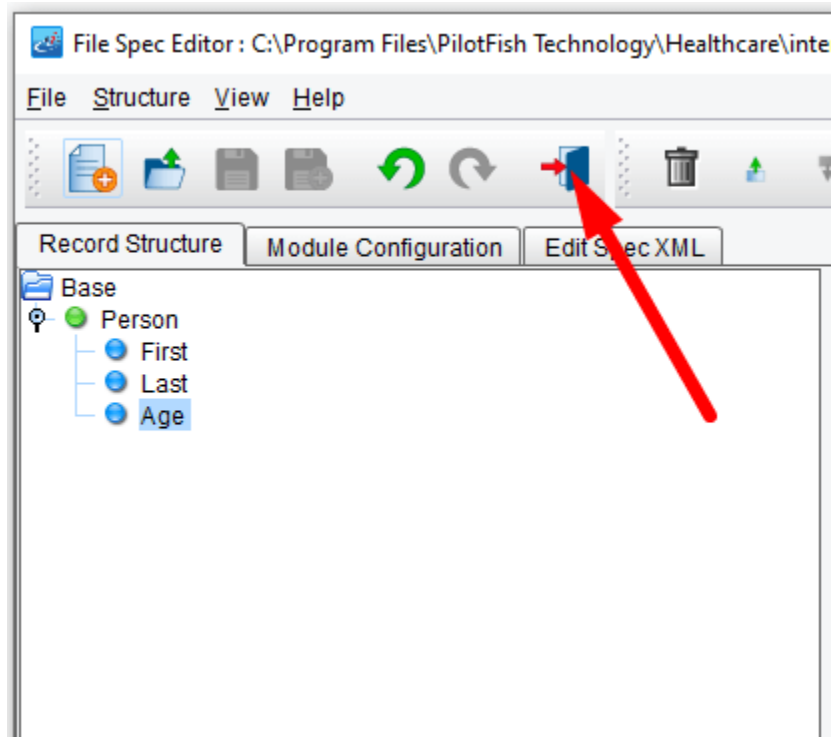
And for those with the added field "ENDLINE", your output will look like that above.



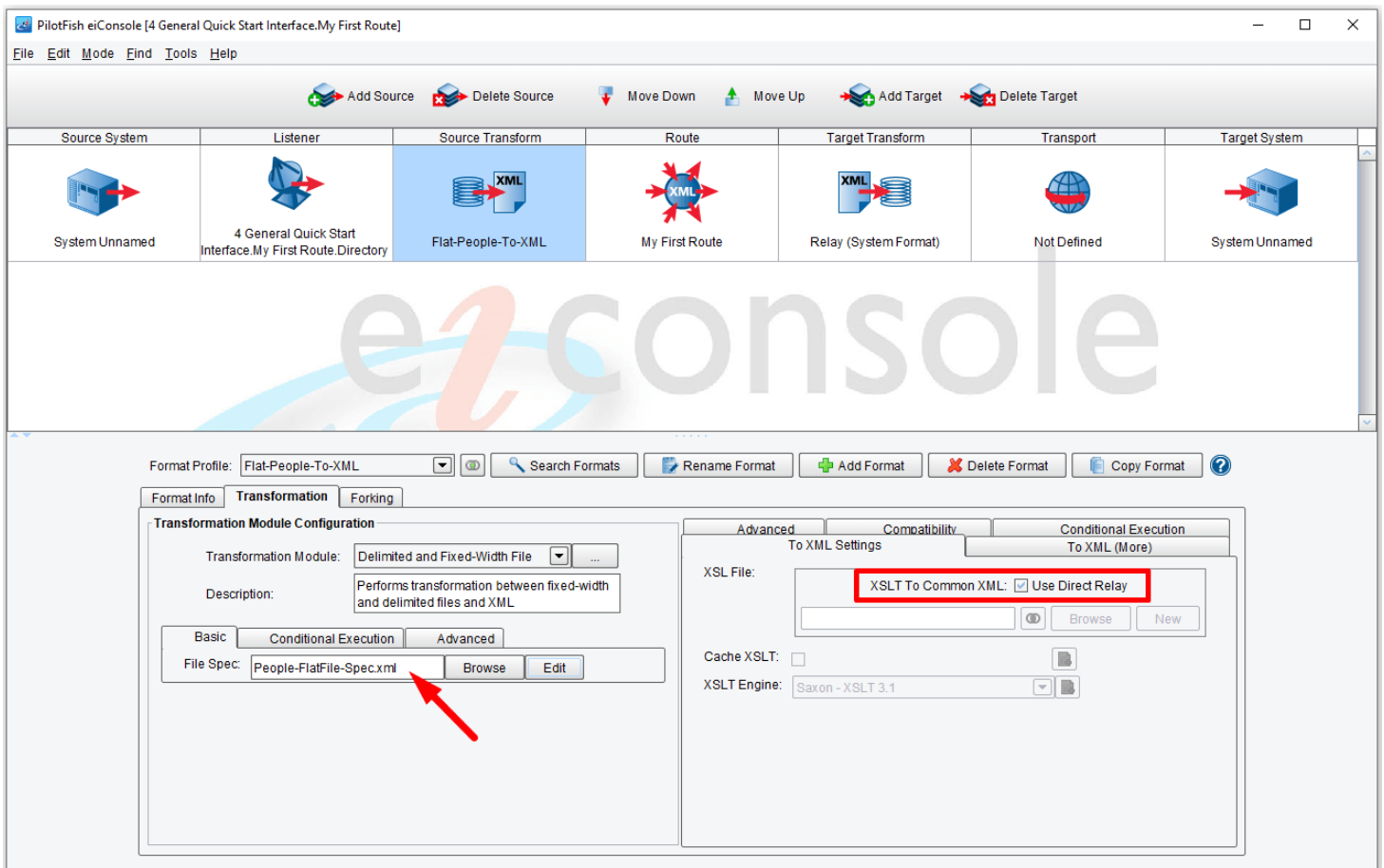
Our file specification is complete. Save it by clicking the **Save** icon.



The Save File dialogue will appear. You'll be prompted to enter a name. Type **"People-FlatFile-Spec"** and click **Ok**.



Next, click the **Return to Console** icon.



Note that the new file specification now appears in the Transformation Module Configuration area. Since there won't

be any additional transformation, leave the XSL File set to **Use Direct Relay**, checked.

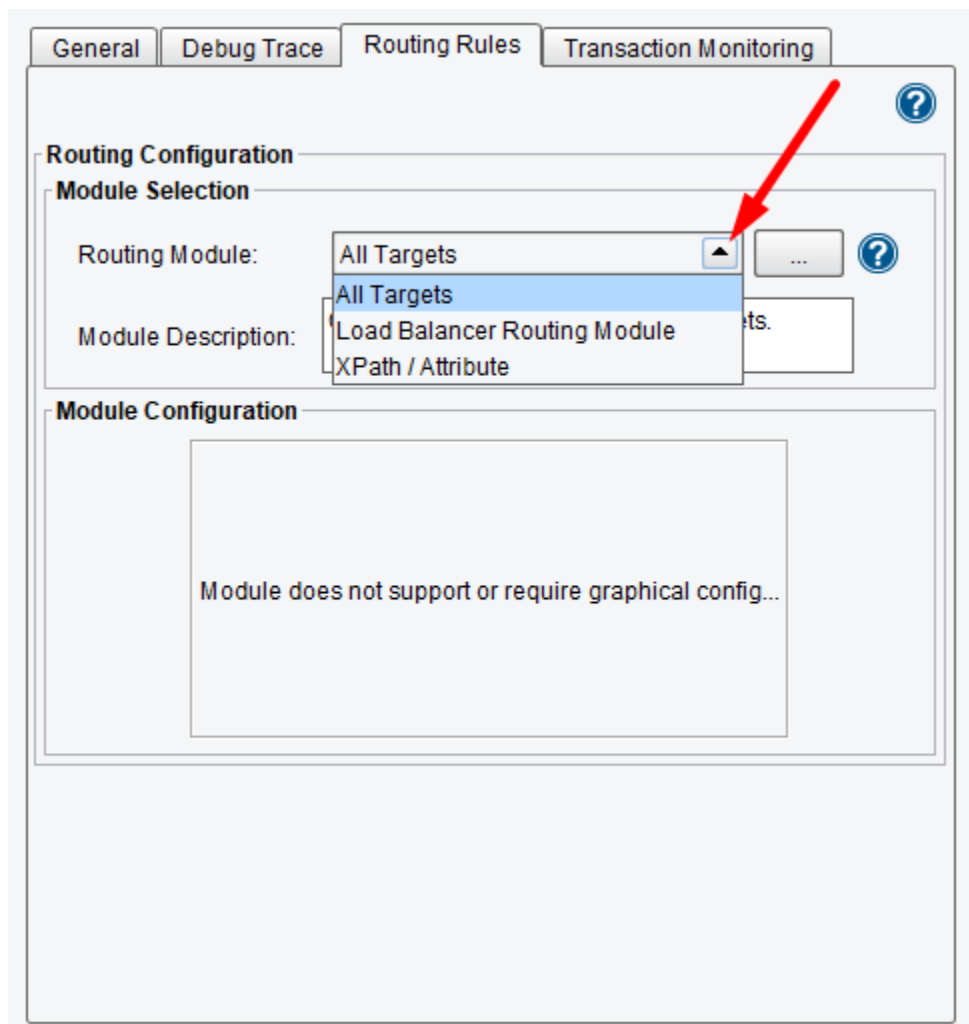
## The Route Stage

The screenshot shows the PilotFish eiConsole interface. At the top, there is a menu bar (File, Edit, Mode, Find, Tools, Help) and a toolbar with icons for Add Source, Delete Source, Move Down, Move Up, Add Target, and Delete Target. Below this is a process flow diagram with seven stages: Source System (System Unnamed), Listener (4 General Quick Start Interface.My First Route.Directory), Source Transform (Flat-People-To-XML), Route (My First Route), Target Transform (Relay (System Format)), Transport (Not Defined), and Target System (System Unnamed). The 'Route' stage is highlighted in blue.

The 'Route' configuration dialog is open, showing the 'General' tab. It contains the following sections:

- Route Settings:** Route Name: My First Route; Route Description: (empty); Edit button.
- Route Metadata:** A table with columns 'Tag Name' and 'Tag Value' (empty); Add and Remove buttons.
- Pool Configuration:** Use Route Specific Pooling (checked); Configure Route Specific Pooling (Edit button).

Click on the **Route** stage. The General tab will open with the configuration settings. Leave these settings as is.

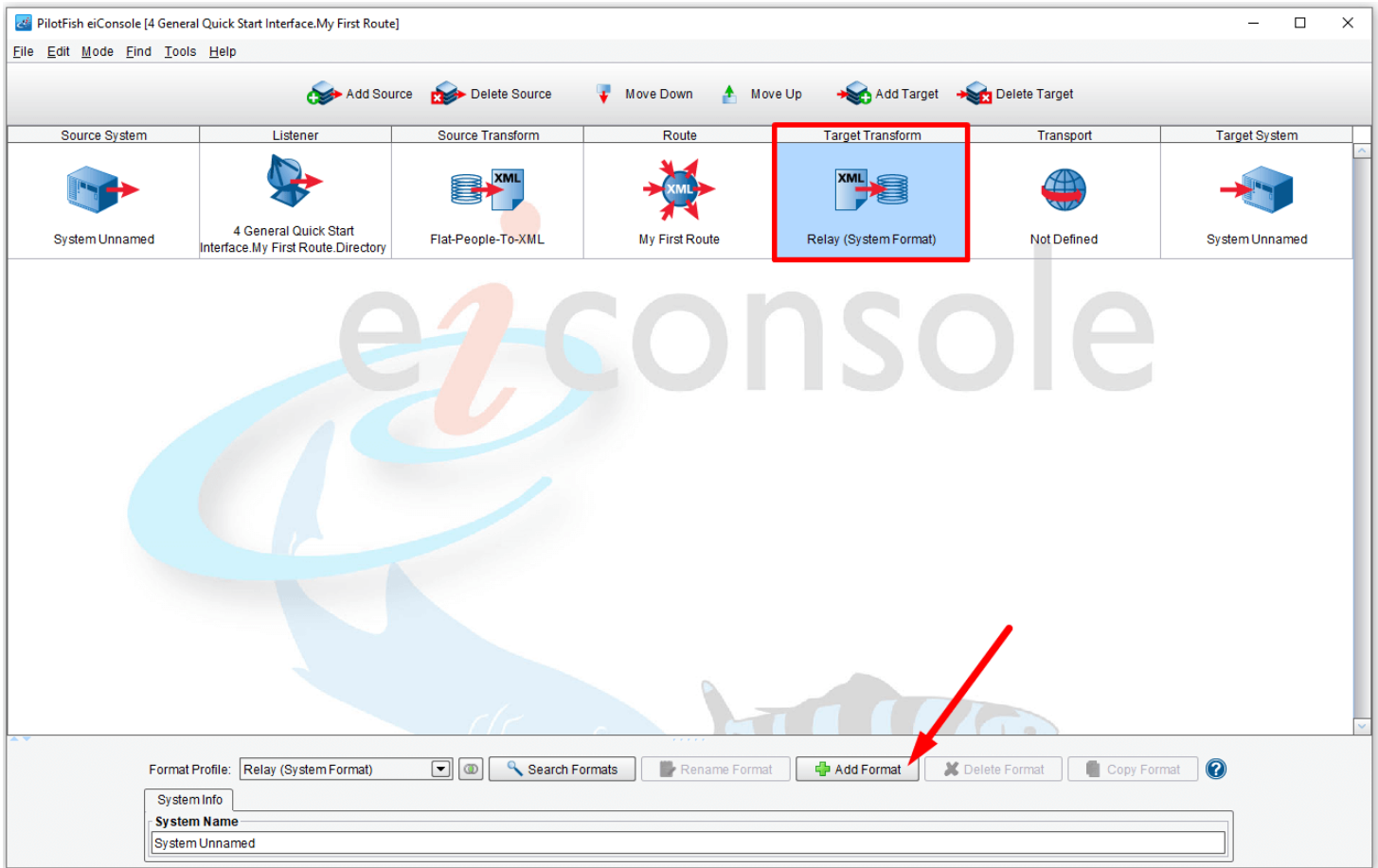


In the Route stage, we can optionally implement Routing Rules.

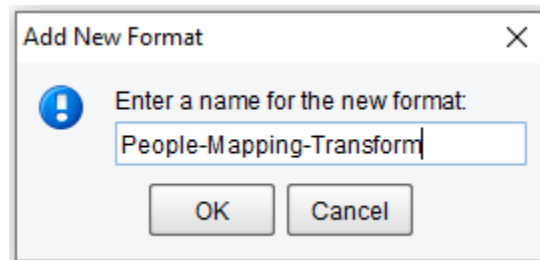
Select the Routing Rules tab. Note your options in the drop-down. In our case, you are sending all data from the Source to the Target System. So, the default [Routing Module](#) selection of **All Targets** applies. Leave these settings as is.

Next, click on the **Target Transform** stage.

## The Target Transform Stage

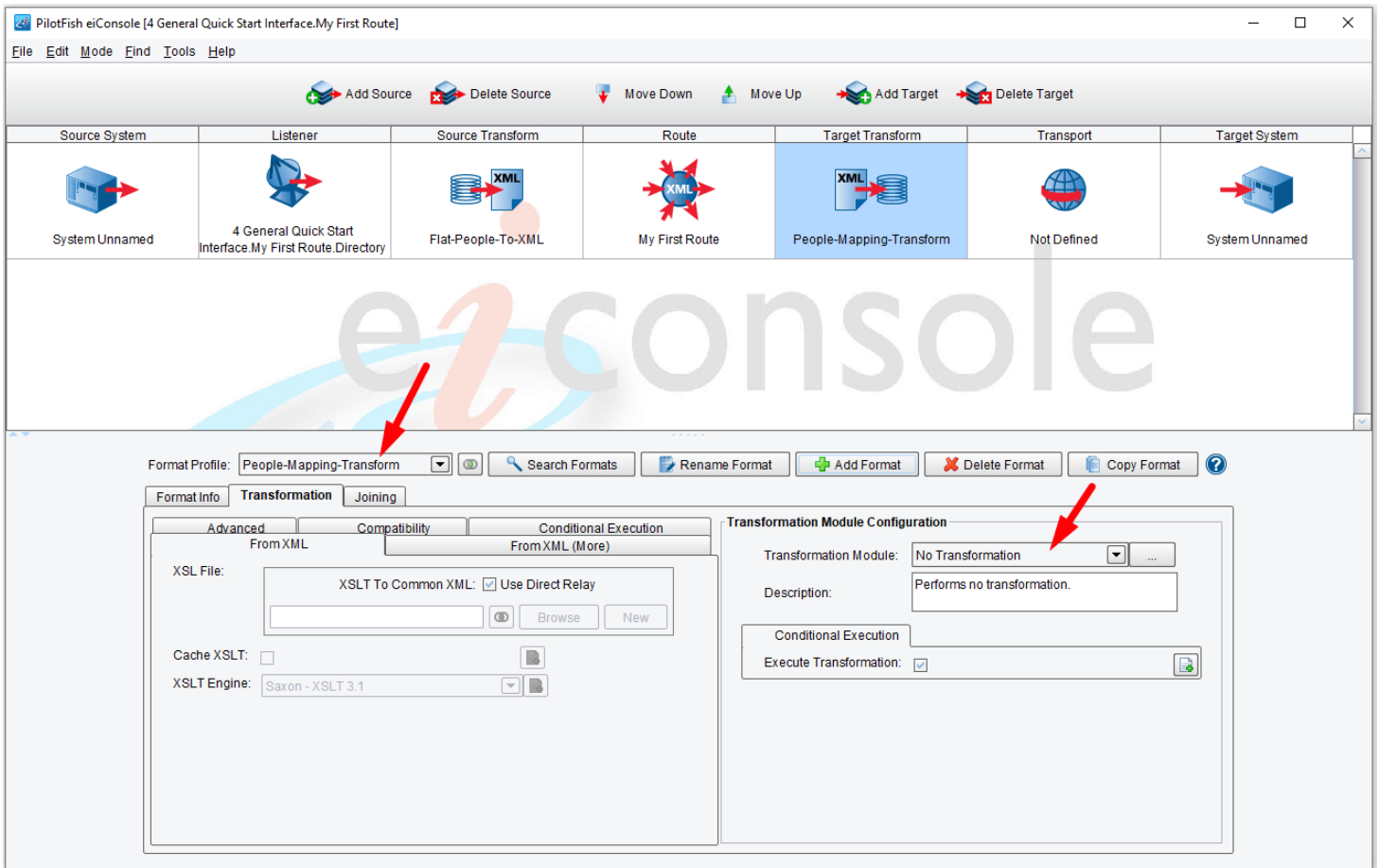


To add another format, click the **Add Format** button.



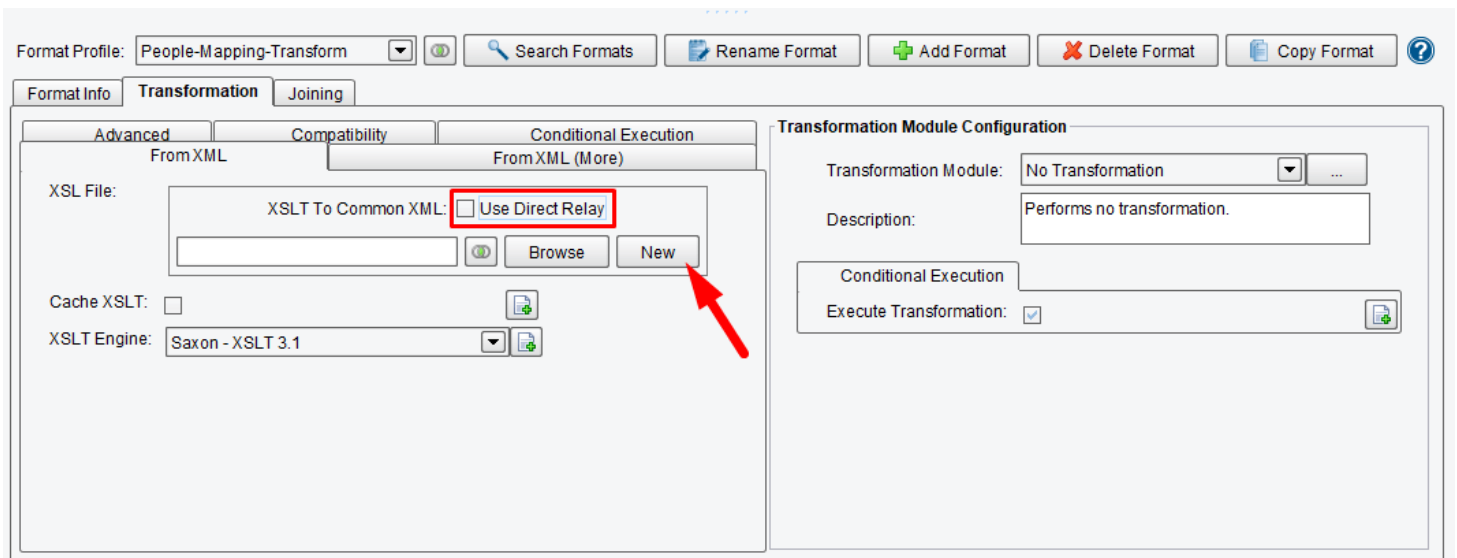
Once the Add New Format dialog appears type in **"People-Mapping-Transform"** and click **OK**.



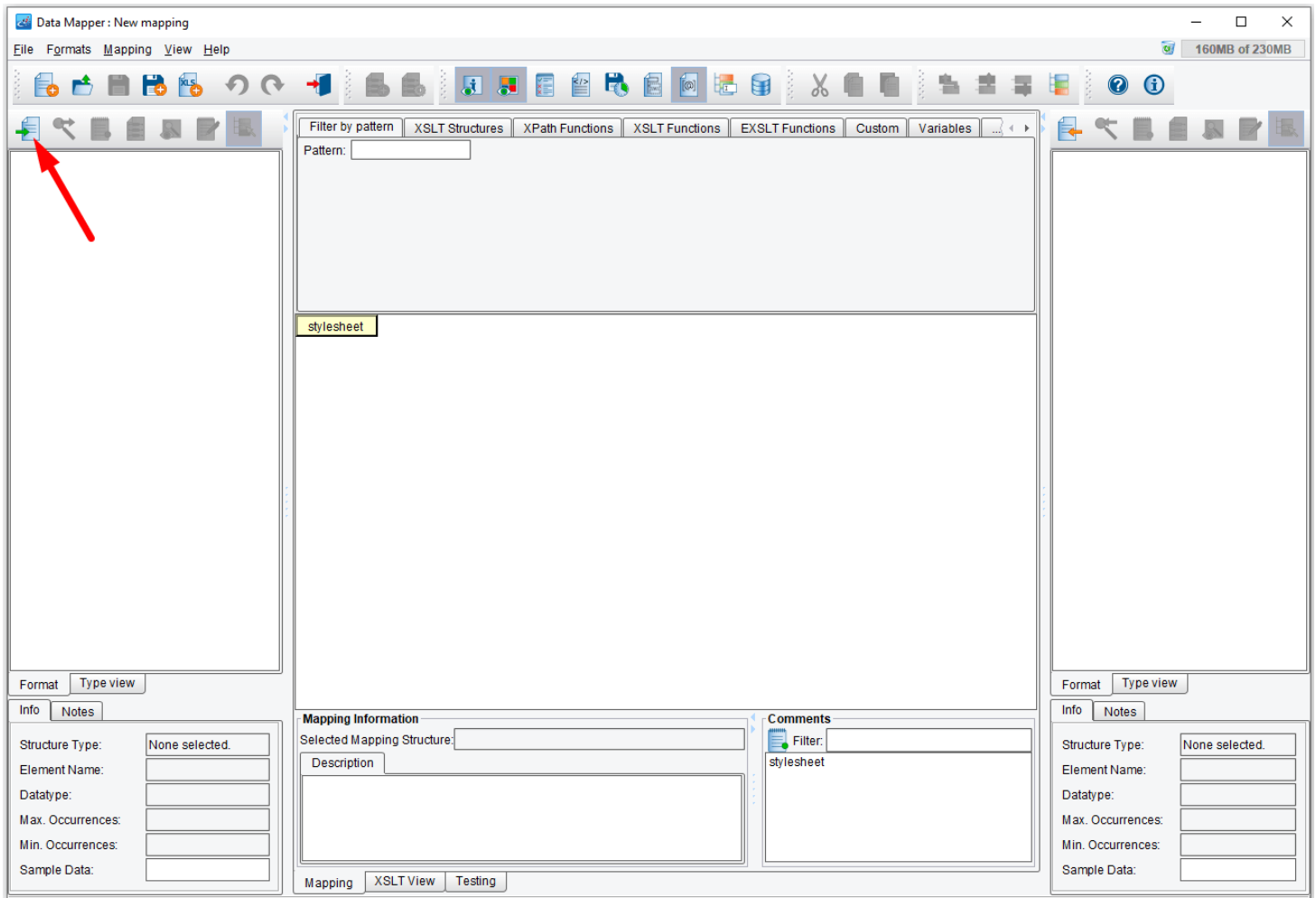


**People-Mapping-Transform** will be selected in the Format Profile drop-down. Leave that as is.

Next, configure the XSL File and leave the Transformation Module Configuration set at **No Transform**.

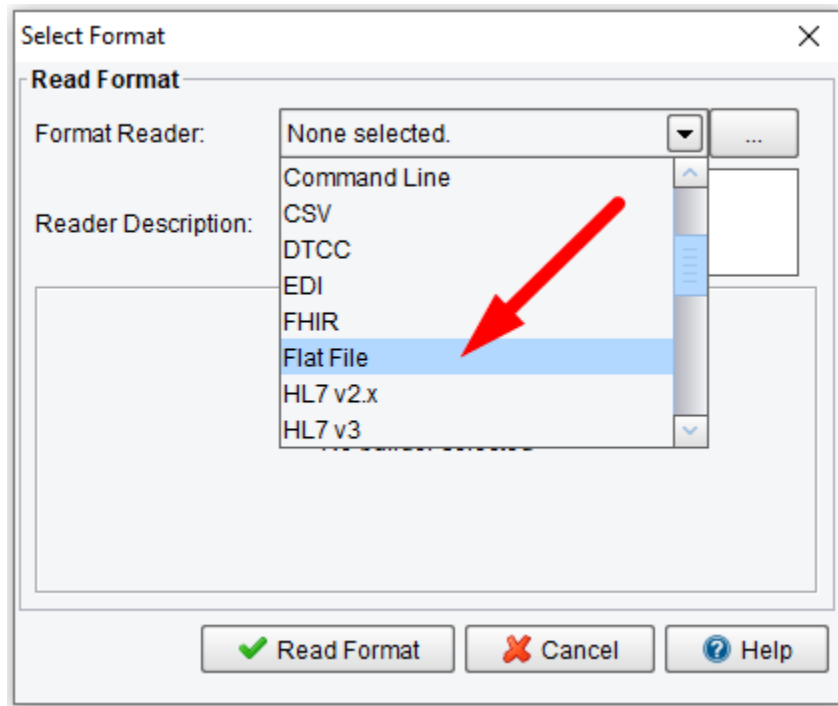


Uncheck the Use Direct Relay box in the XSLT Configuration panel. This will enable the Browse and Edit buttons in configuration items. Click the **New** button to launch the [Data Mapper](#).

