# Remotely Starting & Passing Parameters to a Workflow

This sample illustrates how to start a SharePoint workflow in a SharePoint app by using a remote event receiver. In this scenario, an external site uses a remote event receiver to call a workflow in a SharePoint app.

## Description of the sample

This sample demonstrates two core concepts. It first demonstrates how to create a remote event receiver that calls out to a remote service when a list item is created. It then demonstrates how to the remote event receiver service can use the client site object model (CSOM) to find a workflow association and start a new instance of the workflow on a specific list item while also passing values into the workflow.

## Prerequisites

This sample requires the following;

Installed & configured SharePoint 2013 RTM environment that is connected to a configured Workflow Manager 1.0 farm

Service Bus 1.0 February 2013 Cumulative Update applied

Workflow Manager 1.0 February 2013 Cumulative Update applied

SharePoint 2013 March 2013 Public Update applied

Visual Studio 2012 RTM

Office Developer Tools for Visual Studio 2012 RTM

## Key components of the sample

RERWorkflowApp.sln is the Visual Studio solution containing the entire SharePoint app and workflow as well as the remote web application containing the remote event receiver implementation.

The AnnouncementList within the Visual Studio solution contains a custom list schema and instance of an Announcement list.

The RemoteEventReceiver within the Visual Studio solution contains the registration of the custom remote event receiver on the custom Announcement list.

The UpdateAnnoncementWorkflow within the Visual Studio solution contains the workflow that when initiated, updates the list item it was started by.

The RerWorkflowAppWeb project within the Visual Studio solution contains the web project and remote event receiver service implementation.

## Configure the sample

Follow these steps to configure the sample app.

1. Ensure you have a site collection created using the Developer Site template.
2. Created a self-signed certificate, a trusted security token issuer and update the remote web with the credentials:
   1. Open the **01\_CreateSSLCertificateForAppServer.ps1** file and address any TODO comments.
   2. Run **01\_CreateSSLCertificateForAppServer.ps1**.
   3. Open the **02\_CreateTrustedSecurityTokenIssuer.ps1** file and address any TODO comments.
   4. Run **02\_CreateTrustedSecurityTokenIssuer.ps1**.
   5. Open the **web.config** within the **RerWorkflowAppWeb**
   6. Copy the following into **<appSettings>** node:

<add key="ClientSigningCertificatePath" value=" " />

<add key="ClientSigningCertificatePassword" value="Password1" />

<add key="IssuerId" value="11111111-1111-1111-1111-111111111111" />

* 1. Update the key **ClientSigningCertificatePath** to point to the full path of the password protected private key (\*.pfx)

1. Change the Site URL property on the project to be the URL of the Developer Site.

## Build the sample

1. Build RERWorkflowApp.sln

## Run and test the sample

1. Open the RERWorkflowApp.sln and press F5 (ensuring it has been configured to point to the Developer Site).
2. When the app deploys it will open the homepage that contains a link to the Announcements list.
3. Click the Announcements list link and add a new item & click Save.
4. After a moment the workflow will start by being called from the remote event receiver (which is noticeable by watching the workflow debugging console window launched by Visual Studio).
5. Go back to the list item to see the Body field has been updated by the workflow.

## Troubleshooting

If the workflow fails it is likely due to a misconfiguration of the certificate, registering the new trusted security token issuer, registering a new app principal, or when updating the web.config.

## Change log

First release December 28, 2012

Updated April 4, 2013 to work with the SharePoint 2013 March 2013 Public Update, Workflow Manager 1.0 February 2013 Cumulative Update & the Office Developer Tools for Visual Studio 2012 RTM.

## Related content

SharePoint App

Workflow

Workflow Client Object Model

Remote Event Receiver