Faster Splunk App Certification with Splunk AppInspect

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Agenda

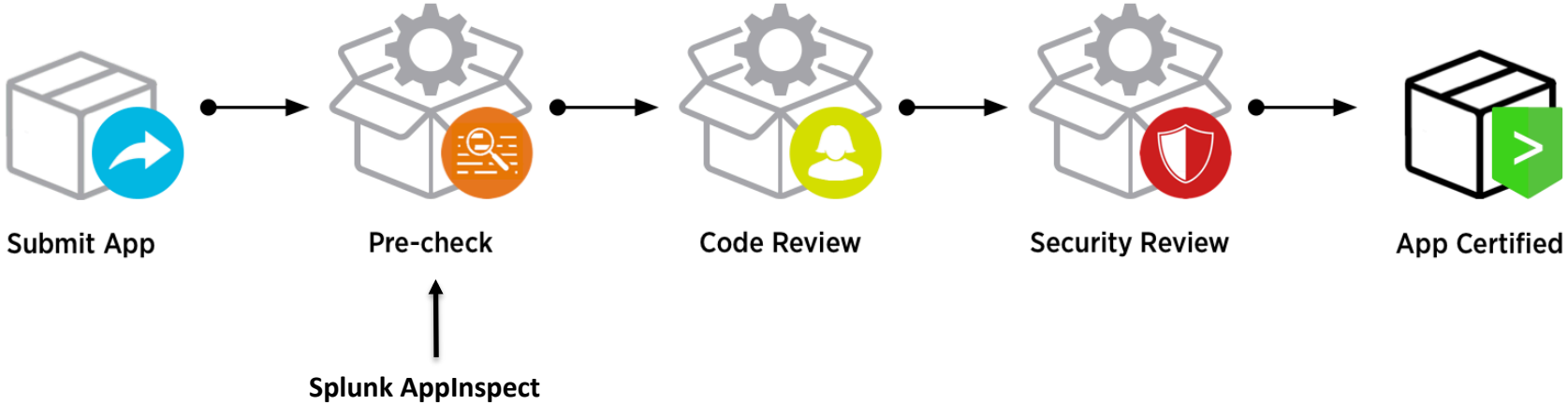
- What is Splunk AppInspect
  - Standalone package
  - Web Service
- Demos
  - Custom REST endpoint
  - Modular Input
  - Add-on building
- Questions

Splunk App Certification Program – Benefits

- For app **devs**
  - Obtain sales leads
  - Earn premium listing on Splunkbase
  - Find bugs in your code
  - Get additional insights into your code & your technical debt.
  - Ensure conformance to coding guidelines, proven, and recommended practices.
  - Check for cloud readiness

- For app **users**
  - Gain confidence in app quality
  - Better level of app support

Splunk App Certification – Process



What is Splunk AppInspect

- Standalone tool
  - `pip install splunk_appinspect`
  - Static analysis checks
- Web service
  - REST endpoints
  - Static and dynamic analysis

- Full Documentation: <Documentation Reference Addr / Link>

Well-formedness Checks

- Similar to *Lint*, *FindBugs*, *PMD*, *FxCop*

- 141 checks covering:
  - Modular Inputs
  - Custom Alert Actions
  - Custom Search Commands
  - Custom Workflow Actions
  - Custom REST Endpoints
  - Custom Visualizations
  - btool (web service only)

Sample checks:

Mod inputs:

Check that a valid `inputs.conf.spec` file exists at `README/inputs.conf.spec` .
Check that at least one stanza/mod input exists when using a modular input.
Check the scheme arguments match the `inputs.conf.spec` file when using a modular input.
Check a valid scheme is returned via the scripts via the scheme command when using a modular input.
Check that a script exists for each stanza when using a modular input.
Check that arguments are specified when using a modular input.
Check that arguments are not duplicated within a stanza when using a modular input.
Check that stanzas are not duplicated when using a modular input.
Check lines breaks are included in configuration when using a modular input.

Custom alert actions:

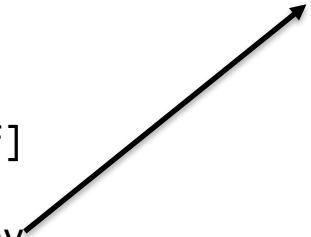
Check that a valid `alert_actions.conf` file exists at default/alert_actions.conf.
Check that a valid executable exists when using a custom alert action.
Check that a valid alert icon exists at `appserver/static/{alert name}.png` when using a custom alert action.
Check that a valid app icon exists at `appserver/static/appIcon.png` when using a custom alert action.
Check that when any executable args are specified when using a custom alert action.
Check that the payload format is set to a valid value of `xml` or `json` when using a custom alert action.
Check that a setup.xml file exists when using a custom alert action.
Check that a html file exists for use when creating a custom alert action.