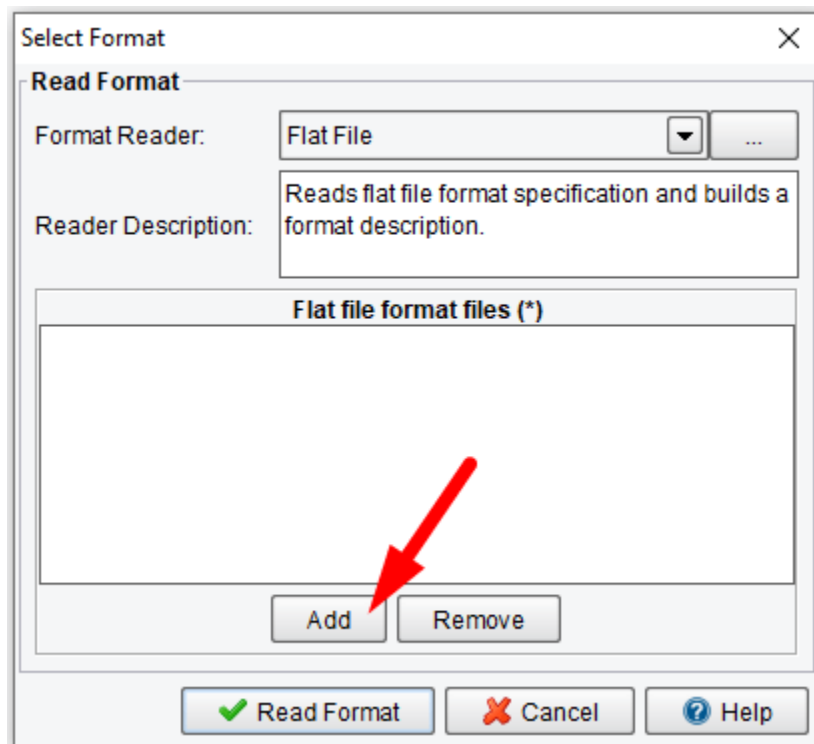


The Data Mapper opens. The Data Mapper is the eiConsole's 3 pane mapping tool. It generates XSLT transformations and enables you to transform any data format to any other data format. In the Data Mapper, you can load the Source Format, load the TargetFormat, and then graphically map between the two.

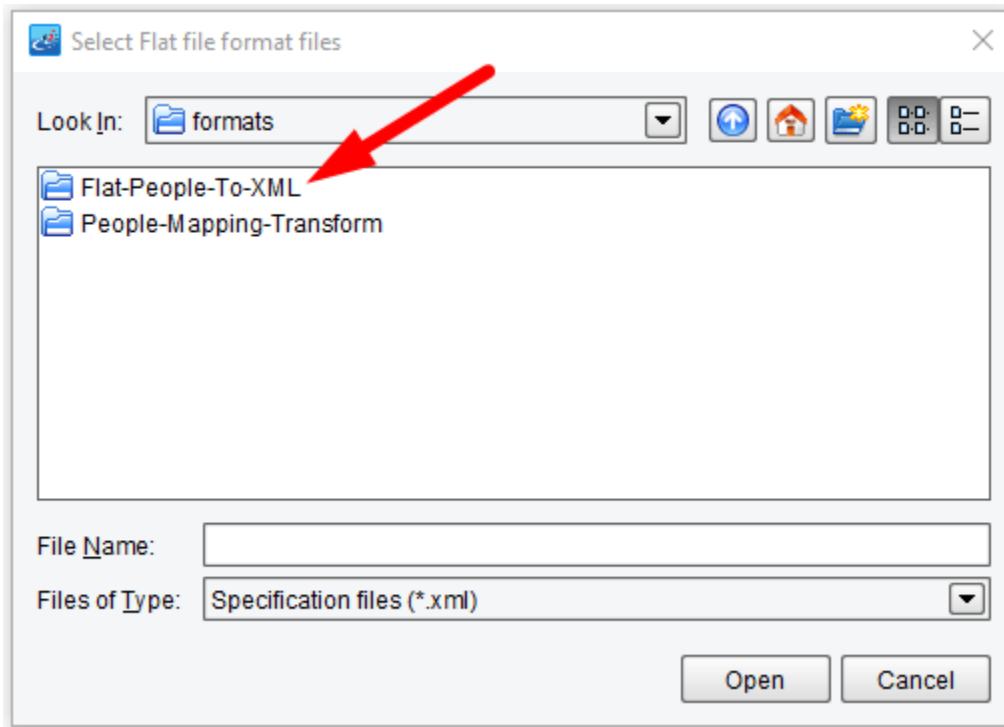
Click the **Open Source Format** icon above the Source panel.



The Select Format dialog will open. To map from a flat file format, choose the **Flat File** from the drop-down and click **Read Format**.

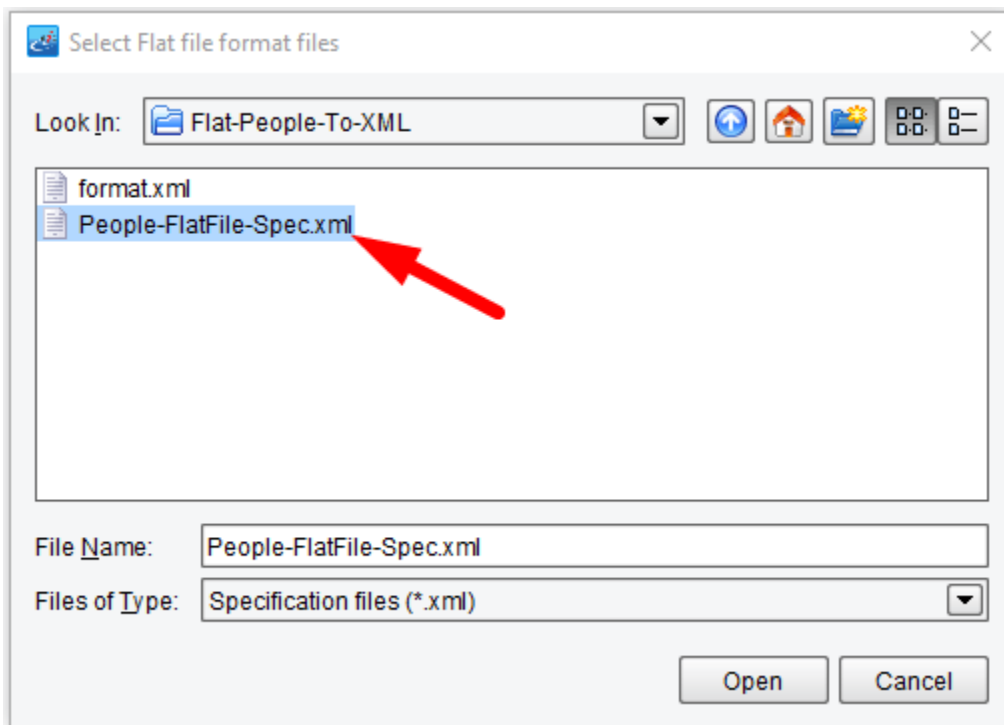


Then, the **Add** button below the Flat file format files panel.

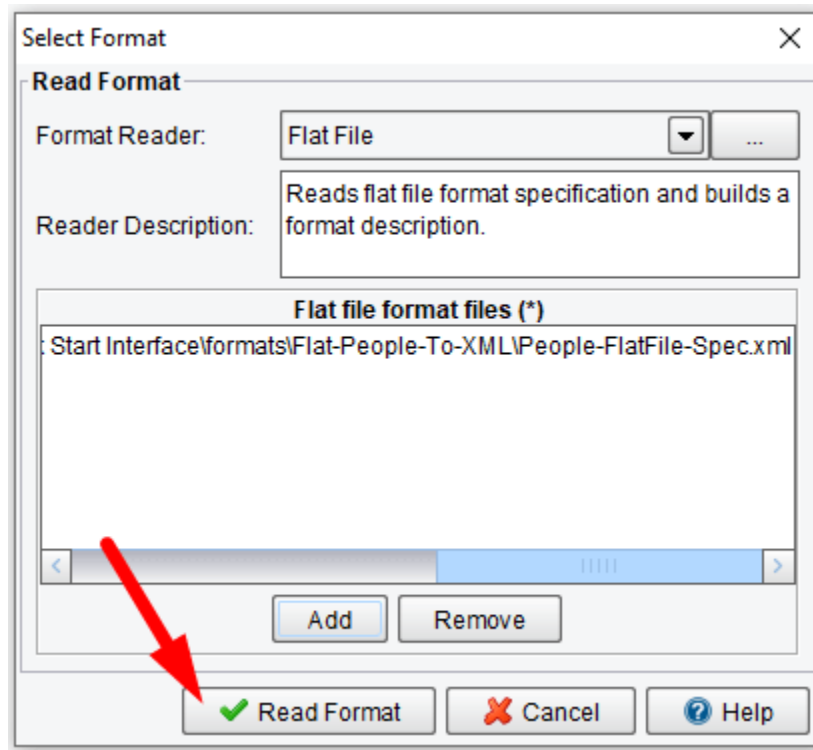


When the Select Flat file format files panel opens, navigate to the 4 General Quick Start Interface directory, or your Working Directory, and double click on the **formats** folder to open.

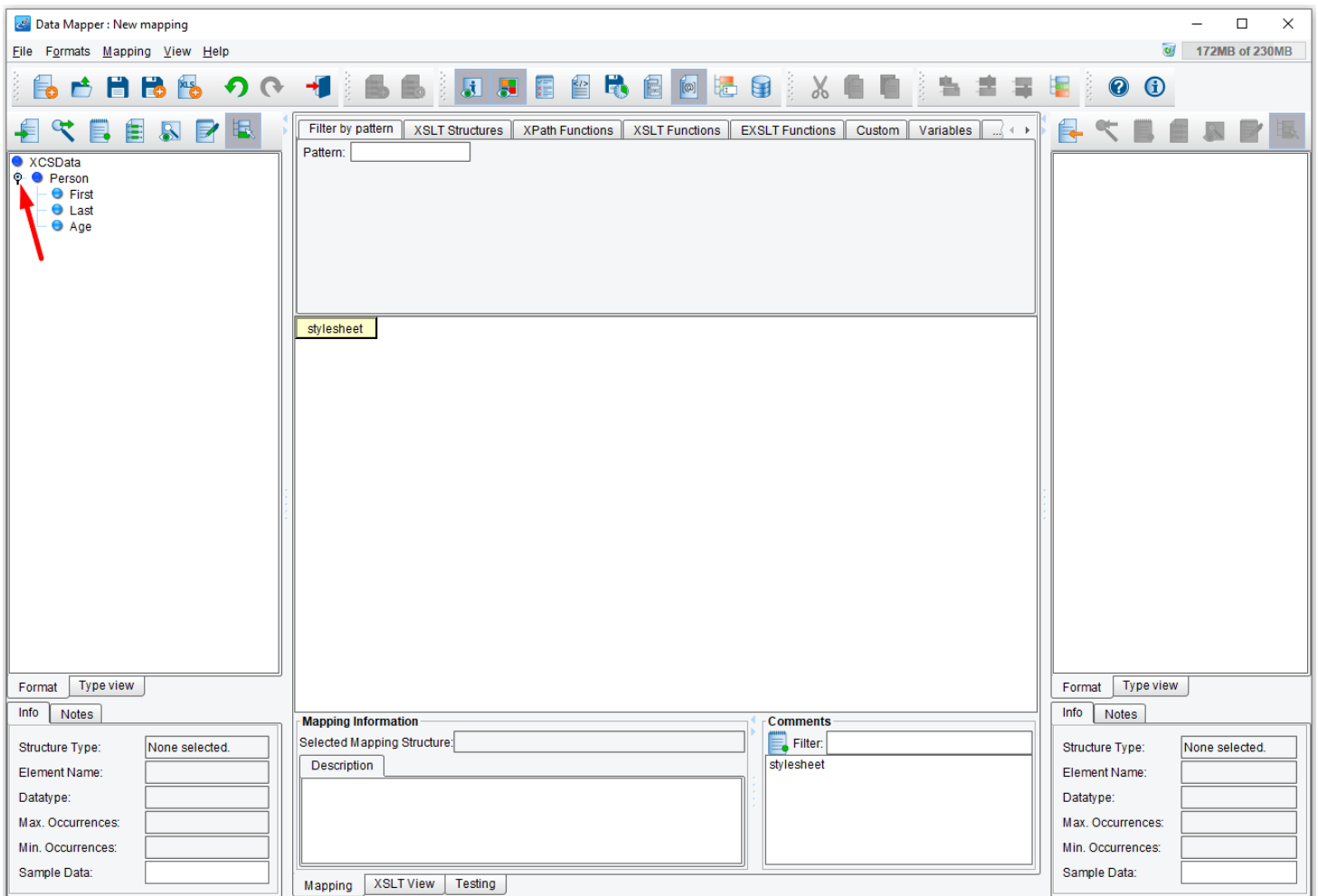
Select the **Flat-People-To-XML** folder and double click to open.



Inside that folder, you'll find the file specification that was completed earlier. Select the **People-FlatFile-Spec.xml** file and click **Open**.



When the Select Format window opens click the **Read Format** button.

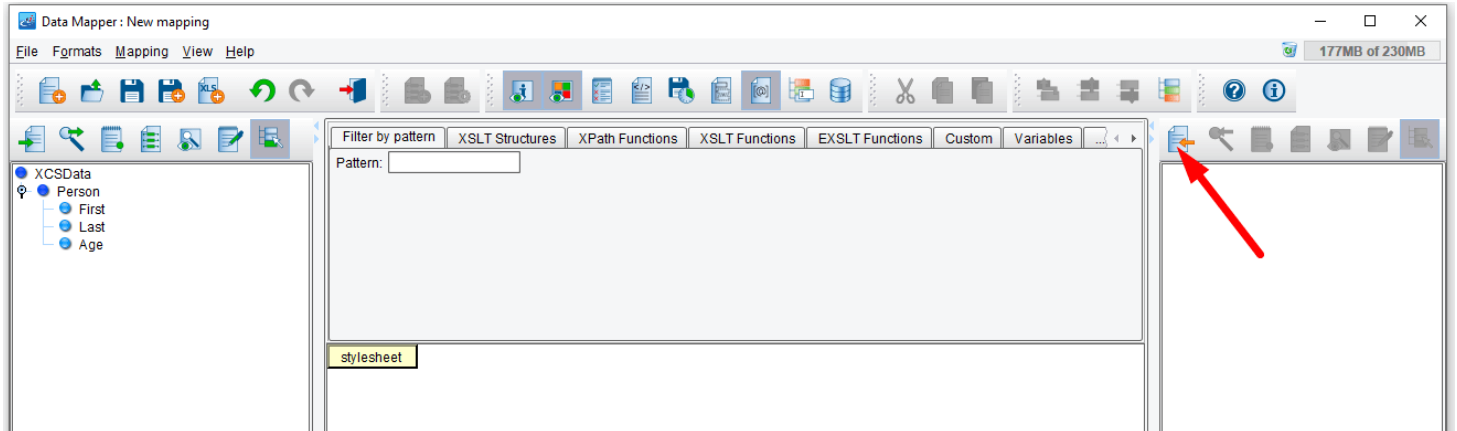


The structure of the flat file will now appear in the tree in the left panel of the Data Mapper. Click the node to expand

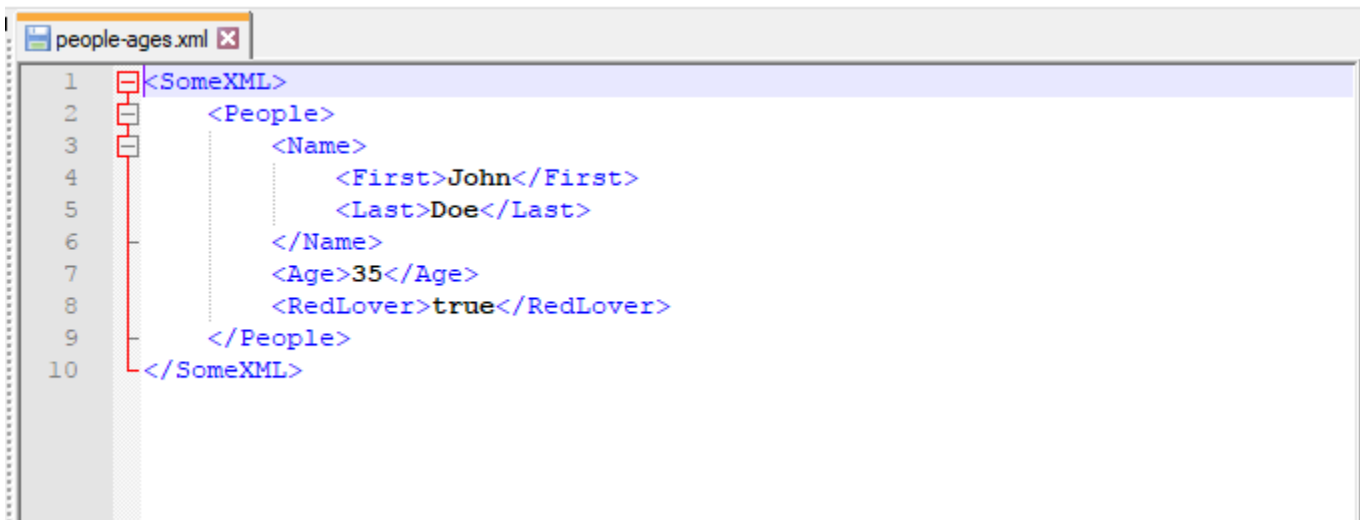
the tree. On the right-hand side, load the TargetFormat. (Note, there might be the last element "ENDLINE" in the source format. It would only appear if it has been added in the File Specification step)

**Note: What is a "node" vs. an element. The nomenclature comes from the XML standard itself, where any object within an XML tree is called a "node." "Elements" are nodes that have attributes (also nodes) and child nodes. Generally, they're pretty interchangeable. A good analogy, you can think of it this way. A "node is like a fruit, an element is like an apple. An apple is a kind of fruit; an element is a kind of node."**

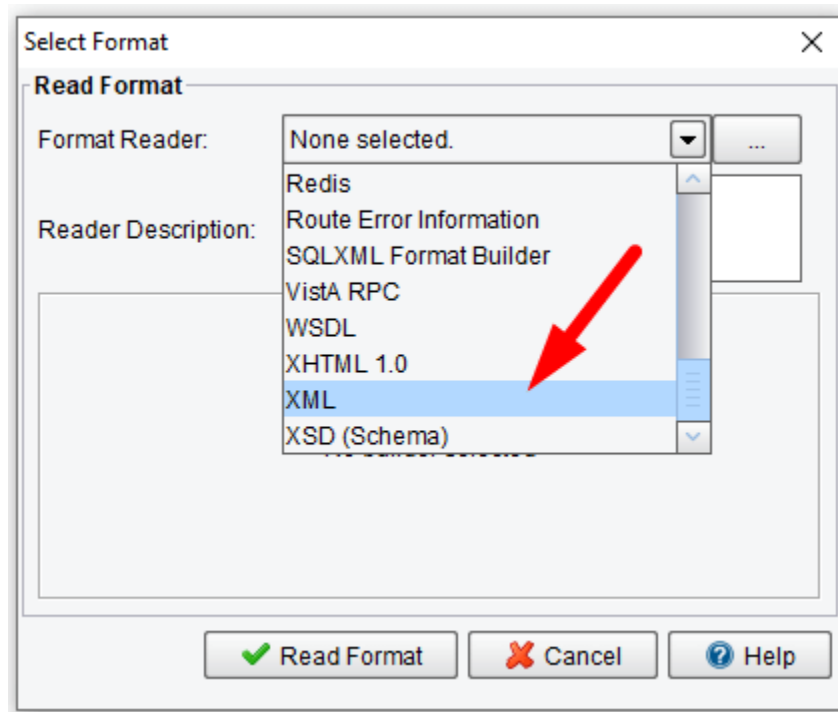
**Note: A node has a bullet to the left, it's expandable/collapsible and it's technically an element. But everything - attributes, XSLT instructions, tabular mappings, etc. are all "nodes".**



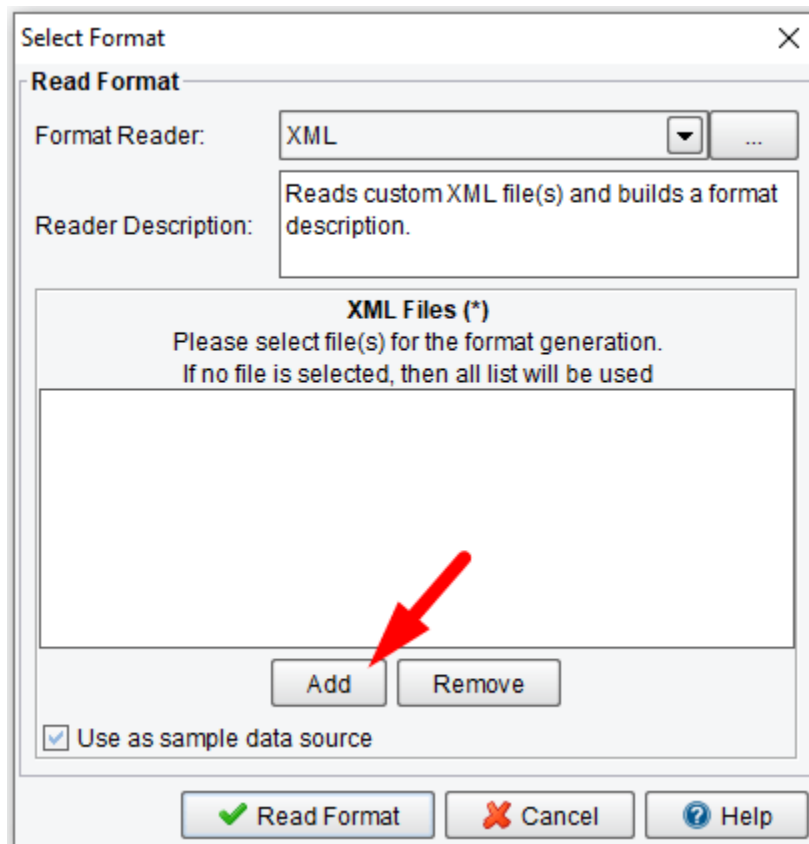
To load the Target Format, click the **Open Target Format** icon.



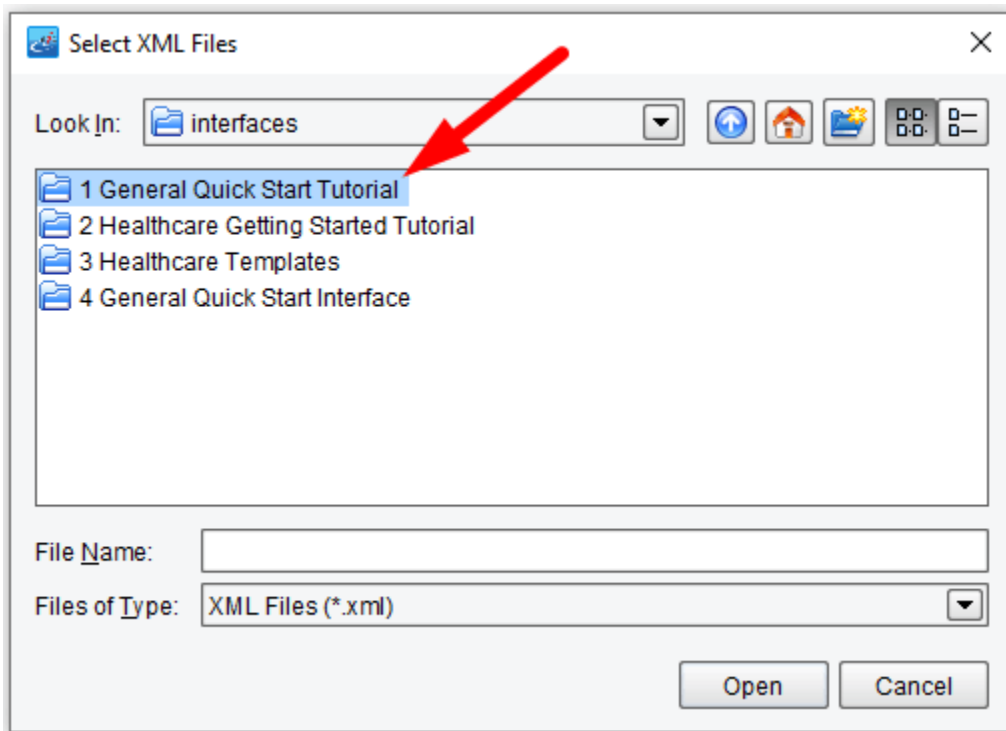
Take a look at the desired Target Format. It is this XML structure shown here. (The **people-ages.xml** file in the distribution data folder.)



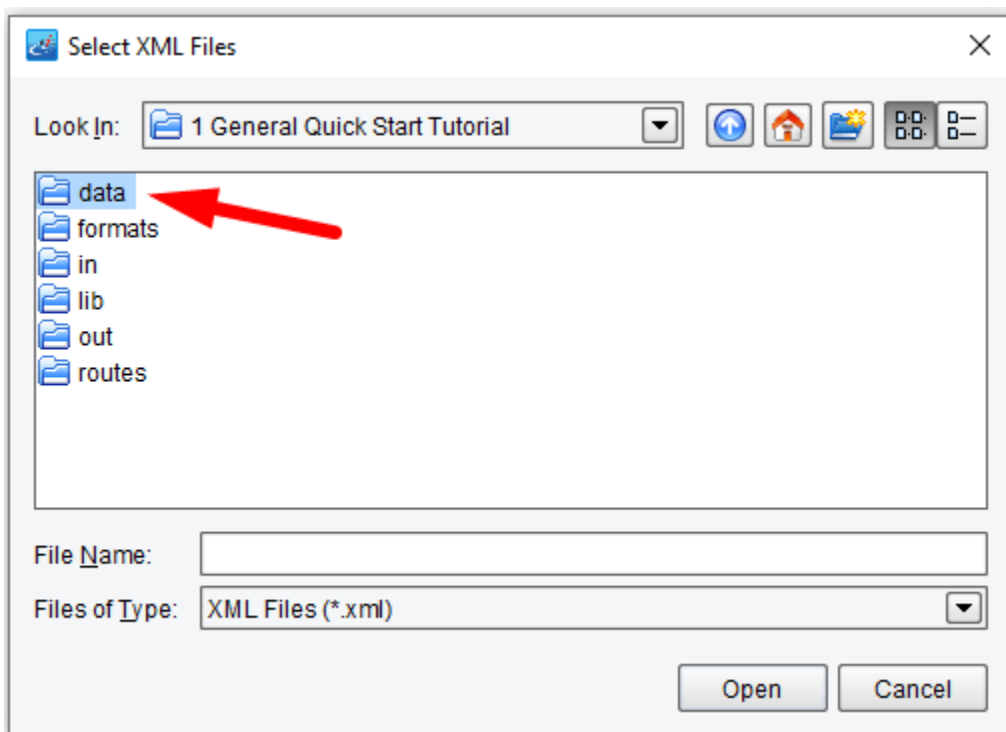
Since there is no schema, and only a sample, choose the **XML** option from the drop-down.



Next, click the **Add** button under the XML Files list.

