

# Debugging Adapters

## Overview

The available debugging options for adapters are:

- Testing Adapter Procedures
- Debugging Java Adapters

## Testing the adapter procedures

### CLI

In the terminal, within your project, use `$ mfp adapter call` and follow the interactive menu to test an adapter. Make sure the adapter is built and deployed before you try.

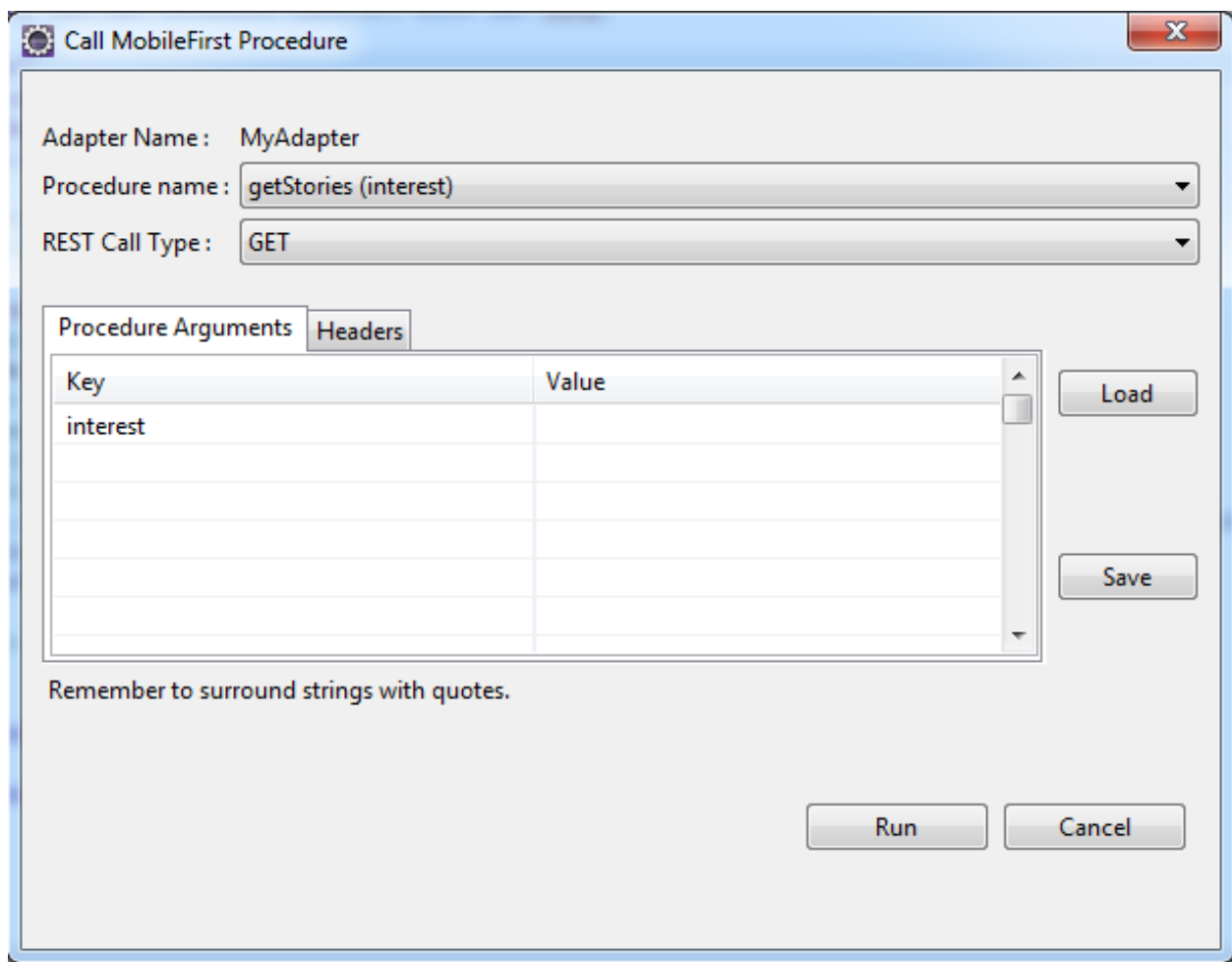
### Studio

It is possible to test adapter procedures by using MobileFirst Studio.

