Tidal Enterprise Orchestrator: Loop Usage in Authoring Content

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Introduction

Tidal Enterprise Orchestrator (TEO) gives the end user the ability to loop through blocks of code in their content with the use of For–Each and While loops.

Prerequisites

Requirements

The information in this document is based on Tidal Enterprise Orchestrator 2.1 or later. The end user should have knowledge of general content authoring and general programming knowledge. If anything is not clear or more explanation is needed please contact Cisco Technical Support.

Components Used

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

What is a Loop?

A Loop is a programming component that allows the end user to go through something multiple times in a sequential style. Examples include reading all the words in a page from beginning to end, or going through all the rows in a database table.

How are Loops used in TEO?

Loops are used in TEO no different than in normal programming languages. They are logical blocks, which allow the user to traverse through data in a sequential style. TEO offers both For–Each and While loops. Typically For–Each loops are used with Tables and While loops are used for all other cases, but this is mostly a generality and is not always true.

How to Setup A For–Each Loop

Complete these steps:

1. In the process editor, click the **Logic** bar. Drag and drop the For–Each block into the process.

   Note: You must have a table to feed to the For–Each loop.
2. On the For–Each loops configuration, click the reference icon, which is pound sign with a hand, and search for the table you wish to traverse.
3. Drill down into the table and choose the **Rows** attribute. You cannot use the overall table attribute.
4. After you save, then you can then drag and drop activities inside the For–Each block. Click any reference variable icon in an activity inside the look in order to reference the items. Choose **Workflow > ForEach Loop Name > Item > <Item to select>**.
5. You can loop through local tables, global variable tables, intput tables, and any activities that produce tables as an output.

How to Setup a While Loop

Complete these steps:

1. In the process editor, click the **Logic** bar. Drag and drop the While block into the process.
2. On the While Loop configuration click the **...** button and input a conditional statement on which to end the loop. If you wanted to run the loop five times, for example, you can input `counter < 6`.
3. Common types of conditional statements to terminate While loops include numeric counters, variable checks, time checks, and true/false statement checks.
4. Make sure whatever you use as a termination clause that it really happens sometime in the loop. If you use `counter < 6` but your counter is never incremented from 0 inside the loop then your loop runs forever. In TEO there is a fail–safe for this as in the Tidal.Automation.Server.Exe.Config there is a component which allows you to configure max loop iterations, but this is high, so it is really only a fail–safe and should not be counted on. The While Loop configuraiton only works properly if it is setup with the previous steps in mind.

Related Information

- **Technical Support & Documentation – Cisco Systems**