

Deployit Graphical User Interface Manual

Version 3.6.0

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Preface

This manual describes how to use the Deployit GUI. The GUI is used to import packages, perform deployments, view and edit the repository and run reports.

The Deployit server must be running before accessing the GUI. See the **Deployit System Administrator Manual** for more information.

See **Deployit Reference Manual** for background information on Deployit and deployment concepts.

Requirements

To use the GUI, your system must meet the following requirements:

- **Web browser:** The following web browsers are supported:
 - IE 7.0 or up
 - Firefox 3.0 or up
 - Safari 3.0 or up
- **Flash Player:** A flash player is required, versions 9.0 and up are supported.

Starting and Stopping

To start the GUI, start a browser and enter the URL of the Deployit server (for example, `http://deployit:4516`).

Logging in and Logging out

When you open the GUI, the browser will show a popup window to prompt you for a username and password. Enter your Deployit username and password to log in.

To log out of the GUI, simply close the browser tab or window.

Help

To access help information while using the GUI, click on the help icon in the top-right of the window. The GUI contains help for each of the major screens (Deployment, Repository and Reports).

Main Sections

The available functionality in the GUI is divided into three sections:

- **Deployment.** Use this section for viewing, creating, configuring and executing deployments.
- **Repository.** Use this section for viewing, creating and editing CIs in the repository.
- **Reports.** Use this section for creating and viewing reports.

Generic GUI Components

Editor Window

The Editor windows in the GUI use tabs to allow the user to perform multiple tasks in parallel. The tabs will be opened in response to user actions in other parts of the GUI. Tabs can also be closed.

When working on a specific task, the editor window can also be maximized so that the most screen real estate can be used. Click on the top right corner of the editor window to maximize it or restore it to its original size.

The following image shows an example of an Editor window:



CI Editor Component

The CI editor component shows a CI's properties and allows the user to edit them if permitted by the security system. These include both simple properties like strings and integer values, as well as more complex properties -- name-value pairs and (collections of) references to other CIs. Some CI properties are not editable in the repository browser once they have been set, such as the file of an artifact CI or the id of the CI. Using the context menu, uneditable field values can be copied and used elsewhere.

The following image shows an example of the CI Editor component:



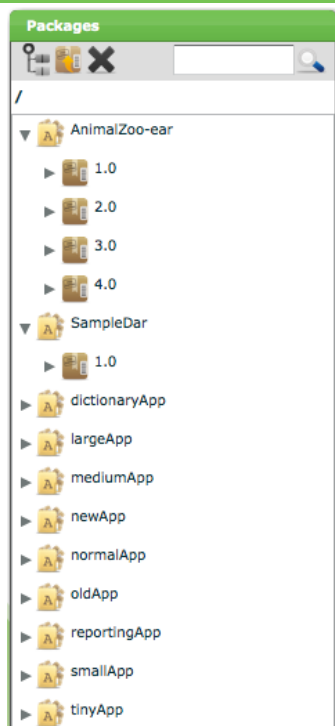
Tree Component

The tree component is a component that is used often in the GUI. It shows a hierarchical view of the Deployit data. Nodes can be expanded or collapsed.

To facilitate installations with large amounts of data, the tree component lazily loads its data. That is, when the scrollbar is pulled down to the bottom, the GUI queries the server for more data. This prevents the GUI from loading all data at once.

Searching the data in the tree is also possible using the search field in the top of the tree component. Note that searching always happens on the top-level nodes in the tree. If you want to search on a lower level, first narrow the scope of the tree by selecting the node in the tree and clicking the **Set Browser Root** button or **Show as Root** option from the context menu. The tree component includes a breadcrumb that shows all levels of the hierarchy and allows quick access to previous levels.

The following image shows an example of the Tree component:



Importing Packages

Deployit maintains a repository of data about the packages, environments and deployments it works with. The repository stores this data and all its revisions.

The first step to performing a deployment with Deployit is to import your package into the application's repository. These are the steps you need to follow:

Start the Import Wizard. To start the Import Wizard, click the Import button on the Package Browser (alternatively, you can select the **Import** option from the context menu):



Import the Package. Run through the steps of the import wizard. *Import from server* scans for packages in the configured dropbox, which by default is the `importablePackages` directory in the directory where Deployit is installed. *Import from URL* allows the user to specify a URL from which the package can be downloaded. Note that you cannot re-import packages.

Close the Import Wizard. Click on the Close button to complete the import procedure.

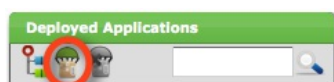
For more information about the Deployit packaging format, see the **Deployit Packaging Manual**.

Deployments

Initial deployment

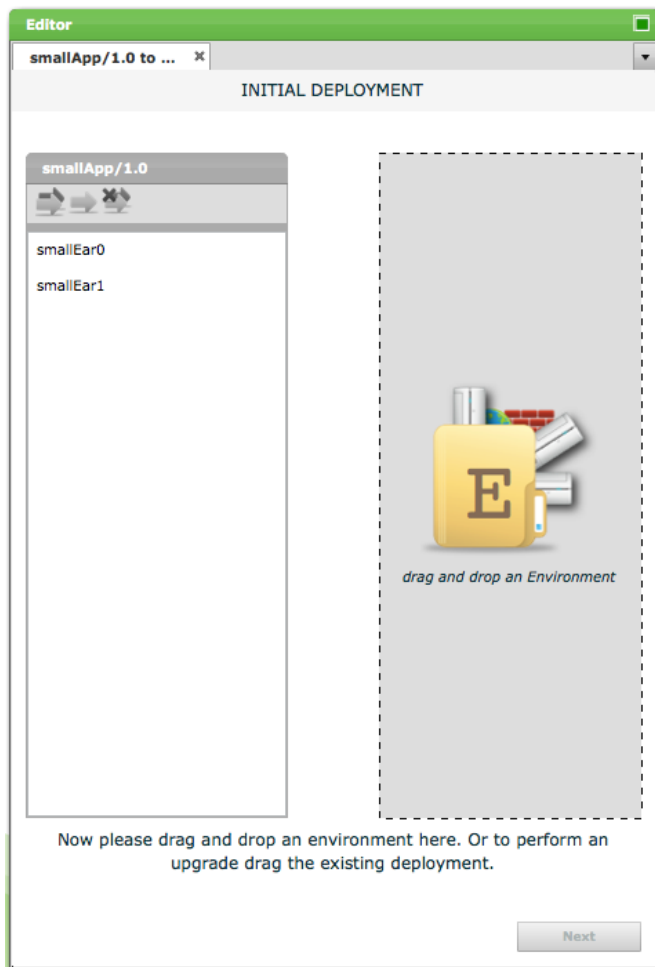
Once your package is imported, you can deploy it to any of the environments in Deployit. To deploy your package to an environment for the first time, follow these steps:

Start a new deployment. To start a new deployment, click the New Deployment button on the Application Browser:



