



ElectricFlow 6.1

Release Notes

October 15, 2015

These Release Notes contain supplemental information about ElectricFlow™, Version 6.1.

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ElectricFlow 6.1

ElectricFlow 6.1 is a feature release (FR). Feature releases make available new features more frequently than relying on long-term support (LTS) releases (such as ElectricFlow 6.0). Electric Cloud aims for feature releases to be made available approximately every two months. The features and enhancements introduced in feature releases are typically rolled into the subsequent LTS release.

Product Description

ElectricFlow™ (including the ElectricFlow Platform, formerly known as ElectricCommander) is an end-to-end Continuous Delivery application suite. It accelerates the continuous delivery of software and makes software delivery processes more repeatable, visible, scalable, and efficient. It provides domain-specific capabilities to automate some or all phases of your software delivery process, including the build, test, integrate, deploy, and release processes.

ElectricFlow gives distributed DevOps teams shared control and visibility into infrastructure, tool chains, and processes. It accelerates and automates the software delivery process and enables agility, availability, predictability, and security across many build, test, deploy, and release pipelines.

What's New or Modified

New Features and Functionality

ElectricFlow 6.1 introduces the new ElectricFlow Release module for capturing, executing, visualizing, and controlling the life cycle of multi-application releases. ElectricFlow 6.1 also contains improvements to the ElectricFlow Deploy module and the ElectricFlow platform.

- Pipelines—Pipelines are a new capability that enables you to easily model a reusable pathway to production across multiple stages and environments and provide an aggregated view of all the activity. Pipelines provide:
 - Control of delivery process flow—Stages (groupings of tasks) and gates between stages, for automated and manual approvals, enabling high-level viewing and control of progress.
 - Coordinated execution—Flexibility to automate software delivery with tasks that leverage application processes, procedures, workflows, manual tasks, and plugins to integrate with third-party tools.
 - Visualization of the entire process—Intuitive, contextual status and drill-down troubleshooting of running and completed pipeline activities.

- **Releases**—Releases capture, manage, and visualize all the details of multi-application enterprise releases, where outputs from multiple teams are coordinated to produce the final release being pushed into production. This brings a high level of visibility around the health of releases across the organization, and offers quick access to dig deeper into the details. Releases provide:
 - **Release dashboard**—A bird's eye view of all the releases that are planned, active, or complete. For each release, teams get quick visibility including: if the release is in progress, milestone dates, if the release is blocked waiting for manual approval, and how far the release has progressed.
 - **Path-to-production view**—At-a-glance visuals to help release teams quickly isolate which environments are not in compliance with the release bill of materials, as well as up-to-date information on which application versions are installed onto any environment in the release.
 - **Multi-application enterprise releases**—The Release module captures, validates, coordinates, and executes on the many details that need to be managed to achieve a successful release. It provides a transparent and collaborative record of the release, all of its activities, and its health.
- **Deploy Master Component by Reference**—Master components are enhanced in ElectricFlow 6.1 to support *referencing* in addition to creating by copy. Authors can manage master component definitions centrally, and any changes to the definitions are automatically inherited by the relevant applications. The *reference* capability coupled with the *copy* capability allows application authors the flexibility and reusability to drive best practices.
- **Various usability improvements**—This release contains usability enhancements such as a new home page, extensible navigation menus, and improved breadcrumbs for better traceability.
- **ElectricFlow Help Center**—A centralized location for easy access to video tutorials, knowledge-based articles, community discussions and assistance, and product documentation.
- **Support for Oracle 12.**
- **The ElectricFlow installer now supports 32-bit compatibility libraries for 64-bit agents.**
- **Maintenance Release roll ups**—This feature release rolls up the fixes made in the ElectricFlow 6.0.1 maintenance release. For more details, see the [ElectricFlow 6.0.1 Release Notes](#).

