**What is TaskCat?**

TaskCat is an easy-to-use task runner that helps Quick Start authors (partners and users) develop and validate AWS CloudFormation templates and related assets as part of the process of creating and maintaining AWS Quick Starts.

**Tell me more about it**

* At its core, TaskCat is a Python class that helps deploy your CloudFormation templates in multiple regions. You can use TaskCat by importing it as a Python module and creating a TaskCat object. Because it is a generic class that facilitates multi-region deployments and testing, it can be integrated into an existing deployment or testing framework with ease. This helps partners develop Quick Starts and enables them to test their templates using the same methodology we use internally.
* TaskCat will provide a test report for each test. If the test fails, TaskCat will highlight the reasons of failure by region and resource in a color-coded manner. This will allow partners to find and correct errors before submitting their templates to the Quick Start team.

**How does TaskCat help our partners?**

This tool reduces the work a partner needs to do to develop and validate CloudFormation templates for Quick Starts. It enables them to test and iterate with constant feedback without having to engage our team directly. TaskCat is part of a separate packager, and once a CloudFormation template passes all the tests, TaskCat will guide them to the next step, including how to submit the template to our platform.

Partners and users will spend less time building structures and more time on developing and testing Quick Starts. Additionally, the testing component will allow partners to find and correct errors through TaskCat reports and logs before submitting their template to the Quick Start team, therefore streamlining the submission process by identifying issues upfront and allowing partners to resolve them ahead of time.

**Why do partners need it?**

Currently the only way for partners to get feedback on their Quick Start development is to engage a PSA and have them audit and test the code. This can often be a bottleneck. TaskCat removes this bottleneck by providing instant feedback during all stages of development. In addition, converting a CloudFormation template into a Quick Start requires many manual steps. This is inefficient and can lead to human error. TaskCat aids in this process by automating many of these manual steps, thus reducing complexity and leading to a shorter turnaround time to produce a Quick Start.

**How does TaskCat help the AWS Quick Start team?**

TaskCat guarantees that artifacts generated and submitted by partners have passed all the tests in multiple regions and are in compliance with the Quick Start CI standards. This will eliminate the effort needed to restructure partner-developed assets and manually feed them into our Quick Start CI platform. In addition, since the artifacts are tested before submission, chances of failure in our CI will be reduced, leading to fewer feedback cycles with partners.

**What is the effort to maintain TaskCat?**

The additional workload will be 8 hours per week (estimate).

**Is there a success measure for TaskCat?**

Yes, we will measure and report the number of submissions, validations, and failures. We will also be able to identify which accounts are getting better at developing Quick Starts using TaskCat. The higher the success rate, the more success TaskCat will be deemed to have.

**Where can TaskCat be used?**

TaskCat can be integrated in multiple places:

* The packager (ConjureQS) can make use of TaskCat to run tests needed as part of package creation and validation.
* The Quick Start team’s CI system (Alfred) can make use of TaskCat to run tests as needed, as part of regularly scheduled and on-demand integration tests, to ensure quality.
* Partners or other AWS teams can integrate TaskCat with their own platforms to run CloudFormation deployments and tests.

**What TaskCat will not do?**

TaskCat will not replace any of our existing tools like – AMIcorn, BEAUTYcorn, CFN Alchemist, CFN Reaper, etc.