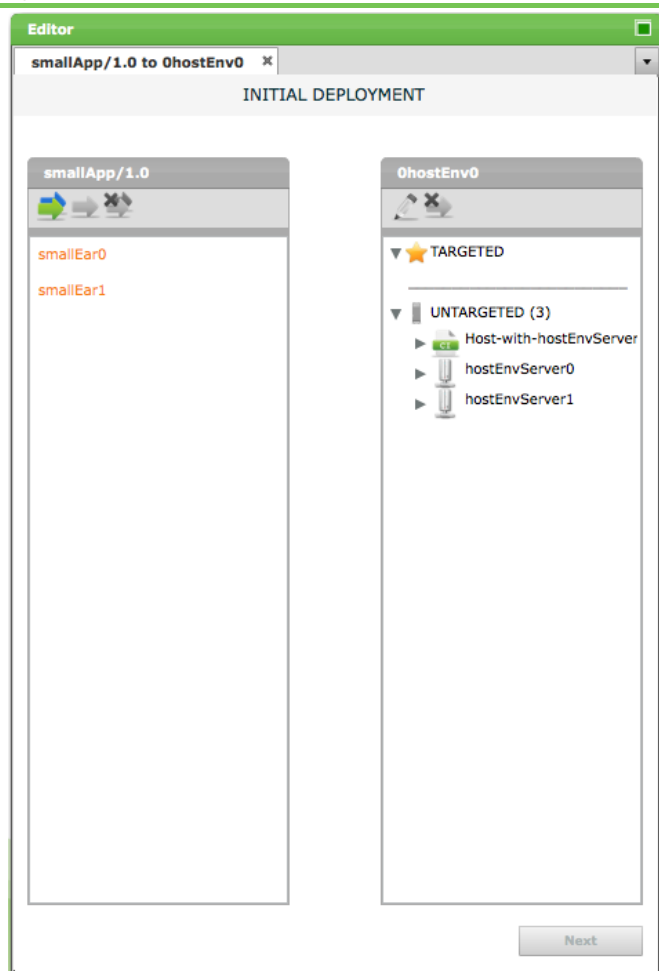
Select the deployment package. Find the package you want to deploy in the Package Browser and drag it into the new deployment tab. The package will be loaded into the Package Box and its contents will be shown. This is an

example of the Deployment Tab after selecting a deployment package:



Alternatively, you can select a deployment package in the Package Browser and choose the **Deploy** option from the context menu.

Select the environment. Find the environment you want to deploy to in the Application Browser and drag it into the new deployment tab. The environment will be loaded into the Environment Box and its contents will be shown. This is an example of the Deployment Tab after selecting an environment:

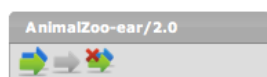


Alternatively, you can select an environment in the Application Browser and select the **Deploy to** option from the context menu.

Map the deployment package to the environment. Now that Deployit knows which deployment package you want to deploy on which environment, you can configure the way the package members are installed on the targets. To do this, you create *deployed items* for each of the package members you want to deploy.

There are several ways to do this:

Let Deployit create default deployed items. Deployit can generate default deployed items for each valid combination of a package member and target. The generated deployed items can then be configured manually. There are two ways to do this: either generate default deployed items for **all** package members or select one or more package members and generate deployed items only for them. You can also remove all deployed items for a package member. The buttons to perform these functions are in the top of the Package Box in the Deployment Configuration Page.



From left to right, the buttons are:

- **Generate All Deployed Button.** Use this button to ask Deployit to automatically generate deployments for all package members.
- **Generate Selected Deployed Button.** Use this button to ask Deployit to automatically generate a deployment for the selected package member.
- **Delete All Deployed Button.** Use this button to delete all deployments for the selected package member.

Manually create deployed items. If you want to manually generate a deployed item, drag the package member from the left box to the target on the right. The mouse cursor will indicate whether it is possible to drop the package member and to generate a deployed item. If there are more possible deployed items that can be created, Deployit will display a popup so you can select which one to use. After the deployed item is created, the Deployed Item Configuration Balloon

will open, allowing you to configure the deployed item. The balloon can also be opened by using the Edit Deployed Item button in the top of the Environment Box. You can also remove deployed items here.



From left to right, the buttons are:

- **Edit Deployed Button.** Use this button to edit the selected deployed (or double-click the deployed in the list).
- **Delete Deployed Button.** Use this button to delete the selected deployed.

Configure the deployed items. The deployed items may need to be configured before the deployment can be started. To do this, open the Deployed Item Configuration Balloon by double-clicking on a deployed item or use the Edit Deployed button in the toolbar. A balloon will open, showing the properties of the deployed item:

The CI properties may be divided into separate tabs. It is also possible to maximize the balloon component by clicking on the editor window maximize button.

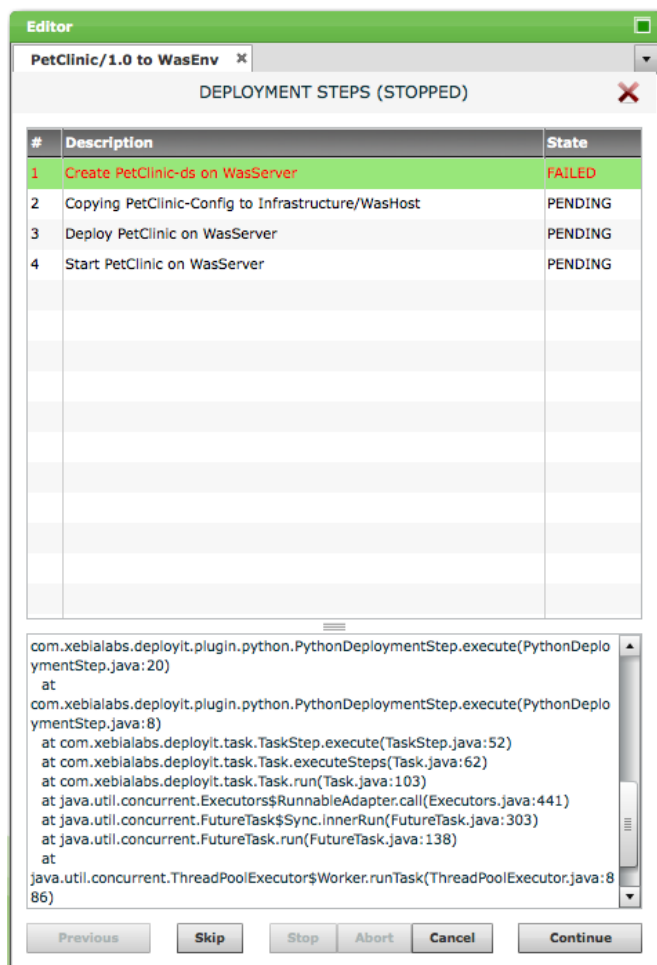
When saving changes in the deployed item, Deployit will validate the data you entered and provide error messages if there are any problems. Some validation errors may be related to properties shown on different tabs.

Generate the steplist. When all of the deployed items are properly configured, proceed with the deployment by clicking on the **Next** button. Deployit will validate all deployed items and, if they are correct, generate a list of steps needed to perform your deployment. If the deployed items are not configured correctly or completely, Deployit will show an error message and allow you to rectify the situation.

Configure the steplist. The steplist contains all steps that Deployit will execute to perform your deployment. You have the opportunity to review it before starting the deployment. Depending on the user's permissions, the user may be able to edit the steplist. If there are steps that you want to skip, select the step from the list and press the **Skip** button. This step will not be executed when you run the deployment. Skipped steps can be unskipped by pressing the **Unskip** button. The steps can be reordered by moving one step at a time in the steplist by **drag and drop**. The steps can be reordered only when the task state is *Pending* and the user has the permissions to move steps. The deployment can be cancelled by pressing the **Cancel** button. The deployment task and it's associated deployed items will be removed. To navigate back to the Deployment Configuration Page, press the **Previous** button.

