

Routers

# Express Spring Integration



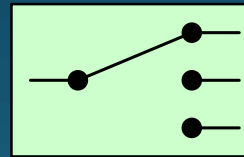
# SI Transformers Review

- We continue looking at a number of SI message endpoints.
- In the last tutorial, we looked at transformers.
- Transformers convert the payload or structure of a message into a modified message.
- Spring Integration comes with a number of built-in transformers.
  - XML to object (and vice versa)
  - Json to object (and vice versa)
  - File to string (and vice versa)
  - ...
- You can also create a custom transformer using a simple POJO.

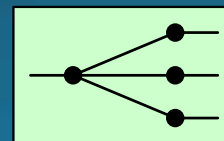


# SI Routers

- Routers act as message distribution components.
  - They take messages from one channel and distribute the message to one or more other channels.
  - Some routers must inspect a message to determine where to send the message.
  - Other routers simply spray the message to all receiving channels.
- Content routers examine the incoming message content and use the payload type or header value to determine which channel receives the message.
  - XPath and Error Message Exception routers also fall under this category.
  - The EIP icon for a content router is below.



- Recipient list routers don't have to examine the message.
  - Incoming messages are delivered to all listed recipient channels.
  - Here is the icon for recipient list routers.

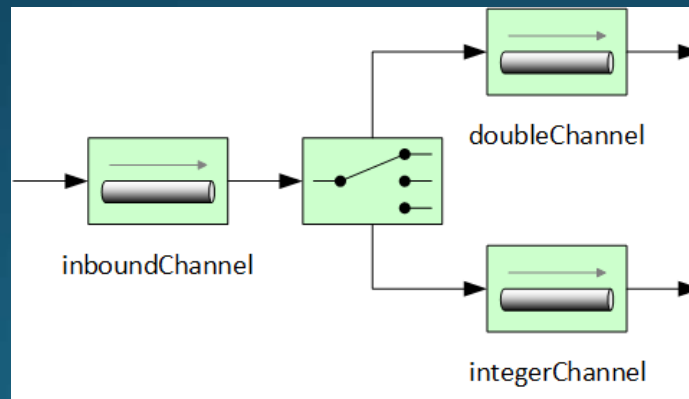


# Example Content Router

- Below is the configuration for a simple payload type content router

```
<int:payload-type-router input-channel="inboundChannel">  
  <int:mapping type="java.lang.Double" channel="doubleChannel" />  
  <int:mapping type="java.lang.Integer" channel="integerChannel" />  
</int:payload-type-router>
```

- Note the nested **<mapping>** element for content type routers.

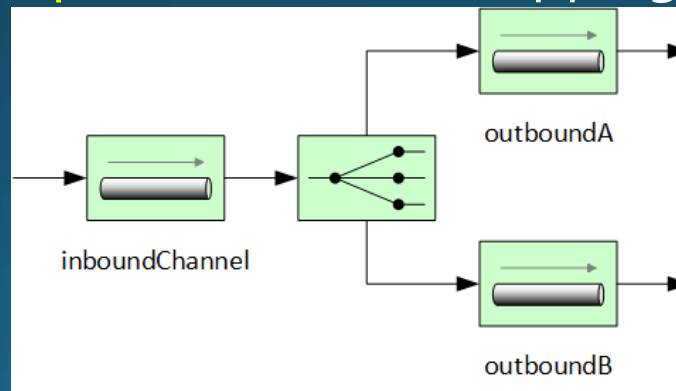


# Example Recipient List Router

- Recipient list routers deliver messages to all recipients regardless of content.

```
<int:recipient-list-router id="listRouter" input-channel="inboundChannel">  
  <int:recipient channel="outboundA"/>  
  <int:recipient channel="outboundB"/>  
</int:recipient-list-router>
```

- Note the nested **<recipient>** versus **<mapping>** element.



# You are ready to tackle Lab 5

- In Lab 5, you build an SI app that includes a couple of routers.
  - One router uses an XPath expression to route XML messages to one of two channels. An XPath router is an examples of a content router.
  - The other router you work with is a recipient list router where the recipients are an outbound file adapter and a service activator that prints the message to the Console view.

