

Getting Started—Scenario 1—Creating a Simple Procedure

8 minute read

Automation

To begin, select the **Projects** tab, then the **Create Project** link at the top of the table. You need to create a project to contain the procedures you create.

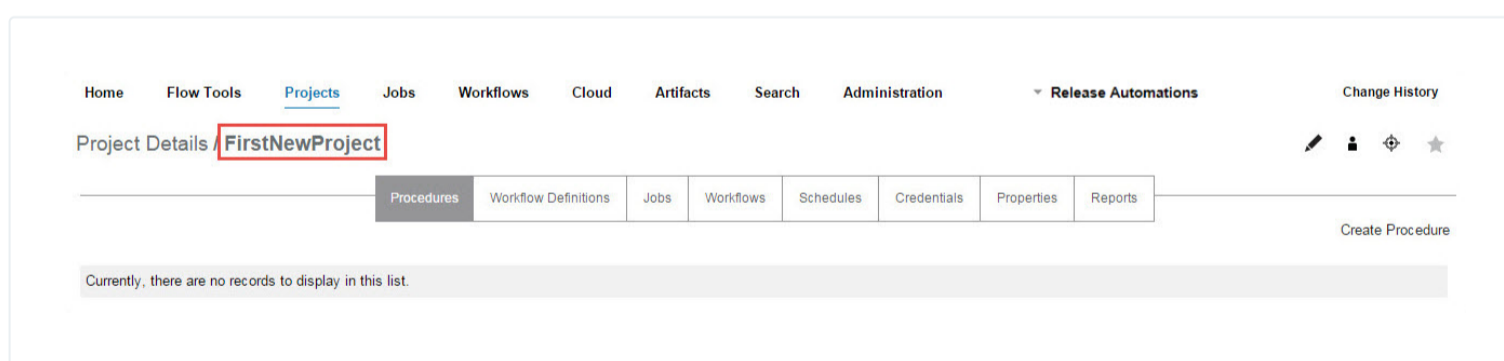
On the **New Project** page, enter information in the fields as follows:

Field Name	Description
Name	Type a unique project name. You may want your project names to reflect the work groups or teams that will be using them. For example, you might set project names based on the products they support. For our scenario examples, we will use "FirstNewProject" for our project name.
Description	Enter a text description for your reference if you choose. CloudBees CD/RO does not use or interpret this information.
Default Resource	(optional) For the purpose of "getting started", leave this field blank to use the Default resource already created during the CloudBees CD/RO installation.
Default Workspace	(optional) For the purpose of "getting started", leave this field blank to use the Default workspace already created during the CloudBees CD/RO installation.

Click **OK** to save the information you entered.

After clicking **OK**, you see the Project Details page and the name of the new project adjacent to the page title.

- For our scenarios, the project name is `FirstNewProject`.
- Your new project name will appear on the **Projects** page also.



Scenario requirement: No additional requirements for this scenario. This scenario uses the local agent (resource) that was included on your local machine when CloudBees CD/RO was installed.

Overview

This scenario establishes that CloudBees CD/RO and its components were installed successfully and guides you through creating a simple procedure with a parameter that will echo Hello World. After you create this procedure, you will run the procedure and review the results.

At the end of this scenario, you will be familiar with the following CloudBees CD/RO concepts and features:

- Projects
- Procedures
- Steps

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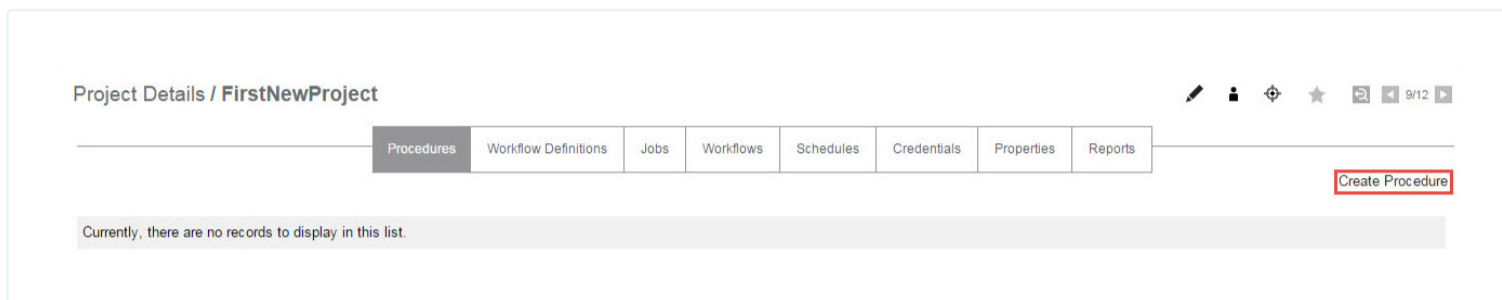
- Parameters
- Jobs
- Navigating the Job Details web page

Begin Scenario 1

Step 1. Select the Projects tab

On the Projects page, you can see the default projects installed during the CloudBees CD/RO installation and the new project you just created.