Execute the deployment. Press the **Deploy** button to start the deployment. Deployit will execute all steps in the steplist sequentially. The log of a step will be shown in the Log Window below the steplist. Select a step by clicking on it to see its log. When the deployment is being executed, the following scenario's may occur:

A step in the deployment fails. If a step fails to execute successfully, Deployit stops executing the deployment and marks the step as *Failed*. This allows you to view the step's log output to determine what to do next. The following image shows a failed deployment:



If the error is of a transient nature, the deployment can be restarted with the failed step by pressing the **Continue** button. If the step is incorrect and should be skipped, select the step, press the **Skip** button and then continue the deployment with the **Continue** button. To give up on the deployment altogether, press the **Cancel** button.

The deployment must be stopped. If you want to gracefully stop a running deployment, press the **Stop** button. Deployit will wait until the currently executing step is finished and then stop the deployment. The deployment can be continued (**Continue** button) or cancelled (**Cancel** button).

The deployment must be aborted. If you want to forcefully abort a running deployment (or if stopping the deployment gracefully is not working, for instance due to a hanging script), press the **Abort** button. Deployit will attempt to kill the currently executing step and mark it as *Failed*. The deployment can then be continued starting with the aborted step (**Continue** button) or cancelled (**Cancel** button). The aborted step can also be skipped.

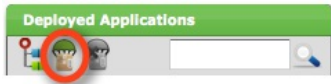
The deployment completes successfully.

Complete the deployment. Press the **Close** button to close the Deployment Tab.

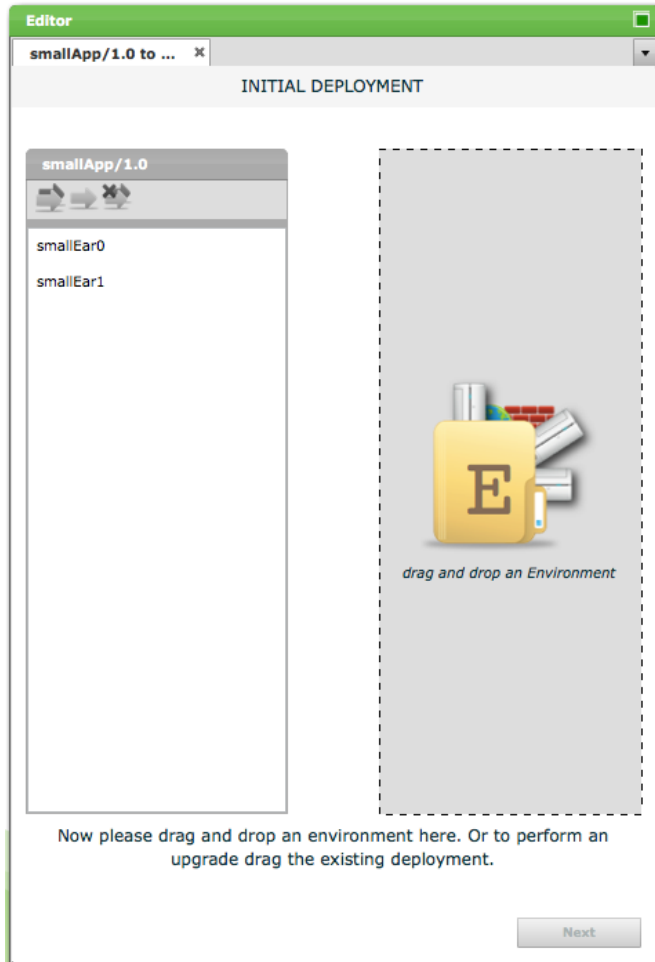
Upgrading

Once you have performed an initial deployment of your package to an environment, upgrading that deployed application is easy. Follow these steps:

Start an upgrade. Click the New Deployment button on the Application Browser:

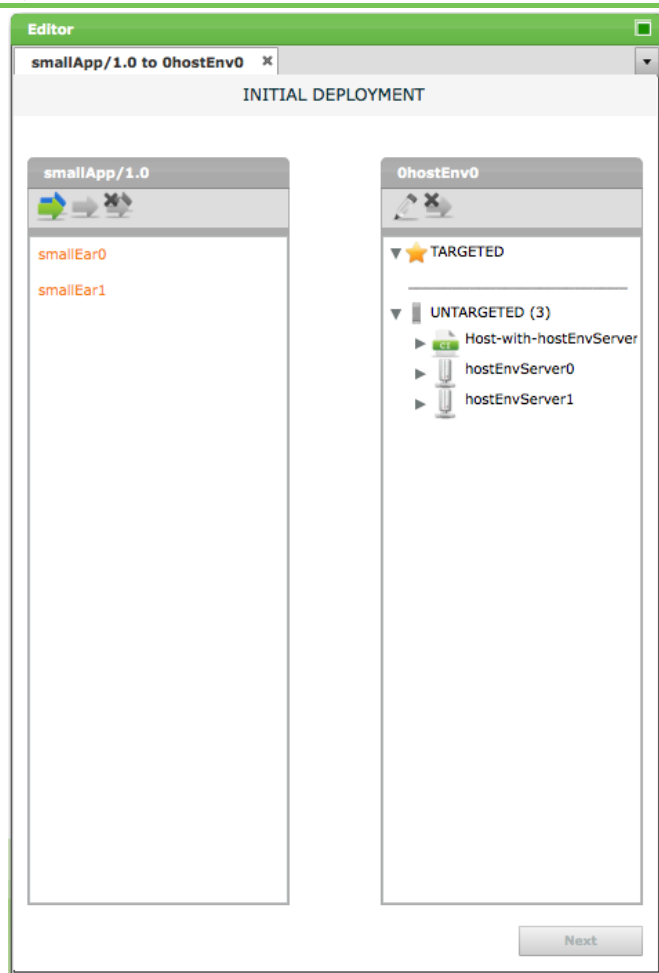


Select the deployment package. Find the package you want to deploy in the Package Browser and drag it into the new deployment tab. The package will be loaded into the Package Box and its contents will be shown. This is an example of the Deployment Tab after selecting a deployment package:



Alternatively, you can select a deployment package in the Package Browser and choose the **Deploy** option from the context menu.

Select the deployment to upgrade. Find the deployed application you want to upgrade to in the Application Browser and drag it into the new deployment tab. The environment will be loaded into the Environment Box and its contents will be shown. This is an example of the Deployment Tab after selecting an environment:



Alternatively, you can select a deployed application in the Application Browser and select the **Upgrade** option from the context menu.

Map the deployment package to the environment. Deployit will attempt to reuse the deployed items from the initial deployment, including their configuration. If the structure of your package is unchanged and the initial deployment was correct, most likely the reused mappings will suffice and you can continue with the deployment.

If the new package contains a new package member, it will be shown in orange in the left box. You can proceed with the deployment as-is if you do not want to deploy the new package member. Alternatively, create a new deployed item for the package member (see the section **Initial Deployment** above for details).

If the new package is missing a package member that was in the previous deployment, the deployed item for the missing member will be shown in red in the right box. You can, however, open the deployed item to look at its settings if necessary.

Configure the deployed items. The deployed items will be configured as in the initial deployment. If this configuration needs to be changed, configure the deployed item as described above in **Initial Deployment**.

From this point on, upgrading is identical to an initial deployment. For more information, see the **Initial Deployment** section.

