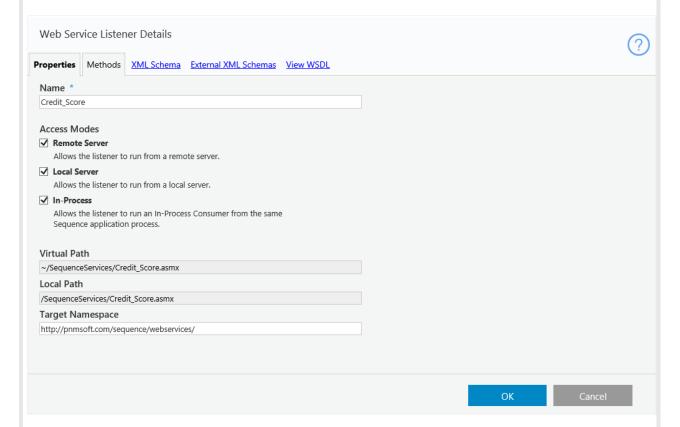# Web Service Listener Activity Overview

Context

Use the Web Service Listener Activity to create and expose a Web Service and kickoff or resume a workflow when the Web Service is invoked by an external application.
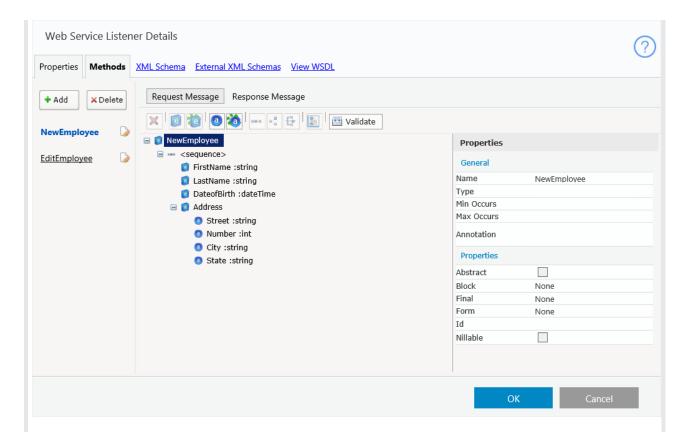
Wizard Tips

Properties Tab

It's important to use meaningful names and descriptions so that you can easily identify and understand what the activity is.

- **Name**: the name you select affects the Virtual Path, Local Path, and Target Namespace.
- **Access Modes**: defines where the listener can run from. You can select multiple access modes.

Web Service Listener Details ⑦

Properties Methods XML Schema External XML Schemas View WSDL

Name *
Credit_Score

Access Modes
☑ **Remote Server**
Allows the listener to run from a remote server.

☑ **Local Server**
Allows the listener to run from a local server.

☑ **In-Process**
Allows the listener to run an In-Process Consumer from the same
Sequence application process.

Virtual Path
~/SequenceServices/Credit_Score.asmx

Local Path
/SequenceServices/Credit_Score.asmx

Target Namespace
http://pnmsoft.com/sequence/webservices/

OK   Cancel

Methods Tab

- **Method List** (left panel): your selection in this list affects the content that displays in the XSD structure and details area. You can add, edit, or delete methods defined in this listener.
- **XSD structure and details** (middle panel): the structure displays according to the selected method and the selected message (response or request).
- **Element Properties** (right panel): set and modify the element type and advance settings for the selected element.

Web Service Listener Details

Properties | **Methods** | XML Schema | External XML Schemas | View WSDL

+ Add | ✕ Delete

Request Message | Response Message

✕ | | | | | Validate

NewEmployee 📝
- 🔲 **NewEmployee**
  - 🔲 ••• <sequence>
    - 🔲 FirstName :string
    - 🔲 LastName :string
    - 🔲 DateofBirth :dateTime
  - 🔲 Address
    - 🔵 Street :string
    - 🔵 Number :int
    - 🔵 City :string
    - 🔵 State :string

EditEmployee 📝

Properties

General

Name	NewEmployee
Type	
Min Occurs	
Max Occurs	
Annotation	

Properties

Abstract	☐
Block	None
Final	None
Form	None
Id	
Nillable	☐

OK | Cancel

XML Schema Area

- Describes the structure or our WSDL document used in the method's request and response. If you have a complex-type object that you want to use more than one time in your WSL, you can define its structure here.
- To create an array element, you must specify that the *Max Occurs* property of its <sequence> element is **unbounded,** and the *Min Occurs* and *Max Occurs* property of the entity is set to 1. See the screenshots below.

