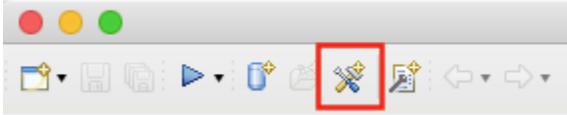# Adding Responders, Output Tools, and Validations

This topic explains how to add responders to the Responder suite (e.g., if you want to manually add a responder) as well as how to add tools that operate on the output of responders.

Adding a Responder

To add a responder to a Responder suite:

1. Select the Virtual Asset Explorer tree node where you want to add the responder.
2. Click the **Add Responder or Output** toolbar button.

   - The Add Responder wizard opens and displays a list of available tools.
   - To learn about a particular responder, select it and review the description that displays.
3. In the right pane, select the responder you want to use.
4. Click **Finish**.
5. Double-click the node added for that responder, then review and modify settings as needed in the tool configuration panel that opens on the right.
   - For Message Responders, see Message Responder Overview for details.
   - For SQL Responders, see SQL Responder for details.
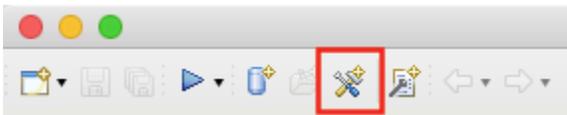
Adding an Output

Message Responders have an incoming request message output and an outgoing response message output. The output allows for chaining tools that execute various actions on these message contents.

For example, you might need to extract a value form an incoming message (using the XML Data Bank tool) and pass it on to the outgoing response message or another Message Responder response message. Or, you might need to extract some content from an incoming message and reuse it for another responder.

If the Validate license is enabled, validation tools can be chained to the Incoming Request output in order to validate messages coming to the Message Responder (messages produced by the application under test and received by Virtualize). Any validation failures are reported to the Event Details log (described in Gaining Visibility into Server Events). The most frequently used validation tools are Diff and XML Assertor.

To add an output:

1. Select the Virtual Asset Explorer tree node that represents the tool that you want to add an output for.
2. Click the **Add Responder or Output** toolbar button.

   - The Add Responder wizard opens and displays a list of available tools.
   - To learn about a particular tool, select it and review the description that displays.
3. In the left pane of the Add Output wizard, select the node that specifies the output type you want to use as a tool input.
4. In the right pane, select the tool you want to use.
5. Click **Finish**.
6. Double-click the node added for that tool, then review and modify settings as needed in the tool configuration panel that opens on the right.

ⓘ **Chaining Tools to a Message Responder's Incoming Request or Outgoing Response**

For details on chaining the DB, SOAP Client, and Messaging Client tools to a Message Responder's incoming request or outgoing response, see Chaining Tools to the Responder's Incoming Request or Outgoing Response.