Splunk AppInspect – Standalone Demo

Well-formedness Checks – Custom REST endpoint

default/restmap.conf

```
[admin_external:do_stuff]
handlertype = python
handlerfile = do_stuff.py
handlerpersistentmode=false
handleractions=create
```



bin/do_stuff.py

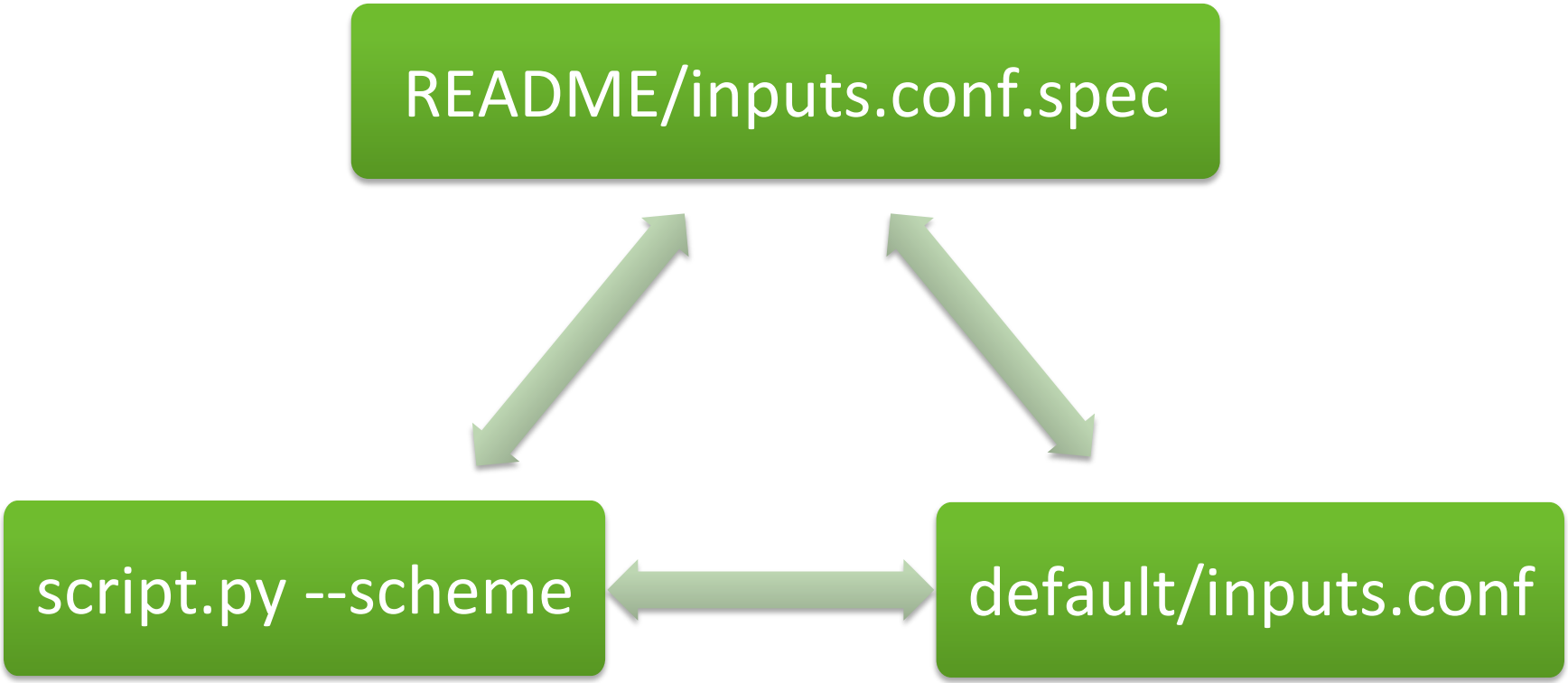
```
import splunk.admin as admin import
splunk.entity as en

class ConfigApp(admin.MConfigHandler):
      ...
```

Splunk AppInspect – Web Service Demo

REST Endpoints

- Validate – Submit and app for validation
  - http -f POST appinsepct.splunk.com/v1/app/validate app.tgz
- Status – Get the status of the validation
  - http GET appinsepct.splunk.com/v1/app/status/{report-id}
- Report – Get the results of the validation
  - http GET appinsepct.splunk.com/v1/app/report/{report-id}
- Groups – Get a list of check groups
  - http GET appinsepct.splunk.com/v1/group
- Checks – Get a list of checks
  - http GET appinsepct.splunk.com/v1/check

Well-formedness Checks Example – Modular Input



Integration with Add-on Builder

- <placeholder> if this is done in time for .conf
- Also, refer attendees to a related talk on Add-on Builder

Accelerate Your App Certification

- Follow proven and recommended practices.
  - **splk.it/appcert**
  - **splk.it/cloud-apps**
- Pre-certify your apps with AppInspect
- Make sure your Splunkbase listing has a valid email
- Provide release notes and installation instructions. Test them!
- Provide test data / eventgen
- Provide testing API keys
- Provide functional test suite or test cases
- Respond to code and security review feedback promptly
- Perform regression testing

Call to Action!

- Download AppInspect (<link placeholder>)
- Pre-certify your app be for publishing
- Apply for certification
  - Lead generation
  - Better visibility on Splunkbase
  - Approved for Splunk Cloud installation
- Provide feedback to us (AppCertAdmin@splunk.com)
  - Success stories
  - Pain points
  - Bugs
  - Suggestions for additional checks
  - Suggestions for fine tuning of pattern analysis to reduce false positives
- Spread the word #AppInspect

Questions?

THANK YOU

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