6. Source Transformation / File Specification Editor

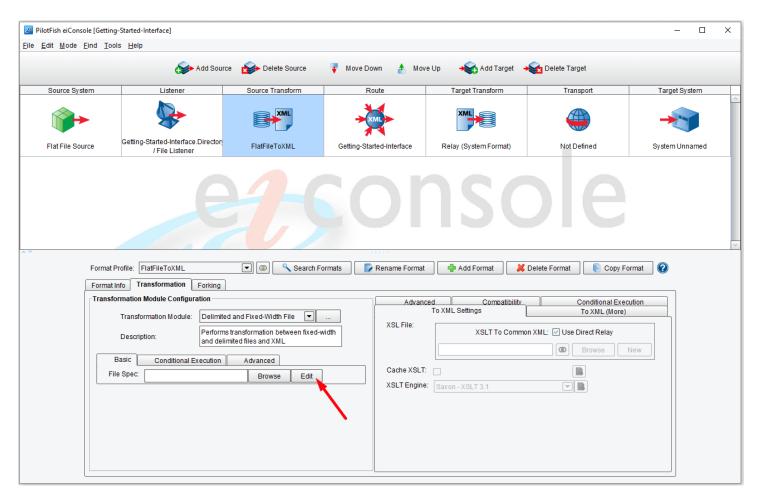
https://cms.pilotfishtechnology.com/data-conversion-tutorial-pilotfish-integration-engine

eiConsole v.24R1 Tutorial 60 mins

eiConsole Foundation Tutorial Using the File Specification Editor for Source

You will need to navigate to the Working Directory c:\Users\{USER _NAME}\PilotFish eiConsole Working Directories\Foundation where {USER_NAME} is the user's name which was included in the sample files you downloaded in the first Foundation Tutorial – <u>Creating a Working Directory</u>.

Note: The Tutorials in the eiConsole Foundation, 1-13, are modular and are designed to be used in the sequence presented.



The Delimited and Fixed-Width File <u>Transformation Module</u> uses file specifications to describe the logical layout of a flat or delimited file. These file specifications are built using a tool in the eiConsole called the File Specification Editor. To launch the File Specification Editor, click the **Edit** button to the right of the **File Spec** configuration item.

| I File Spec Editor | - 🗆 X |
|--|--|
| <u>File</u> <u>Structure</u> <u>V</u> iew <u>H</u> elp | |
| Record Structure Module Configuration Edit Spec XML | |
| Base | File Tures Deservational Character Definition |
| | File Type: Rec:Delimited / Field:Delimited Change First row is headers |
| | Preview record structure |
| | Select for New File Type × Import Field Names from Tab-delimited File I Parse String |
| Structure Component Information | The selected module does not support graphical configuration. |
| | |
| | Set Selected Text 🛛 📽 Parse for Fields 🖷 Execute Transform To XML 🗌 Apply Converters |
| | No hierarchy loaded |
| | Tree XML |

This will launch the File Spec Editor (File Specification Editor). Here the developer will describe the logical structure of the inbound file so it can be parsed and translated into XML. When you create a new file specification, you can import the file description from several different <u>formats</u>. In this case, leave the pre-selected **Import Field Names from Tab-delimited File** option selected.

Take a moment to click the down arrow to see the other available options, for example, Import From Cobol Copybook Definitions. After you do this, set it back to **Import Field Names from Tab-delimited File** and click **Next**.

| 🌌 Open Fi | le X |
|---|--|
| Look <u>I</u> n: | data Videos OS (C:) Users pocht PilotFish eiConsole Working Dire Foundation data Network |
| File <u>N</u> ame Files of <u>Ty</u> | |
| | Open Cancel |

You will be presented with an **Open File** dialogue that allows you to point the File Spec Editor at a sample tabdelimited file. Navigate to the **data** folder of your <u>Working Directory</u>. In this case, it is **c:\Users\{USER** _NAME}\PilotFish eiConsole Working Directories\Foundation\data.

| 🌌 Open File | II. | | × |
|------------------------|--|---|-------------|
| Look <u>I</u> n: 📔 d | data | • | 💿 🏫 💕 🔡 🚍 |
| Photos.txt | | | |
| File <u>N</u> ame: | Photos.txt | | |
| Files of <u>T</u> ype: | File with field headers (*.csv, *.txt) | | • |
| | | | Open Cancel |

You will see **Photos.txt**, which is a sample input file. Select this and choose **Open**.

