

# **SL1 PowerFlow Platform**

Version 2.4.0

## Chapter

# 4

## **Using the PowerFlow Control Tower Page**

#### Overview

This chapter describes how to use the **PowerFlow Control Tower** page (**III**) in the PowerFlow user interface to monitor the health of your PowerFlow system and PowerFlow applications.

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#### What is the PowerFlow Control Tower?

The **PowerFlow Control Tower** page (**I**) in the PowerFlow user interface provides visibility into system health and automation health. This page is made up of a group of widgets that provide key information about your PowerFlow system:

owerFlow Cont	trol Tower					isadmin 🛩	<b>SD</b> ,
System Health	h						
		<b></b>	Content API	Running 3 days ago	Replicas: 1/1		Ø
	Pypi Server GUI	Step Runner	Couchbase	Running 3 days ago	Replicas: 1/1		0
	Dex Server Content API	Scheduler	Dex Server	Running 3 days ago	Replicas: 1/1		0
	Couchba	× •	GUI	Running 3 days ago	Replicas: 1/1		0
	Rabbit MQ	SyncPacks Step Runner	Pypi Server	Running 3 days ago	Replicas: 1/1		0
Critical Integr	ations					0	Ō
	Application Name	Last Run	Successful (last 24h)	Falled (last 24h)	Actions		
	Sync Interfaces from SL1 to ServiceNow	0	0	Ō	• •		
	Run PowerFlow Application and remove it from SL1 RBA queue	×	0	0	• •		
	Cache SL1 Users	×	0	0	• • *		
	PowerFlow Control Tower HealthCheck	0	31	0	۰ 💿 🕁		
Workflow Hea	alth And Interconnectivity		cmdb				
				ServiceNow Interfaces	ServiceNow Business Services	ServiceNow Device Groups	
			incident				
						0	

The **PowerFlow Control Tower** page contains the **System Health**, the **Favorite Applications**, and the **Workflow Health and Interconnectivity** widgets alongside high-level statistics about the health of the worker services that are being used by the PowerFlow instance.

You can use the widgets on this page to monitor the health of your PowerFlow system, the various workflows you use regularly, and track the PowerFlow applications that you use the most. You can use this information to quickly determine if your PowerFlow instance is performing as expected.

**NOTE:** The **Dashboard** page that was in the PowerFlow user interface before version 2.3.0 was replaced by the **PowerFlow Control Tower** page. The new page includes new widgets along with the widgets from the previous **Dashboard** page.

### The System Health Widget

The **System Health** widget on the **PowerFlow Control Tower** page lets you see at a glance the health of the various elements of your PowerFlow system. Before you can view Health Status data on the dashboard, you need to configure PowerFlow.

#### Configuring the System Health Widget

To populate the system health widget, you need to install and activate the latest version of the System Utils Synchronization PowerPack, which includes a PowerFlow application that gathers system health data and populates it in the cache. The latest version of the System Utils Synchronization PowerPack requires the latest version of the Base Steps and Flow Control Synchronization PowerPacks.

To set up PowerFlow Health Status data:

- 1. Ensure that your PowerFlow system has the following Synchronization PowerPacks activated and installed:
  - Base Steps Synchronization PowerPack version 1.4.2 or later
  - System Utils Synchronization PowerPack version 1.1.3 or later
  - Flow Control Synchronization PowerPack version 1.0.1 or later

CAUTION: Due to a compatibility issue, do not use Base Steps Synchronization PowerPack version 1.4.1 with System Utils Synchronization PowerPack version 1.1.2.

**NOTE:** If you are using SSH keys to connect to the PowerFlow Control Tower, you will need Base Steps Synchronization PowerPack version 1.4.1 or later.

- Create a configuration object for the "PowerFlow Control Tower HealthCheck" application. You can make a copy of the "PF Control Tower Configuration Example" to use as a template for this configuration object. For more information, see Creating a Configuration Object.
- 3. Align the new configuration object with the "PowerFlow Control Tower HealthCheck" application by clicking the **[Configure]** button from the detail page for the application and selecting this configuration object from the **Configuration** drop-down.

