



# Red Hat Ansible Automation Platform 2.4

## Getting Started with Event-Driven Ansible Guide

Learn about the benefits and how to get started using Event-Driven Ansible.



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## Abstract

Event-Driven Ansible is a new way to enhance and expand automation by improving IT speed and agility while enabling consistency and resilience. This feature is designed for simplicity and flexibility.

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## PREFACE

Thank you for your interest in Event-Driven Ansible. Event-Driven Ansible is a new way to enhance and expand automation. It helps teams automate decision-making and improve IT speed and agility.

This guide provides the conceptual framework of Event-Driven Ansible and links you to information on installing and using Event-Driven Ansible controller.

## MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).



## PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

If you have a suggestion to improve this documentation, or find an error, please contact technical support at <https://access.redhat.com> to create an issue on the Ansible Automation Platform Jira project using the **docs-product** component.

# CHAPTER 1. EVENT-DRIVEN ANSIBLE AUTOMATION

Event-Driven Ansible is a new way to connect to sources of events and act on those events using rulebooks. This technology improves IT speed and agility, and enables consistency and resilience.

## 1.1. EVENT-DRIVEN ANSIBLE BENEFITS

Event-Driven Ansible is designed for simplicity and flexibility. With these enhancements, you can:

- Automate decision making
- Use many event sources
- Implement event-driven automation within and across multiple IT use cases
- Achieve new milestones in efficiency, service delivery excellence and cost savings

Event-Driven Ansible minimizes human error and automates processes to increase efficiency in troubleshooting and information gathering.

This guide helps you get started with Event-Driven Ansible by providing links to information about understanding, installing, and using Event-Driven Ansible controller.

## CHAPTER 2. ANSIBLE RULEBOOKS

Event-Driven Ansible controller provides the interface in which Event-Driven Ansible automation performs. Ansible rulebook provides the framework for Event-Driven Ansible automation. Ansible rulebook is essentially a collection of rulesets, which in turn, consists of one or more sources, rules, and conditions.

### 2.1. DECISION ENVIRONMENTS

Event-Driven Ansible includes, by default, an `ansible.eda` collection, which contains sample sources, event filters and rulebooks. All the collections, ansible rulebooks and their dependencies use a Decision Environment, which is an image that can be run on either Podman or Kubernetes.

In Decision Environments, sources, which are typically Python code, are distributed through ansible-collections. They inject external events into a rulebook for processing. The rulebook consists of the following:

- The python interpreter
- Java Runtime Environment for Drools rule engine
- `ansible-rulebook` python package
- `ansible.eda` collection

You can use the base Decision Environment and build your own customized Decision Environments with additional collections and collection dependencies. You can build a Decision Environment using a Dockerfile or optionally you can deploy your CA certificate into the image.

### 2.2. RULEBOOK ACTIONS

A rulebook specifies actions to be performed when a rule is triggered. A rule gets triggered when the events match the conditions for the rules. The following actions are currently supported:

- **run\_job\_template**
- **run\_playbook** (only supported with `ansible-rulebook` CLI)
- **debug**
- **print\_event**
- **set\_fact**
- **post\_event**
- **retract\_fact**
- **shutdown**

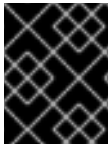
#### Additional resources

- For more information on using rulebooks, see the [Event-Driven Ansible controller User's Guide](#).

- For more detailed information on Ansible rulebooks, see the section on [Rulebooks](#) in the [Ansible Rulebook documentation](#).

## CHAPTER 3. INSTALLATION OF EVENT-DRIVEN ANSIBLE CONTROLLER

Similar to the automation controller and automation hub components, the setup for Event-Driven Ansible controller includes default settings for specific variables in the inventory files.



### IMPORTANT

Event-Driven Ansible controller must be installed on a separate server and cannot be installed on the same host as automation hub and automation controller.



### NOTE

If you are running Red Hat Enterprise Linux 8 and want to set your memory limits, you must have cgroup v2 enabled before you install Event-Driven Ansible. For specific instructions, see the Knowledge-Centered Support (KCS) article, [Ansible Automation Platform Event-Driven Ansible controller for Red Hat Enterprise Linux 8 requires cgroupv2](#).

### 3.1. INSTALLING EVENT-DRIVEN ANSIBLE CONTROLLER ON RED HAT ANSIBLE AUTOMATION PLATFORM

To prepare for installation of Event-Driven Ansible controller, review the following information in the [Red Hat Ansible Automation Platform Planning Guide](#) :

- [Example Ansible Automation Platform architecture](#) , including the Event-Driven Ansible controller
- [Event-Driven Ansible controller](#) general information
- [Event-Driven Ansible controller system requirements](#)

When you are ready to install the Event-Driven Ansible controller, see the procedures in the [Red Hat Ansible Automation Platform Installation Guide](#) beginning with [Chapter 3. Installing Red Hat Ansible Automation Platform](#). For a specific code example related to Event-Driven Ansible controller, see the [Single Event-Driven Ansible controller node with internal database](#) scenario.

To further assist you in getting started with Event-Driven Ansible, review the following existing installation scenarios that include code examples and variables that are required to install Event-Driven Ansible controller:

- [Ansible Automation Platform with an external \(installer managed\) database](#) .
- [Ansible Automation Platform with an external \(customer provided\) database](#) .

Lastly, see [Appendix A. 5. Event-Driven Ansible controller variables](#) in the Red Hat Ansible Automation Platform Installation Guide to view predefined variables for Event-Driven Ansible controller.

### 3.2. DEPLOYING EVENT-DRIVEN ANSIBLE CONTROLLER WITH ANSIBLE AUTOMATION PLATFORM OPERATOR ON OPENSIFT CONTAINER PLATFORM

Event-Driven Ansible is not limited to Ansible Automation Platform on VMs. You can also access this

feature on Ansible Automation Platform Operator on OpenShift Container Platform. To deploy Event-Driven Ansible with Ansible Automation Platform Operator, follow the instructions in [Deploying Event-Driven Ansible controller with Ansible Automation Platform Operator on OpenShift Container Platform](#).

After successful deployment, you can connect to event sources and resolve issues more efficiently.

### Additional resources

- For more detailed information on planning, see the [Red Hat Ansible Automation Platform Planning Guide](#).
- For a comprehensive list of predefined variables for the Event-Driven Ansible controller, see the [Red Hat Ansible Automation Platform Installation Guide](#) .
- For more information about deployment on Ansible Automation Platform operator, see the [Deploying the Red Hat Ansible Automation Platform operator on OpenShift Container Platform Guide](#)

## CHAPTER 4. USING EVENT-DRIVEN ANSIBLE CONTROLLER

After you have successfully installed the Event-Driven Ansible controller, you can access the interface to manage your IT responses across all event sources. Since Event-Driven Ansible controller is integrated with automation controller, you can automate a combination of processes, including issue remediation, user administration tasks, operational logic, and the like.

### 4.1. EVENT-DRIVEN ANSIBLE CONTROLLER TASKS

Depending on your role, you can use Event-Driven Ansible controller for any of the following tasks:

- Configuring a new project
- Setting up a new decision environment
- Creating a new authentication token
- Setting up a rulebook activation

#### Next steps

- For further details on using Event-Driven Ansible controller, see the [Event-Driven Ansible controller User's Guide](#).