| Load Test File | Х |
|----------------------------------|---|
| Load selected file as Test file? | |

Select Yes to load the selected file as a test file.

| File Spec Editor : New spec | – 🗆 X | | | | |
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| <u>Eile</u> <u>S</u> tructure <u>V</u> iew <u>H</u> elp | | | | | |
| 🖥 🕈 🗑 🗞 🚽 🛅 | * T 🔞 🛈 | | | | |
| Record Structure Module Configuration Edit Spec XML | | | | | |
| Base P Base Photographer-First Photographer-Last Photographer-Last Nork-Phone Address Ocity State File-Name Dive-Country Dive-Site Dive-Depth | File Type: Rec:Delimited / Field:Delimited Change First row is headers Preview record structure 0 : 0 Parse String Results preview Parse String To XML From XML Image: Photo Name & Photographer First & Photographer Last & Home Phone & Work Phone & Address Image: Photo Name & Photographer First & S55-765-8764 & S55-654-7652 & 1 Angel Drive & Los Angel Image: Photo Name & Photographer First & Photographer Last & Home Phone & Work Phone & Address Image: Photo Name & Photographer First & S55-765-8764 & S55-654-7652 & 1 Angel Drive & Los Angel Image: Photo Name & Photographer First & S55-325-6564 & S55-765-4353 & 2 Moon Court & Bangel | | | | |
| Structure Component Information | 4 Stoplight Parrotfish » Shaquille » Shutter » 555-324-6542 » 555-762-8763 » 3 Ladybug Lan 5 Golden Necklace Fel » Lenny » Lens » 555-264-2372 » 555-876-5463 » 4 Bow Street » Provi | | | | |
| Structure Type: Field | 1:1 | | | | |
| Field Name: Dive-Depth | Set Selected Text Selected Text Parse for Fields Fields Apply Converters | | | | |
| Node quantity: 1 Unbound | No hierarchy loaded | | | | |
| Change delimiter Prev New | Tree XML | | | | |

The record structure tree on the left is now populated with a green <u>node</u> and several blue <u>nodes</u>. Green nodes represent logical records within the file. Blue nodes represent fields underneath that record. The <u>File Specification</u> <u>Editor</u> processed the inbound tab-delimited file. Notice that the first line contains column headers that can be easily translated into field names.

Next, click **Execute Transform to XML** to parse this file into an XML structure.

| | - 🗆 X |
|---|---|
| <u>File</u> <u>Structure</u> <u>V</u> iew <u>H</u> elp | |
| 🔁 🖆 🖹 🔁 🤊 (> 📲 🧻 | |
| Record Structure Module Configuration Edit Spec XML | |
| Base Photo-Name Photographer-First Photographer-Last Home-Phone Work-Phone Address City State File-Name Dive-Country Dive-Site | File Type: Rec.Delimited / Field:Delimited Change Preview record structure |
| Dive-Depth | Results preview |
| | To XML From XML To XML From XML Photo Name » Photographer First » Photographer Last » Home Phone » Work Phone » Address Red Frog Fish » Amy » Aperature » 555-765-8764 » 555-654-7652 » 1 Angel Drive » Los Ang 3 Sea Turtle Fly-By » Mark » Megapixel » 555-325-6564 » 555-765-4353 » 2 Moon Court » Ban 4 Stoplight Parrotfish » Shaquille » Shutter » 555-324-6542 » 555-762-8763 » 3 Ladybug Lan 5 Golden Necklace Eel » Lenny » Lens » 555-264-2372 » 555-876-5463 » 4 Bow Street » Provi 6 Stingray » Ziggy » Zoom » 555-765-7632 » 555-765-3655 » 5 Main Street » Middletown » C 1:1 |
| Structure Component Information | Set Selected Text 🔐 Parse for Fields 🖷 Execute Transform To XML 🗌 Apply Converters |
| Structure Type: Field Name: Node quantity: Change delimiter Prev New | Base |
| | Tree XML |

You will see that the file has been parsed into a set of logical records.

