

fn-scheduler Functions for IBM Resilient

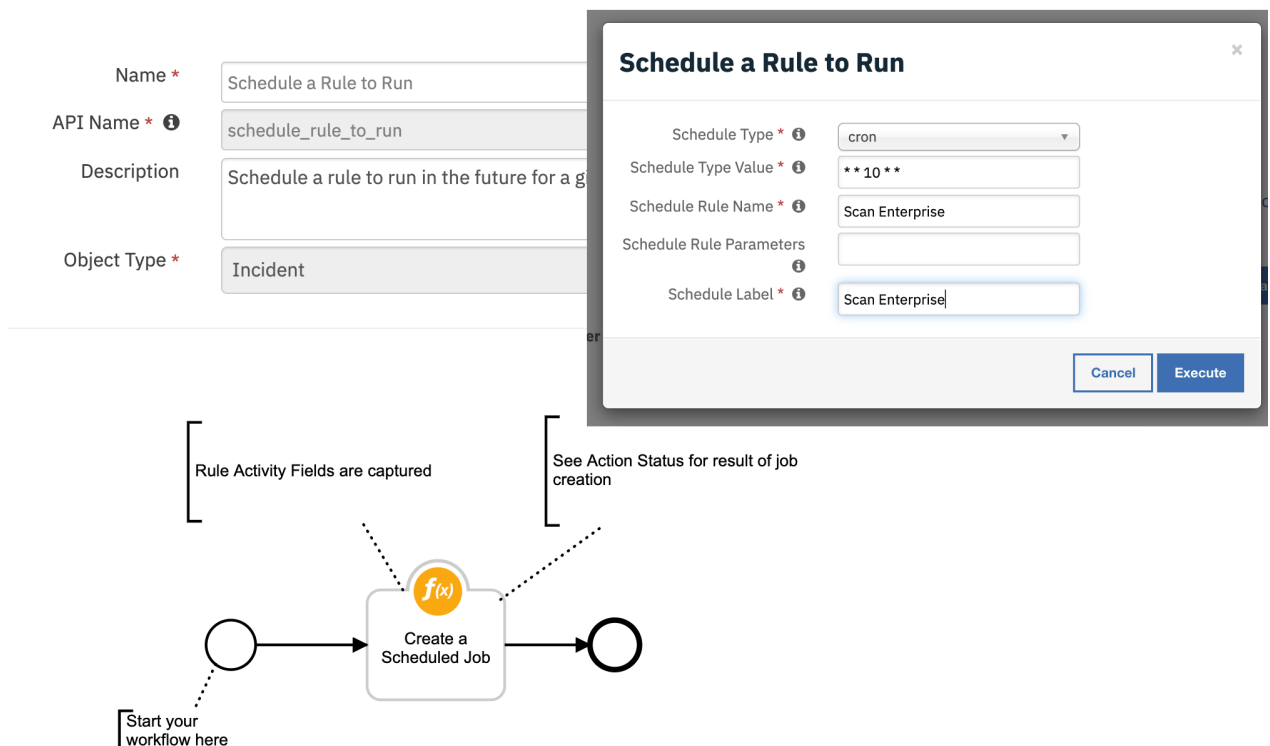
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Release Notes

Version	Date	Notes
1.0.3	Oct. 2020	Using extra_requires parameter
1.0.2	Sept. 2020	PostgreSQL support
1.0.1	May 2020	App Host support
1.0.0	Nov. 2019	Initial Release

Overview

Resilient Circuits Components for fn_scheduler



This package of functions allows an enterprise to schedule a rule to run in the future associated with a incident, task, artifact, and datatable. Times to run can be specified in the following ways:

1. cron (ex. `* * * * *` for every night at midnight)
2. interval (ex. 5h for every 5 hours)
3. date (ex. 2019/10/23 12:00:00)
4. delta (ex. 1h for one hour in the future)

Schedule rules using `cron` and `interval` are recurring whereas `date` and `delta` are single event schedules. Scheduled rules are persisted so that restarts of resilient-circuits will resume already scheduled rules.

Functions available include:

1. Scheduling a rule
2. Listing scheduled rules
3. Removing a scheduled rule

Requirements

- Resilient platform `>= v33.0.5087`
- An Integration Server running `resilient_circuits>=30.0.0`
 - To set up an Integration Server see: <https://ibm.biz/res-int-server-guide>

Installation

App Host

All the components for running this integration in a container already exist when using the App Host app.