**NOTE:** The "PowerFlow Control Tower Healthcheck" Application supports using SSH keys for collecting data from a PowerFlow node. You must select the **use\_ssh\_key** option on the **Configuration** pane for the HealthCheck application to use the **ssh\_key** application variable that is defined in the aligned configuration object

4. Run or schedule the "PowerFlow Control Tower HealthCheck" application to update the PowerFlow Health Status data.

**NOTE:** The **System Health** widget runs the "PowerFlow Control Tower HealthCheck" application automatically when you are on the **PowerFlow Control Tower** page, but only if the data saved on the most recent run of the application is older than five minutes. You can override this update by creating a schedule. For more information, see **Scheduling Applications**.

#### Using the System Health Widget

The **System Health** widget monitors all of the components that make up your PowerFlow system. These components include the Pypi Server, the Dex Server, RabbitMQ, the GUI service, the Content API, Redis, Couchbase, Step Runner and SyncPacks Step Runner, and the Scheduler. If the newest data is unavailable, the **System Health** widget displays the last available data.

The following image shows an example of a **System Health** widget:

PowerFlow System Health					
	Pypi Server	Starting 1 second ago	Replicas: 0/1	0	•
PyplServer GUI Step Runner	Rabbit MQ	Running 6 days ago	Replicas: 1/1	0	
Dex Server Content API	Redis	Running 6 days ago	Replicas: 1/1	Ø	1
Couchase 📑	Scheduler	Starting 51 seconds ago	Replicas: 0/1	0	н
Rabbit MQ SyncPacks Step Runner	Step Runner	Running 3 days ago	Replicas: 5/5 (max 5 per node)	0	*

The left pane of the **System Health** widget contains the **Process Flow View** of the components of your PowerFlow system, and the right pane is the **Tabular View** of those components. The following are the possible health statuses for each component and how they are displayed:

- Successful health: The component is working as expected when the component's icon is green in the **Process Flow View** and a green check mark ( ) appears in the corresponding line of the **Tabular View**.
- Failed health: The component has errors that need attention (the service is down) when the component's icon is red in the Process Flow View, with a red exclamation point (<sup>1</sup>) next to the component's icon. The red exclamation point (<sup>1</sup>) also appears in the corresponding line of the Tabular View, along with red ovals for the second and third columns of the table.

The Tabular View has two behaviors:

• In the default display, the information in the **Process Flow View** on the left is duplicated in a tabular format in the **Tabular View** on the right.

• When you click a component's icon in the **Process Flow View** or a component's name in the **Tabular View**, the high-level information for a particular component appears in a pop-up window:

PowerFlow C	Control Tower						isadmin 🗸 🧃	Scienc
Step Runner								×
Healthy true Mode replicat Replicas 5/5	ted		ID r4wdq5n14xai Name iservices_steprun Url <u>https://10.2.11.22</u>	ner 21/flower	Image Ports	scr.sl1.io/pf-worker: n/a	dev	
Containers	S							
iservices_step	orunner.1	iservices_ste	prunner.2	iservices_step	prunner.3	iservices_step	orunner.4	Ľ
CurrentState:	Running 3 weeks ago	CurrentState:	Running 3 weeks ago	CurrentState:	Running 3 weeks ago	CurrentState:	Running 3 weeks ago	1
DesiredState:	Running	DesiredState:	Running	DesiredState:	Running	DesiredState:	Running	
Error:	n/a	Error:	n/a	Error:	n/a	Error:	n/a	
ID:	zdt92tteiabs	ID:	aeOviczyp5ew	ID:	pxzgtoffboy0	ID:	4k1mycpeua5r	
Image:	scr.sl1.io/pf-worker:dev	Image:	scr.sl1.io/pf-worker:dev	Image:	scr.sl1.io/pf-worker:dev	Image:	scr.sl1.io/pf-worker:dev	
Name:	iservices_steprunner.1	Name:	iservices_steprunner.2	Name:	iservices_steprunner.3	Name:	iservices_steprunner.4	
Node:	is221	Node:	is221	Node:	is221	Node:	is221	
Ports:	n/a	Ports:	n/a	Ports:	n/a	Ports:	n/a	
iservices_step CurrentState:	prunner.5 Running 3 weeks ago Running							
DesiredState:	Kunning					ending		

The pop-up displays the current status and related information for all containers in that component. The pop-up also includes a link to the internal user interface for that service within the cluster, such as a link to the Couchbase user interface for the Couchbase component.