Undeploying

To remove the application and all of its components from an environment, you need to *undeploy* the application. Follow these steps:

1. **Find the deployed application.** In the Deployment Screen, find the environment the application is deployed on in your Deployed Application Browser. If there are a lot of environments or applications, use the filter and search capabilities of the browser component.
2. **Start an undeployment.** Select the option **Undeploy** from the context-menu of the deployed application or select

- the deployed application and click the **Undeploy** button in the browser's toolbar. Deployit will open a new Undeployment Tab, showing a Steplist Page. The page shows the steps generated for the undeployment.
3. **Configure the steplist.** The steplist contains all steps that Deployit will execute to perform your undeployment. For information on how to configure the steplist, see **Initial Deployment**.
 4. **Execute the undeployment.** Deployit will execute each of the steps in the steplist. For more information on executing a steplist, see **Initial Deployment**.
 5. **Complete the deployment.** Press the **Close** button to close the Undeployment Tab.

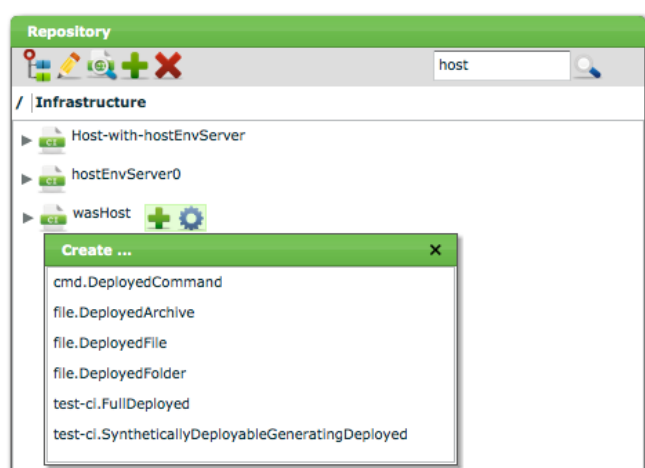
Editing the Repository

Deployit stores all of its information in the repository. It is possible that the information in Deployit's repository becomes out-of-date with reality, for instance if a manual change is made to the deployment environment. In such cases, it can be necessary to manually bring the Deployit repository in sync with reality. This can be done by editing the information in the repository on the **Repository** screen.

Creating a new CI

To create a new CI in the repository, do the following:

1. **Select the type of CI to create.** In the Repository Browser navigate the repository to find the CI under which you want to create a new CI. Click the **+** icon next to the CI. A dropdown list of possible containment CIs that can be created under the parent CI in the repository will open. Select the CI type you want to create.



1. **Create a new CI.** The selected CI type will be opened in the CI Editor Tab so you can fill out its properties to create a new CI. **Note:** the **Id** field of the CI is a special property that determines the place of the CI in the repository. For more information about the **Id** property, see the **Deployit Reference Manual**.
2. **Save the new CI.** Click on the **Save** button to save the new CI in the repository. Deployit will perform validation on the CI to ensure that all properties have appropriate values. If this is not the case, an error message is shown.

Modifying a CI

To modify an existing CI, follow these steps:

1. **Select the CI in the Repository Browser.** Navigate the repository to find the CI you want to modify. For more information about the repository structure, see the **Deployit Reference Manual**.
2. **Edit the CI.** Use double click, **Edit** button or the context-menu on the CI to edit it in the CI Editor Tab.
3. **Save the CI.** Click on the **Save** button to save the new CI in the repository. Deployit will perform validation on the CI to ensure that all properties have appropriate values. If this is not the case, an error message is shown.

Deleting a CI

To delete an existing CI, follow these steps:

1. **Select the CI in the Repository Browser.** Navigate the repository to find the CI you want to modify. For more information about the repository structure, see the **Deployit Reference Manual**.
2. **Delete the CI.** Click the **Delete** button in the Repository Browser toolbar. Deployit will confirm whether you want to delete the CI and, if yes, the CI will be deleted.

Note that deleting a CI will also delete all nested CIs. For example, by deleting an environment CI, all deployments on that environment will also be deleted. The deployment package that was deployed on the environment, however, will remain under the **Applications** root node.

There is no way to recover a deleted CI.

Comparing Configuration Items (CIs)

Depending on your environment, deploying the same application to multiple environments may use different settings. With all these differences, it is easy to lose track of what is running where and how it is configured. Using Deployit's CI comparison feature, it is easy to spot the differences between two or more deployments, making troubleshooting a breeze.

To compare multiple CIs, follow these steps:

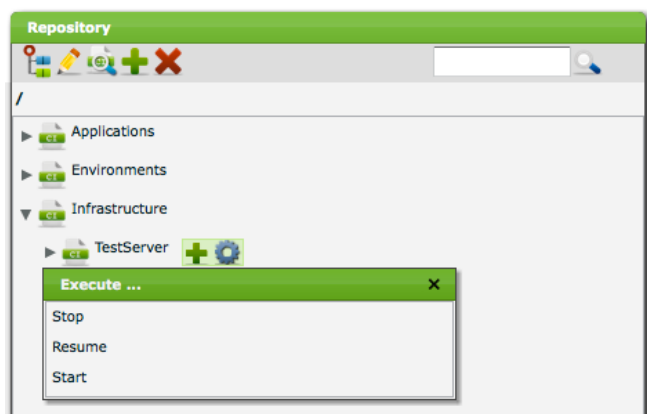
1. **Select the reference CI in the Repository Browser.** The reference CI is the basis for the comparison, the CI that the other CIs are compared against. Select it in the Repository Browser and press the **Compare** button in the browser's toolbar. Alternatively, select **Compare** in the context-menu.
2. **Drag comparison CIs into the Comparison Tab.** To add more CIs into the comparison, locate them in the Repository Browser and drag them into the Comparison Tab. Deployit will show which properties for the CIs have different values.

Note that you can only compare CIs that have the same type.

Control Tasks

Control tasks are actions that can be performed on middleware or middleware resources. When a control task is invoked, Deployit starts a task that executes the steps associated with the control task. To trigger a control task on a CI in the repository, do the following:

1. **List the Control Tasks for a CI.** In the Repository Browser navigate the repository to find the CI for which you want to trigger a control task. Click the **gear** icon next to the CI. A dropdown list of possible control tasks that can be executed will open.
2. **Execute the Control Task on a CI.** Select the control task from the list you want to trigger. This will invoke the selected action on the CI.