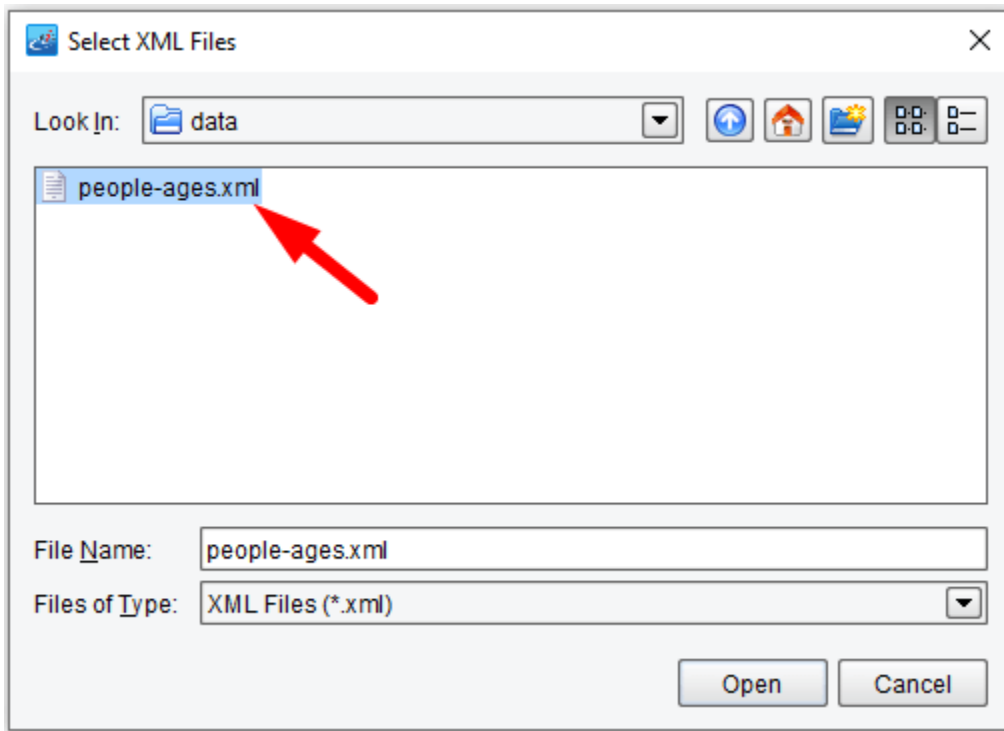


The **Select XML Files** window will open. Navigate to the distribution folder - **1 General Quick Start Tutorial**. Select and double click to open.

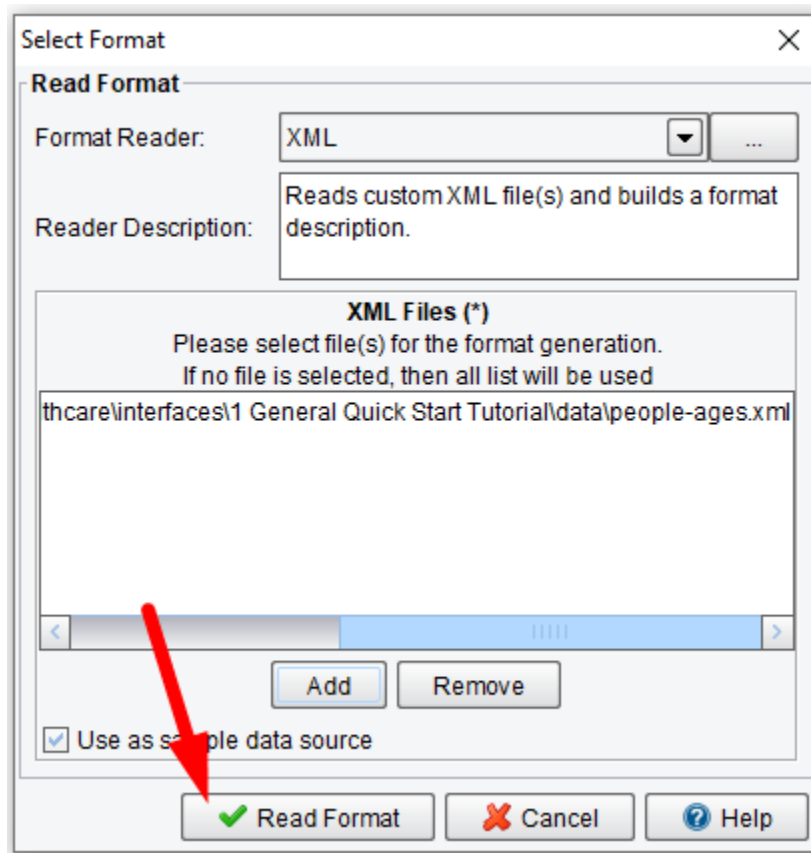


Next, select the **data** folder and double click to open.

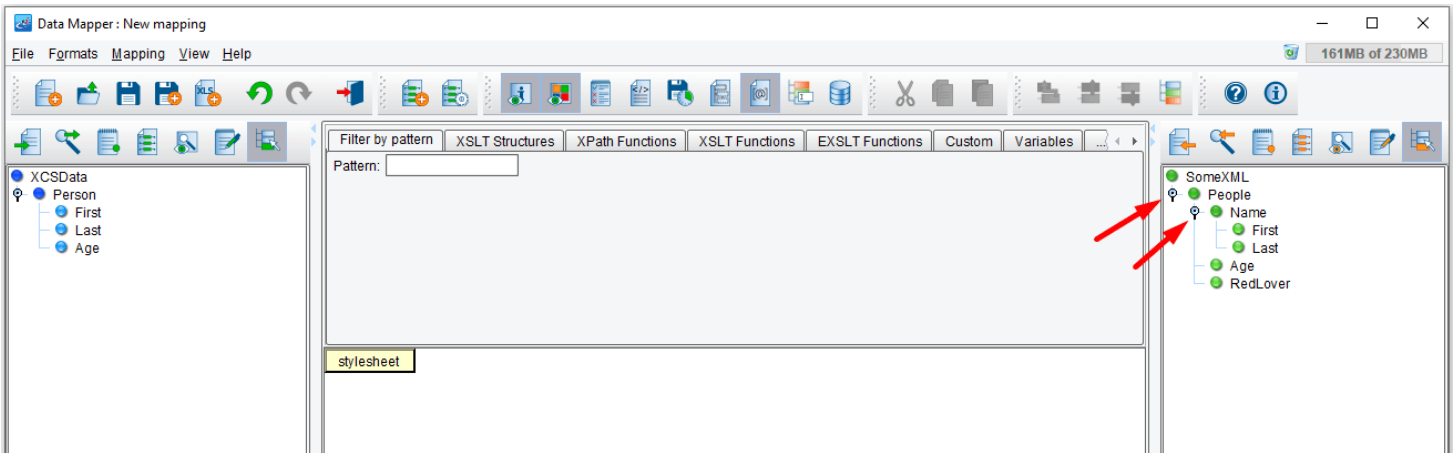




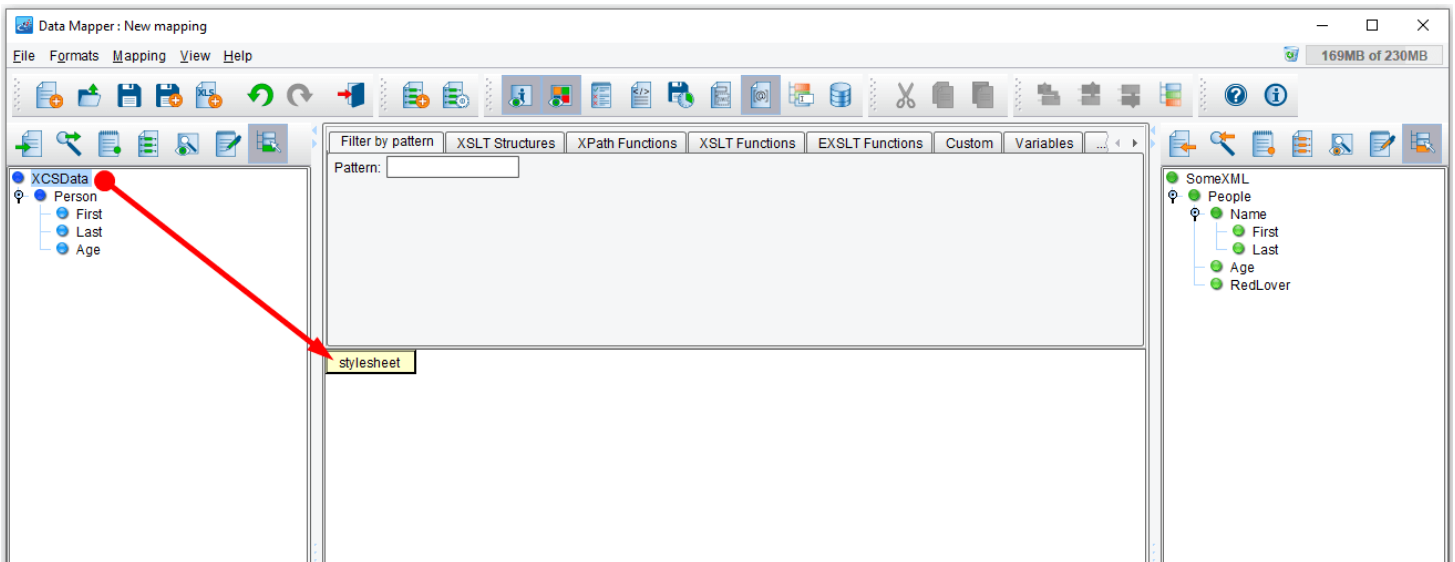
Next, select the **people-ages.xml** file and click **Open**.



Then click **Read Format**.

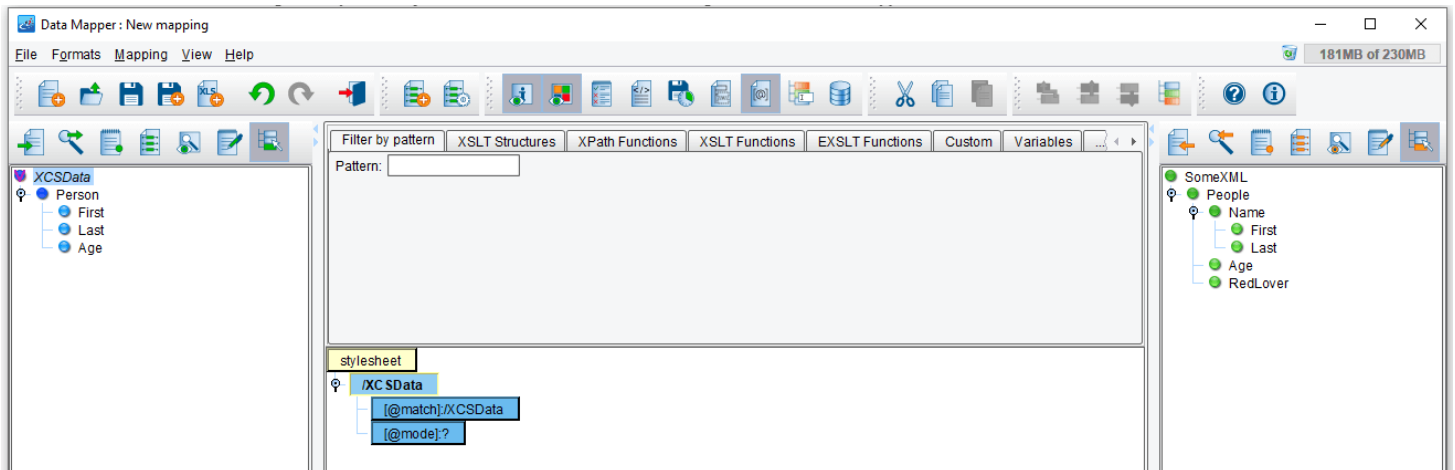


Once the Source and [Target](#) structures are set, create a mapping from one to another. Click the node to expand the tree.

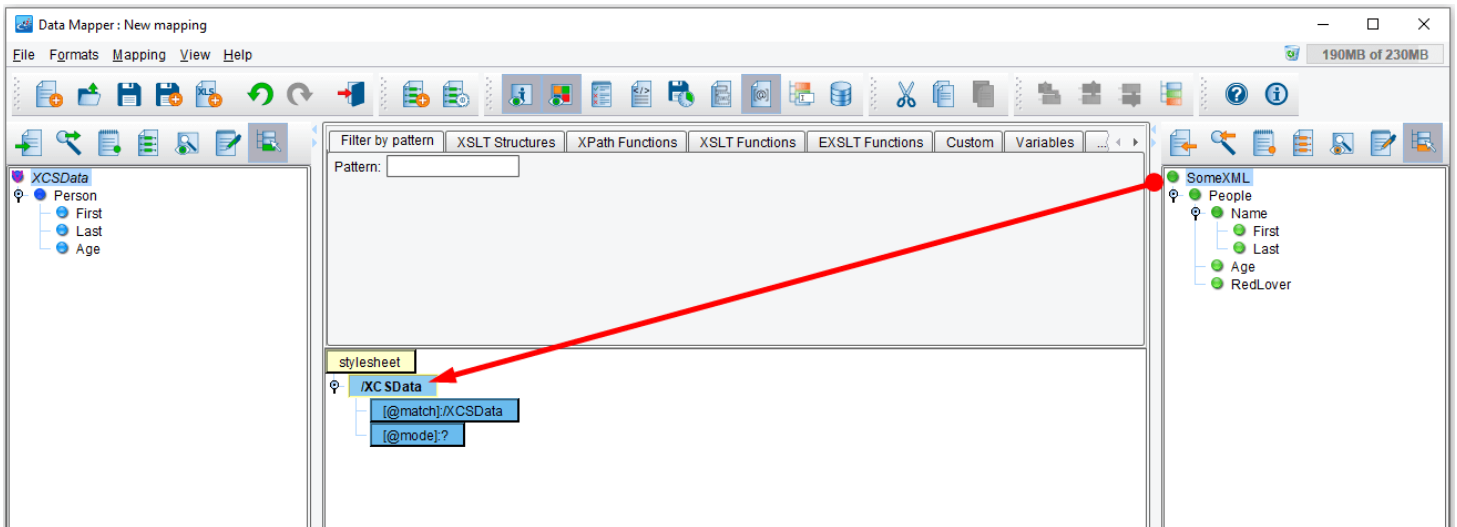


To begin our mapping, drag the root node of the Source Format onto the stylesheet.

**TIP: Select the node, click and drag it on top of the style sheet element and release once the green circle with the + appears.**

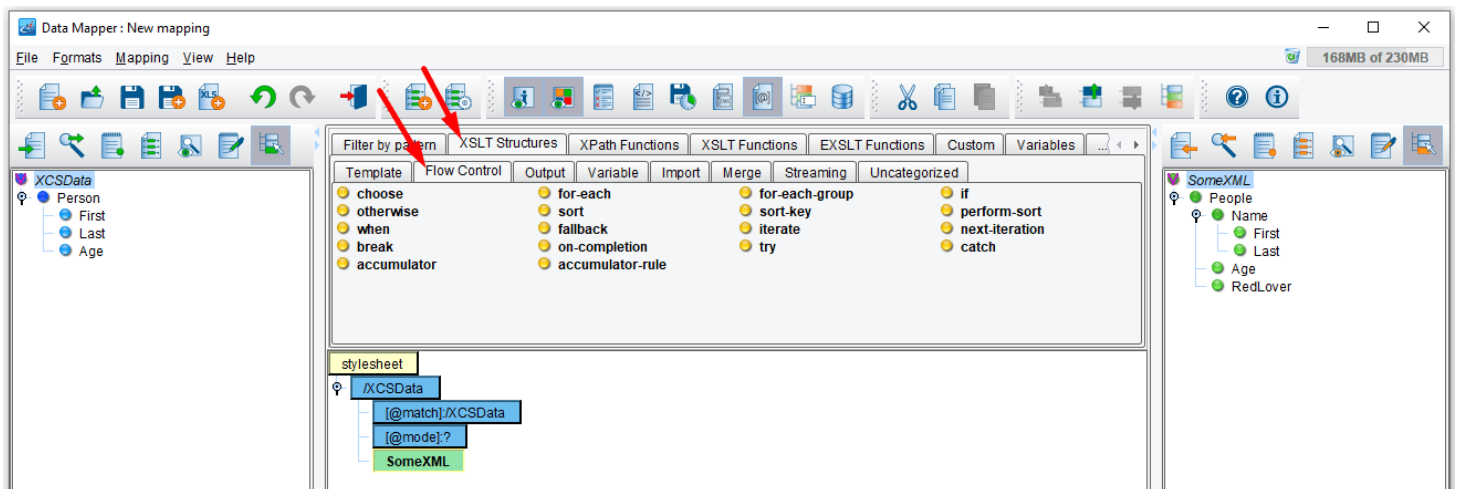


The blue **XCSDData** element should appear under **stylesheet**.



Next, drag the root node of the Target format onto your newly created **XCSDData** node. This indicates that we'll be creating a **SomeXML** tag each time we encounter an **XCSDData** tag in our Source.

**TIP:** When dragging a node onto your mapping, release your mouse once the gray bar appears above the element in your mapping. This indicates the correct position.



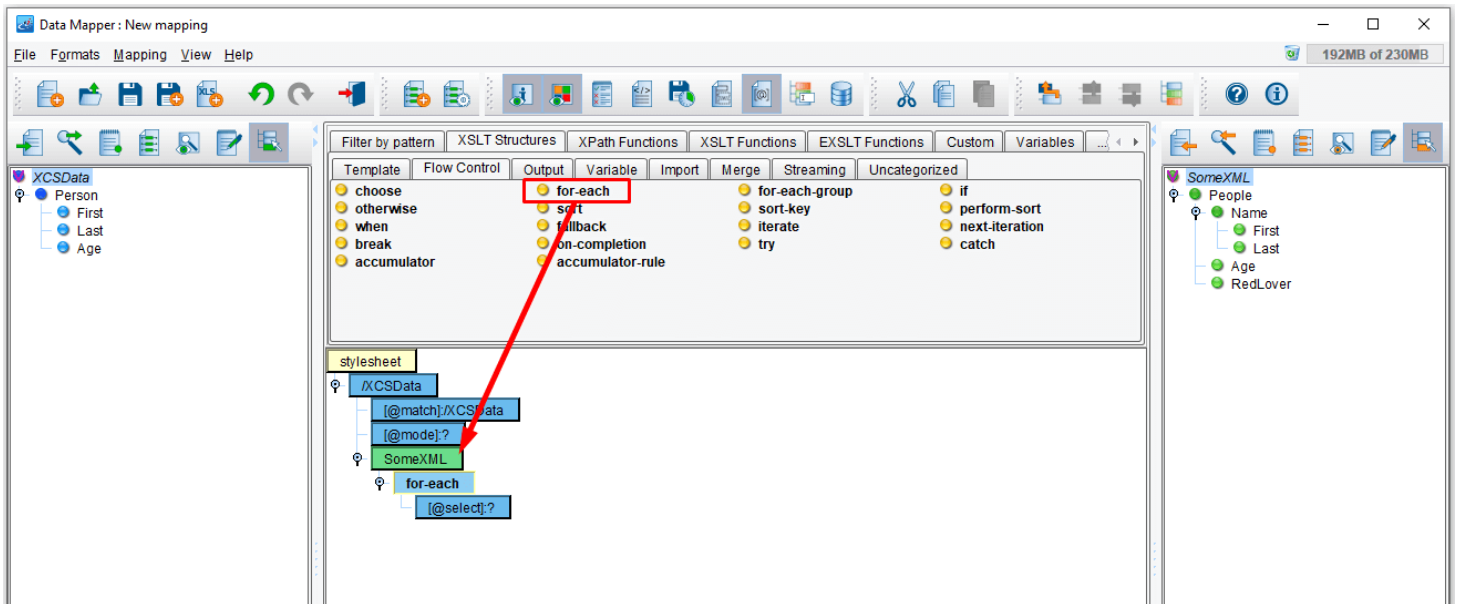
Notice the red V that appears over the **SomeXML** node? This indicates it has been mapped.

In order to output a **People** node for each **Person** in the Source, select the **Flow Control** tab in the pallet of XSLT structures and functions above the mapping.

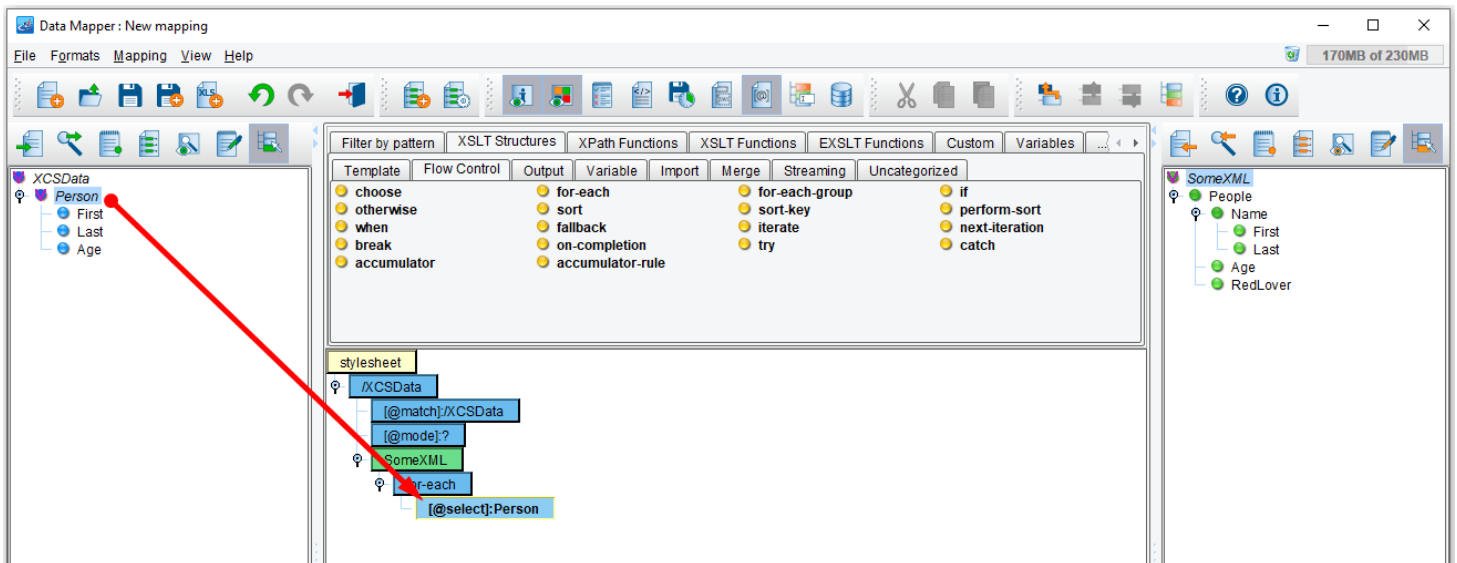
**Note:** The Data Mapper's XSLT palette of structures and functions allows you to do anything you can do by programming via the eiConsole's drag & drop process.

**This tool palette provides a convenient location for all of these XSLT and XPath structures and functions. It allows users to drag & drop these directly into the mapping. Mousing over these palette tabs and their contents provides descriptions of what each item does.**

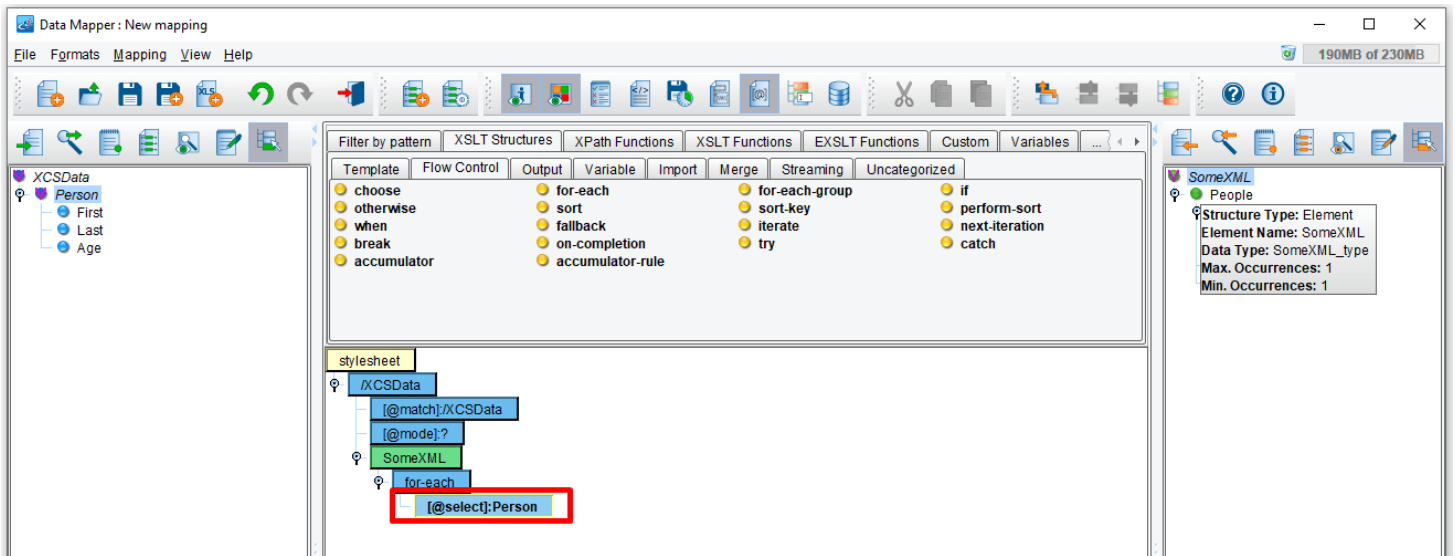
**These structures allow users to perform many-to-one, one-to-many, or many-to-many mappings, manipulate string contents (concatenation, trimming, replacements), date formatting, and many other powerful operations that normally require users to write XSLT directly.**



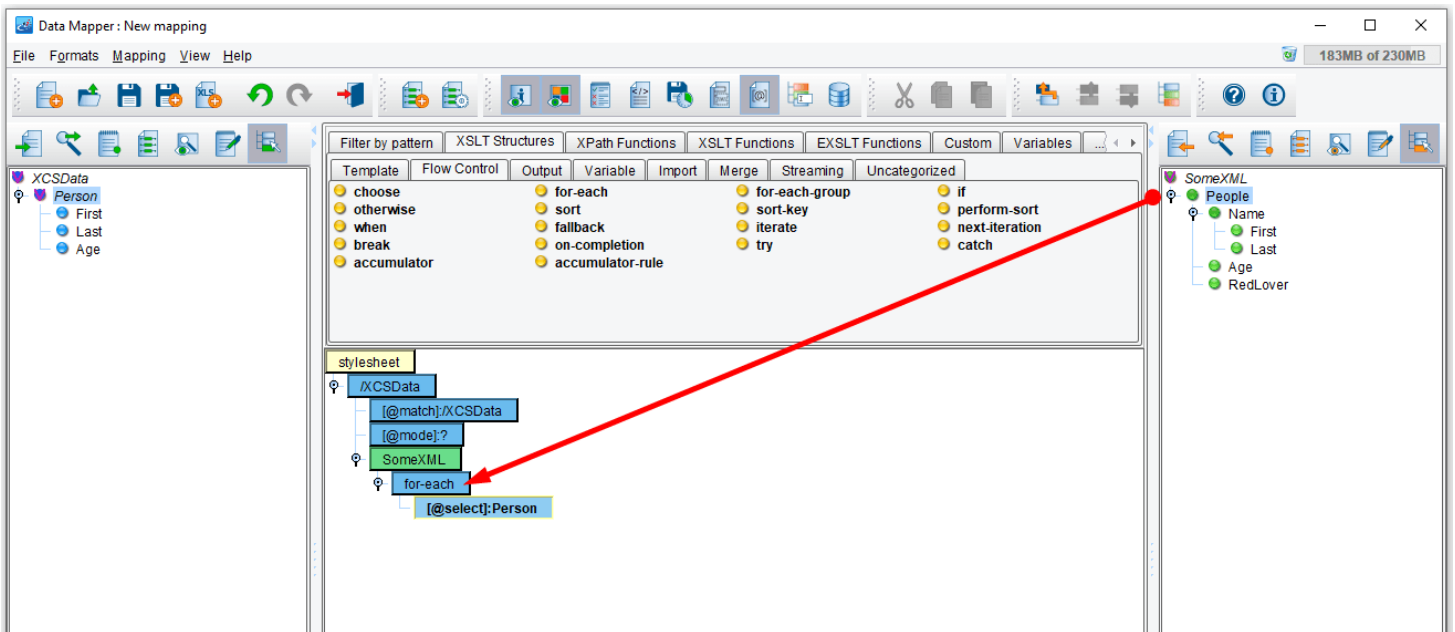
Under the **Flow Control** tab, select the **for-each** tool and drag & drop it on top of the **SomeXML** node. (Once you see the gray bar appears above SomeXML, it's in the right location and you can release the mouse.)