Resolved Issues

- Fixed the issue where the environment inventory was not created for a dynamic environment or when the environment tier has a resource pool. (CEV-9406)
- You can now use the following shortcuts to specify named properties (CEV-8982):


```

$[/myRetrievedArtifact/artifactVersion]
$[/myRetrievedArtifact/artifactName]
$[/myRetrievedArtifact/componentName]

```
- Artifacts will not be redeployed if the application process has two steps consisting of an Undeploy component process and a Deploy component process. (CEV-8706)
- Fixed the issue where a job during an application deployment hangs on the last step. (CEV-8669)
- Fixed the issue where the Change History page does not load when you click the **Search** button. (CEV-8561)
- Fixed the issue where a job during an application deployment hangs on the last step. (CEV-8417)

- Fixed the issue where double scroll bars appear in drop-down menus in the user interface. (CEV-8235)
- Added the `smartDeploy` parameter to the `runProcess` command to enable Smart Deploy when the application process is deployed. (CEV-7096)
- Fixed the issue where you could not clone an application process. (CEV-5674)
- Fixed the issue where the environment inventory is not updated if a component is retrieved and then deployed in separate steps. (CEV-5104)
- Added a message when the user tries to delete the Default project (NMB-22471):

This project contains objects including Applications, Environments, Pipelines, and Releases. All objects and jobs belonging to this project will be deleted. Are you sure you want to delete the Default project? This action cannot be undone.

- Fixed the issue where a job step hangs after starting. (NMB-22337)
- In a clustered environment with two nodes, fixed the issue where one node ran out of disk space and both nodes went down even though the other node had available disk space. (NMB-22247)
- Fixed the issue in the Artifact Version Details page where the description text is black and the text for all the other fields in the top section is white. (NMB-22239)
- Fixed the issue where the Action buttons (Track Changes, Edit, Copy, or Delete) do not appear on the Chinese version of the ElectricFlow platform user interface (UI). (NMB-22202)
- Fixed the issue where you could not scroll down the Change History page to see all the changes. (NMB-22188)
- Fixed the issue where properties containing time objects are expanded by `$([])` are in the wrong format. (NMB-20814)
- When ElectricFlow installer detects missing 32-bit libraries on 64-bit machines, users are now warned that some 32-bit libraries need to be installed so that the executable file works. (NMB-20698)
- Fixed the issue where unencrypted passwords were stored in properties files. (NMB-20594)
- Fixed the issue where folders, multiple files, or all of them cannot be downloaded from the Artifact Version Details page. (NMB-20187)
- The `contains` operator cannot be used to search for the `jobId`. (NMB-19957)
- Fixed the issue where the Apache server could not restart on Ubuntu. (NMB-19934)
- Fixed the issue where the resource property sheets with two sub-levels could not be viewed in Internet Explorer 11. (NMB-19500)

Release Notes for Previous ElectricFlow 6.0 Versions

- [ElectricFlow 6.0 Release Notes](#)

All ElectricFlow documentation is available on the [Electric Cloud Documentation website](#).

Installation and Upgrade Notes

IMPORTANT: Product Name Change and Deprecation Notice

To bring a singular focus to the ElectricFlow brand moving forward, the name “ElectricCommander” is being

changed to “ElectricFlow”. All of the capabilities you are familiar within ElectricCommander are still available and intact. All changes (involving the new name) are being introduced in a way that ensures backward compatibility. The scripts you’ve written and URL/shortcuts you currently have should work without any changes required. We’ve posted an [FAQ](#) to help answer questions you may have concerning this name change.

The installation documentation refers to the installer using the new ElectricFlow product name. Anywhere the installer is referenced you can also use the ElectricCommander named installer. However, be aware that we intend to stop providing the installer with "ElectricCommander" in the filename after this version.

For complete installation and upgrade information, see the *ElectricFlow Installation Guide* at http://docs.electric-cloud.com/eflow_doc/FlowIndex.html.

New capabilities like Release and Pipelines are part of a separately licensed ElectricFlow Release module.

In the Oracle database, set the OPEN_CURSORS parameter to at least 1000 to prevent ElectricFlow from running out of open cursors.

IMPORTANT: Before beginning the upgrade process, make sure you have backed up your existing ElectricFlow data.

Upgrading Your Existing ElectricFlow Environment

- Upgrades to ElectricFlow 6.x are supported only from ElectricCommander 4.2.x or from ElectricFlow 5.x. Any ElectricCommander systems and servers that are pre-Commander 4.2 must be upgraded to an ElectricCommander 4.2.x release. For upgrade instructions, see the *ElectricFlow Installation Guide*.
- Upgrading to ElectricFlow 6.x from ElectricCommander 4.2.x requires a database upgrade.
- You cannot upgrade the ElectricCommander 4.2.x built-in database to an ElectricFlow 6.x database. If you want to continue using the built-in database in ElectricFlow 6.x, follow the database upgrade procedures described in the *ElectricFlow Installation Guide*.