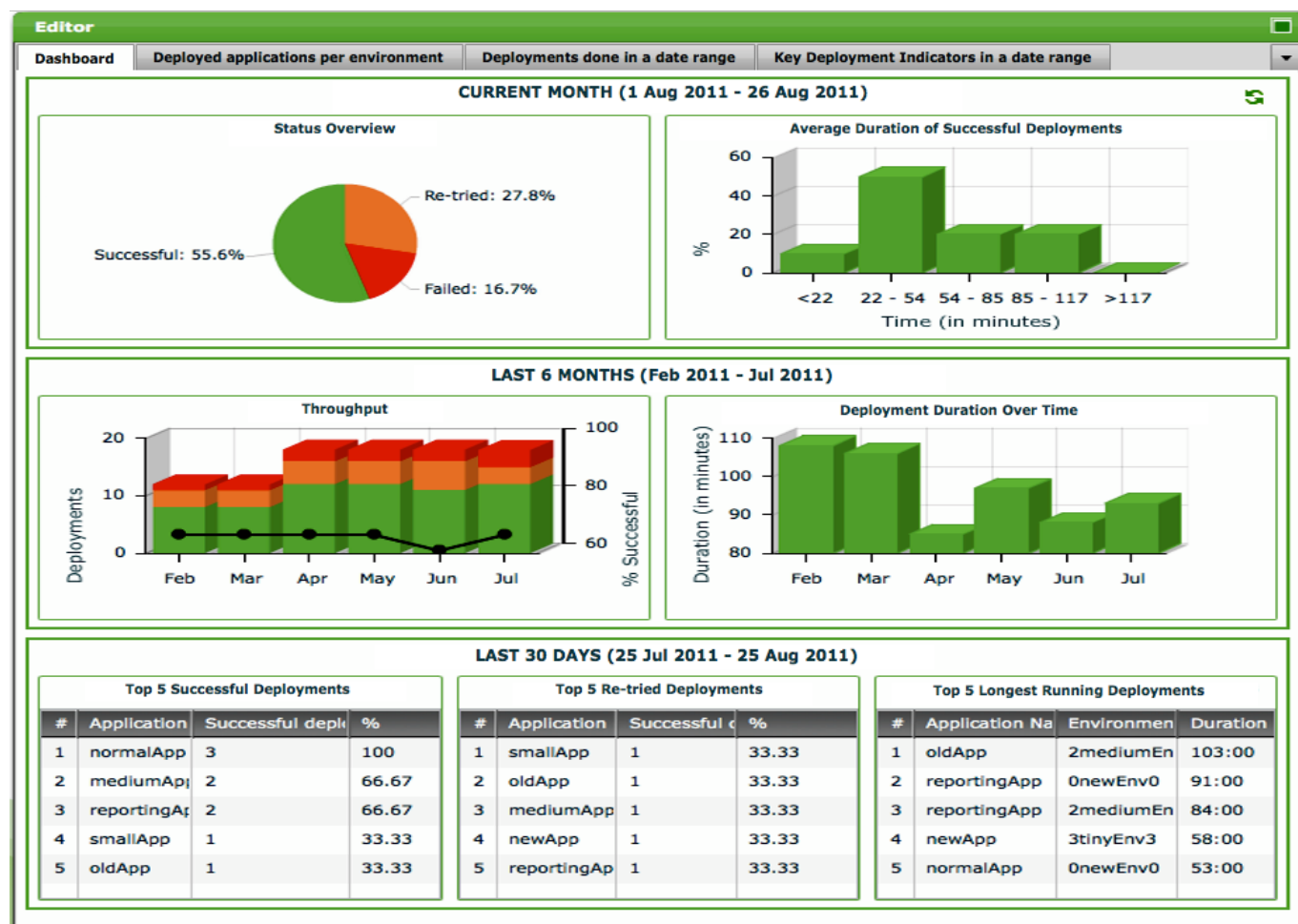


Reporting

Deployit contains information on all your environments, infrastructure and deployments. Using the tool's reporting functionality, you can gain insight into the state of your environments and applications. The reports are available to all users of Deployit and include information on all data in the system, regardless of the user's permissions.

Dashboard

When opening the Reports section for the first time, Deployit will show a high-level overview of your deployment activity. This is a sample dashboard:



The dashboard consists of three sections that each give a different view of your deployment history:

- **Month to Date.** This section shows information about the current month and gives insight into current deployment conditions.
- **Trends.** This section shows trend information about the last 6 complete months.
- **Recent.** This section shows information about the past 30 days of deployments.

The following graphs are displayed on the dashboard:

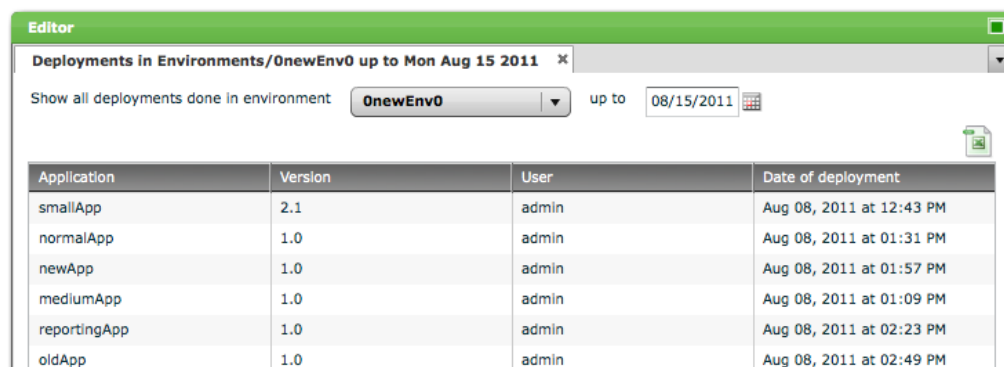
- **Status Overview.** This graph shows how many of the current month's deployments were successful, successful with manual intervention or failed.
- **Average Duration of Successful Deployments.** This graph shows the average duration of successful deployments as a frequency diagram. This will show the distribution of duration over all deployments and identify any outliers.
- **Throughput.** This graph shows the throughput of deployments (divided into successful, successful with manual intervention and failed deployments) over the last 6 months. The black line indicates the percentage of successful deployments per month.
- **Deployment Duration over Time.** This graph shows the average deployment duration over the last 6 months.

- **Top 5 Successful Deployments.** This list shows the top 5 applications with most successful deployments over the last 30 days.
- **Top 5 Re-tried Deployments.** This list shows the top 5 applications with most retries (manual intervention) during deployments over the last 30 days.
- **Top 5 Longest Running Deployments.** This list shows the top 5 applications with longest running deployments over the last 30 days.

To refresh the dashboard, press the button on the top right corner.

Deployed Applications per Environment Report

This report shows all applications that were deployed in a certain environment at a particular date. The following is an example of such a report:



Application	Version	User	Date of deployment
smallApp	2.1	admin	Aug 08, 2011 at 12:43 PM
normalApp	1.0	admin	Aug 08, 2011 at 01:31 PM
newApp	1.0	admin	Aug 08, 2011 at 01:57 PM
mediumApp	1.0	admin	Aug 08, 2011 at 01:09 PM
reportingApp	1.0	admin	Aug 08, 2011 at 02:23 PM
oldApp	1.0	admin	Aug 08, 2011 at 02:49 PM

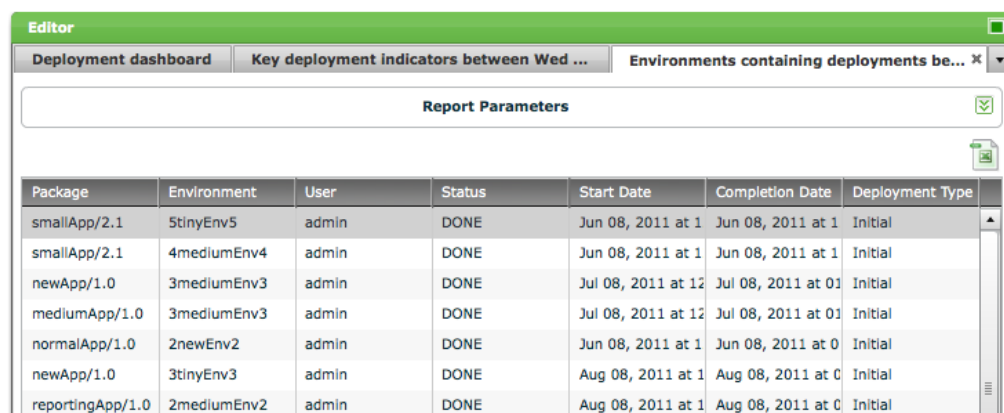
The report shows the following columns:

- **Application.** The application on the environment.
- **Version.** The version of the application.
- **User.** The user that performed the deployment.
- **Date of Deployment.** The date on which this version of the application was deployed.