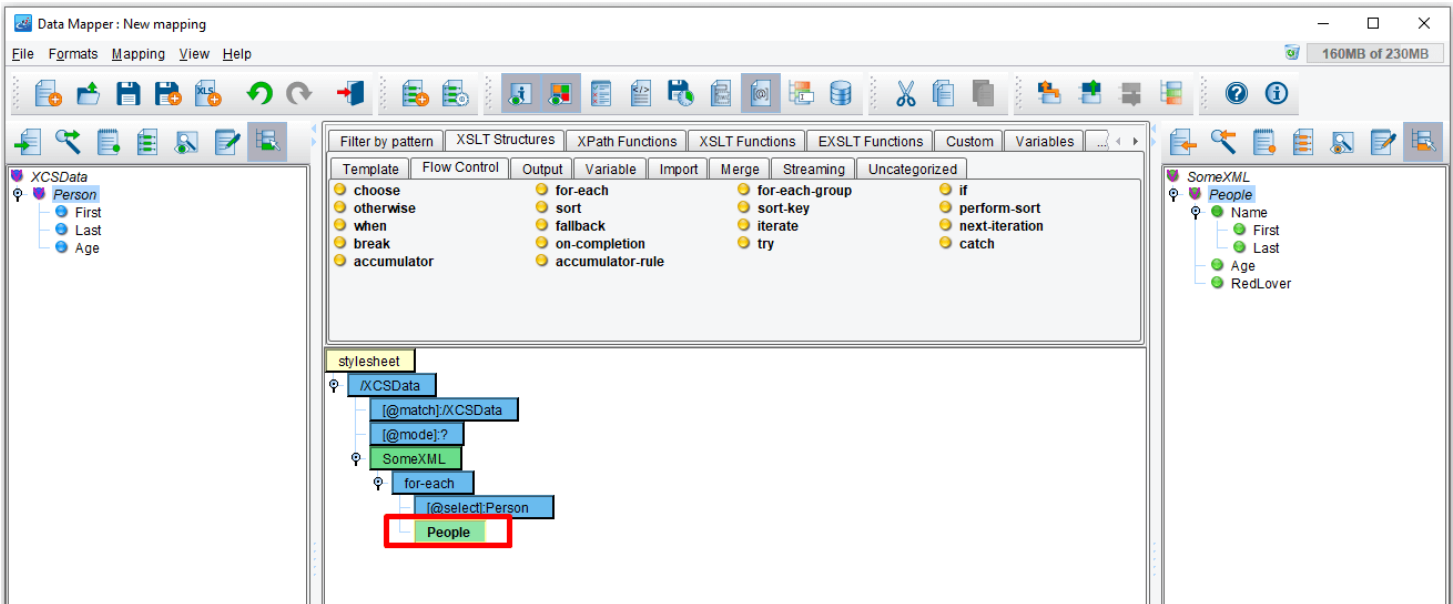
In order to iterate over each instance of **Person** in our Source, drag **Person** onto the **select** node underneath the **for-each**. Make sure the gray bar appears above the select node before you release the mouse. This indicates that some structure will be created underneath **SomeXML** for each instance of **Person** encountered in our Source.



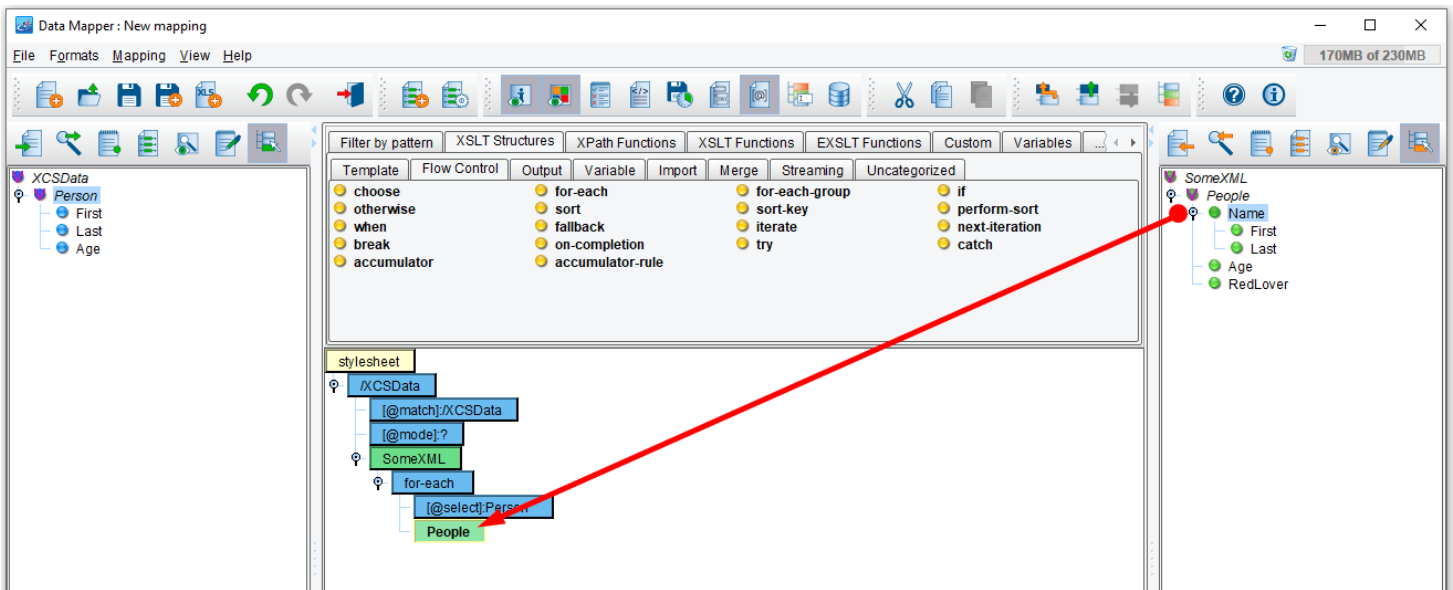
Mouse over the **SomeXML** node and click F1 to view the Help ToolTips.



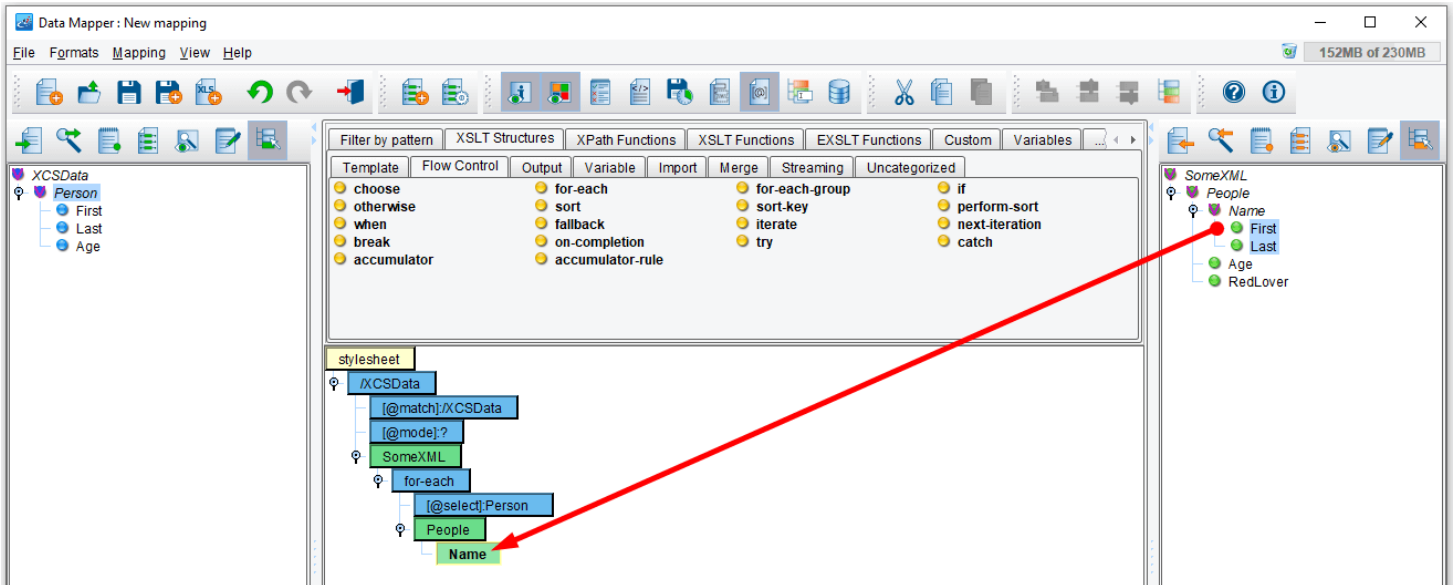
In order to generate a **People** node, drag this on top of the **for-each** and release the mouse button.



The green **People** node now appears in your mapping.

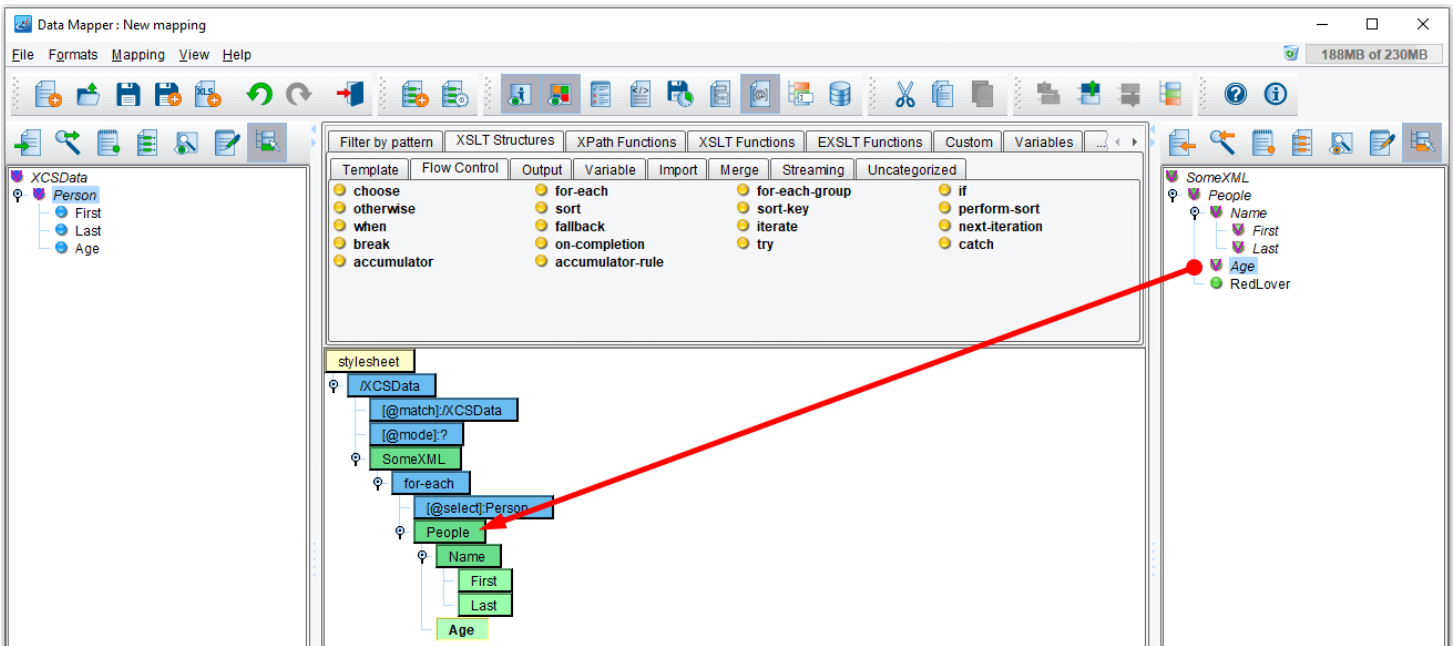


In order to create the Name, First, Last, Age and RedLover elements, do the following steps. Click the **Name** node to expand the tree and drag **Name** on top of **People**.

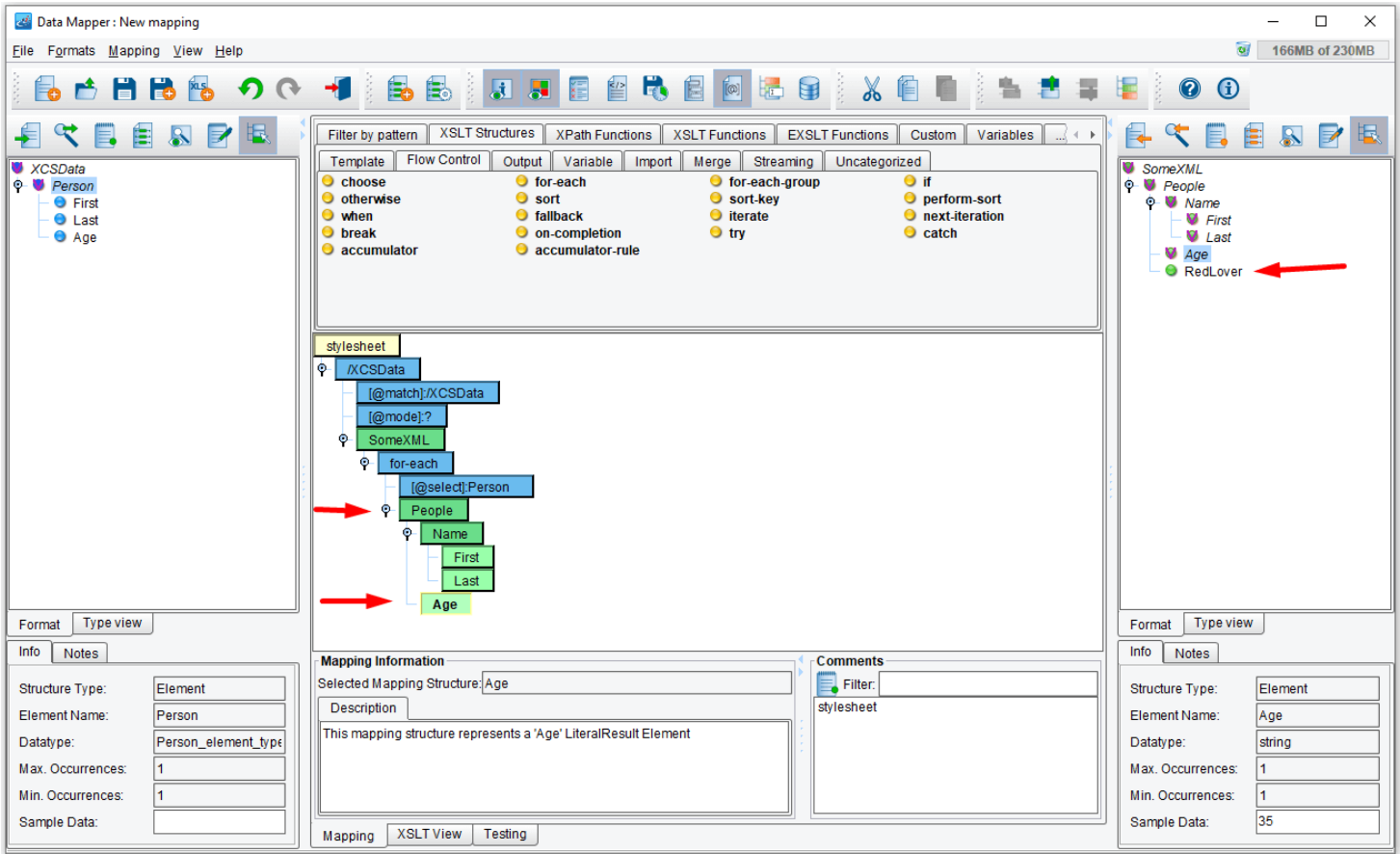


Then drag & drop **First** and **Last** on top of **Name**.

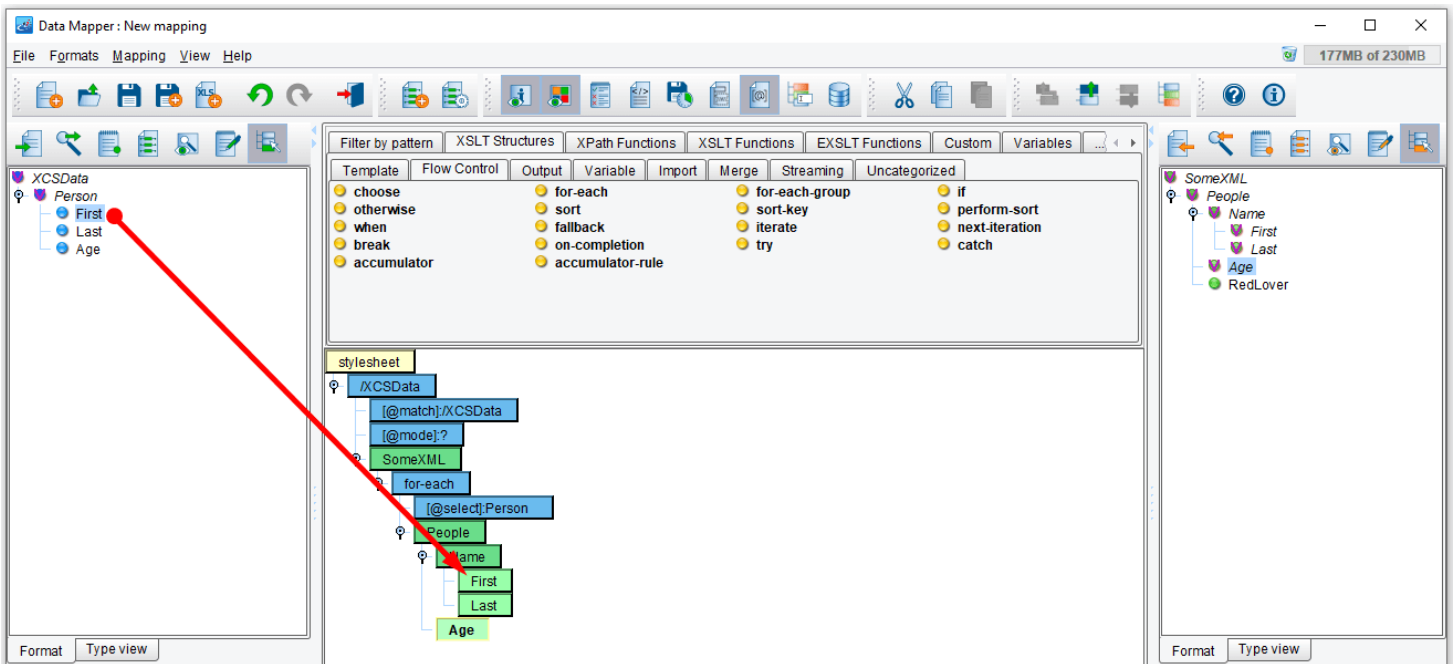
**Note:** You can drag elements individually or together. Select, shift click and drag.



Drag & drop **Age** on top of **People**.



Even though you mapped Age onto People, **Age** appears in the correct position at the bottom of your mapping. While **RedLover** is in the TargetFormat, ignore it for the purposes of this tutorial.



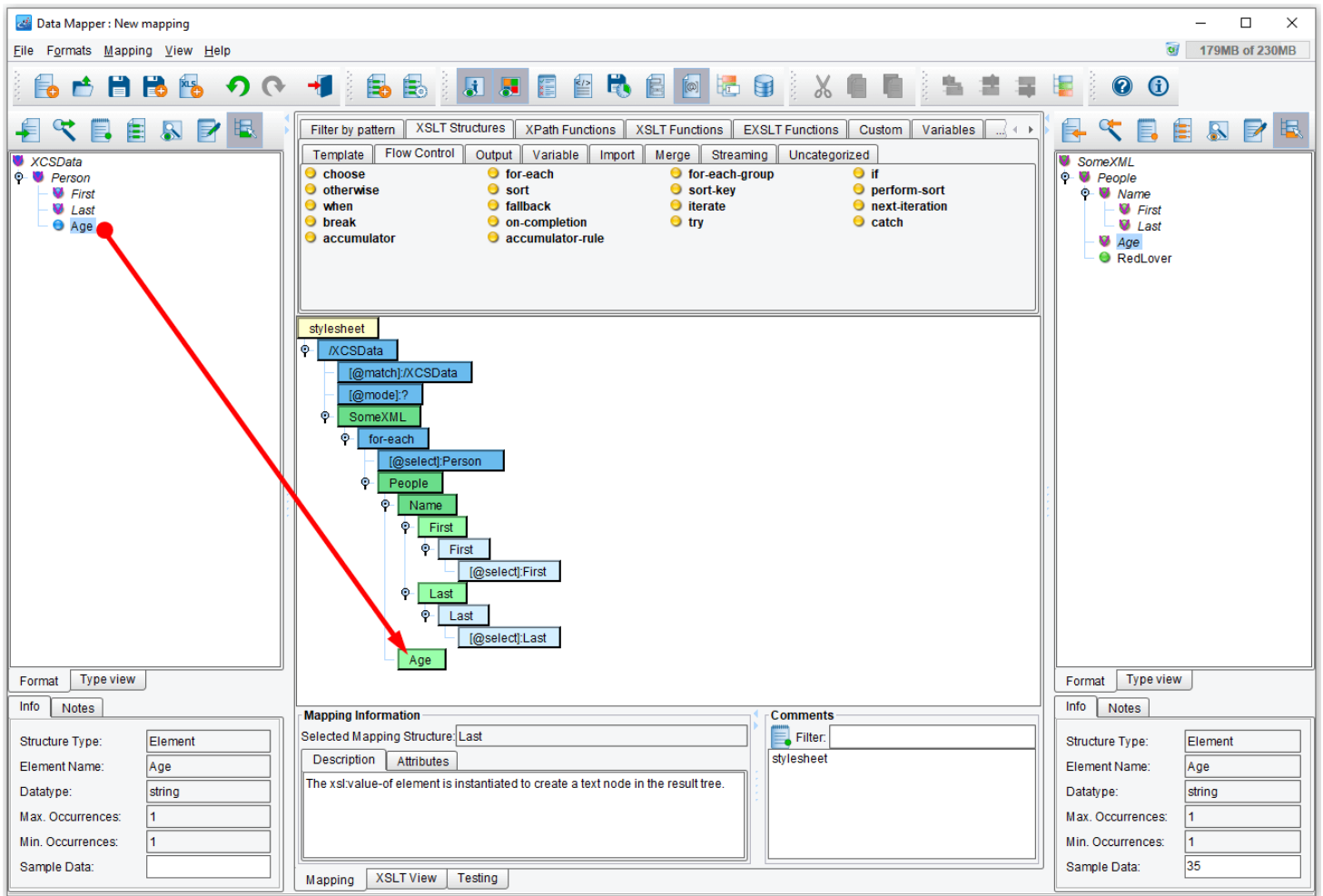
To map the First field from the Source onto the First field of the Target, drag **First** from the Source onto the green **First** node in the mapping.



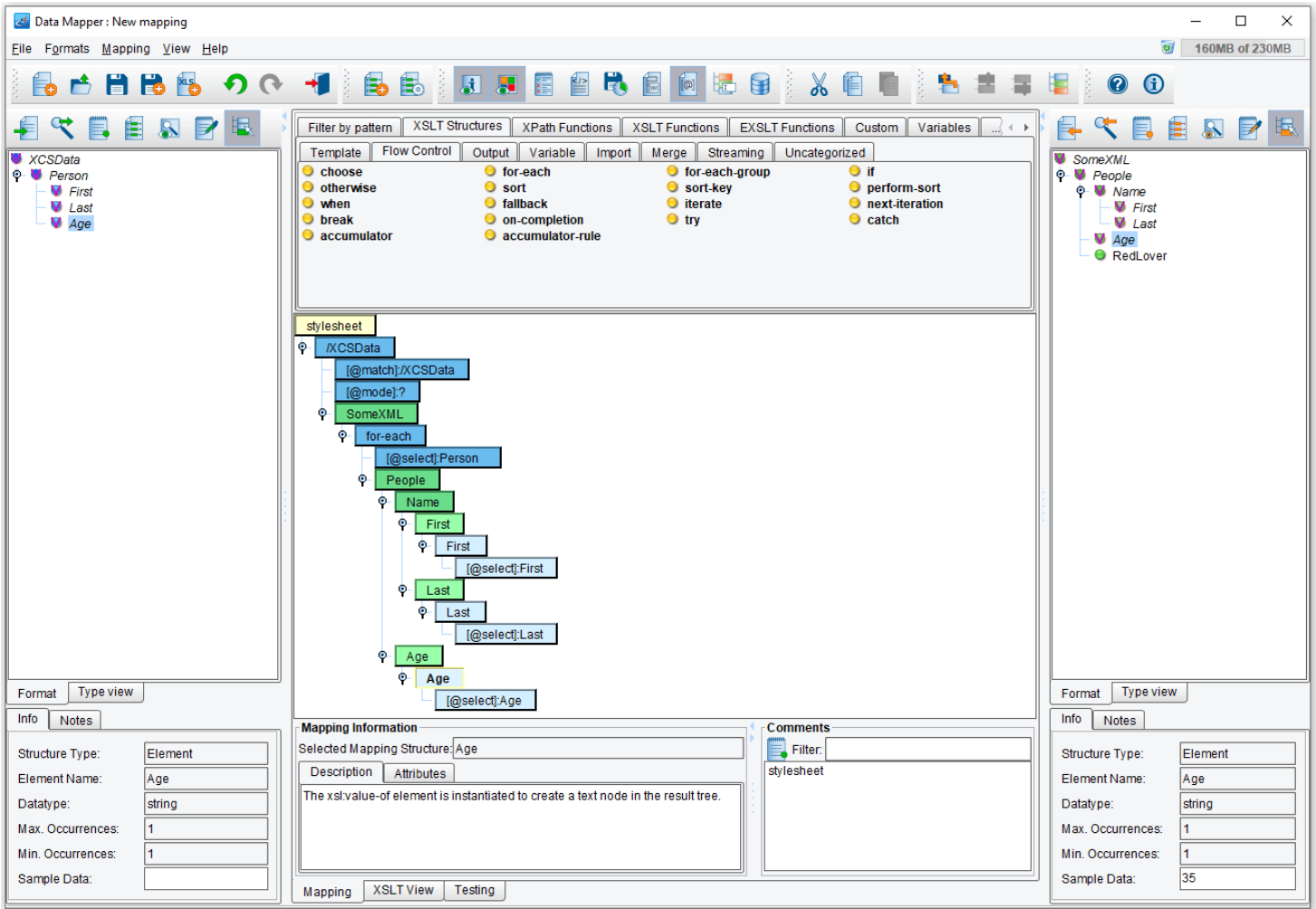
The screenshot shows the Data Mapper interface with the following components:

- Source Tree (XCSData):** A tree structure with root `XCSData` containing `Person`, `First`, `Last`, and `Age`.
- Target Tree (SomeXML):** A tree structure with root `SomeXML` containing `People`, `Name`, `First`, `Last`, `Age`, and `RedLover`.
- Mapping Tree:** A visual representation of the XSLT mapping. It starts with a `stylesheet` node, followed by `/XCSData`, `[@match]:XCSData`, `[@mode]:?`, `SomeXML`, `for-each` (looping over `Person`), `[@select] Person`, `People`, `Name`, `First`, `[@select] First`, `Last`, and `Age`. The `Last` element is highlighted in green.
- Mapping Information:** Shows the selected mapping structure is `First`. The description states: "The xsl:value-of element is instantiated to create a text node in the result tree."
- Info Panels:**
  - Left: Shows details for the `Last` element (Structure Type: Element, Element Name: Last, Datatype: string, Max. Occurrences: 1, Min. Occurrences: 1).
  - Right: Shows details for the `Age` element (Structure Type: Element, Element Name: Age, Datatype: string, Max. Occurrences: 1, Min. Occurrences: 1, Sample Data: 35).