Select your new project name to go to its Project Details page, then click the **Create Procedure** link.



Step 2. Create a procedure

On the **New Procedure** page, you need to be concerned with the section of the page illustrated below only.

Enter the following information:

Field Name	Description
Name	For this scenario, <code>Hello World</code> is the procedure name. At a later time when you are creating your own procedures, you can choose any unique name that is most meaningful for procedures in your project.
Description	(optional) Enter a text description for your procedure if you choose to do so.
Default Resource	Use the Browse link and choose <code>local</code> . Using <code>local</code> accesses the agent installed during the CloudBees CD/RO installation. At a later time after you have configured other resources, your Browse list could contain many choices.

Before leaving this page, notice the breadcrumb in the top-left corner. Most CloudBees CD/RO web pages contain a breadcrumb for easy return to the previous page.

Click **OK** to continue.

After clicking **OK**, CloudBees CD/RO takes you to the **Procedure Details** page—this is the page you use to add important information to your procedure. When your procedure contains steps, parameters, or email notifiers, and so on, those objects will be displayed here for your reference.

Step 3. Create a parameter

A CloudBees CD/RO procedure can define one or more parameters. These parameters are similar to the parameters of a subroutine in a programming language. Parameters allow you to define a reusable procedure by using symbolic variable names in place of a single, fixed value. When you run the procedure, you can type in a value to use for that particular job. You can refer to the parameter in a step for a procedure, using the standard CloudBees CD/RO property reference syntax— `${...}`. For example, see **Step 4**, specifically the text in the Command(s) text box.

On the Procedure Details page, click the **Create Parameter** link to go to the New Parameter page.

Enter the following information:

Field Name	Description
Name	Enter the parameter name <code>message</code> for this scenario.
Type	Use the default <code>Text entry</code> for the parameter type.
Default Value	Type-in <code>Hello World</code> for the default parameter value.

Click **OK** after filling in the fields and CloudBees CD/RO returns you to the **Procedure Details** page.

On the Procedure Details page:

Notice the Parameters table is populated with your parameter entry.

The screenshot shows the 'Procedure Details' page for a procedure named 'Hello World'. The page has a breadcrumb 'Procedure Details / Hello World' and a toolbar with icons for search, edit, share, and star. Below the breadcrumb, there are four main sections:

- Procedure Steps:** A section with a 'New Step' dropdown menu (options: Command, Subprocedure, Plugin, Custom) and a message: 'Currently, there are no records to display in this list.'
- Parameters:** A table with columns: Parameter Name, Default Value, Type, Req?, Description, and Actions. One row is visible with 'message' in the Parameter Name column, 'Hello World' in Default Value, 'entry' in Type, and a trash icon in Actions.
- Email Notifiers:** A section with 'Create On Start Email Notifier' and 'Create On Completion Email Notifier' links, and a message: 'Currently, there are no records to display in this list.'
- Custom Procedure Properties:** A section with 'Create Property', 'Create Nested Sheet', and 'Access Control' links. A table with columns: Property Name, Value, Description, and Actions. One row is visible with 'ec_customEditorData' in the Property Name column and edit/delete icons in the Actions column.

Also notice the name of the procedure we created, `Hello World`, is shown adjacent to the page title for your reference.

You can use the DSL Export  button to download the objects as a DSL file.

Step 4. Create a step

Now we can create a step on this procedure. On the **Procedure Details** page, click the **Command** link to go to the **New Step** page.

On the New Step page:

The following screen displays the portion of the New Step page you need for this scenario.

Notice this version of the New Step page contains a Command text box to enter the information you need. At a later time, when you choose to create a different step type, the New Step page will be populated with the appropriate fields required for that step type.

Enter the following information:

Field Name	Description
Step Name	Use <code>Print message</code> for the step name. For work outside this scenario, you can enter any unique name of your choice for the step name.
Description	(optional) Add a text description about this step if you need one.

Field Name	Description
Command(s) box	Type <code>echo \${message}</code> In this command, <code>message</code> refers to the parameter we created. Note: The CloudBees CD/RO Server does not actually interpret (or even understand) the contents of this field. CloudBees CD/RO simply expands all property references and then passes the resulting text block to the CloudBees CD/RO Agent. The Agent copies the text block to a temporary file and then invokes the Agent's native shell command, passing the name of the temporary file as a parameter to the shell command. The overall result is the same as if you had created this block of text as a BAT file (on Windows) or a shell script (on Linux). The operating system of the Agent machine takes over from that point to actually run your commands.
Resource(s)	For this scenario, leave this field blank to use the default resource you set on the procedure. If multiple resources are configured, you have the option to change the resource for each step if you prefer.

Click **OK** to create the step and CloudBees CD/RO returns you to the **Procedure Details** page to see its entry as displayed in the next screen example.

The screenshot shows the 'Procedure Details / Hello World' page. It features two main sections: 'Procedure Steps' and 'Parameters'.