Deployments in Date Range Report

This report shows deployments done in a given date range. It also allows user to aggregate deployments by selected applications and environments. There are 3 ways to aggregate the data in the report:

No aggregation. When selecting this option, the report is shows all deployments in the date range in tabular format, without aggregation. This is an example of such a report:



Package	Environment	User	Status	Start Date	Completion Date	Deployment Type
smallApp/2.1	5tinyEnv5	admin	DONE	Jun 08, 2011 at 1	Jun 08, 2011 at 1	Initial
smallApp/2.1	4mediumEnv4	admin	DONE	Jun 08, 2011 at 1	Jun 08, 2011 at 1	Initial
newApp/1.0	3mediumEnv3	admin	DONE	Jul 08, 2011 at 12	Jul 08, 2011 at 01	Initial
mediumApp/1.0	3mediumEnv3	admin	DONE	Jul 08, 2011 at 12	Jul 08, 2011 at 01	Initial
normalApp/1.0	2newEnv2	admin	DONE	Jun 08, 2011 at 1	Jun 08, 2011 at 0	Initial
newApp/1.0	3tinyEnv3	admin	DONE	Aug 08, 2011 at 1	Aug 08, 2011 at 0	Initial
reportingApp/1.0	2mediumEnv2	admin	DONE	Aug 08, 2011 at 1	Aug 08, 2011 at 0	Initial

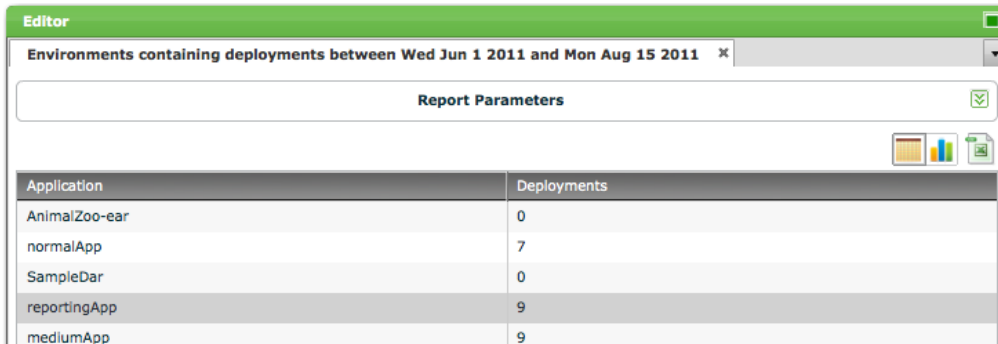
The report shows the following columns:

- **Package.** The package and version that was deployed.
- **Environment.** The environment to which it was deployed.
- **User.** The user that performed the deployment.
- **Status.** The status of the deployment.

- **Start Date.** The date on which the deployment was started.
- **Completion Date.** The date on which the deployment was completed.
- **Deployment Type.** The type of the deployment (*Initial*, *Upgrade* or *Undeployment*).

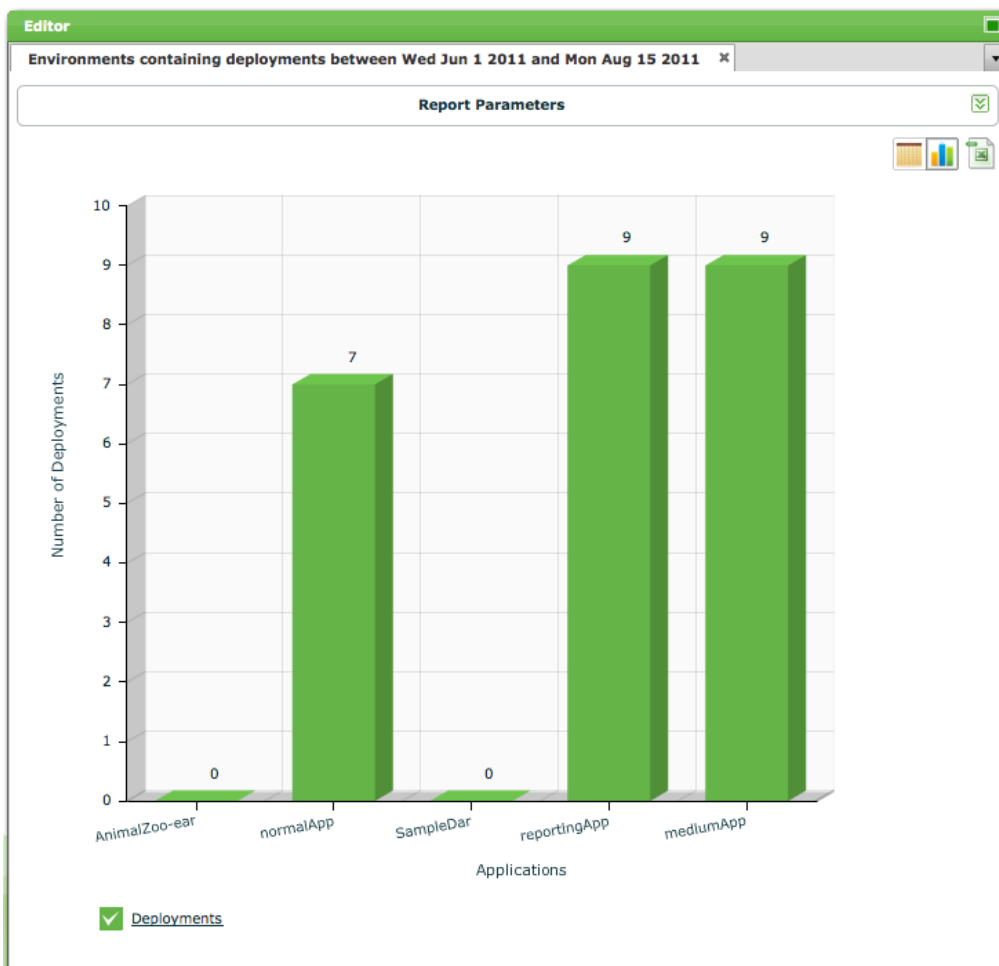
Aggregated by selected applications. With this option, it is possible to aggregate the data over selected applications, across all application versions. The report can be shown in a grid and a chart view.

In grid view, the report looks like this:



Application	Deployments
AnimalZoo-ear	0
normalApp	7
SampleDar	0
reportingApp	9
mediumApp	9

When selecting the chart view, the report is shown as a bar graph, for example:



Aggregated by selected environments. With this option, it is possible to aggregate the data over selected environments. The report can be shown in a grid and a chart view.