Next, drag & drop **Last** from the source on to the **Last** element in your mapping.



Repeat the process by dragging and dropping **Age** from the source on top of **Age** in the mapping.

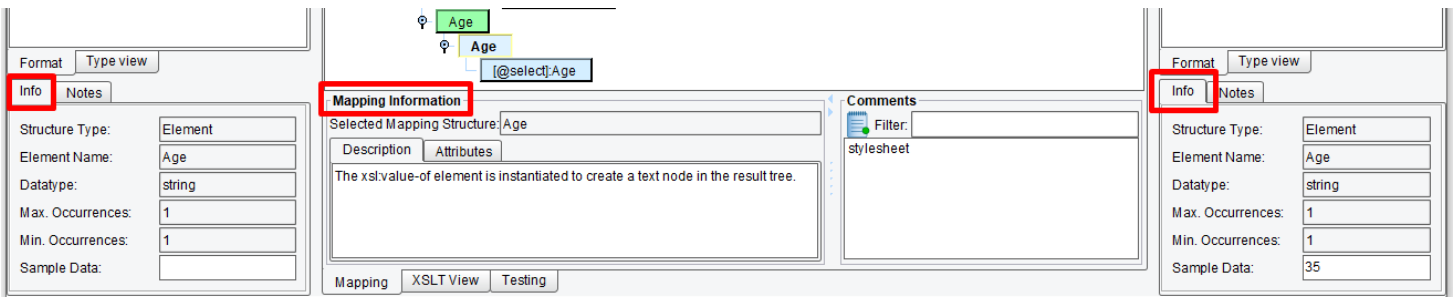


Let's review what the various colored nodes represent: The blue nodes are from your source, the green from your target. Light blue elements are "childless" fields, and light green elements are "childless" elements. Dark blue and dark green elements have children (sub-elements). Attributes are always light green because they would never have children.

Other features available within the Data Mapper are:

- Information Panels
- Notes Tabs
- Type View Tabs

## DATA MAPPER FEATURES – INFORMATION PANELS

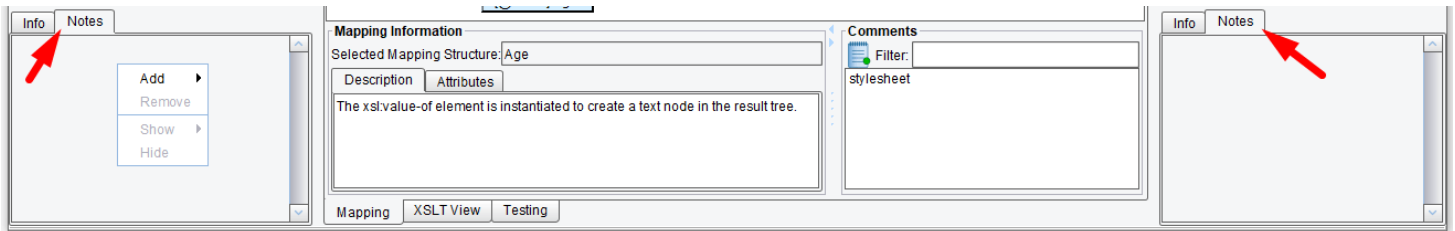


The Data Mapper has three information panels. The information panel in the center provides high-level information about a selected node. It allows you to individually edit attributes for XSLT elements as well as to modify tabular mappings.

The information panels on the source and target show sample values for the selected node (called "sample data"); they also offer tabs for format descriptions and typecodes (for the ACORD standard, for example).

This applies to both source and target.

## DATA MAPPER FEATURES – NOTES TABS



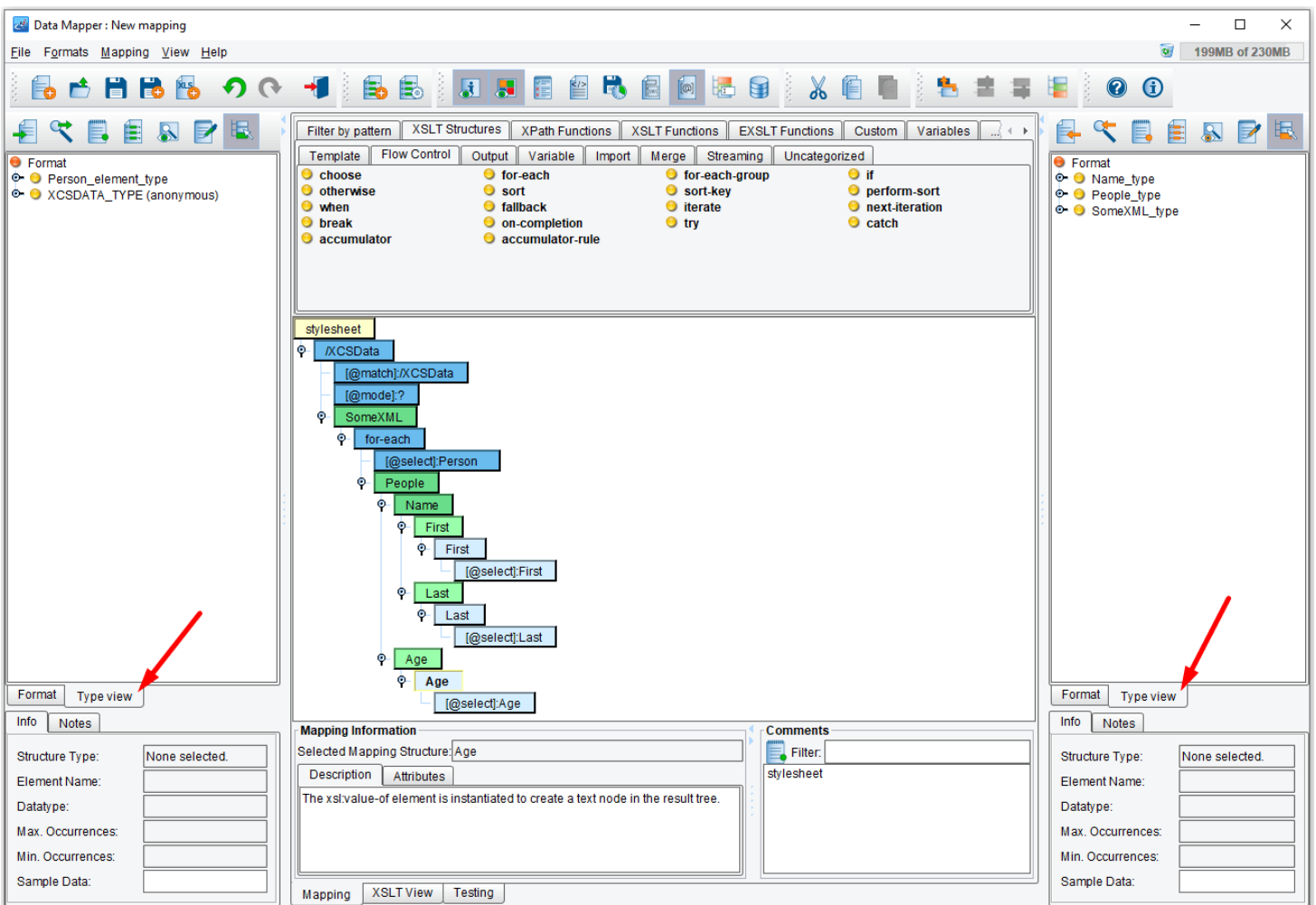
The notes tab, in source and target, allows users to associate comments with a particular node. You do this by selecting an item in the source or target, click the Notes tab, then right-click in the empty (grey) space and select Add > Define new. Then provide a name for your notes. This name applies to all notes defined by you, so you can think of it as a group (e.g. "John's Notes").

Once added to a node, you can type in the information in the Notes panel. You'll see a note icon in the source/target panel for any node you've added notes to.

You can also right-click in that panel again to add more notes (e.g. "Consultant Notes").

The functionality of notes is that if multiple users are managing a mapping, they can use these notes to provide comments or information to one another, or just as a convenient place holder for comments.

## DATA MAPPER FEATURES - TYPE VIEW TABS



Type view, in source and target, is mainly for schema maintenance and editing, or for users who are really familiar with the format in its raw definition. For example, very experienced ACORD users can use it to find

or just look up information about types in the ACORD model.

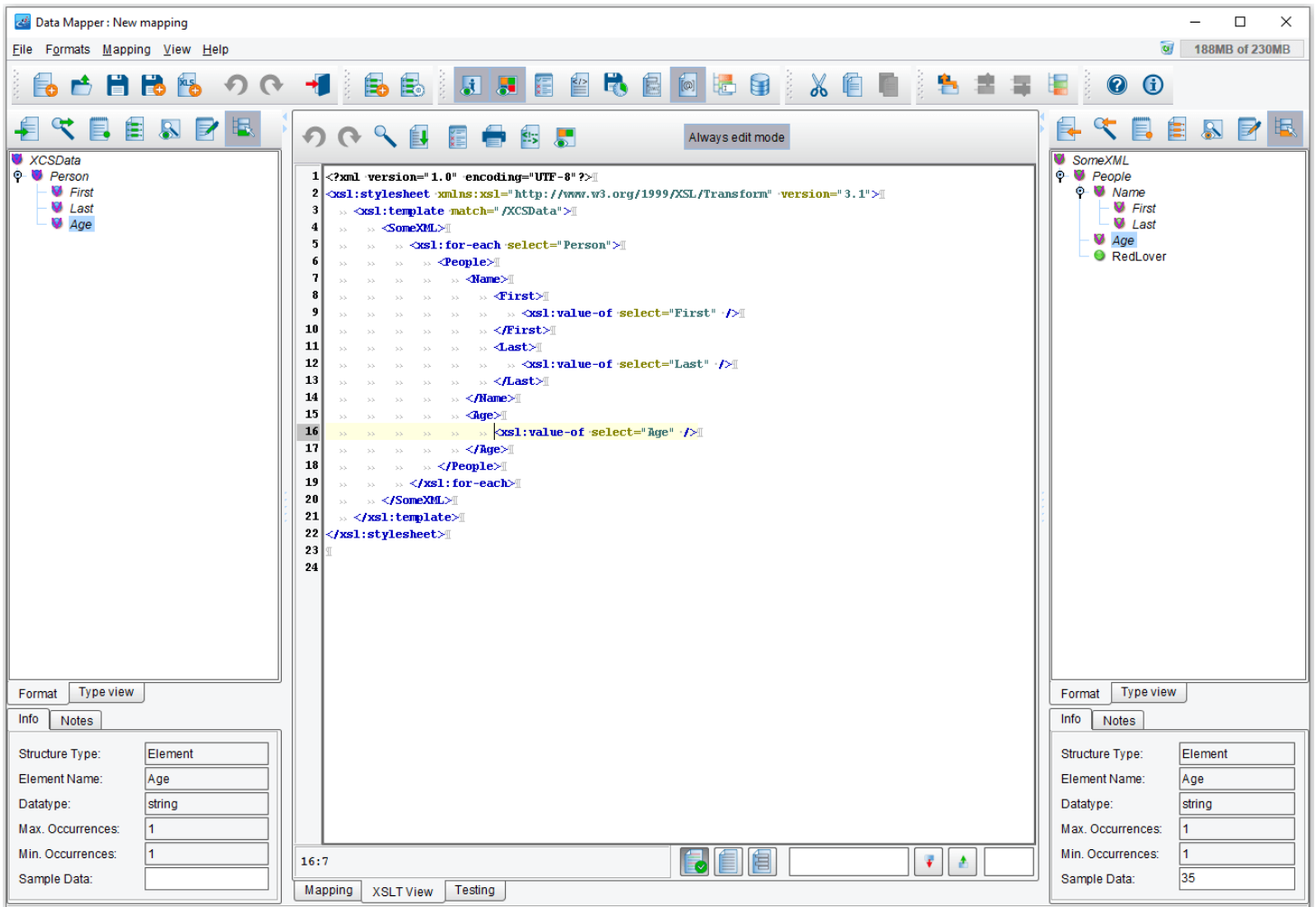
The screenshot shows the 'Data Mapper: New mapping' application. The main workspace displays a mapping tree for the 'Age' element. The tree starts with a 'stylesheet' root, followed by 'XCSDData', then a conditional element '[@match]:XCSDData'. Inside this, there is a 'SomeXML' element, which contains a 'for-each' loop. The loop iterates over '[@select]:Person', which is mapped to 'People'. 'People' contains 'Name', which is further divided into 'First' and 'Last'. 'First' is mapped to '[@select]:First', and 'Last' is mapped to '[@select]:Last'. Finally, 'Age' is mapped to '[@select]:Age'. A red arrow points to the 'XSLT View' tab in the 'Mapping Information' section at the bottom.

**Mapping Information**  
Selected Mapping Structure: Age  
Description: The xsl:value-of element is instantiated to create a text node in the result tree.

**Comments**  
Filter:  
stylesheet

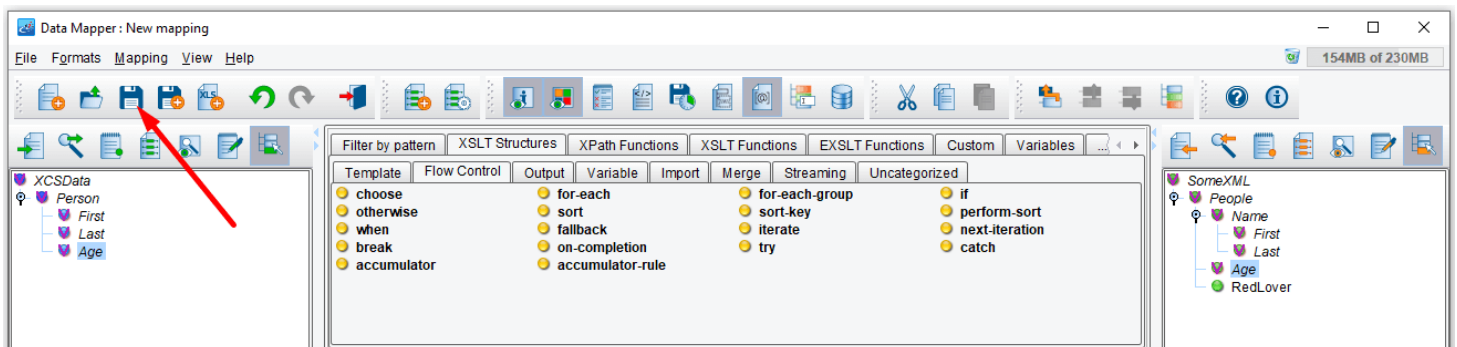
**Structure Type:** Element  
**Element Name:** Age  
**Datatype:** string  
**Max. Occurrences:** 1  
**Min. Occurrences:** 1  
**Sample Data:**

Click the **XSLT View** tab to view the generated XSLT.

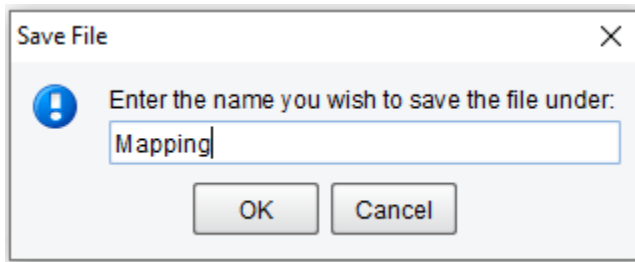


This is the XSLT generated by the Data Mapper.

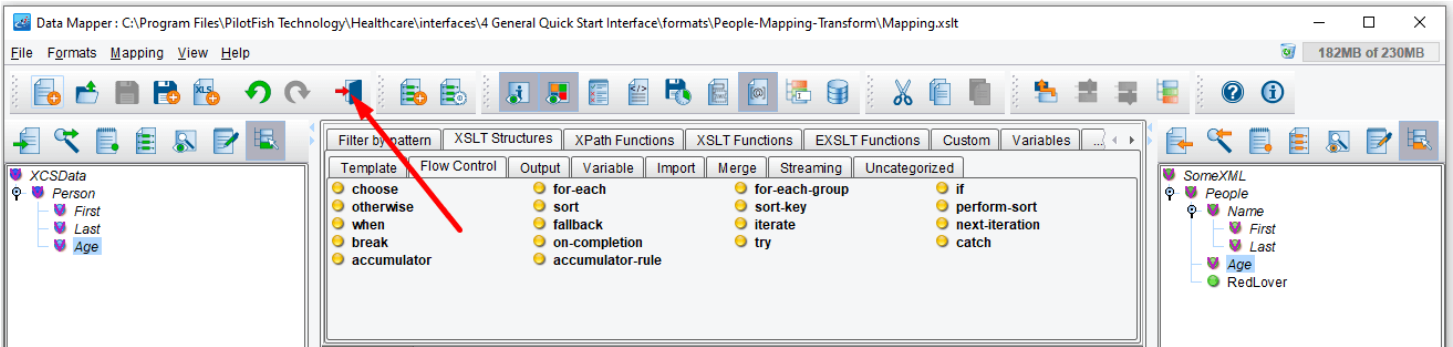
**Note:** The Data Mapper generates, W3C compliant XSLT, in real-time, under the graphical view. There is no proprietary scripting or coding. Users can access the XSLT at any time by clicking the XSLT view tab. Should a user choose to work in the XSLT mode, the graphical view will be updated in real-time, as well. Users who wish to perform complex or specific functions not available via the eiConsole's wide range of XSLT structures and functions can leverage the virtually unlimited reference materials and many user groups on the web. Once they find what they want, they can simply copy and paste into the XSLT view.



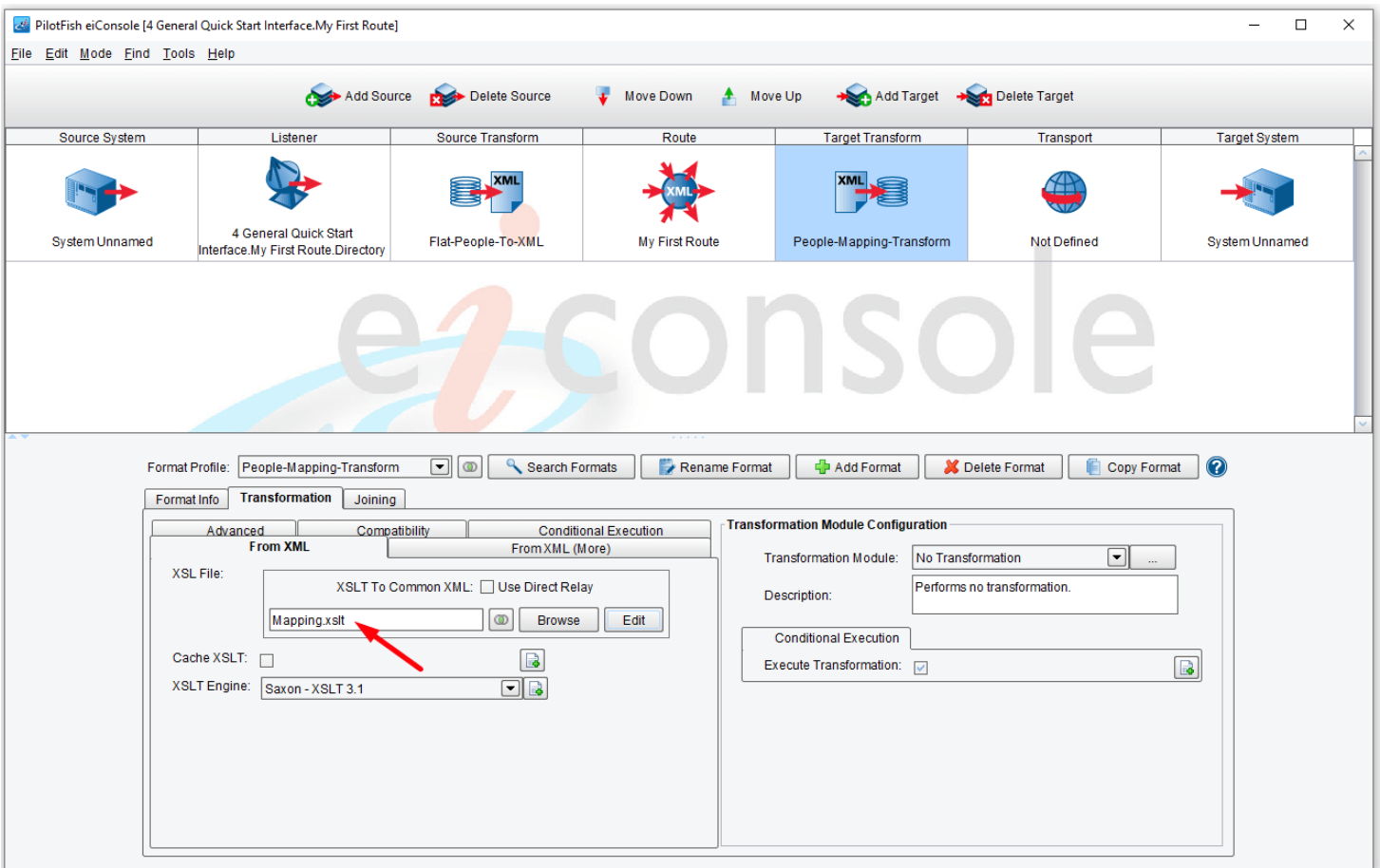
Save your mapping by clicking the **Save Current Mapping** button.



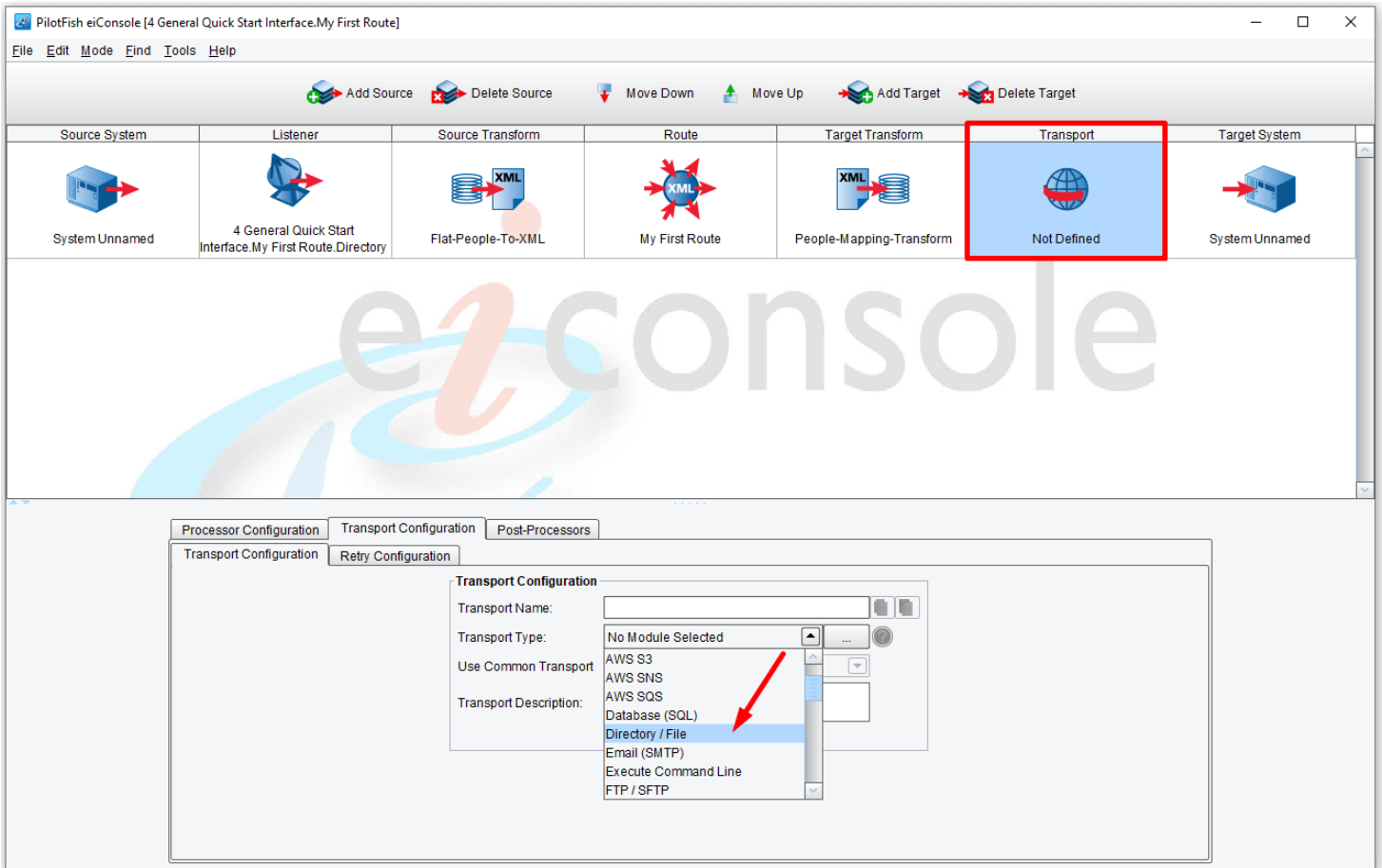
You'll be prompted for a name in the Save File dialog. You can simply enter the name **"Mapping"** and click **OK**.



