CloudSMVActionScheduler – Overview

# Input

There are two main data sources for the cloud scheduler:

* The Service Bus topic: The smvresults Service Bus topic is used to by the worker to inform the scheduler that an action has been completed.
* Results blob container: The worker will zip up the working directory are upload it to the smvresults blob container as {actionGuid}.zip once the action has executed.

# Output

* Actions blob container: The smvactions blob container is where working directories for actions are uploaded as zip archives.
* Actions table: The cloud table actionstable contains an entry for each action added to the actions queue. More information about this table is in the SMVCloudWorker overview document.
* Actions queue: The scheduler adds messages to the smvactions storage queue. There is one message for each action.

# Working

* The scheduler starts by creating a GUID for itself, called the schedulerInstanceGuid. This is used by the service bus topic as a filter, so the scheduler can create a subscription and listen for messages that are meant for it.
* When AddAction() is called the scheduler starts by create a zip file from the contents of the action’s working directory and uploading it to blob storage.
* Serialize the action to product an array of bytes.
* Add an entry to the actions table with the serialized action, the plugin to be used, the module, the version of SMV to be used and a few other details.
* Add a message to the queue, and call SubscriptionClient.BeginReceive() to start listening for a response from the workers.
* Once we get a response, we check the table entry to see if the action is complete. If the action is not complete we report an error but continue execution.
* Download and extract the results zip file from the results blob container.
* Call the callback function that AddAction()’s callee had passed to us to complete processing this action.