| File Spec Editor : New spec | – 🗆 X |
|---|--|
| <u>Eile S</u> tructure ⊻iew <u>H</u> elp | |
| Record Structure Module Configuration Edit Spec XML | |
| Base Record Photographer-First Photographer-Last Photographer-Last Work-Phone Work-Phone Otty State File-Name Dive-Country Dive-Site Dive-Depth | File Type: RecDelimited / Field:Delimited Change Preview record structure 0 : 0 Parse String Results preview To XML From XML From XML From XML For Comparison Photo Name > Photographer First > Photographer Last > Home Phone > Work Phone > Address Red Frog Fish > Amy > Aperature > 555-765-63764 > 555-654 - 7652 > 1 Angel Drive > Los Ang Sea Turtle Fly-By > Mark > Megapixel > 555-765-4634 > 555-765-4633 > 2 Moon Court > Ban Golden Necklace Eel > Lenny > Lens > 555-264-2372 > 555-876-5463 > 4 Bow Street > Provi Stingray > Ziggy > Zoom > 555-765-7632 > 555-765-3655 > 5 Main Street > Middletown > C Int Find Find Phone > C |
| Structure Component Information | Set Selected Text 🔐 Parse for Fields 🖷 Execute Transform To XML . Apply Converters |
| Structure Type: Field Field Name: Dive-Depth Node quantity: 1 - Unbound Change delimiter Prev New | <pre></pre> |

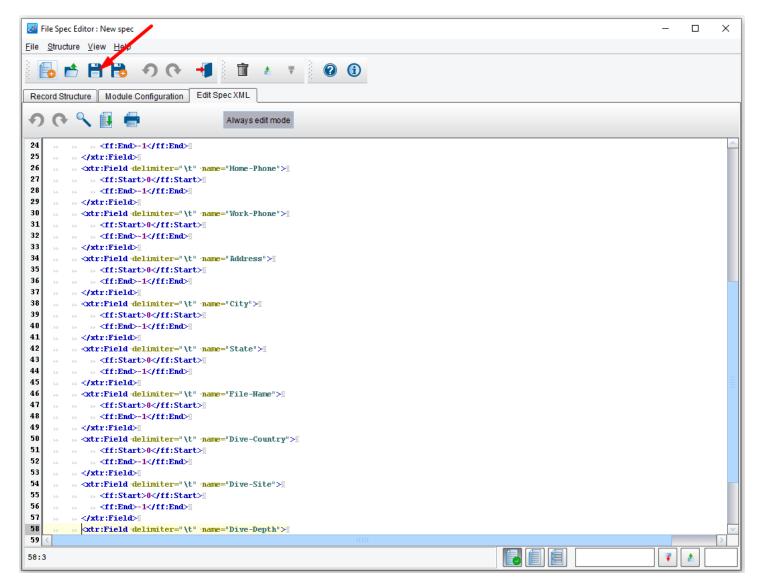
Double-click the nodes to expand the record. Scrolling and expanding each record, you can see the information it pulled from each field. You can see that the tool has recognized the first line in the file, which in fact, contains headers as data.

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| <u>File</u> Structure <u>View</u> <u>H</u> elp | |
| 🖥 🕈 🖱 🐱 🕈 🖓 👘 | A T 0 1 |
| Record Structure Module Configuration Edit Spec XML Base Photoorante Photoorante Photographer-First Photographer-Last Photographer-Last Home-Phone Address Otiv State File-Name Dive-Country Dive-Site Dive-Depth | File Type: Rec:Delimited / Field Delimited Change First row is headers Preview record structure |
| | Set Selected Text of Parse for Fields Execute Transform To XML Apply Converters |
| Structure Component Information | ● Base • ● Record: Record |
| Structure Type: Field | ↓ ↓ Record ↓ ↓ Here ↓ ↓ ↓ ↓ Here ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ |
| Field Name: Dive-Depth Node quantity: 1 - Unbound | - • Field: Photographer-First = Amy |
| Node quantity: 1 Unbound Change delimiter | - • Field: Photographer-Last = Aperature - • Field: Home-Phone = 555-765-8764 |
| | - • Field: Work-Phone = 555-654-7652 |
| Prev New | - Image: State of the stat |
| | - 👽 Field: State = CA |
| | - • Field: File-Name = FrogFish.jpg - • Field: Dive-Country = Bonaire |
| | - Field: Dive-Site = Oil Slick Leap |
| | Tree XML |