## The Favorite Applications Widget

The **Favorite Applications** widget on the **PowerFlow Control Tower** page lets you select the PowerFlow applications that are important to you and track their status:

Favorite	Applications					0	ē	:
	Application Name	Last Run	Successful (last 24h)	Failed (last 24h)	Actio	ns		
	Sync Business Services from SL1 to ServiceNow	0	139	0	• •	*		
	Sync Devices from SL1 to ServiceNow	<b>S</b>	12	0	• •	*		
	Sync SL1 Event to ServiceNow Incident	0	0	1	• •	*		
	Sync Installed Software from SL1 to ServiceNow	×	0	0	• •	*		

By displaying the most frequently run applications, you can see how your PowerFlow system is automating your most common use cases.

NOTE: The number of favorite applications is limited to 16 applications per user.

#### Contents of the Favorite Applications Widget

The toolbar at the top right of the widget includes the following buttons:

- [Info] (1). Displays a pop-up message with data for the Time Stamp, Number of Runs to Display, and the Queue for the widget.
- [Duplicate the Widget] ((). Creates a copy of the Favorite Applications widget. Making a copy lets you display more than one set of favorite applications, and you can create multiple widgets to group applications that serve a specific purpose.
- [Actions] (:). Displays the following options:
  - Configure. Opens the Configure Widget pane, where you can update the Widget Title, Widget Size, Time Stamp for the application runs (24 hours or 48 hours), Total Number of Application Runs to Display, Queue information, and an editable list of Favorite Applications to display in the widget.
  - *Reorder Items*. Reorder the applications currently showing in the **Favorite Applications** widget. Use the up and down arrows to arrange the applications, and click **[Save]** when you are done.
  - Delete. Deletes that **Favorite Applications** widget.

The following details are included in this widget:

- Application Name. Names and links to favorite applications.
- Last Run. Status of the most recent run of a favorite applications; hover over the icon to see more information:

lcon	Status
0	The application ran successfully.
•	The application failed to run successfully.
×	The application has not been run.

- Successful. Number of successful runs in the last 24 hours.
- **Failed**. Number of failed runs in the last 24 hours.
- Actions. Includes the following icons:
  - Run (<sup>O</sup>). Runs that PowerFlow application. If you hover over the button, you can select Custom Run to open the Custom Run window, where you can specify logging levels, the configuration object, and custom parameters for the run.

- View (•). Opens the **Application** detail page, where you can see the steps that make up the application.
- Unfavorite ( $\star$ ). Removes the application from the list of favorites.

TIP: If you are using a small screen, or if the browser window where you are running PowerFlow is not maximized, the three Actions icons might not display. To access the icons, click the Actions button ( ) and select an icon from the pop-up menu.

#### Using the Favorite Applications Widget

To add an application to the **Favorite Applications** widget:

- Go to the Applications page and click the Favorite icon ( <sup>1</sup>/<sub>2</sub>) for the application you want to add to the list. A Favorite the App window appears.
- 2. Select the group or groups of favorites that will include that application and click **[Save]**. The application is added to the list of favorite applications on the **Favorite Applications** widget.

**NOTE:** The data that displays in the widget can be adjusted by editing the **Configuration** pane, which you can access by clicking the **[Actions]** button (‡) and selecting Configure.

3. To remove an application from the **Favorite Applications** widget, click the Unfavorite icon (**\***).

NOTE:	If a favorite PowerFlow application is deleted, that application is removed from the <b>Favorite</b>
	Applications widget.