Behavior Changes

- Use the `reducedDetailChangeHistory` argument in the `export` API call when exporting a project with Change Tracking enabled but not allow changes to be tracked when ElectricFlow exports part or all server data to an XML file. Follow these usage guidelines (CEV-7785):
 - The argument is a Boolean argument: `<Boolean flag - 0|1|true|false>`.
 - Use this argument for large projects containing over 20,000 audited objects with Change Tracking enabled.
 - When this argument is set to `true` or `1`, ElectricFlow automatically decreases the amount of Change History indexing information that it saves in a large project, reducing the level of detail for Change Tracking-intensive operations in the Change History. This can make it harder to revert an object to a specific state and to find information in the Change History when you are troubleshooting or debugging an issue.
 - Set this argument to `false` or `0` to suppress to this behavior so that ElectricFlow does not change the amount of indexing information for a large project. This will cause the operation to take longer and put more load on the database, but the Change History will have the full details of the entities owned by objects in the project.

- Use the following API calls to attach a parameter to a procedure step, application process step, or workflow state (CEV-8408):

To attach a parameter to a procedure step, use an API call such as:

```
ectool attachParameter testParam paramProcedure myStep credparam1
```

To attach a parameter to an application process step, use an API call such as:

```
ectool attachParameter --projectName default --formalParameterName credparam1  
--applicationName myApp --processName echoHello --processStepName myStep
```

To attach a workflow state to a workflow state, use an API call such as:

```
ectool attachParameter --projectName default --formalParameterName credparam1  
--workflowDefinitionName myworkflow --stateDefinitionName mystate
```

- The default built-in database for ElectricFlow is now HyperSQL Database (HSQLDB). In releases earlier than ElectricFlow 5.0, the built-in database was H2.
- ElectricFlow 6.0 no longer supports these server and agent platforms (NMB-21606):
 - All 32-bit platforms for servers only
 - Windows XP (32-bit and 64-bit) for servers
 - Microsoft Windows 2000 for agents

Configuration Notes

- When you export your project data before upgrading from ElectricCommander 4.2.x to ElectricFlow 6.x, you must replace the component plugin versions, including EC-Artifact, in the export file before importing the project data to ElectricFlow 6.x (CEV-6679).
- You must register your plugin to display it as an option in the following situations (CEV-3649).
 - When a user uses the plugin to configure a step in a component or application process.
 - In a procedure in the automation platform.

For details, see the “Register your procedure for the step creation dialog” section in the “Examples and Tutorials” chapter of the *ElectricFlow Plugin Developer Guide* at http://docs.electric-cloud.com/eflow_doc/FlowIndex.html.

Limitations

These are the session management limitations:

- When a user logs out, the user is logged out only on the node where the logout occurred.
- When a user is deleted from the system, the user’s session is active until it expires.
- When a job ends, the user’s session is active until it expires.

Known Issues

- When naming processes, do not including slashes (/) in the name. (CEV-9265)
- There is a known issue preventing the use of SSH key-based authentication when using the "Install or Upgrade Remote Agents" feature available from the Resources page. (CEV-7958)

The workaround is to use password-based authentication.

- An error occurs in the following scenario (CEV-7890):
 1. In ElectricFlow 5.4, attach credentials to a component process or a component process step.
 2. Export the application that contains the component process.
 3. Upgrade to ElectricFlow 6.x.
 4. Import the application to ElectricFlow 6.x.

When you deploy the application process that contains the component process, the error occurs.

Workaround:

1. View the details of the component process step where you previously set the credentials in the Edit Step dialog box.
 2. Click **Next**.
 3. Click **OK** to close the dialog box.
 4. Redeploy the application process.
- When you are importing a previously exported application from ElectricFlow 5.4 to ElectricFlow 6.x and the application has parameters with options, the application process parameters that you defined in ElectricFlow 5.4 need to be recreated. (CEV-7788)
 - If this sequence of events occurs (NMB-21278):
 1. Changes are made to the list of credentials that are attached to a procedure, component, process, process step, or a schedule while change tracking is disabled at either the project level or the server level.
 2. Change tracking is enabled.
 3. The procedure, component, process, process step, or a schedule is reverted to a point after change tracking was enabled.

