Viewpoint for Moab HPC Suite 7.0

User Guide

Contents

About this guide

Welcome to the Viewpoint for Moab HPC Suite User Guide. This guide is intended to help administrators and users understand, navigate, and use Viewpoint for Moab HPC Suite. It is important to note that, depending on your permissions, you may not have access to pages or actions described in this guide. Administrators set user roles and permissions for page and action access.

This guide is organized to match the navigation of the Viewpoint user interface. You will notice that chapter titles match menu navigation options. All of the tasks associated with a particular Viewpoint page are grouped together so that you can easily find help for the actions you want to take on the page.

For more information about this guide, see these topics:

- Chapter 1: Viewpoint basics on page 1 contains basic information about getting started using Viewpoint. It explains how to log in/out, understand Homepage gadgets, and use the "Contact Us" page.
- Chapter 2: "New" menu options on page 9 describes the tasks associated with all the "New" menu pages, including submitting jobs and requesting reservations.
- Chapter 3: "View" menu options on page 19 describes the tasks associated with all the "View" menu pages, including viewing jobs and viewing nodes.
- Chapter 4: "History" menu options on page 31 describes the tasks associated with all the "History" menu pages, including viewing event logs, viewing reports, managing jobs, and viewing requested actions.
- Chapter 5: "Administration" menu options on page 45 describes the tasks associated with all the "Administration" menu pages, including managing nodes, managing policies, and managing users.

> Please refer to the Viewpoint for Moab HPC Suite Administrator Guide for information about how to use the Configuration options in Viewpoint.

Chapter 1: Viewpoint basics

This chapter is intended to help you begin finding your way around Viewpoint. It contains the following topics:

1.1 Logging in/out

Regardless of the configured security type, you must log in to Viewpoint in order to use it. For security purposes, it is important to log out of Viewpoint after each use.

To log in to Viewpoint

1. In a web browser, navigate to Viewpoint.

   You are automatically taken to the login page.

2. Enter your **User name** and **Password** into the respective fields.
3. Choose **Log in** to log in.

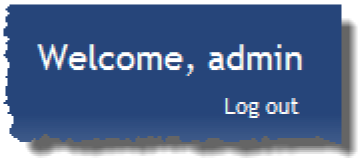
   Image 1-1: Logging in

   You will be redirected to the Viewpoint home page.

To log out of Viewpoint

1. From any Viewpoint page, locate the **Log out** link in the top right corner of the page.

2. Click the link to log out.

   You will be redirected to the login page.

Related topics

- **Viewpoint basics** on page 1
- **Using "Contact Us" to send email** on page 2

1.2 Using "Contact Us" to send email

If configured, the Contact Us page allows you to send an email to the Viewpoint administrator.

To send email using the Contact Us page

1. Navigate to the Contact Us page. The link is typically located in the top right corner of the page beside the **Log out** link, but it could also be included in the main navigation bar.

   The page contains an email form.

2. Enter your name in the **From** field.
3. Enter the subject of the email in the **Subject** field.
4. Write the content of the email in the **Message** field.
5. When you finish writing the email, click the **Send** button.

   If you wish to clear the fields and start over, use the **Clear** button.

Related topics

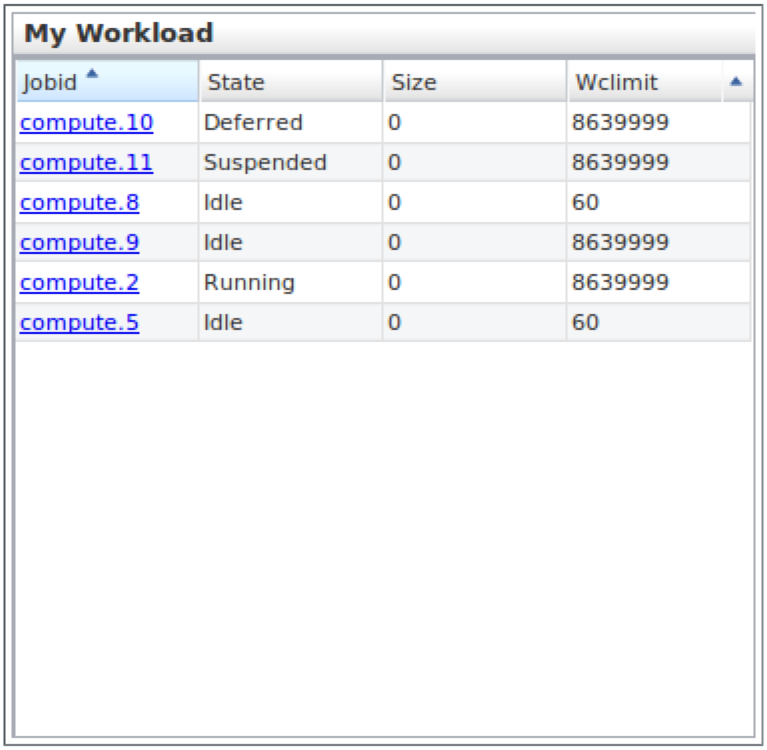
- **Viewpoint basics** on page 1
- **Logging in/out** on page 1