In grid view, the report looks like this:

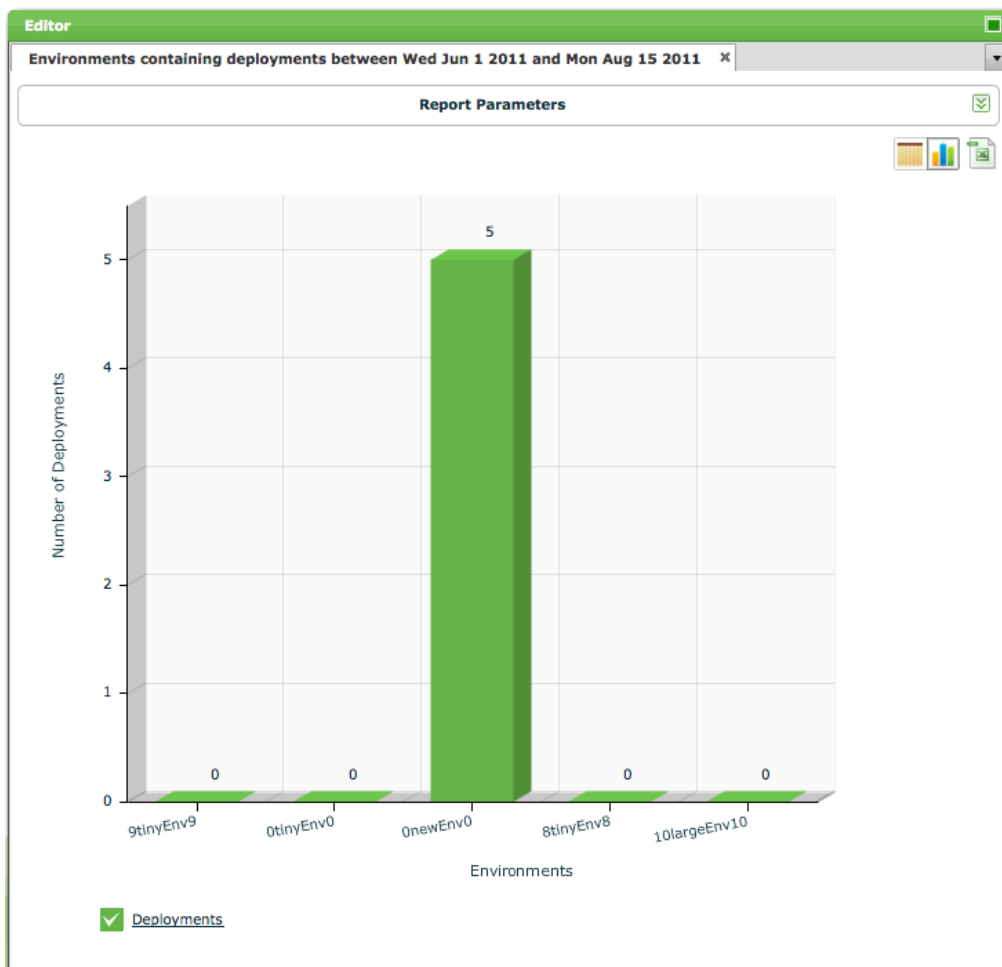
Editor

Environments containing deployments between Wed Jun 1 2011 and Mon Aug 15 2011

Report Parameters

Environment	Deployments
9tinyEnv9	0
0hostEnv0	0
0tinyEnv0	0
10smallEnv10	0
0mediumEnv0	0
0newEnv0	5
0largeEnv0	0
8tinyEnv8	0
10largeEnv10	0
0smallEnv0	0
0normalEnv0	0

When selecting the chart view, the report is shown as a bar graph, for example:



Key Deployment Indicators In A Date Range Report

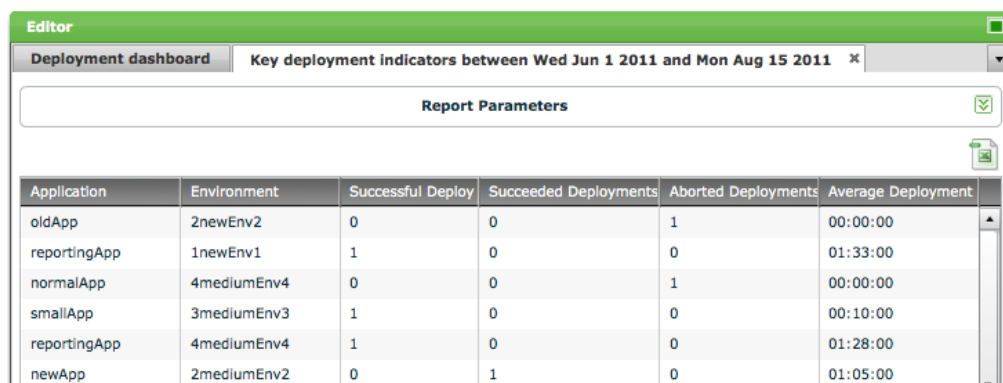
This report shows three indicators describing deployment performance:

- **Number of successful deployments.** This is the total number of deployments that ran successfully (i.e. fully automated).
- **Number of retried deployments.** This is the total number of deployments that required manual intervention.
- **Number of aborted deployments.** This is the total number of deployments that was aborted.
- **Average deployment duration.** This is the average duration of the shown deployments.

The Key Deployment Indicators report can show data aggregated in three ways:

No aggregation. When selecting this option, the report is shows all deployments in the date range in tabular format,

without aggregation. This is an example of such a report:



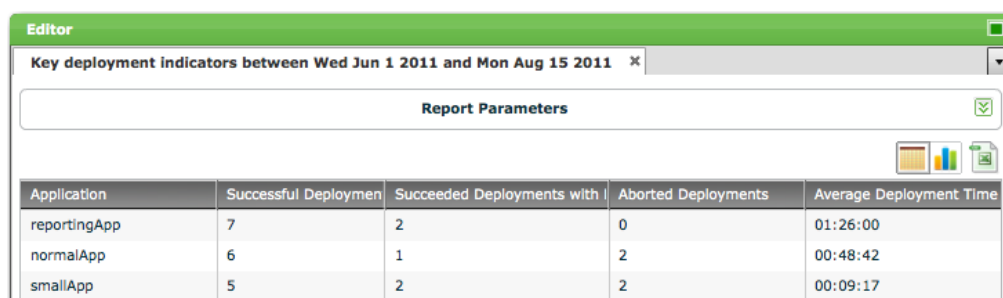
Application	Environment	Successful Deploy	Succeeded Deployments	Aborted Deployments	Average Deployment
oldApp	2newEnv2	0	0	1	00:00:00
reportingApp	1newEnv1	1	0	0	01:33:00
normalApp	4mediumEnv4	0	0	1	00:00:00
smallApp	3mediumEnv3	1	0	0	00:10:00
reportingApp	4mediumEnv4	1	0	0	01:28:00
newApp	2mediumEnv2	0	1	0	01:05:00

The report shows the following columns:

- **Application.** The application that was deployed.
- **Environments.** The environment on which the application was deployed.
- **Successful Deployments.** Number of times the deployment has been successful.
- **Successful Deployments with Retry.** Number of times the deployment succeeded with manual intervention.
- **Aborted Deployments.** Number of times the deployment aborted.
- **Average Deployment Time.** Average duration for the deployment.

Aggregated by selected applications. With this option, it is possible to aggregate the data over selected applications, across all application versions. The report can be shown in a grid and a chart view.