To run a favorite application in the Favorite Applications widget:

- 1. Click the **[Run]** button that corresponds to the application in the **Actions** column. If you hover over the button, you can select *Custom Run* to open the **Custom Run** window, where you can specify logging levels, the configuration object, and custom parameters for the run.
- 2. If the run succeeded, a green check mark will appear; if the run failed, a red exclamation point will appear.

**TIP**: You can select multiple applications to run them at the same time or remove them from your favorites.

## The Workflow Health and Interconnectivity Widget

The **Workflow Health and Interconnectivity** widget on the **PowerFlow Control Tower** page lets you monitor the connectivity of the third-party applications that you are integrating withSL1. Each pane in the widget represents a workflow that you are monitoring with PowerFlow, such as ServiceNow Business Services or Incident Details.



The color of the panes in the widget change based on the number of failed runs compared to the number of successful runs. More failed runs cause a pane to turn red, while successful runs cause a pane to turn green. If there are a combination of failed and successful runs, the pane might be a lighter shade of green or red.

#### Using the Workflow Health and Interconnectivity Widget

On the **Workflow Health and Interconnectivity** widget, you can hover over an endpoint on the widget to view a pop-up with additional information, including the health, last run and the Synchronization PowerPacks used by the endpoint.



**NOTE:** A message will display in the PowerFlow user interface if the **Workflow Health and** Interconnectivity widget or the **System Health** widget detect a missing or misconfigured Synchronization PowerPack.

## The All Tasks, Workers, and Applications Widgets

The All Tasks, Workers, and Applications widgets on the PowerFlow Control Tower page let you monitor the status of the various tasks, workers, and applications that are running on your PowerFlow system. You can use this information to quickly determine if your PowerFlow instance is performing as expected:

Startod     Succes     Falue	0 Active	20 0 Processed Failed	20 Succeeded	0 Retried	Started Success Failure Pending	0
All Tasks	Workers			:=	Applications	=
All Tasks						
Task	State	Received Time			Start Time	Run Time
Jinja2Template	SUCCESS	Jul 13, 2021 10	:57:05		Jul 13, 2021 10:57:05	0.15secs
QueryRESTQ	SUCCESS	Jul 13, 2021 10	:57:04		Jul 13, 2021 10:57:04	0.39secs
ipaascommon.ipaas_tasks.transfer_data	SUCCESS	Jul 13, 2021 10	:57:05		Jul 13, 2021 10:57:06	0.03secs
QueryRESTQ	SUCCESS	Jul 13, 2021 10	:57:04		Jul 13, 2021 10:57:04	0.23secs
ipaascommon.ipaas_tasks.transfer_data	SUCCESS	Jul 13, 2021 10	:57:05		Jul 13, 2021 10:57:05	0.04secs
						1-5 of 20 < >

You can customize the All Tasks, Workers, and Applications charts on the **PowerFlow Control Tower** page to change the type of chart, status type, data type, and timeframe for each set of charts.

To view more information about your system:

- 1. Hover over a circle graph or a bar chart item to view a pop-up field that contains the count for that item on the graph or chart, such as "Success: 48" for successful tasks on the **All Tasks** graph.
- 2. Click the List icon ( <sup>III</sup>) for the **All Tasks**, **Workers**, or **Applications** graphs to view a list of relevant tasks, workers, or applications. Use the left and right arrow icons to move through the list of items. Click on the slice of the pie or the bar in one of the graphs to see that specific sub-group.
- 3. To view additional details about a specific tasks, click the List icon ( <sup>i≡</sup> ) for the **All Tasks** graph and then click the link for the task, where relevant. The application aligned with that task appears, and you can select a step and view the **Step Log** details for that step.

**TIP**: If a "Scheduled fetch failed" pop-up message appears on this page or any other page in the PowerFlow user interface, your user interface session might have expired. To address this issue, simply log out of the PowerFlow user interface and log back in again.

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