Then the changes that were made while change tracking was disabled may be lost.

- When you are adding a resource to a remote ElectricFlow server during an agent installation, the server does not discover the host name of the agent machine through DNS, and an error message about the "Name or service not known" appears. (NMB-20605)

The workaround is to do one of the following so that the resource is available after the agent installation:

- Add the host name of the agent machine to the hosts file of the remote server.
- In the Resource Details panel, edit the Agent Host Name of your resource and use the IP address of the agent machine instead of the fully qualified domain name (FQDN).

- You create a dynamic environment and deploy an application in that environment by performing these steps (NMB-21176):
 1. Create and save an OpenStack configuration in a resource template.
 2. Create an environment template using the resource template.
 3. Create a dynamic environment using the environment template.
 4. Deploy the application in the dynamic environment successfully.

When you edit and resave the OpenStack configuration and then create a new dynamic environment, the application is deployed with errors, because the authentication credentials are incorrect.

- To access the Electric Cloud API UI, use https://<electricflow_server_hostname>:8443/rest/doc/v1.0/ where *electricflow_server_hostname* is the fully qualified domain name (FQDN) of the ElectricFlow server (NMB-19960).
- The following entry in the wrapper.conf file might cause performance slowdowns (a gradual slowdown of everything over time), and should therefore be deleted (NMB-19735):

```
wrapper.java.additional.105=-XX:+TieredCompilation
```

- In a cluster, you must shut down the cluster and set a node to single-server mode to create a trusted agent (NMB-18924).
- If you delete the default project and do not recreate it, ElectricFlow will no longer be available. To use it again, you must reinstall ElectricFlow.
- Before importing an export file, you must change the plugin name, including the plugin version, in the file.
- Change tracking

IMPORTANT: It can take a while to restart the ElectricFlow server, because new records are being created for all the tracked objects. This may take at least as long as it would take to export or import all the projects (a large project can take long as 10 to 40 minutes).

- You can revert changes only for high-level design objects such as applications, procedures, procedure steps, workflow definitions, and state definitions.
- When you disable change tracking and then later re-enable it, the system performance may be reduced during this sequence of events:
 1. Change tracking is disabled at the server level.
 2. Change tracking is re-enabled at the server level.

The change history for all objects, including those not in projects, is now tracked.

It can take a while to restart the ElectricFlow server, because new records are being created for all the tracked objects. This may take at least as long as it would take to export or import all the projects (a large project can take long as 10 to 40 minutes).

- Pages in the ElectricFlow UI may be slow to render if the application or environment has too many tiers.

Performance and Scalability Issues

- For hundreds of parallel job steps, you may experience Job Scheduler performance issues at job startup (NMB-16185).
- The amount of time needed to add a property to a job increases as the number of properties increases (NMB-16120).
- The amount of time needed to add a step to a procedure increases as the number of steps increases (NMB-16118).

Documentation

ElectricFlow documentation is available at http://docs.electric-cloud.com/eflow_doc/FlowIndex.html. Updated documentation will be available on that page when any documents are updated post-release.

ElectricFlow has the following product documentation:

- *ElectricFlow User Guide*
- *ElectricFlow Installation Guide*
- *ElectricFlow API Guide*
- *ElectricFlow Agent Configuration Guide*
- A complete, robust online help system. Click any Help link in the upper-right corner of each web page in the platform UI
- *ElectricFlow Release Notes*
- Additional ElectricFlow documentation that accompanies the ElectricFlow release, but not necessarily updated with each ElectricFlow release
 - *Plugin Developers Guide*, which is used with the ElectricFlow SDK, is updated on its own release cycle
 - *ElectricFlow Plugin Developer Release Notes*

Troubleshooting and Getting Help

Technical Support

Contact Electric Cloud technical support:

- 408.419.4300, option 2. Hours are 9 A.M.–5 P.M. PT Monday–Friday (except holidays)
- support@electric-cloud.com

You will be asked to provide the following information:

- Your name, title, company name, phone number, and email address
- Operating system and version number
- Product name and release version
- Problem description

Electric Cloud "Ask" Website

Go to <http://ask.electric-cloud.com>:

- Ask questions or read answers to questions from other users
- Get help with installation and configuration
- Submit feedback

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