1.3 Understanding Homepage gadgets

The Viewpoint Homepage supports the use of gadgets that indicate the current state of Moab. The following gadgets are currently supported and may be available to you:

- **My Workload** on page 4
- **Jobs Needing Attention** on page 5
- **Troubled Resources** on page 6
- **System Events** on page 6
- **Resource Utilization** on page 7

My Workload

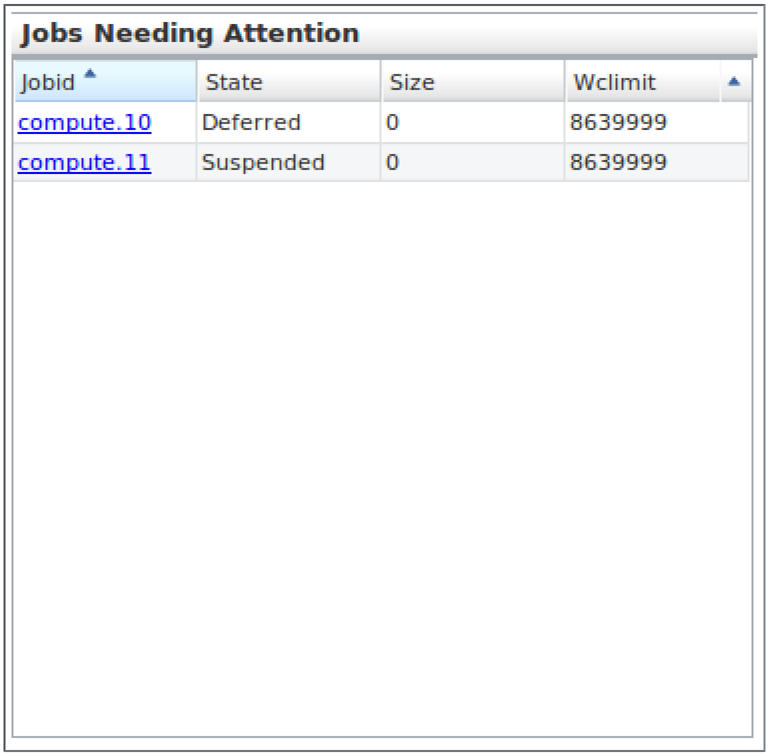


My Workload

Jobid	State	Size	Wclimit
compute.10	Deferred	0	8639999
compute.11	Suspended	0	8639999
compute.8	Idle	0	60
compute.9	Idle	0	8639999
compute.2	Running	0	8639999
compute.5	Idle	0	60

The My Workload gadget displays all your jobs and the jobs' **Jobid**, **State**, **Size**, and **Wclimit** attributes.

Jobs Needing Attention


Jobs Needing Attention

Jobid	State	Size	Wclimit
compute.10	Deferred	0	8639999
compute.11	Suspended	0	8639999

The Jobs Needing Attention gadget displays jobs with special state values of interest. This gadget shows the same job attributes as the My Workload gadget. The possible job state values of interest are: Lost, None, Suspended, System Hold, Unknown, Deferred, and Batch Hold.

Troubled Resources

Troubled Resources

Server	Status
node01	Down
node02	Down
node03:v10	temperror-0
node04	Down
node05:v11	clusterqueryfail-4
node07	Down
node09	clusterqueryfail-4
node10	customfail-2
node11	customfail1-1
node12	nodepowerfail-3
node13	vmdestroyfail-4
node14	vmcreatefail-2
node15	nodemodifyfail-1
node16	clusterqueryfail-4

The Troubled Resources gadget displays nodes with a status of 'down', and all nodes with G-Events on them. The gadget also provides drill-through capability to drill down to the node in the Viewpoint Node Management page.