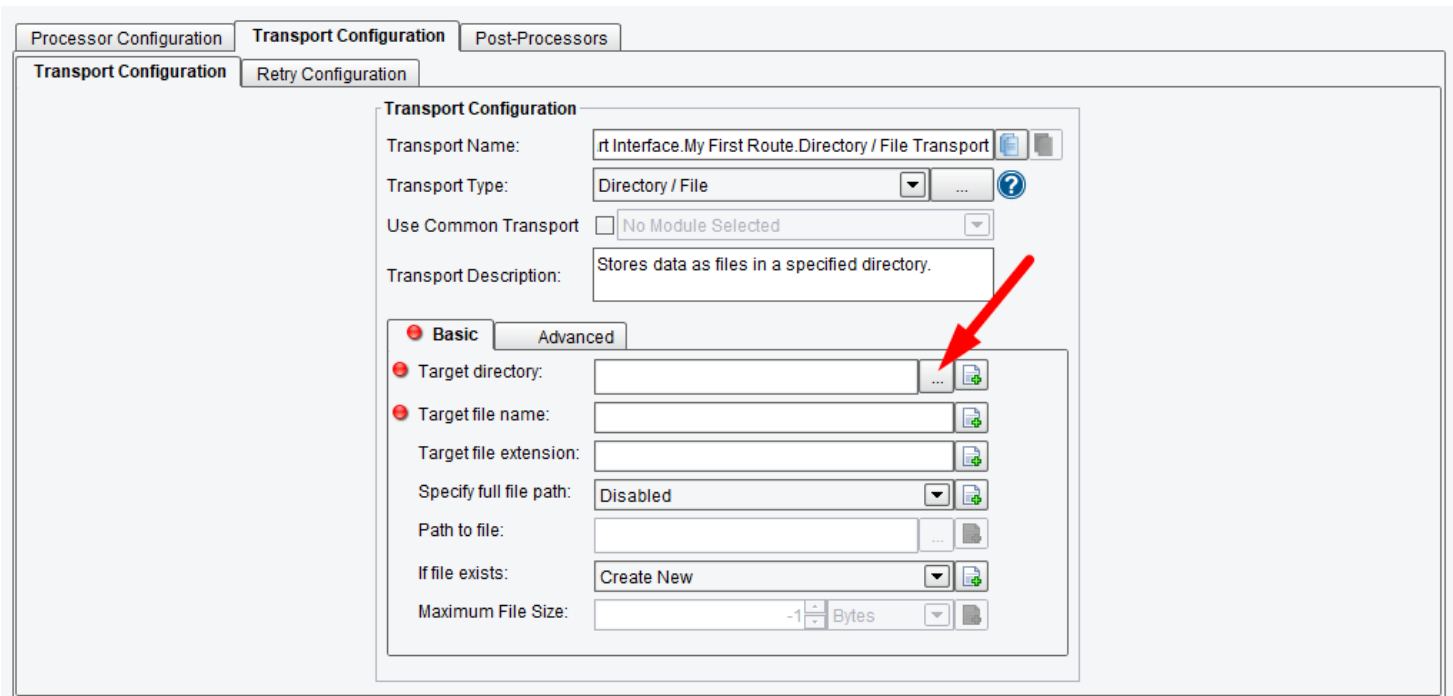
You can then return to the console by clicking the **Return to Console** button.



You'll see the name of the configured mapping now appears in the XSLT Configuration area. Now, click the [Transport](#) icon.

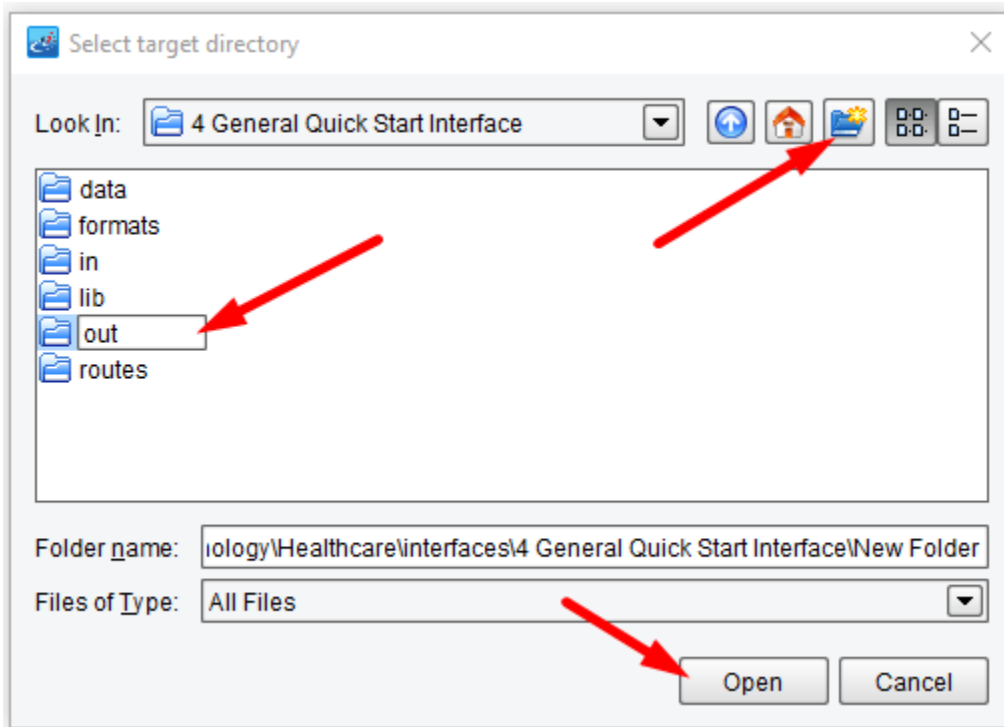


To drop the transformed XML off in a file, select **Directory / File** in the Transport Type drop-down.

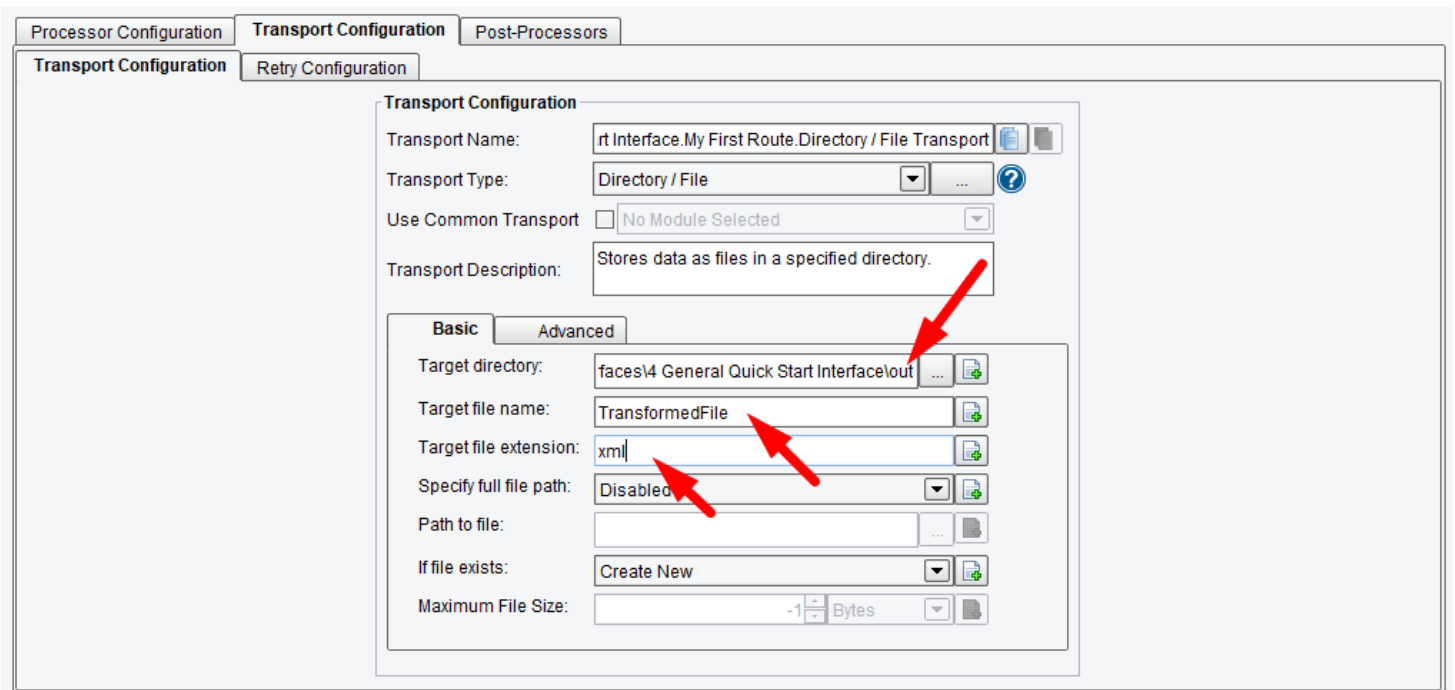


When the Transport Configuration panel opens, configure the required items. Click the **Ellipsis** button next to the Target directory configuration item.





Navigate to **4 General Quick Start Interface** directory and double click to open. Select the **New Folder** icon to create a new folder and name it "**out**". Select it and click **Open**.



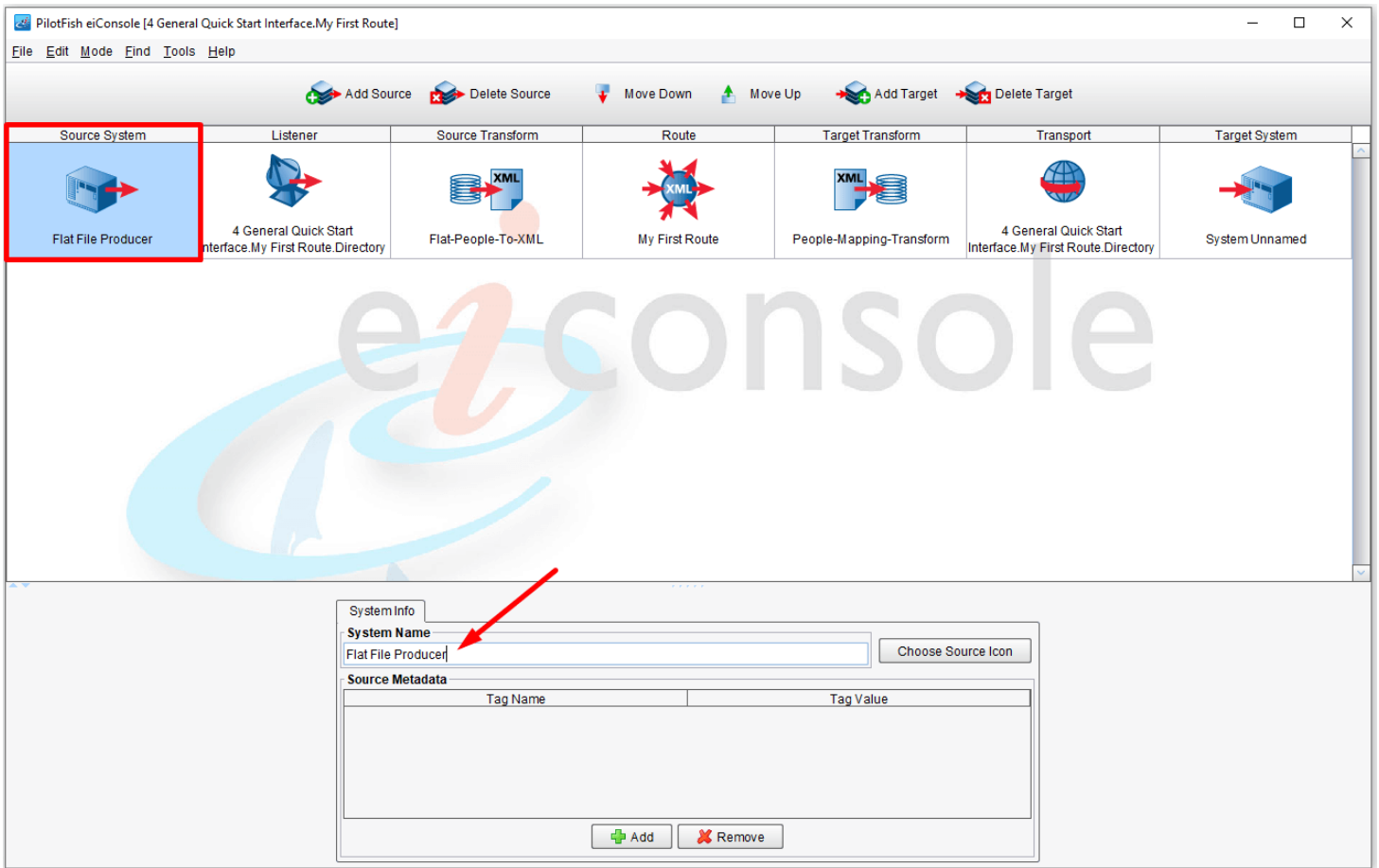
The out folder is now set in the Target directory.

In the Target file name area, type in "**TransformedFile**".

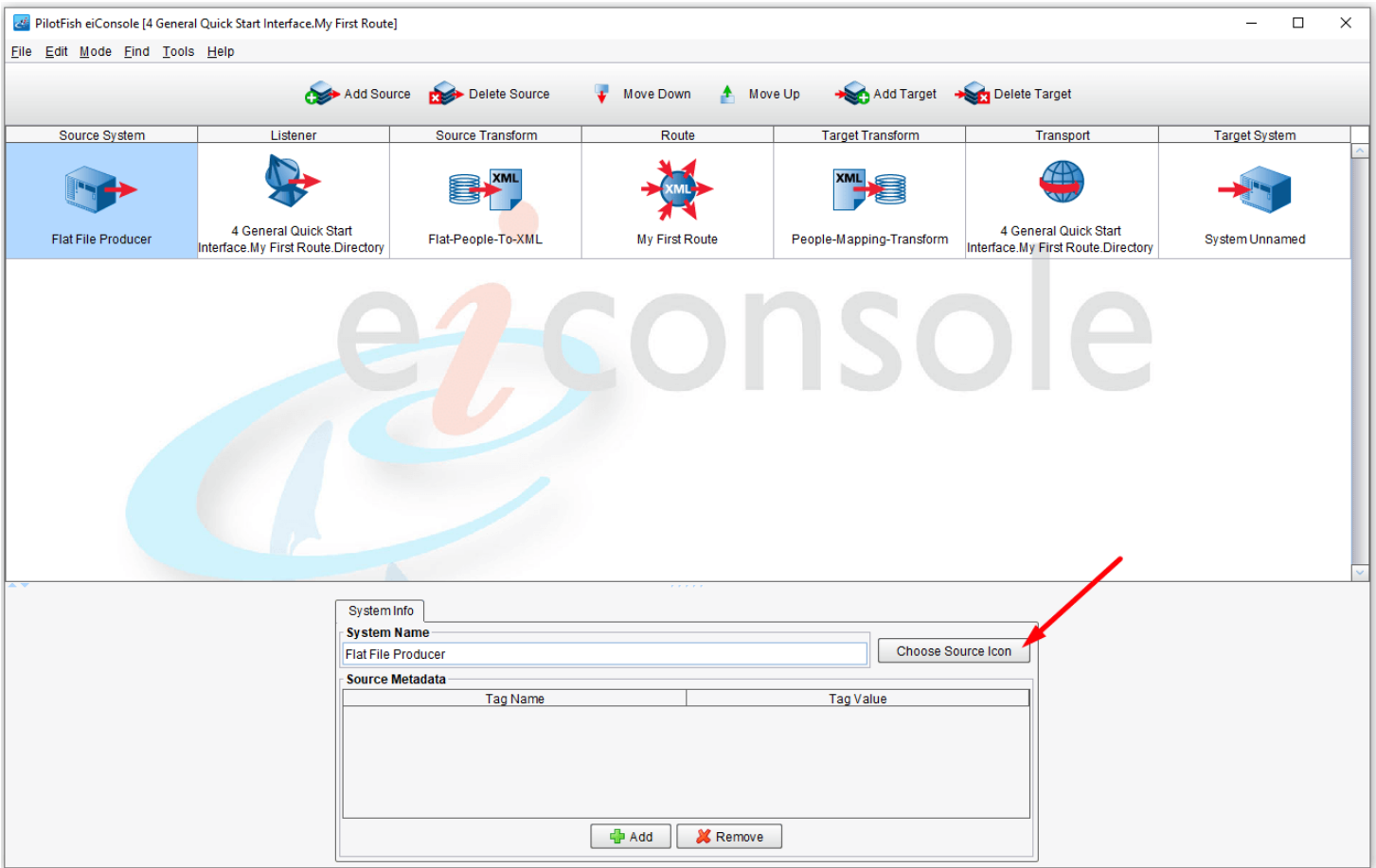
In the Target File Extension, type in "**xml**".

To make the interface a bit more understandable, provide Metadata for the Source and Target system.

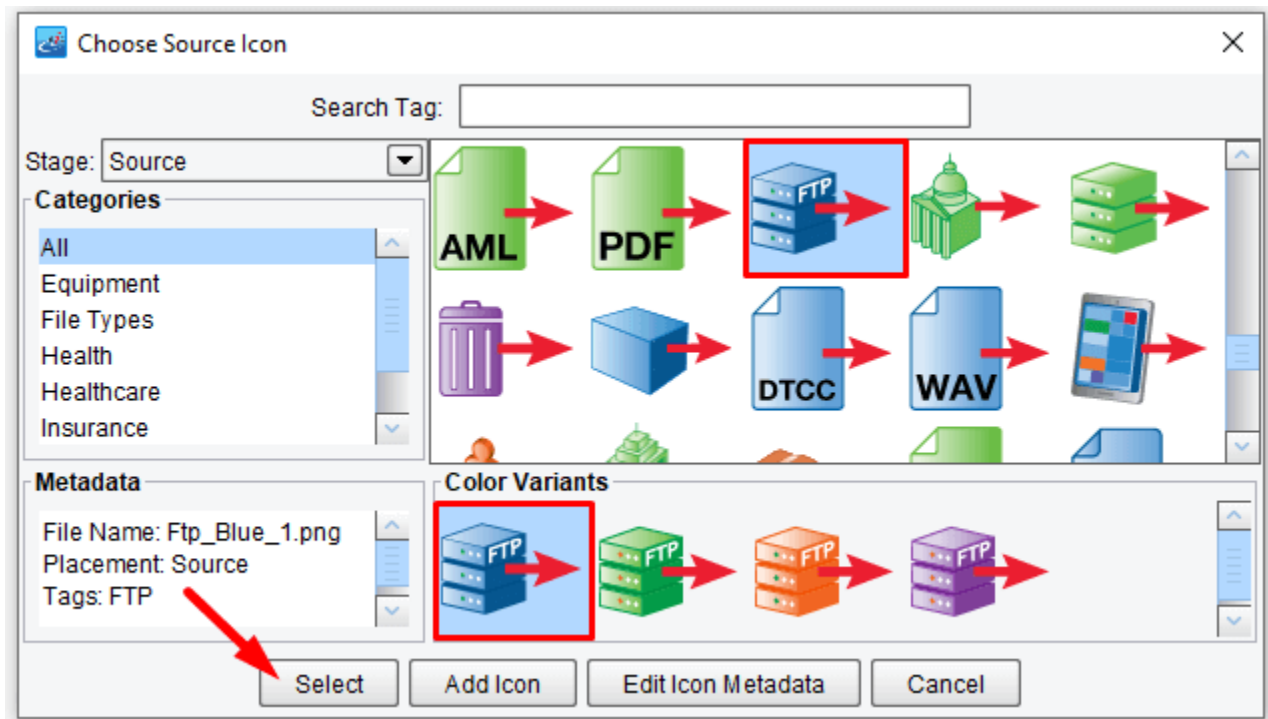
### Source & Target System Metadata



Click on the **Source System** stage and type in "Flat File Producer" in the System Name text box.



Also, you can set different icons for each of your [Sources](#). In our example, we have only one source, so let's choose an icon for it. Click on the **Choose Source Icon** button.



There is a number of icons in the **Choose Source Icon** dialog. Choose the **FTP Server** icon and click **OK**.

The screenshot displays the PilotFish eiConsole interface. At the top, there is a menu bar with 'File', 'Edit', 'Mode', 'Find', 'Tools', and 'Help'. Below the menu bar is a toolbar with icons for 'Add Source', 'Delete Source', 'Move Down', 'Move Up', 'Add Target', and 'Delete Target'. The main area is a grid with seven columns: 'Source System', 'Listener', 'Source Transform', 'Route', 'Target Transform', 'Transport', and 'Target System'. The 'Source System' column contains a 'Flat File Producer' icon, which is highlighted with a red arrow. The 'Listener' column contains '4 General Quick Start Interface.My First Route.Directory'. The 'Source Transform' column contains 'Flat-People-To-XML'. The 'Route' column contains 'My First Route'. The 'Target Transform' column contains 'People-Mapping-Transform'. The 'Transport' column contains '4 General Quick Start Interface.My First Route.Directory'. The 'Target System' column contains 'System Unnamed'. A large watermark 'ei console' is overlaid on the grid. Below the grid is a 'System Info' panel with a 'System Name' field containing 'Flat File Producer' and a 'Choose Source Icon' button. Below this is a 'Source Metadata' table with columns 'Tag Name' and 'Tag Value'. At the bottom of the panel are 'Add' and 'Remove' buttons.

Source System	Listener	Source Transform	Route	Target Transform	Transport	Target System
Flat File Producer	4 General Quick Start Interface.My First Route.Directory	Flat-People-To-XML	My First Route	People-Mapping-Transform	4 General Quick Start Interface.My First Route.Directory	System Unnamed

System Info

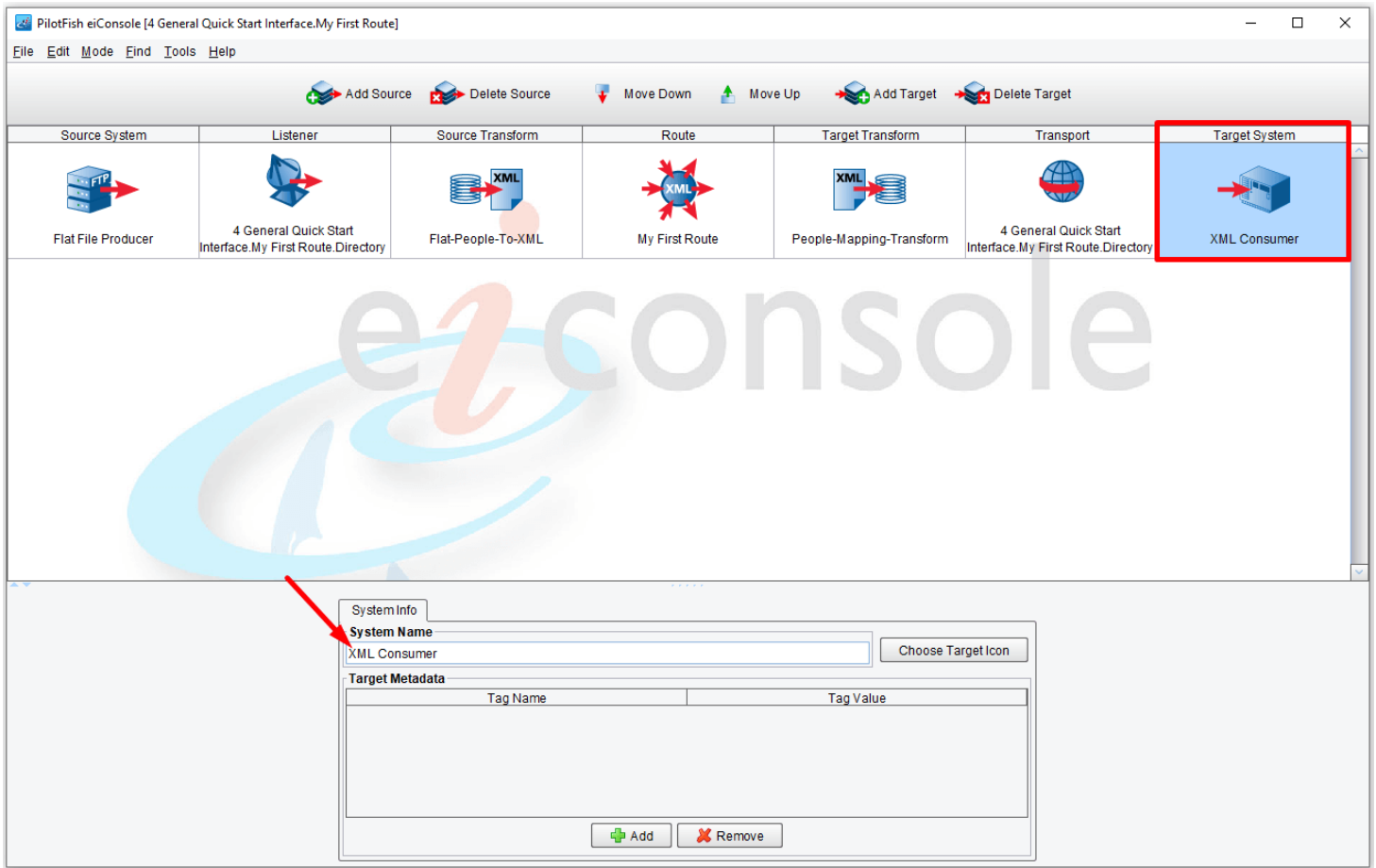
System Name  
Flat File Producer Choose Source Icon

Source Metadata

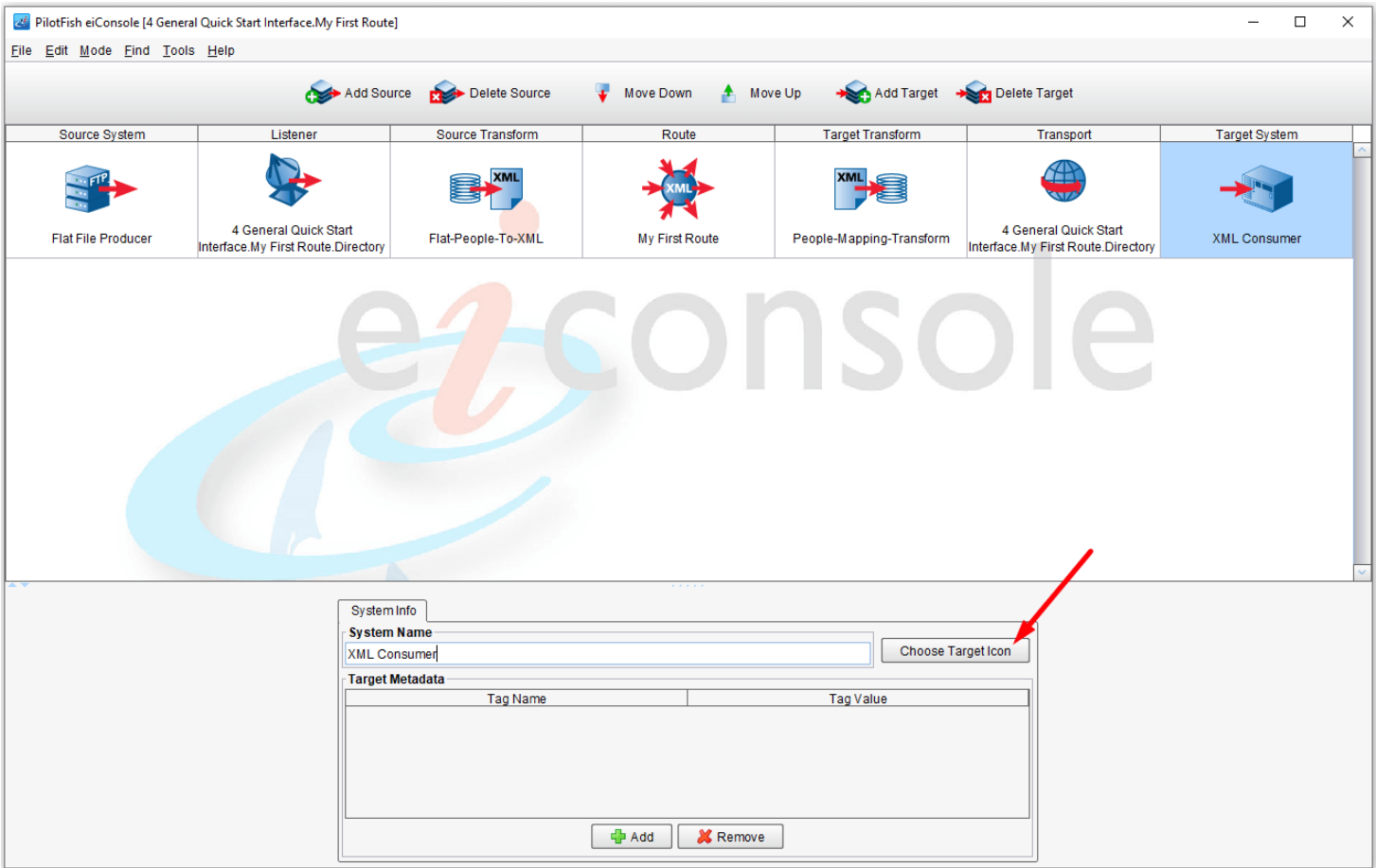
Tag Name	Tag Value
----------	-----------