To install,

- Navigate to Administrative Settings and then the Apps tab.
- Click the Install button and select the downloaded file: `app-fn_scheduler-x.x.x.zip`.
- Go to the Configuration tab and edit the `app.config` file, editing the settings for Scheduler.

Config	Required	Example	Description
<code>timezone</code>	Yes	<code>utc</code>	Specify the timezone (ex. <code>America/New_York</code>) which scheduled rules should follow.
<code>thread_max</code>	Yes	<code>20</code>	Number of threads which can run at the same. Typically, triggered rules run for a very short time to kick off a Resilient rule.
<code>datastore_dir</code>	No	<code>/path/to/sqlite_folder</code>	Specify a data path for the sqlite persistent datafile (ex. <code>/path/to/scheduler.sqlite</code>)
<code>db_url</code>	No	<code>postgresql+psycopg2://res_test:res_test@192.168.1.215:5432/res_test</code>	Specify a PostgreSQL db to retain the schedules. Uncomment and remove the setting <code>datastore_dir</code> .

Integration Server

- Download the `app-fn_scheduler.zip`.
- Copy the `.zip` to your Integration Server and SSH into it.
- **Unzip** the package:

```
$ unzip fn_scheduler-x.x.x.zip
```

- **Install** the package:

```
$ pip install fn_scheduler-x.x.x.tar.gz
```

- Import the **configurations** into your `app.config` file:

```
$ resilient-circuits config -u
```

- Import the `fn_scheduler` **customizations** into the Resilient platform:

```
$ resilient-circuits customize -y -l fn-scheduler
```

- Open the config file, scroll to the bottom and edit your `fn_scheduler` configurations:

```
$ nano ~/.resilient/app.config
```

Config	Required	Example	Description
timezone	Yes	<code>utc</code>	Specify the timezone (ex. America/New_York) which scheduled rules should follow
thread_max	Yes	<code>20</code>	Number of threads which can run at the same. Typically, triggered rules run for a very short time to kick off a Resilient rule.
datastore_dir	No	<code>/path/to/sqlite_folder</code>	Specify a data path for the sqlite persistent datafile (ex. /path/to/scheduler.sqlite)
db_url	No	<code>postgresql+psycopg2://res_test:res_test@192.168.1.215:5432/res_test</code>	Specify a postgres db to retain the schedules. Uncomment and remove the setting <code>datastore_dir.*</code>

- **Save** and **Close** the `app.config` file.

- [Optional]: Run selftest to test the Integration you configured:

```
$ resilient-circuits selftest -l fn-scheduler
```

- **Run** resilient-circuits or restart the Service on Windows/Linux:

```
$ resilient-circuits run
```

Upgrades to v1.0.2

If upgrading to v1.0.2, add the following comments and settings to your app.config [fn_scheduler] section:

```
# db url if using PostgreSQL DB. Use this with AppHost
#db_url=postgresql+psycopg2://username:password@host:port/database
```

Use these settings to connect to a PostgreSQL db, rather than a SQLite db.

Uninstall

- SSH into your Integration Server.
- **Uninstall** the package:

```
$ pip uninstall fn-scheduler
```

- Open the config file, scroll to the [fn_scheduler] section and remove the section or prefix **#** to comment out the section.
- **Save** and **Close** the app.config file.

Troubleshooting

There are several ways to verify the successful operation of a function.

Resilient Action Status

- When viewing an incident, use the Actions menu to view **Action Status**.
- By default, pending and errors are displayed.
- Modify the filter for actions to also show Completed actions.
- Clicking on an action displays additional information on the progress made or what error occurred.

Resilient Scripting Log

- A separate log file is available to review scripting errors.
- This is useful when issues occur in the pre-processing or post-processing scripts.
- The default location for this log file is: `/var/log/resilient-scripting/resilient-scripting.log`.

Resilient Logs

- By default, Resilient logs are retained at `/usr/share/co3/logs`.
- The `client.log` may contain additional information regarding the execution of functions.

Resilient-Circuits

- The log is controlled in the `.resilient/app.config` file under the section [resilient] and the property `logdir`.

- The default file name is `app.log`.
 - Each function will create progress information.
 - Failures will show up as errors and may contain python trace statements.
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Support

This is an IBM Supported app. Please search [IBM Support](#) for assistance. Also reference the [Resilient Community](#) for any discussion between customers and IBM.