<sequence> Element

Web Service Listener Details

Properties | Methods | **XML Schema** | External XML Schemas | View WSDL

Validate

- `<schema root>`
  - ActivityMetadataHeader
    - ActivityMetadata :ActivityMetadataHeader
  - NewEmployee
    - **`<sequence>`**
      - FirstName :string
      - LastName :string
      - DateofBirth :dateTime
      - Address
  - NewEmployeeResponse
  - EditEmployee
  - EditEmployeeResponse

Properties

General

Min Occurs	
Max Occurs	unbounded
Id	
Annotation	

OK | Cancel

Entity Properties

Web Service Listener Details

Properties | Methods | **XML Schema** | External XML Schemas | View WSDL

Validate

- `<schema root>`
  - ActivityMetadataHeader
    - ActivityMetadata :ActivityMetadataHeader
  - NewEmployee
    - `<sequence>`
      - FirstName :string
      - LastName :string
      - DateofBirth :dateTime
      - Address
  - NewEmployeeResponse
  - EditEmployee
  - EditEmployeeResponse

Properties

General

Name	LastName
Type	string
Min Occurs	1
Max Occurs	1
Annotation	

Properties

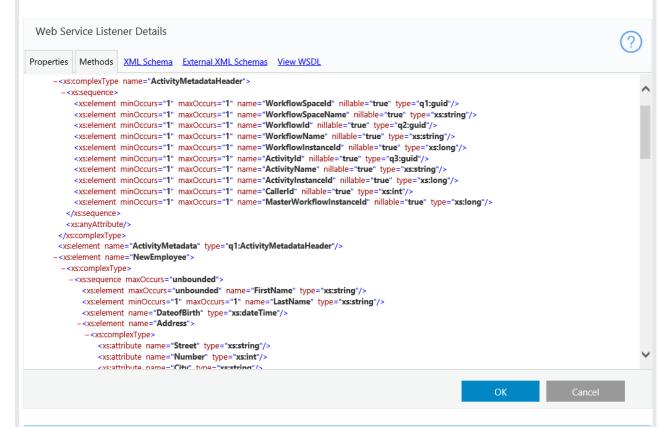| Abstract	☐
Block	None
Final	None
Form	None
Id	
Nillable	☐

OK | Cancel

External XML Schemas

In cases that you have a complex schema that requires you to create the schema outside of Cora SeQuence, you can import a schema.

Web Service Listener Details   (?)

Properties | Methods | XML Schema | External XML Schemas | View WSDL

External XML Schemas
The external XML schemas used by the service definition

Add schema

[OK] [Cancel]

View WSDL Area

This is where you can view the WSL's Web Services Description Language (WSDL), which is an XML-based language for describing Web Services, how to access the services, and the elements' attributes.

Web Service Listener Details   (?)

Properties | Methods | XML Schema | External XML Schemas | View WSDL

```
–<xs:complexType name="ActivityMetadataHeader">
  –<xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="WorkflowSpaceId" nillable="true" type="q1:guid"/>
      <xs:element minOccurs="1" maxOccurs="1" name="WorkflowSpaceName" nillable="true" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="WorkflowId" nillable="true" type="q2:guid"/>
      <xs:element minOccurs="1" maxOccurs="1" name="WorkflowName" nillable="true" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="WorkflowInstanceId" nillable="true" type="xs:long"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ActivityId" nillable="true" type="q3:guid"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ActivityName" nillable="true" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ActivityInstanceId" nillable="true" type="xs:long"/>
      <xs:element minOccurs="1" maxOccurs="1" name="CallerId" nillable="true" type="xs:int"/>
      <xs:element minOccurs="1" maxOccurs="1" name="MasterWorkflowInstanceId" nillable="true" type="xs:long"/>
  </xs:sequence>
  <xs:anyAttribute/>
  </xs:complexType>
  <xs:element name="ActivityMetadata" type="q1:ActivityMetadataHeader"/>
–<xs:element name="NewEmployee">
  –<xs:complexType>
    –<xs:sequence maxOccurs="unbounded">
        <xs:element maxOccurs="unbounded" name="FirstName" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="LastName" type="xs:string"/>
        <xs:element name="DateofBirth" type="xs:dateTime"/>
      –<xs:element name="Address">
        –<xs:complexType>
            <xs:attribute name="Street" type="xs:string"/>
            <xs:attribute name="Number" type="xs:int"/>
            <xs:attribute name="City" type="xs:string"/>
```

[OK] [Cancel]

Note: You can use the values returned in the Web Service Listener's object in subsequent activities by using the Expression Editor and selecting the **Web Service Listener object > ReturnValue**.

Properties | Methods | XML Schema | External XML Schemas | View WSDL

Want to learn by doing?

Check out this hands-on exercise.
Note that only internal users can access the link.