Add Remove

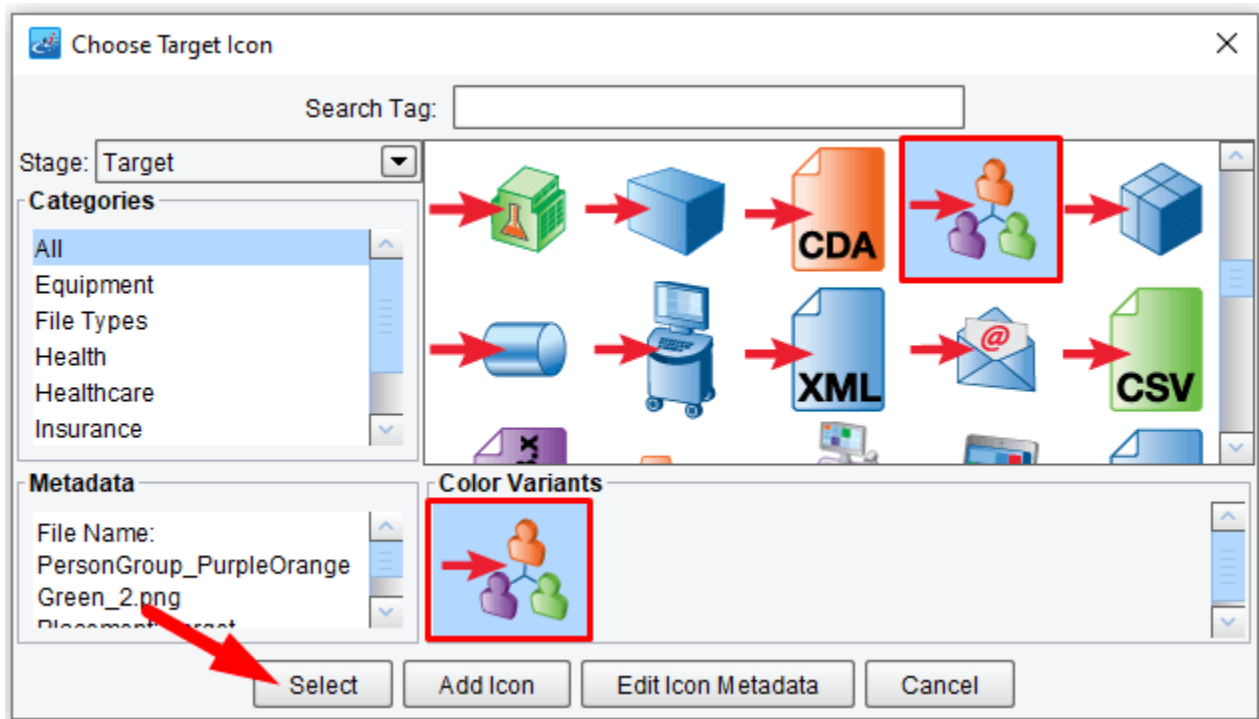
The new icon will appear in the main grid of the eiConsole.



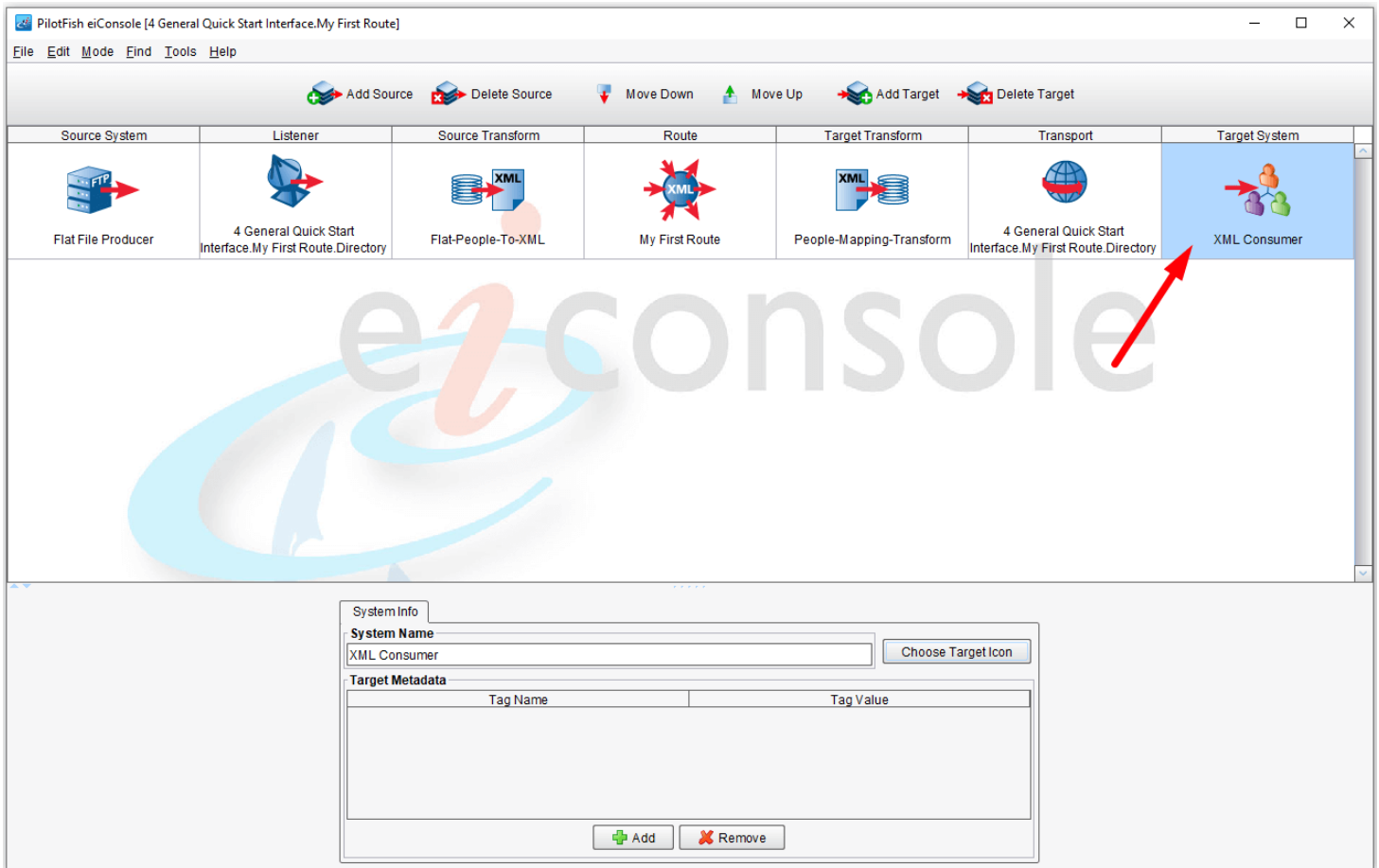
Next, click on the **Target System** stage. Type in **"XML Consumer"** in the Target System Name text box.



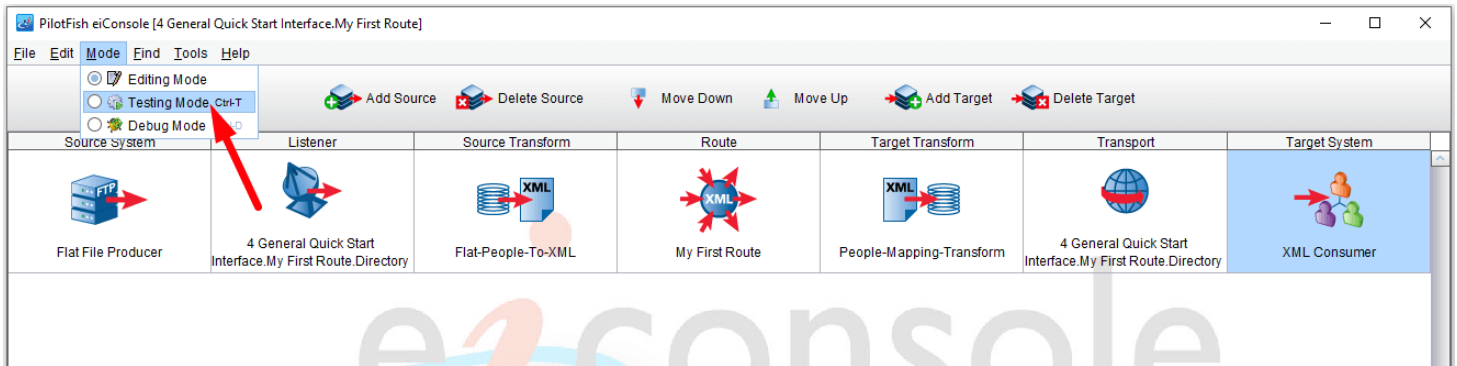
And click on the **Choose Target Icon** button to set a unique icon for your Target.



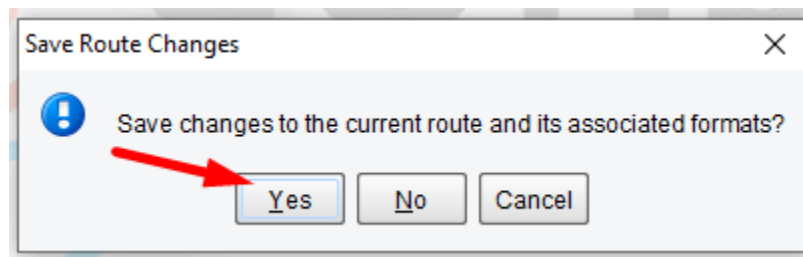
You can choose any relevant icon. We'll use the **Group People**.



The new icon will appear in the main grid of the eiConsole.

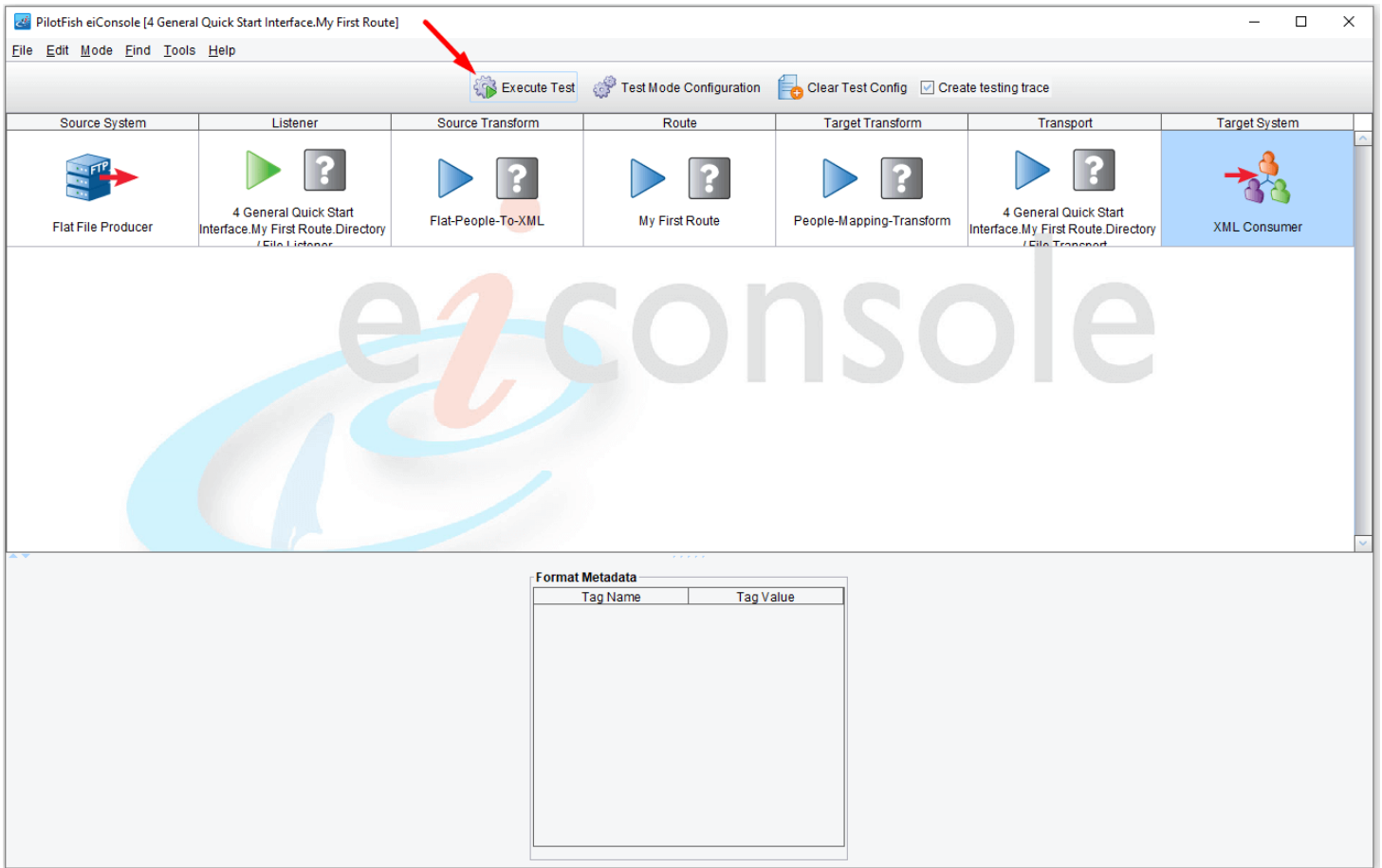


When the basic interface configuration is complete, move on to Testing Mode. From the Mode menu, select **Testing Mode**.

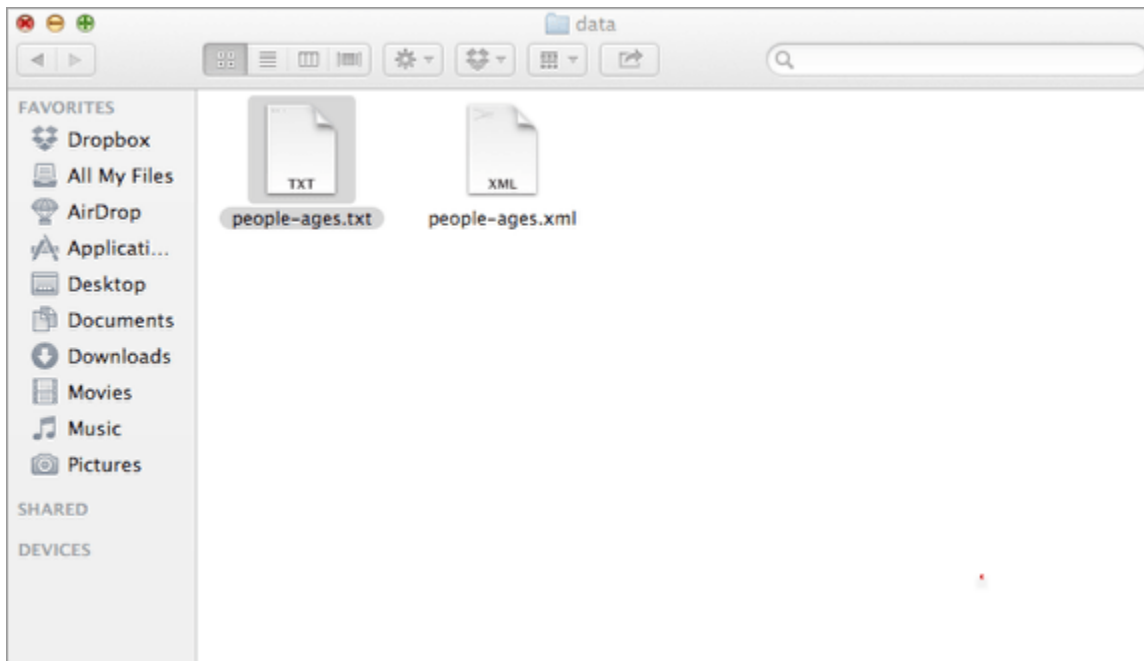


When the Save Route Changes pop up appears and you are prompted to save the route, click **Yes**.

## Testing Mode

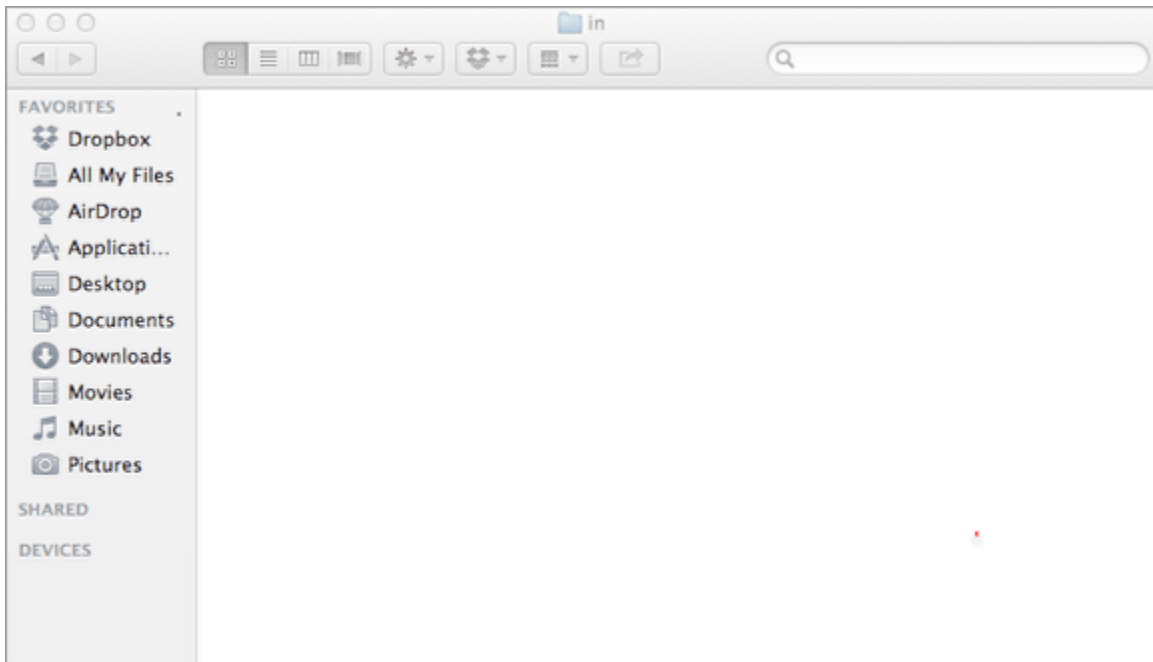


In Testing Mode, you'll see the arrows that indicate the path that the test may take. You can choose to start or end your test at any point. Here, start from the beginning (the Listener stage) and run the test all the way through to the end (the Transport stage).

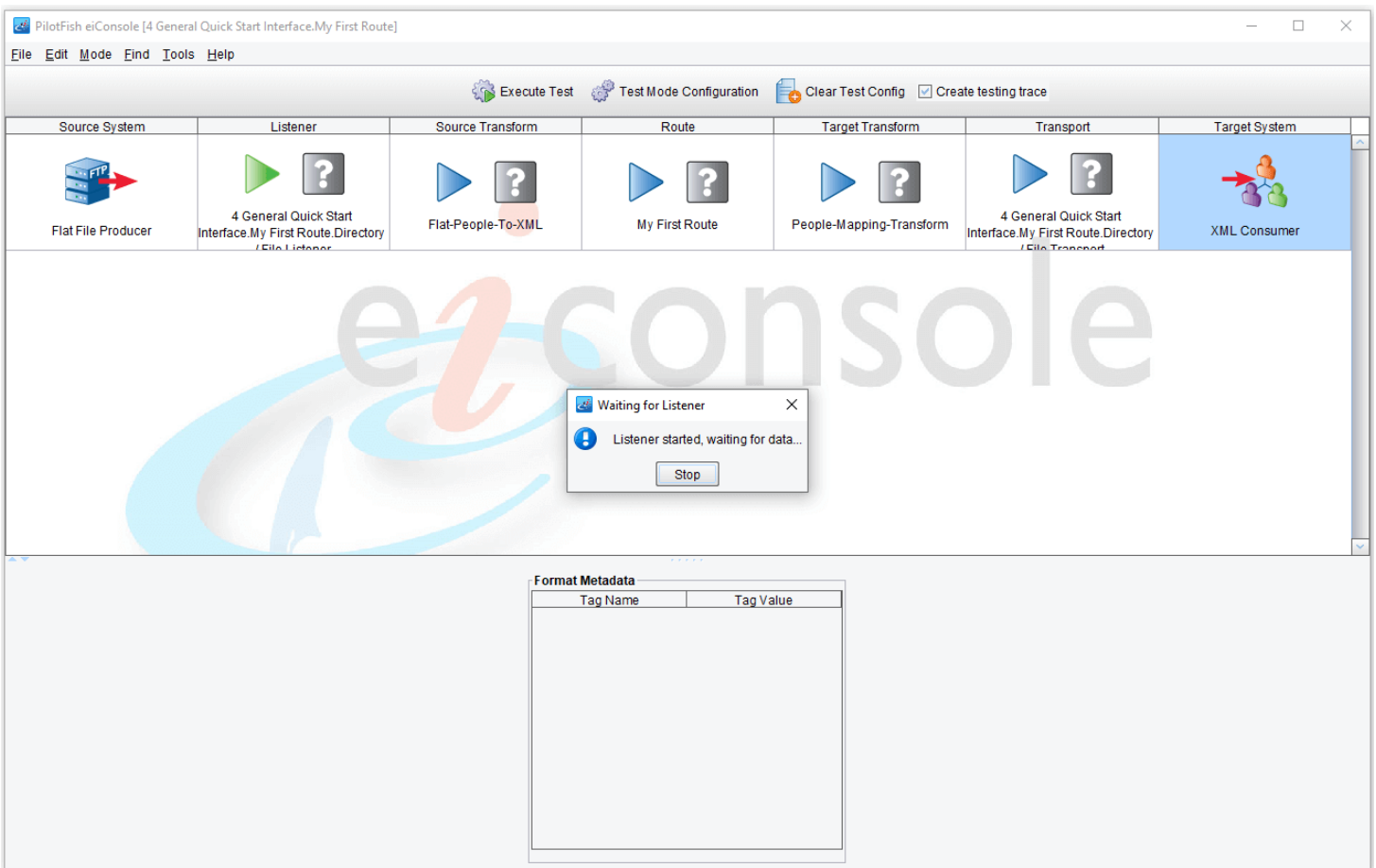


For the test, navigate to the distribution folder. Double click the **data** folder, and select the **people-ages.txt** file and copy.

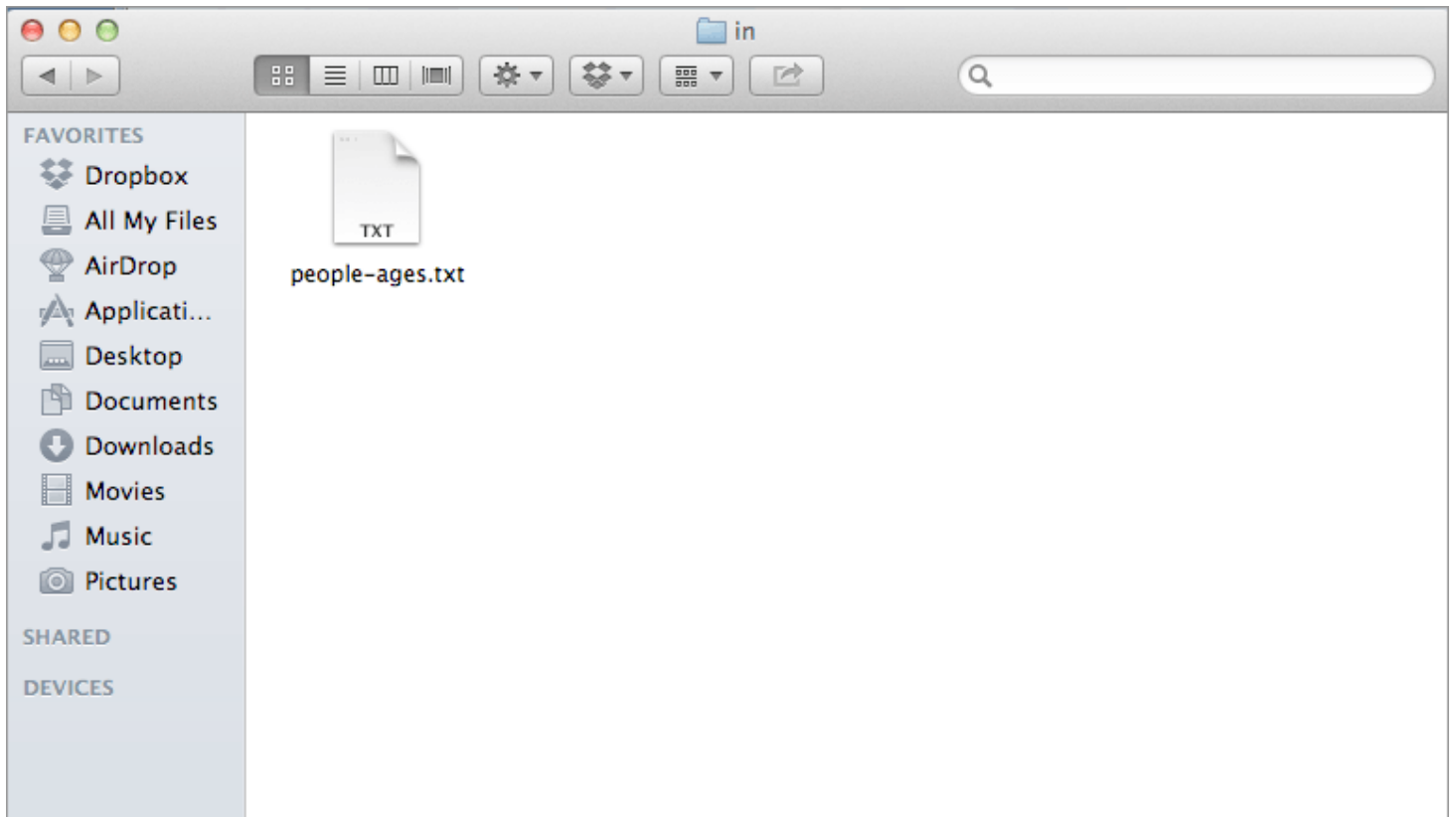




Next, navigate to the **4 General Quick Start Interface** directory or your Working Directory, double click to **Open**. Then double click the "in" folder to open.