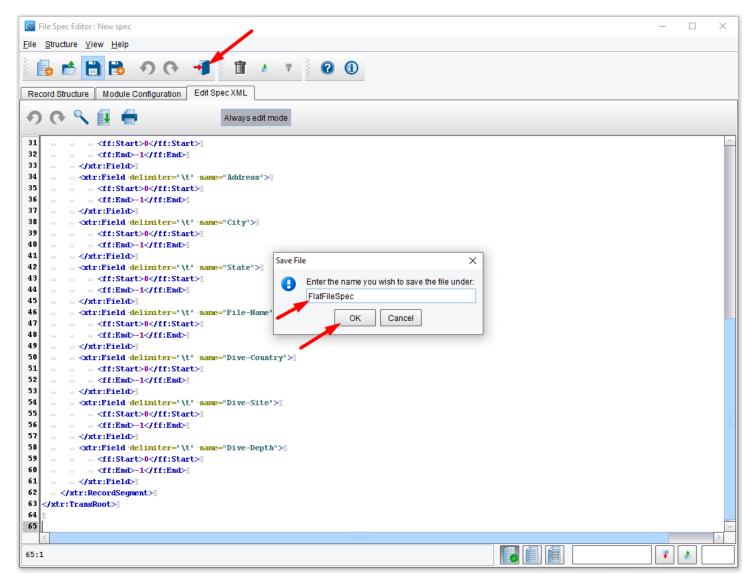
To change this, select the **First Row is Headers** checkbox at the top of the panel and then click **Execute Transform to XML** again. Now you will see that the tool correctly recognizes the records within the file.

| Z File Spec Editor : New spec | – 🗆 X |
|--|---|
| <u>File</u> <u>S</u> tructure <u>V</u> iew <u>H</u> elp | |
| Record Structure Module Configuration Edit Spec XML | |
| Base Record Photo-Name Photographer-First Photographer-Last Home-Phone Work-Phone Address City State File-Name Dive-Country Dive-Site Dive-Depth | File Type: RecDelimited / Field Delimited Change First row is headers Preview record structure 0 0 : 0 Parse String Results preview Parse String To XML From XML Image: Photo grapher First > Photographer Last > Home Phone > Work Phone > Address 2 Red Frog Fish > Amy > Aperature > 555-765-8764 > 555-654-7652 > 1 Angel Drive > Los Ang 3 Sea Turtle Fly-By > Mark > Megapixel > S55-324-654 > 555-765-4353 > 2 Mon Court > Ban 4 Stoplight Parrotfish > Shaquille > Shutter > 555-326-654 > 555-762-8763 > 3 Ladybug Lan 5 Golden Necklace Eel > Lenny > Lens > 555-765-7632 > 555-765-3655 > 5 Main Street > Provi I 1:1 Image: |
| Structure Component Information | Set Selected Text Parse for Fields Execute Transform To XML Apply Converters |
| Structure Type: Field Field Name: Dive-Depth Node quantity: 1 Unbound Change delimiter Prev New | Base |

Under the covers, the File Specification Editor saves this information in an XML file. Click the Edit Spec XML tab.



After you have clicked the Edit Spec XML tab, you will be presented with this window. Since the tool correctly processes the file, no additional work is needed. Click the **Save** icon at the top.



Give the file specification a name: "FlatFileSpec", then click OK. Next, click the Return to Console icon at the top.

| 🚪 PilotFish eiConsole [Getting-St | tarted-Interface] | | | | | - 0 | × |
|-----------------------------------|--|--|---------------------------|------------------------|----------------------------------|----------------|---|
| <u>File Edit Mode Find T</u> ools | <u>H</u> elp | | | | | | |
| | 🍻 Add Sourd | ce 😥 Delete Source | 🐺 Move Down 🔥 Mov | ve Up 🛛 😽 Add Target 🚽 | Delete Target | | |
| Source System | Listener | Source Transform | Route | Target Transform | Transport | Target System | |
| * | > | XML | -XML | XML | | | ~ |
| Flat File Source | Getting-Started-Interface.Director / File Listener | FlatFileToXML | Getting-Started-Interface | Relay (System Format) | Not Defined | System Unnamed | |
| Format Profile: FlatFileToXML | | | | | | × | |
| | nation Module Configuration | | Advon | cod Compatibility | Conditional Exo | cution | |
| T D Bas | ransformation Module: Delimite Description: Perform and deli | d and Fixed-Width File tansformation between fixed-width files and XML Advanced Browse Edit | Cache XSLT | To XML Settings | Conditional Exe To XML (More) | | |

You will now see that the Delimited and Fixed-Width File Transformation Module is now configured to point at the **FlatFileSpec.xml**.

The next step is to develop the logical data transformation between the XML output of the File Specification Engine and your chosen XML schema. To do this, first, unselect the **Use Direct Relay** checkbox and then select **New** (in the <u>XSLT</u> Configuration right panel) to move on to the next step - Source Transformation - Data Mapping.