Testing a procedure is done by right-clicking an adapter folder and selecting **Run As > Call MobileFirst Adapter**.



After selecting to call the adapter, you can select the procedure you wish to run. you can also enter comma-separated parameters if the selected procedure requires that.



The dialog box is titled "Call MobileFirst Procedure" and contains the following fields and controls:

- Adapter Name:** MyAdapter
- Procedure name:** getStories (interest)
- REST Call Type:** GET
- Procedure Arguments:** A table with two columns: Key and Value. The first row contains "interest" in the Key column and is empty in the Value column. There are five empty rows below it.
- Headers:** A tab that is currently not selected.
- Buttons:** Load, Save, Run, and Cancel.
- Text:** "Remember to surround strings with quotes."

Adapter invocation result:

Invocation Result of procedure: 'getStories' from the MobileFirst Server:

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```
{
  "errors": [
  ],
  "info": [
  ],
  "isSuccessful": true,
  "responseHeaders": {
    "Alternate-Protocol": "80:quic,p=0.01,80:quic,p=0.01",
    "Cache-Control": "private, max-age=0",
    "Content-Type": "text/xml; charset=UTF-8",
    "Date": "Tue, 28 Oct 2014 12:44:22 GMT",
    "ETag": "X8aekjI3CvT45xpcepn6EK2pDJw",
    "Expires": "Tue, 28 Oct 2014 12:44:22 GMT",
    "Last-Modified": "Tue, 28 Oct 2014 12:44:19 GMT",
    "Server": "GSE",
    "Transfer-Encoding": "chunked",
    "X-Content-Type-Options": "nosniff",
    "X-XSS-Protection": "1; mode=block"
  },
  "responseTime": 299,
  "rss": {
    "channel": {
      "copyright": "Copyright 2014 Cable News Network LP, LLLP.",
      "description": "CNN.com delivers up-to-the-minute news and information on the latest top stories, weather, entertainment, politics and more.",
      "image": {
        "description": "CNN.com delivers up-to-the-minute news and information on the latest top stories, weather, entertainment, politics and more.",
        "height": "33",
        "link": "http://vedition.cnn.com/index.html?eref=edition",
        "title": "CNN.com - Top Stories",
        "url": "http://vi.cdn.turner.com/vcnnv.e/imgV1.0/logo/vcnn.logo.rss.gif",
        "width": "144"
      },
      "info": {
        "feedburner": "http://rssnamespace.org/feedburner/extV1.0",
        "uri": "rssVedition"
      },
      "item": [
        {
          "description": "The South African state is to appeal both judgment and sentence after athlete Oscar Pistorius was jailed for five years for shooting his girlfriend.",
          "guid": "http://vedition.cnn.com/V2014V10V27VjusticeVsouth-africa-oscar-pistorius-appeal/index.html",

```

([http://developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2014/07/03\\_04\\_adapter\\_procedure\\_invocation\\_result1.png](http://developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2014/07/03_04_adapter_procedure_invocation_result1.png))

## Debugging Java Adapters

To debug Java adapter code, you must use Eclipse in debug mode. This required the MobileFirst Studio (you can import you CLI project if needed).

### Starting debug mode

1. Right-click a Java adapter, then select **Debug As -> Debug MobileFirst Java Adapters**.
2. Optional: Open the debug perspective in MobileFirst Studio.

After you entered debug mode, you can debug the Java code normally, as you would do a standard Java application. You might need to issue a request to the adapter to make its code run and hit the breakpoints.

### Stopping debug mode

1. Open the debug perspective in MobileFirst Studio.
2. On the **Debug** tab, right-click the item **remote debug [Remote Java Application]** -> **Terminate**.



(<https://developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2015/02/java-adapter-debug-terminate.png>)