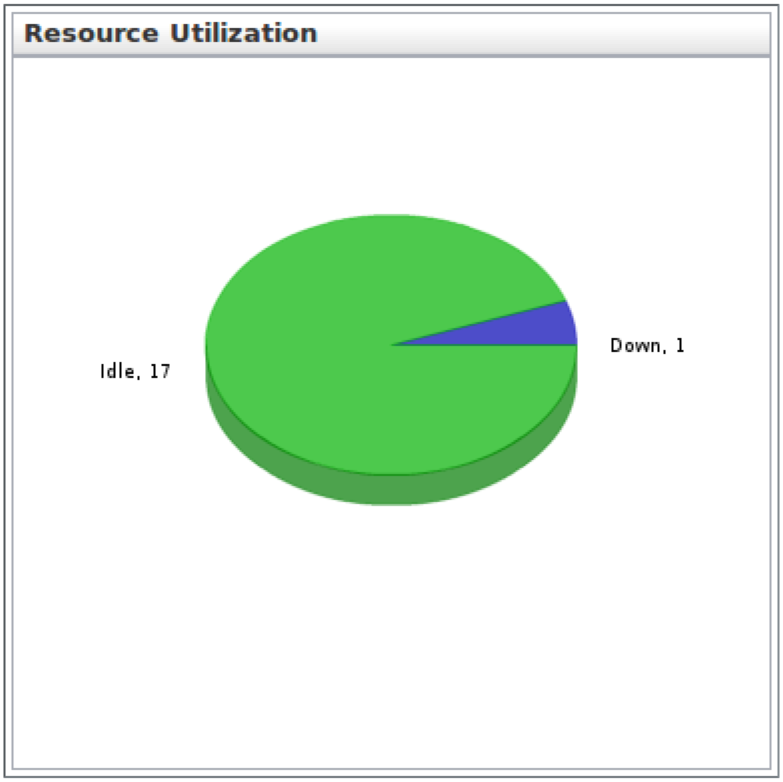
System Events

System Events

Server	Sv	Event	Time
node03:v10		temperror	2010.04.05:14:38:57
node05:v11	4	clusterqueryfail	2010.04.05:14:38:57
node09	4	clusterqueryfail	2010.04.05:14:38:57
node10	2	customfail	2010.04.05:14:38:57
node11	1	customfail1	2010.04.05:14:38:57
node12	3	nodepowerfail	2010.04.05:14:38:57
node13	4	vmdestroyfail	2010.04.05:14:38:57
node14	2	vmcreatefail	2010.04.05:14:38:57
node15	1	nodemodifyfail	2010.04.05:14:38:57
node16	4	clusterqueryfail	2010.04.05:14:38:57

The System Events gadget displays nodes with G-Events on them. The severity (1-Info, 2-Warning, 3-Alert, 4-Fatal), event, and timestamp of the event are displayed. The gadget also provides drill-through capability to drill down to the node in the Viewpoint Node Management page (see **Managing nodes** on page 45).

Resource Utilization



The Resource Utilization gadget displays state information for all servers. These are the possible states:

State	Description
Down	The node is not available for workload.
Idle	The node is available for workload but is not running anything.
Busy	The node is running workload and cannot accept more.
Running	The node is running workload and can accept more.
Drained	The node has been sent the drain request and has no workload on it.
Draining	The node has been sent the drain request, but still has workload on it.
Flush	The node is being reprovisioned.
Reserved	The node is being reserved. This is an internal Moab state.
Unknown	The state of the node is unknown.
Up	The node is up, but the usage is being determined.
All	All Servers.

The gadget also provides capability to drill down to the node and the appropriate status in the Node Management page (see **Managing nodes** on page 45).

Related topics

- **Sorting a Gadget's Information** on page 8
- **Viewpoint basics** on page 1

1.3.1 Sorting a Gadget's Information

Most of the gadgets, namely My Workload, Jobs Needing Attention, Troubled Resources, and System Events, allow you to sort the contained information by any chosen column.

To sort a gadget's contents

1. In the desired gadget's table, choose a column by which to sort the information, and click the column's heading.

   The information is presented in alphanumeric order according to that column.

   An arrow appears to the right of the column name to indicate the order of the information as one of the following:

	Descending
	Ascending

2. To switch the order from descending to ascending and vice versa, click the column heading again.

   The arrow direction changes and the information order reverses.