In grid view, the report looks like this:

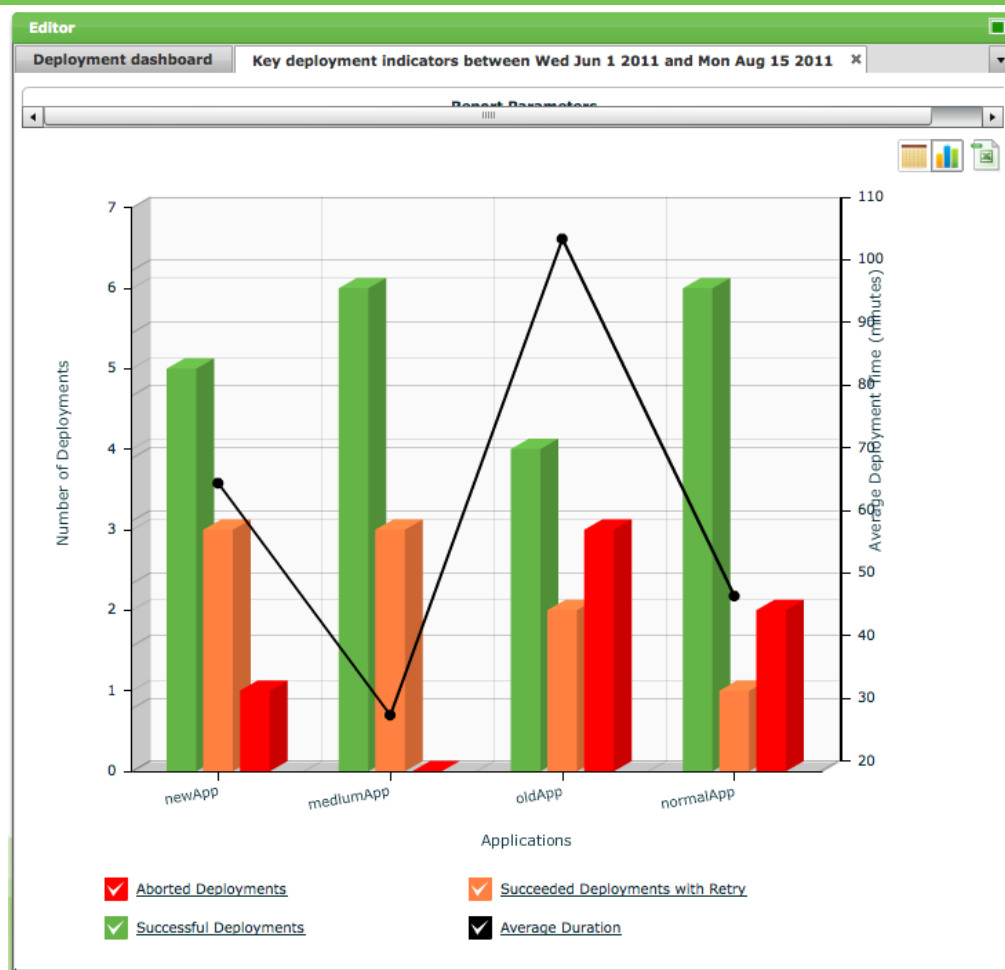


Application	Successful Deployments	Succeeded Deployments with Retry	Aborted Deployments	Average Deployment Time
reportingApp	7	2	0	01:26:00
normalApp	6	1	2	00:48:42
smallApp	5	2	2	00:09:17

The report shows the following columns:

- **Application.** The application deployed in the date range.
- **Number of Successful Deployments.** Number of times the deployment has been successful.
- **Number of Failed Deployments.** Number of times the deployment failed.
- **Number of Aborted Deployments.** Number of times the deployment aborted.
- **Average Deployment time.** Average time for a deployment.

When selecting the chart view, the report is shown as a bar graph, for example:



The chart shows the selected applications on the x-axis. The chart has two y-axis -- the left y-axis shows the number of deployments (successful, retried and aborted) and the right y-axis shows the average deployment time.

Key Deployment Indicators aggregated by selected environments. This shows aggregated report of deployments done on selected environments in a date range.

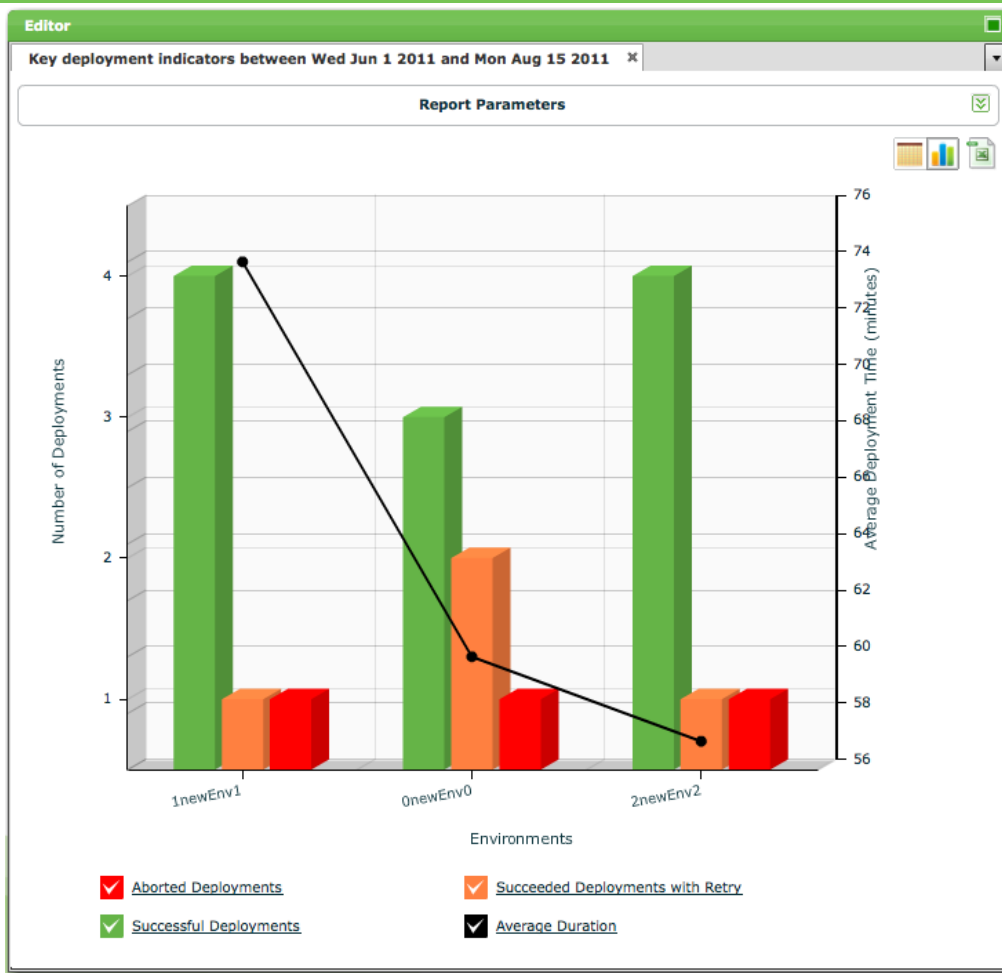
It is shown on selecting "Environment" option in "Aggregate By" list. It has a grid and a chart view. Following is an example of such a report:

Report Parameters				
Environment	Successful Deployment	Succeeded Deployments with	Aborted Deployments	Average Deployment Time
1newEnv1	4	1	1	01:14:00
0newEnv0	3	2	1	01:00:36
2newEnv2	4	1	1	00:57:00

The report shows the following columns:

- **Environment.** The environment on which deployments was done in the date range.
- **Number of Successful Deployments.** Number of times the deployment has been successful.
- **Number of Failed Deployments.** Number of times the deployment failed.
- **Number of Aborted Deployments.** Number of times the deployment aborted.
- **Average Deployment time.** Average time for a deployment.

The chart shows the selected environments on the x-axis. This chart has two y-axis. Left y-Axis shows the number of deployments (successful, failed and aborted), and the right y-axis shows the average deployment time on the environments.



Exporting to csv format

If you want to reuse data from Deployit in your own reporting, the report data can be download as a CSV file using the "Export to CSV" button on the top right of the report:

