

# Moving a File (Event-Based)

This topic describes how to move a file from a source location to a destination location. A channel is used, which listens for any new files matching the defined filter criteria to appear in the input folder, reads the files and executes the associated process logic, and then outputs the result into the destination location. Using a channel is just one way of handling file operations. You can also use a process flow for this purpose, which can be executed on demand through an API or as part of a channel.

### Included With This How-To:

The following sample component is included with this how-to:

 file\_management.zip – A completed application project that you can import into iWay Integration Tools (iIT) using the *Import Existing Project into Workspace* option. After importing, you can browse the components and proceed to deploying the application. For more information, see <u>Deploying the Application</u>.

This how-to includes the following topics:

- <u>Prerequisites</u>
- <u>Summary of Steps and Key Features</u>
- Creating an Application Project
- Configuring a Process Flow
- Configuring a Channel
- <u>Deploying the Application</u>
- Starting and Testing the Application

### **Prerequisites**

Before continuing, ensure that the following prerequisites are confirmed.

- Folders. The following input and output folders are predefined for the File listener:
  - o C:\temp\in
  - O C:\temp\out

Ensure that these folders are created before proceeding with this how-to. However, you may also define other paths for the input and output folders when configuring the File listener.

• File. Any XML file.

## **Summary of Steps and Key Features**

This how-to consists of the following steps:

- 1. Creating an application project.
- 2. Creating a process flow.

**Note:** The process flow in this how-to does not perform a complex operation. However, in a real application, the process flow would be used to manipulate and enrich data as required.

- 3. Creating a channel to:
  - a. Read XML files (based on the selected filters).
  - b. Call the process flow.

The following key features are demonstrated by this how-to:

- Channel Builder
- File listener
- Application deployment

## **Creating an Application Project**

- 1. Open iWay Integration Tools (iIT) and select the default workspace.
- 2. Right-click anywhere within the Application Explorer tab, select *New* from the context menu, and then click *Application Project*, as shown in the following image.

<ul> <li>Application Explo</li> </ul>	orer 🗙 🔒 iWay Explorer	» 1	
			> -> @
	New	> (	Application Project
	Сору		🌱 Project
	Paste	6	API
	Duplicate		Deployment Template
36	Delete	E	Channel
2	Import		Flow
2	Export		🔏 Transform
জ	Refresh		Register Set
<u></u>	Nerresh		Schema Set
		t	() IFL Expression
			😚 Example
		٦	😚 Other Ctrl+N

The New Application Project dialog opens, as shown in the following image.

📌 New Application	n Project				$\times$
Application Proje	ct				
Create a new Appli	cation project				
Project name file	management				
Project location					
Use default				-	_
Directory C:\ilTs\	ilT-8.0.0\file			Brows	e
Maven Option					
Use Maven					
?	< Back	Next >	Finish	Car	icel

3. Provide a project name (for example, *file\_management*) and then click *Finish*.

A new application is created, containing the required project folder structure, as shown in the following image.



The *bundle* folder is the application package name, which you can rename if required. During deployment, you will be prompted to select the name of the deployed application.

You are now ready to configure your process flow.

### **Configuring a Process Flow**

1. Right-click the *Flows* folder, select *New* and then click *Flow*, as shown in the following image.



The New Flow Wizard dialog opens, as shown in the following image.

🔅 New Flow Wizard	— <b>D</b> X				
<b>General Properties</b>					
Please select a project loo Flow	cation and choose a name for the new				
Project Folder	/file_management/Flows Browse				
Name	move				
Description	Simply more data from start object to end object.				
	Create in current folder				
?	<u>Finish</u> Cancel				

2. Enter a flow name (for example, *move*) with a description (optional), and then click *Finish*.

The process flow (*move*) opens as a new tab in your workspace area where you can start building the application logic for processing data. By default, the process flow consists of a Start and an End object. For this how-to, no data processing will be performed, except for simply moving the file. The process flow will be left as is.

¢	—→O
Start	End

You are now ready to create a channel, which will pick up the input files and execute the process flow you created. The file-based channel defines the source and target of the data.

## **Configuring a Channel**

1. Right-click the *Channels* folder, select *New* from the context menu, and then click *Channel*, as shown in the following image.

✓ <sup>™</sup> file_managem ➢ APIs ➢ Channels	nent		
> 🗁 Configur	New	> 爹	Application Project
✓ ➢ Flows	Go Into	<b></b>	Project
> 🔅 move	Open in New Window	0	API
🗁 Resource ➢ Template	Сору	<b>a</b>	Deployment Template
🗁 Transforr	👔 Paste		Channel
> 🇐 bundle	Duplicate	٥	Flow

The Channel Object dialog (Channel General Properties pane) opens, as shown in the following image.

Channel O	Channel Object – 🗆 X					
Channel Gen	Channel General Properties					
Please choose	a name and location for this new Channel.					
Project Folder	/file_management/Channels		Browse			
Name	file_reader					
Description	This channel will read files and move them from source to destination location		^			
	Create in current folder		~			
?	< Back Next > Finish	C	ancel			

2. Provide a name for the channel (for example, *file\_reader*), a description (optional), and then click *Finish*.

The Channel Builder opens where you can add various channel components. For this how-to, only one File listener will be added and connected to the process flow that you created.

3. In the left pane of the Channel Builder, click *listener:listener.1*, and in the right pane, click the *change type* link, as shown in the following image.



The Modify listener type dialog (Listener Component Type pane) opens, as shown in the following image.



4. From the available list of listeners, select *File* and then click *Finish*.

You are returned to the Channel Builder. A File listener is added to your channel. The File listener also features an array of options for advanced users, as shown in the following image.

Channel Builder <u>3 errors detected</u>		
file_reader <ul> <li>channel: file_reader</li> <li>et inlet: inlet. 1</li> <li>file_ listener: listener. 1 (File)</li> <li>file_ process: process. 1</li> <li>outlet: outlet. 1</li> </ul>	<ul> <li>*</li> <li>*</li> <li>*</li> <li>*</li> </ul>	listener.1       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i       i

5. Expand the *Main* section and define the parameters, as specified in the following table. Leave the default values for the remaining parameters.

Parameter	Value
Input Path	C:\temp\in
Destination	C:\temp\out
Suffix In Filter	xml

For example:

▼ Main	
Active	
true 🗸	
Input Path	
c:\temp\in .	
Destination	
c:\temp\out	
Removal Destination	
Suffix In Filter	
xml .	

**Note:** In this how-to, the values are being hardcoded. However, in a real application, the parameter values can be an iWay Functional Language (iFL) look up (such as reading a property file), a variable, or a reference to a centralized value.

You can now assign the process flow to the channel.

6. In the left pane of the Channel Builder, click *process:process.1*, and in the right pane, click the plus sign (+) icon to add a process flow, as shown in the following image.



The Resource Selection dialog opens, as shown in the following image.

🔏 Resource :	Selection			×
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?		ОК	Cance	2

7. From the list of available process flows, browse to the process flow you have just created and select *move*, and then click *OK*.

You are returned to the Channel Builder.

8. Save your project by clicking on the multi-disk icon , which saves all the components.

You are now ready to deploy your application.

## **Deploying the Application**

1. Right-click on the *bundle* folder (or the new name you provided this folder), select *Run As* from the context menu, and then click *Application Deployment*, as shown in the following image.

🗸 🗁 file_manageme	ent				
🗁 APIs		file_reade	r		
> 📂 Channels					
> 🗁 Configurati	ons				
> 🗁 Flows				l: file_reader	
🗁 Resources		× •Ω	· · · ·	t: inlet.1	
🗁 Templates				listener: listener. 1 (File)	
🗁 Transforms		× 🕫		te: route. 1 (default)	
> 爹 bundle				process: move et: outlet.1	
	New	>	out	et. oonen i	
	Open				
	Open With	>			
	Сору				
The second se	Paste				
	Duplicate				
36	Delete				
~	Move				
	Rename				
			-U		
è	Import		_		
🗄 Outline 🗙 🖾	Export		×	🐑 Error Log	📮 Console
An outline is not a 🖏	Refresh				
	Validate				
	Run As	>	۲	1 Application Deployr	nent
	Debug As	>		Run Configurations	

The Edit Configuration dialog opens, as shown in the following image.

×
^
Browse
Browse
✓ Refresh
~
~
Re <u>v</u> ert Appl <u>y</u>
Run Close

**Note:** The first time you deploy your application, you will be prompted to enter values for the deployment properties. For any subsequent deployments or redeployments, you will be prompted to reconfirm the replacement of the previous deployment. If you wish to reconfigure the deployment properties, then select *Run Configuration*.

- 2. In the Server Environment section, provide the URL and credentials for the iWay Service Manager (iSM) instance where your application will be deployed.
- 3. In the Deployment Options section, provide the deployment name for your application, which will be the actual name of the deployed/running application, then provide an optional description.

You also have the Autostart Application option, which you can leave cleared for this deployment instance.

If your application requires a runtime template with server based properties, you can also select the specific template to apply to the deployment.

4. Click *Apply*, and then click *Run*.

The application is deployed successfully and the Console tab should display messages similar to the ones shown in the following image.



You are now ready to start and test your application.

## **Starting and Testing the Application**

1. Open the iSM Administration Console (the default is <u>http://localhost:9999</u> with admin/admin credentials).

You can also open the iSM Administration Console by clicking the icon in iWay Integration Tools (iIT).

2. Click the *Management* link in the upper- right corner, as shown in the following image.

	수 🔿 🔳 🦑 http://lo	calhost:9999/ism/app#d	lelete						~ ▶	0
Management     Monitor and manage deployed applications       Deployments     Deployment     Actions     State     Since     Application     Template       Templates     files     Image: Since     01/26/18 16:06:09     bundle     raw	· · · · · · · · · · · · · · · · · · ·						base			C Ab
Applications         Deployment         Actions         State         Since         Application         Template         Source           Templates         files         Image: Since         01/26/18 16:06:09         bundle         raw         Image: Since         Files         Image: Since         Since			age deployed	l applicatio	ins					
Templates files ③ 🗇 🗶 🥥 01/26/18 16:06:09 bundle raw	Deployments	D	A	01.1	0'	A 11 11	<b>T</b>	0		
Events	Applications	Deployment	Actions	State	Since	Application	I emplate	Source		
Events New	Templates	files	💿 🛸 🗙	9	01/26/18 16:06:09	bundle	raw			
	Events	New								

3. Click Deployments.

Your application is listed in the Deployments pane, but is not yet started.

4. Start your application either from the Windows Services dialog, a command prompt, or from the iSM Administration Console by clicking on the red minus sign icon in the State column.

When the application has started, the icon in the State column will change to a green check mark, as shown in the following image.

Application Management Deployments	Deployments Monitor and manage deployed applications							
Applications	Deployment	Actions	State	Since	Application	Template	Source	
Templates	files	💿 😒 🗙	٢	01/26/18 16:06:09	bundle	raw		
Events	New							

5. Copy any XML document and paste it into the following input folder that was defined for the File listener:

#### $\texttt{c:\temp\in}$

The file will be picked up by the File listener as it matches the filter of having a .xml extension, and will be processed. The file will be removed from the input directory and placed into the following output folder that was defined for the File listener:

#### c:\temp\out

The default setting for the File listener is to only parse XML files. Placing a non-XML file with a .xml extension will cause the process to fail.