Procedure Steps: A table with columns: Step Name, Resource, Action, Parallel, Time Limit, and Actions. The first step is 'Print message' with the action 'echo \${message}'. The 'Print message' cell is highlighted with a red box.

Parameters: A table with columns: Parameter Name, Default Value, Type, Req?, Description, and Actions. The first parameter is 'message' with a default value of 'Hello World' and type 'entry'.

Step 5. Run the procedure

Notice the Run-arrow icon among the links at the top of the tables. If you click the **Run** link, the procedure will run as-is immediately.

For this scenario, hover your mouse over the adjacent down-arrow and select the **Run...** option.

Selecting this option provides the **Run Procedure** page where you can add or modify the parameter values as necessary. The **Run Procedure** page has the information we want for this scenario, so click the **Run** button.

When a procedure runs, it creates a job.

After clicking **Run**, CloudBees CD/RO takes you to the **Job Details** page to see the status of the job and watch its running progress. This web page supplies a wealth of other information.

The screenshot shows the 'Job Details / job_6_20150711160208' page. It features a summary section at the top and a table of steps below.

Summary Section: A dark grey box with a green checkmark icon and the text 'Completed with Success'. Below this, it shows 'Start Time: 2015-07-11 16:02:08 PDT' and 'Elapsed Time: 00:00:00.693'. To the right, it lists 'Project: FirstNewProject', 'Procedure: Hello World', 'Launched by: admin', and 'Priority: normal'.

Steps Table: A table with columns: Step Name, Log, Status, Elapsed Time, Resource, and Actions. The first step is 'Print message' with a status of 'Completed with Success' and an elapsed time of '00:00:00.157'.

The Job Details page contains two sections. The section at the top of the page is the job's summary, displaying the job's status and other general information:

- The green check icon is displayed to show the job completed successfully.
- The **Completed with Success** section displays the result of the procedure that ran.
- The general information section displays the project and procedure names and who launched the job.

The section below the summary area displays detailed job information, including tabs to expand information and links to access various other CloudBees CD/RO web pages.

- Notice the success entry in the **Status** column—this is the step result.
- In the **Log** column, click the icon in the Print message row to see the outcome/result of your Hello World Print message step. Your file looks similar to the following:

Job: job_6_20150711160208

Workspace File / **Print message.db7dd766-2820-11e5-8679-0050568f747c.log**

Hello World

- Select the Parameters tab to see the parameter you created and its value.

For complete information about the Job Details page functions and available information, click the **Help** link in the top-right corner of this CloudBees CD/RO web page.

Scenario Extension—Adding Another Step

Each procedure you create can contain as many steps as you need. We created only one step in this scenario. This example shows how to modify a procedure by adding additional steps. You can always add more steps or edit an existing step before you run a procedure again.

To add a step to an existing procedure:

1. On the Job Details page, select your procedure name (at the top of the page) to go to the Procedure Details page.
2. On the Procedure Details page, click the **Command** New Step link again.
3. On the New Step page, enter information in the fields as follows:
 - Name— `Print Step Info`
 - Command(s)—Enter the following text: `print "This step was launched by ${launchedByUser} on the resource$[/myResource/resourceName].\n";`
 - Shell— `ec-perl`
 - Click **OK** to save the step and return to the Procedure Details page.

Note

You can move this new step to the top of the procedure by hovering your mouse over the icon next to the step name, then drag-and-drop the step to the top of the list. This is a useful function particularly if you find you have created steps in a different order in which you need them.

Click **Run** (from the Procedure Details page).

Finding a CloudBees CD/RO Automation Platform Web Page

If you "lose" the Job Details page or any other CloudBees CD/RO web page, several navigation methods are available:

- Use your browser's Back button if you were recently on a page you want to revisit.
- Use CloudBees CD/RO "breadcrumbs." On some pages you see breadcrumbs on the left-side of the page that note your current position/level within the project.
- Use the tabs at the top of the page to drill-down to the page you need. For example:

- **To find the Job Details page:** Select the Jobs tab and notice that your procedure name is now listed in the Job column, accompanied by a date, job number, and other related job information on the same row. When you run a procedure, it becomes a job. Select the job you want to see and you will go to the Job Details page for that job.
- **To find the Procedure Details page:** Select the Projects tab, then select your project to go to the Project Details page to see a list of procedures in that project. Click on a procedure to go to the Procedure Details page for that procedure.

Note

A "project" is a container for all related procedures you create. You can create as many projects as you need, using the **Create Projects** link on the Projects page.

As you use CloudBees CD/RO, you will quickly learn other navigation paths for your particular interests. In addition, most CloudBees CD/RO web pages contain a "star" icon in the upper-right corner. Click this icon to add that page to your Home page for quick "one-click" access in the future.

Summary

This simple `Hello World` procedure demonstrated how to quickly create a procedure and how any command can be wrapped and parameterized using a CloudBees CD/RO procedure. If you have an existing script you want to automate, you can call that script within a step command block. This scenario also introduced you to running a job, entering parameters for the job, and viewing results for the job you ran.

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[Scenario 2 - Creating a procedure that uses an SCM](#) →