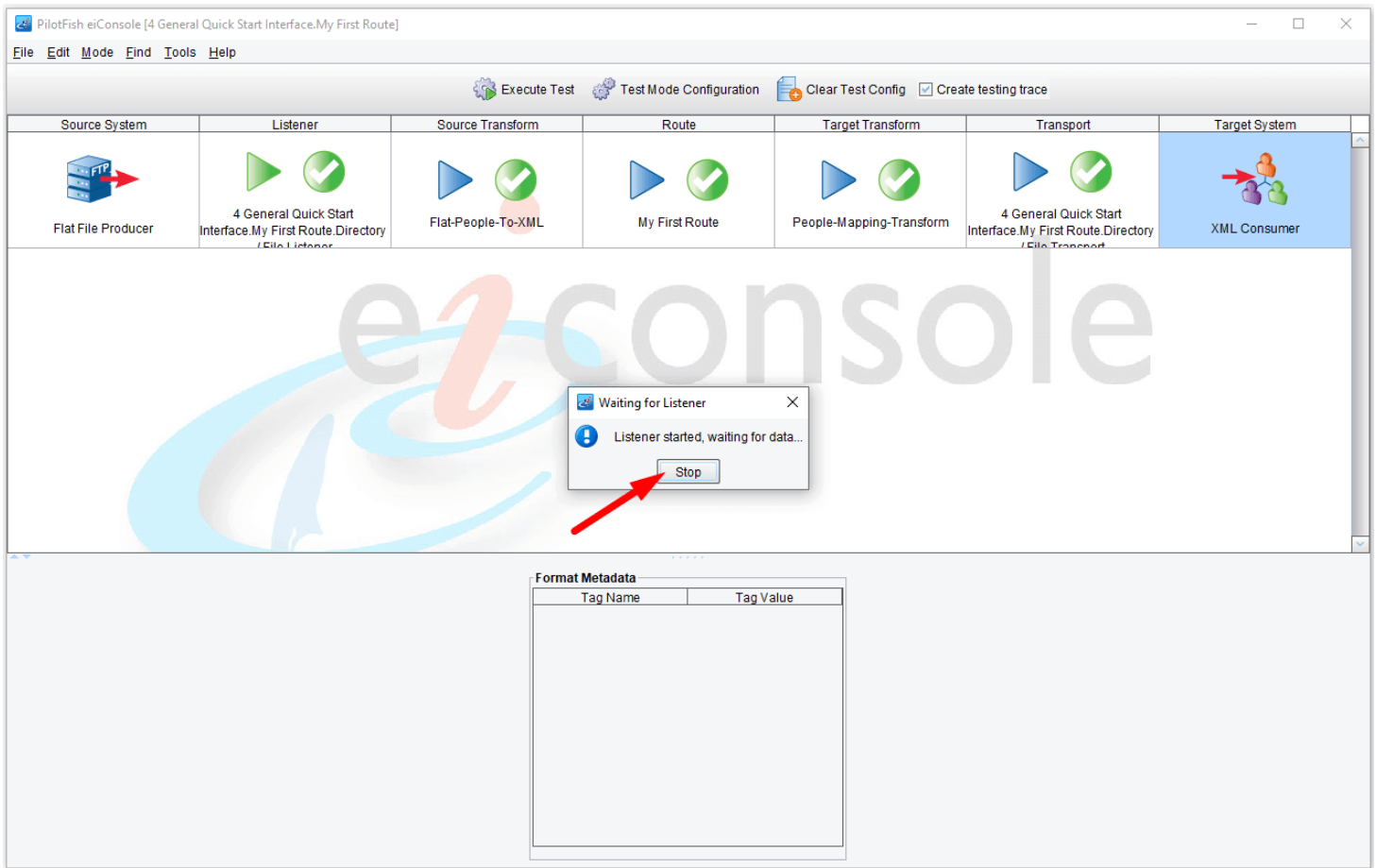


To begin testing click the **Execute Test** button. The Directory Listener will start waiting for data to appear in the input folder.

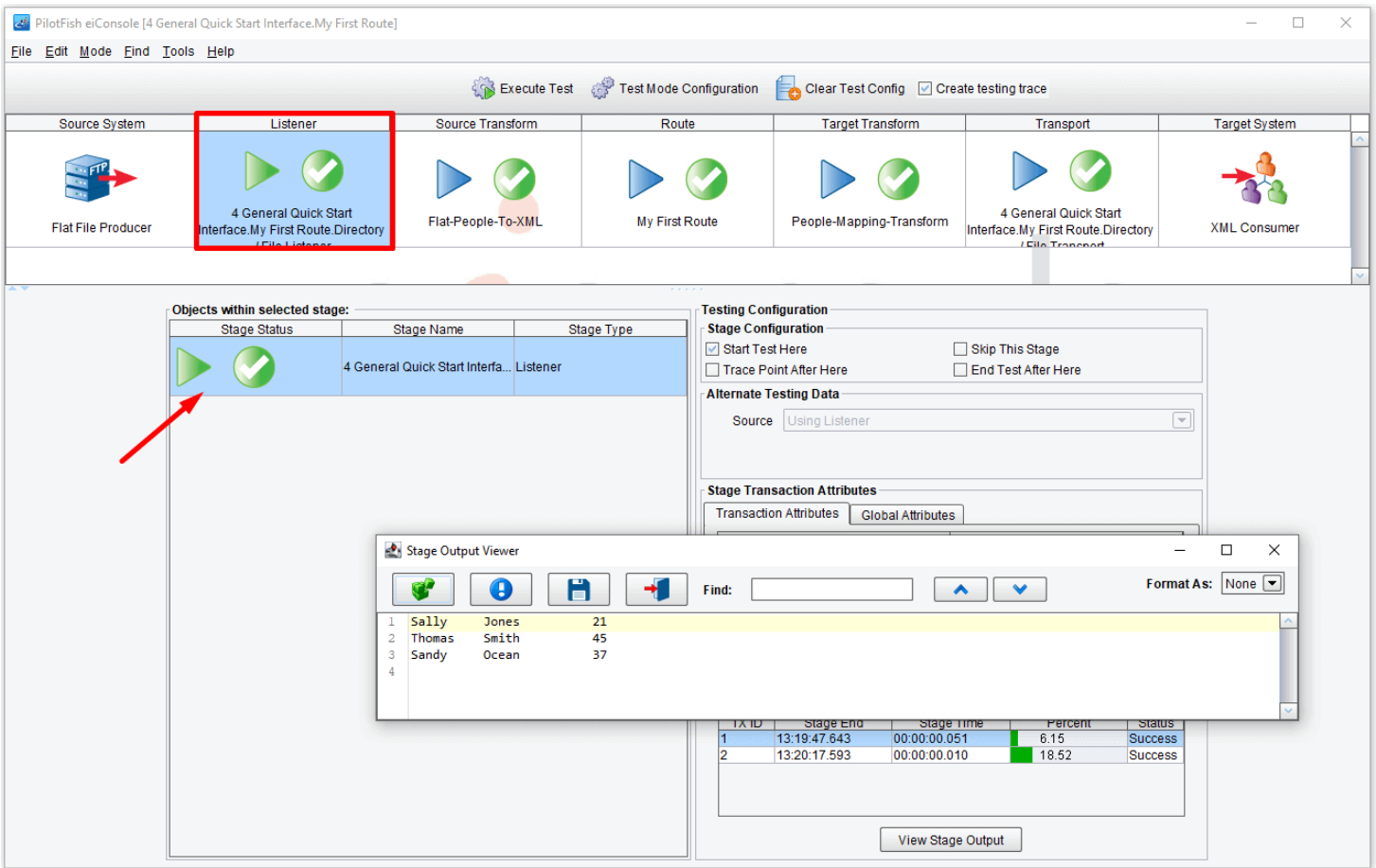


Paste the "**people-ages.txt**" file into the "**in**" folder within the **4 General Quick Start Interface** of your Working Directory.

Within 10 seconds the file should be picked up and processed.

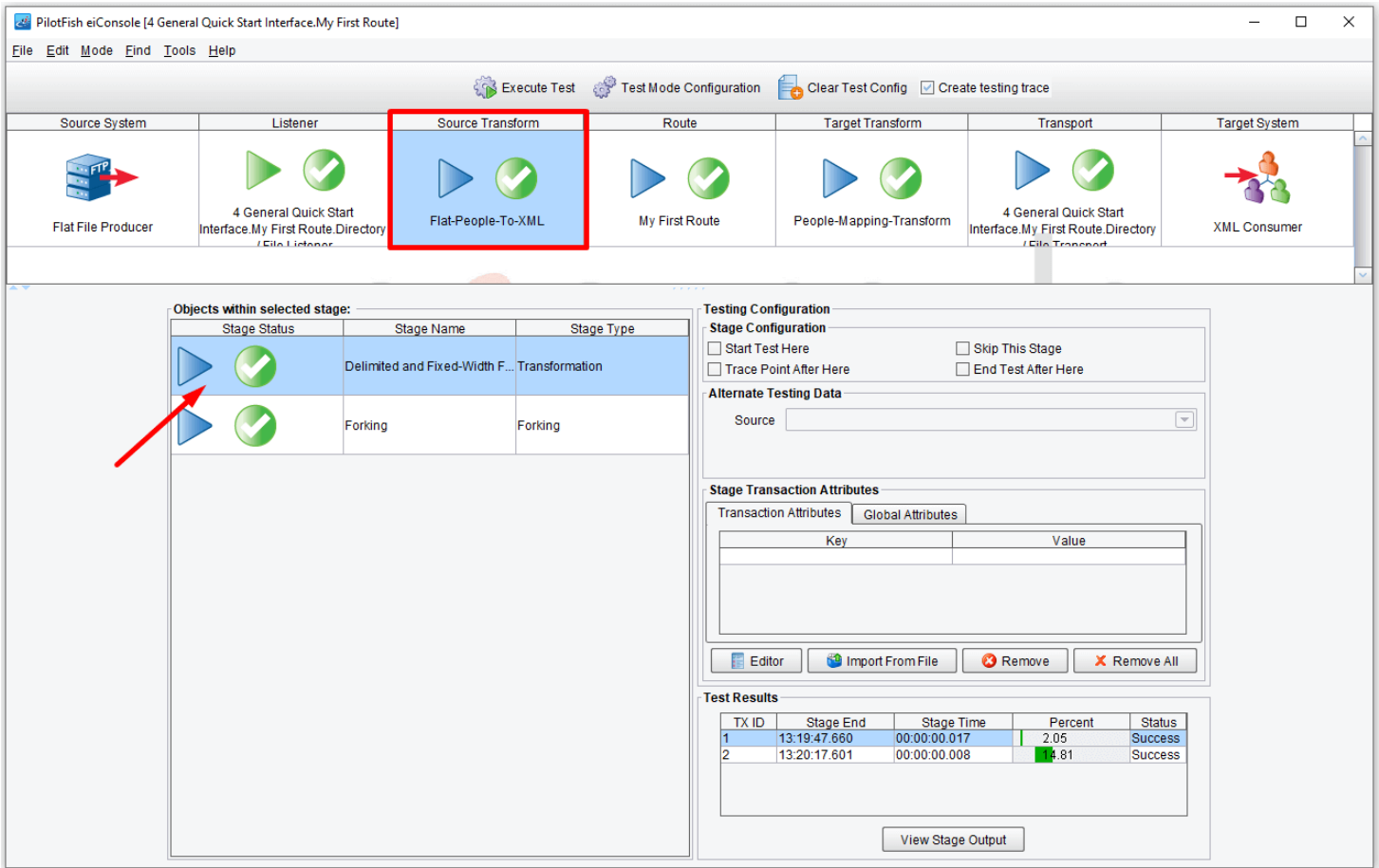


As the file is processed the blue question marks are replaced with green checkmarks. Had there been an error, a red x would appear in one or more of the stage cells. Click on the **Stop** button.

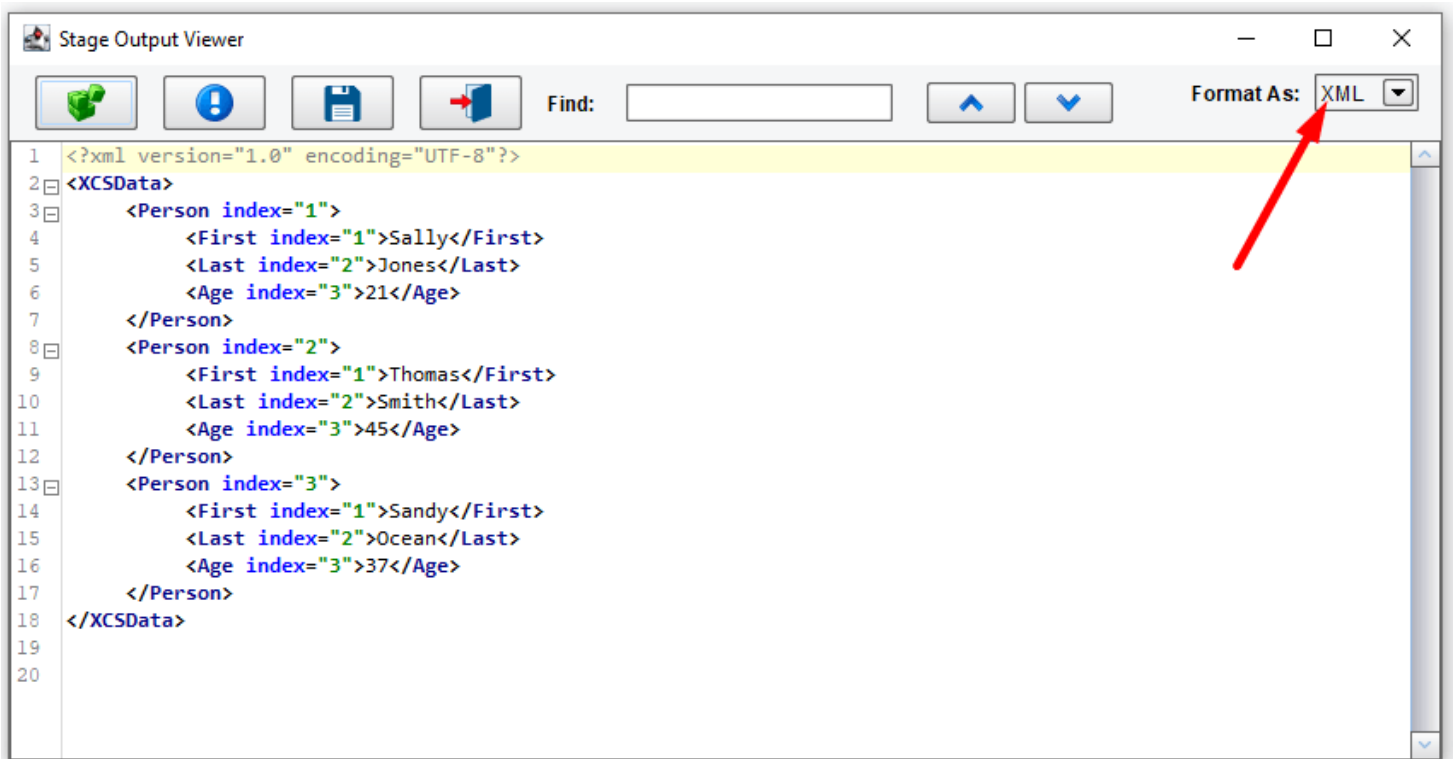


You can view the data at each part of the process. When you click on a stage, such as the [Listener](#) stage, you can double click on any sub-stage within the Objects Within Selected Stage grid to view the output as it appeared when it exited that stage.

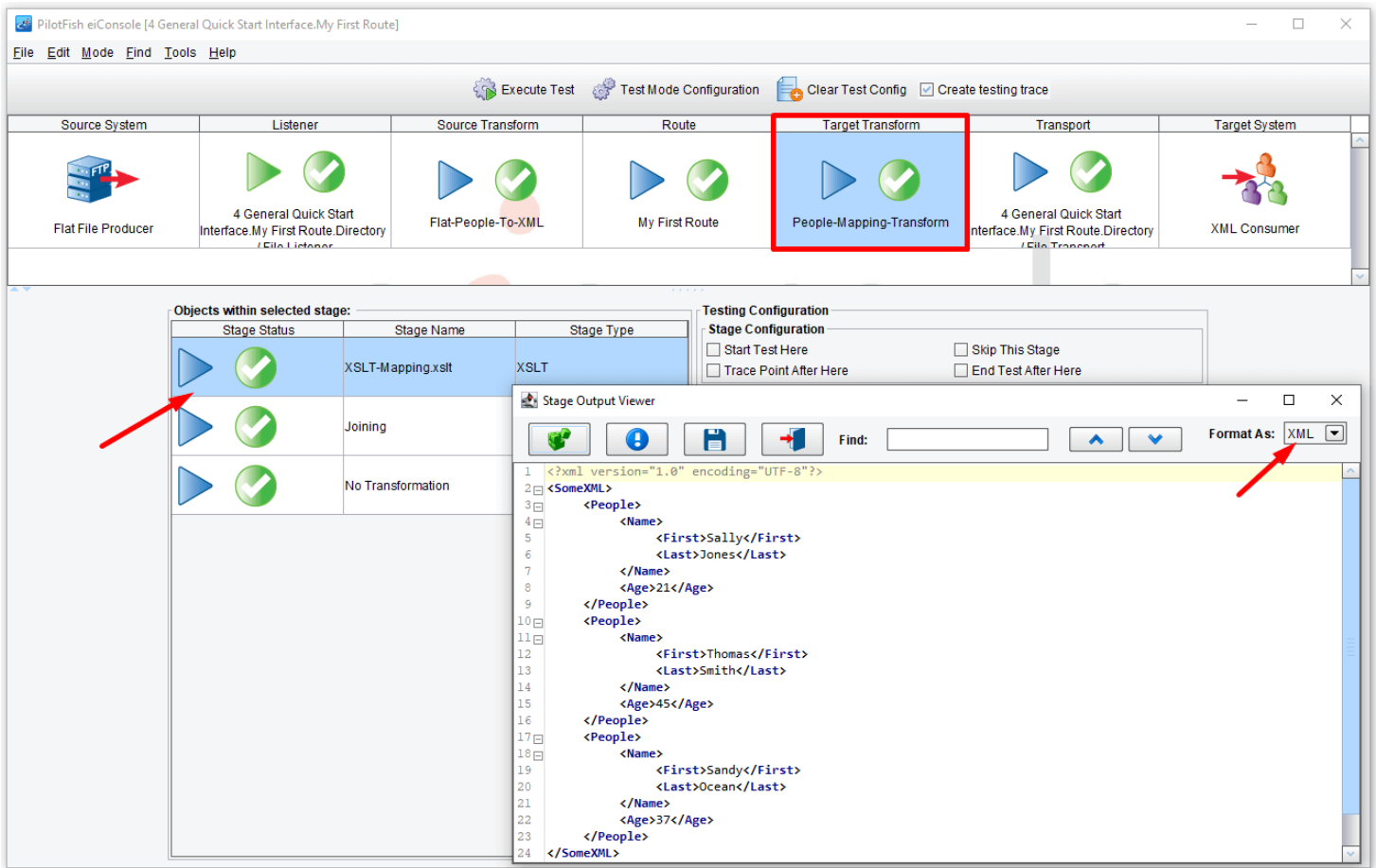
Here, you can see the flat file input.



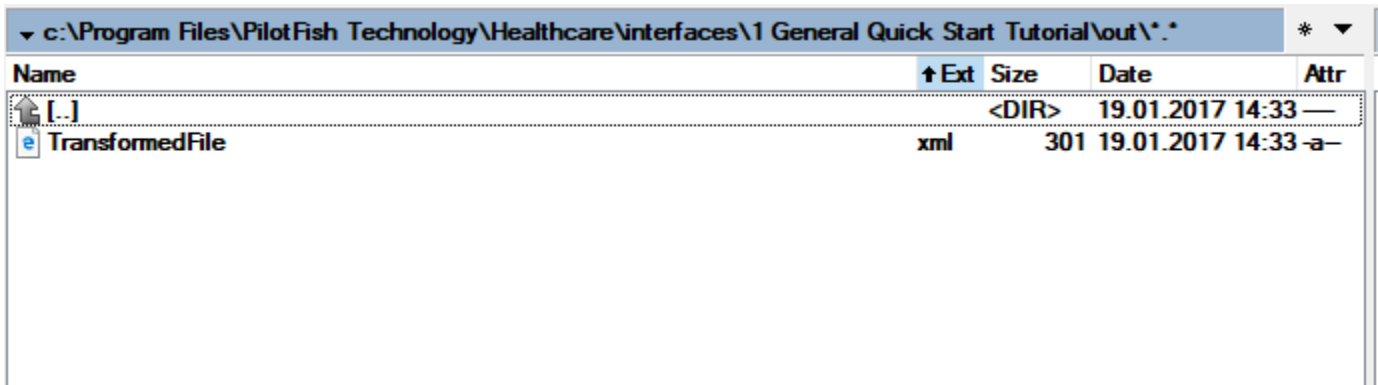
Click on the Source Transformation stage. Double click the **Delimited and Fixed-Width** row to view the output.



Here, you can see the data after it's been converted to XML. Choose the XML format.



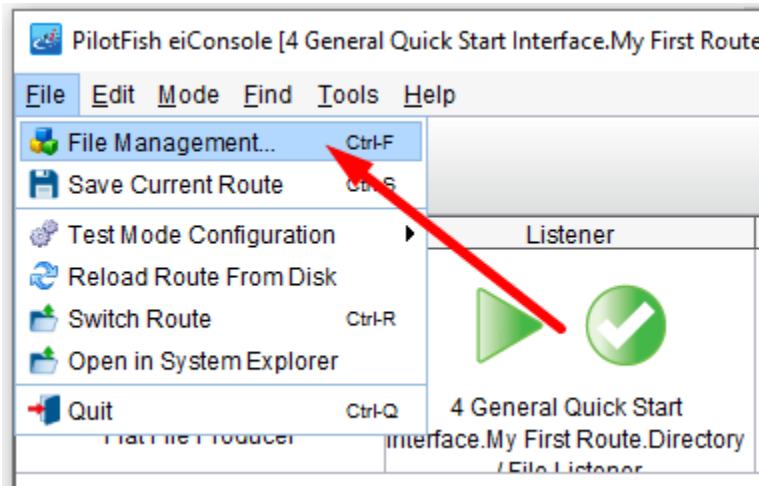
The data was routed along towards our one Transport. If you click on the Target Transformation stage, you can double click the **XSLT** stage to see the transformed data. It will be in the SomeXML structure with People tag, Name sub-tag, with First and Last name tags as children.



Finally, the Transport deposits the **TransformedFile.xml** file in the selected Out folder.

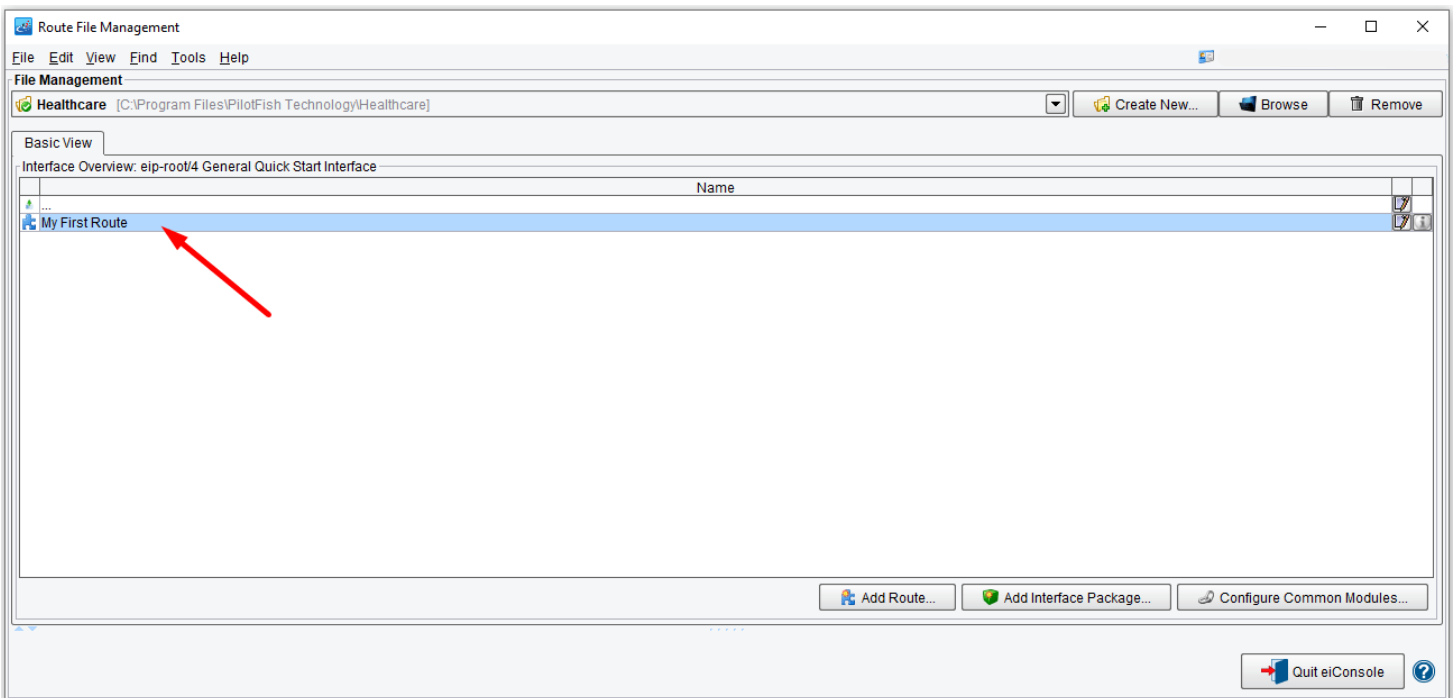
```
TransformedFile.xml
1 <?xml version="1.0" encoding="UTF-8"?><SomeXML><People><Name><First>Sally
</First><Last>Jones</Last></Name><Age>21
</Age></People><People><Name><First>Thomas</First><Last>Smith
</Last></Name><Age>45</Age></People><People><Name><First>Sandy
</First><Last>Ocean</Last></Name><Age>37</Age></People></SomeXML>
```

Double click the file to open. Notice the file named **TransformFile.xml** has been written to the disc.



Lastly, go to the File menu and select **File Management** to return to the Route File Management window.

## Deploying an Interface



When the Route File Management window opens, you'll see the icon next to **My-First-Route** is now blue indicating it is a fully configured interface. Typically, if you wanted to deploy this interface into production, you'd connect to your

eiPlatform server and drag & drop the interface into the eiPlatform server window to deploy.

**Note: An eiPlatform server needs to be configured in order for this option to be visible in the above window.**

Now you have completed the Quick Start Tutorial and have learned the basic topology of the eiConsole you can move on to more complex tutorials:

- [General Getting Started Tutorial](#)

Or choose an industry-specific tutorial:

- [Healthcare Getting Started Tutorial](#)

- [HR-XML Getting Started Tutorial](#)

- [Insurance Getting Started Tutorials \(LAH & PCS\)](#)

- [OpenTravel Getting Started Tutorial](#)

The industry-specific tutorials will teach you how to leverage the many standards-specific features and components that make the eiConsole a powerful tool for interface building, management and maintenance for each industry. Or you can also browse through the topics in [General User Reference Level I-IV](#) for more advanced interface configuration documentation and tutorials.