Related topics

- **Understanding Homepage gadgets** on page 3
- **Viewpoint basics** on page 1

Chapter 2: "New" menu options

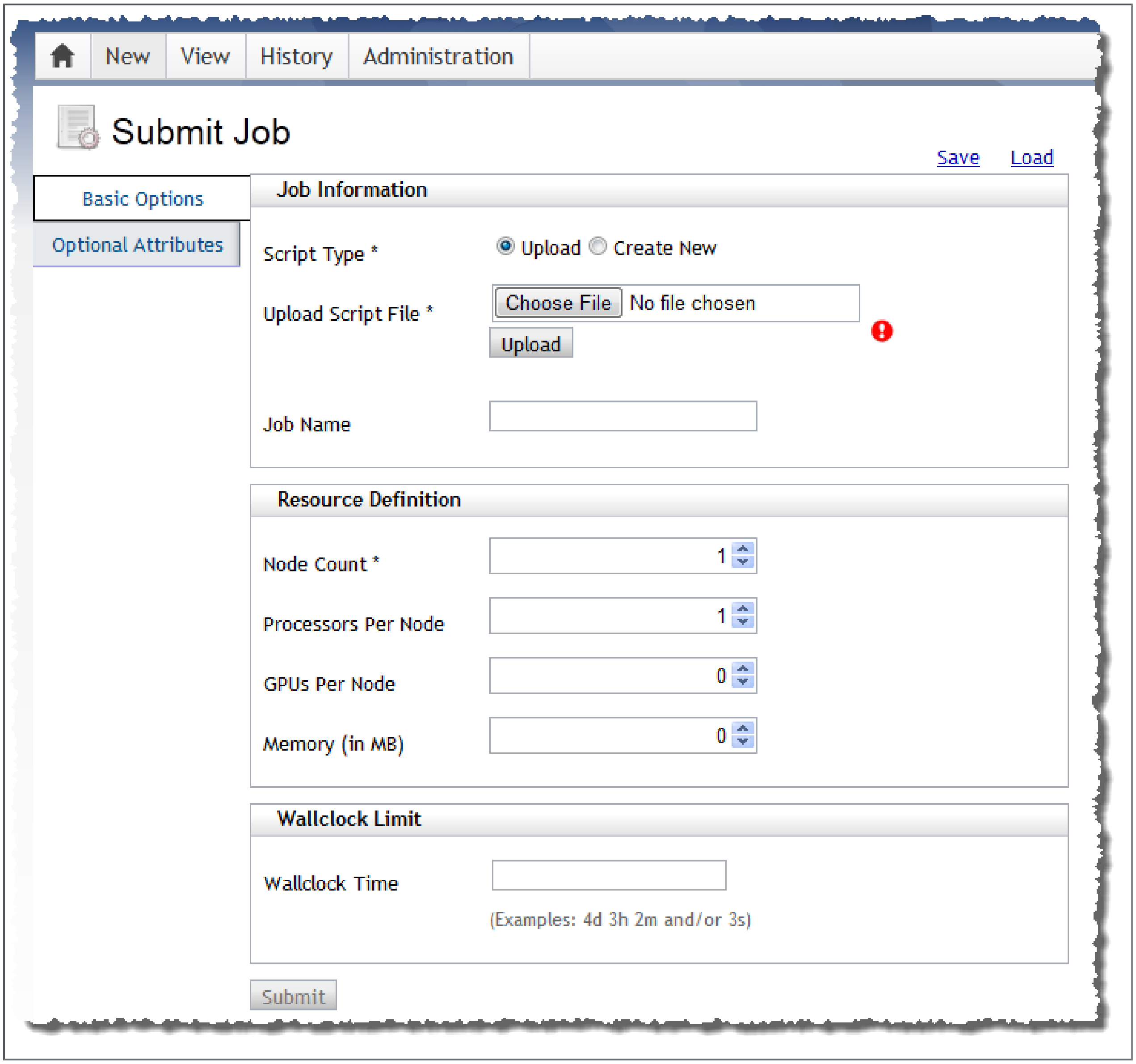
By default, the "New" menu contains links to the following pages:

> Administrators can customize Viewpoint menu names, page names so that they do not match what is delivered in Viewpoint by default. Additionally, administrators can customize user roles that affect what pages you may have permissions to access and what actions you are allowed to perform on those pages.

Menu option	Page	What can I do there?	Link to more information
Job	Submit Job	You can quickly and easily submit a job.	**Submitting a job** on page 9
Reservation	New Reservation	You can set a reservation on resources	**Creating a new reservation** on page 15

2.1 Submitting a job

The Submit Job page is designed to help you quickly and easily submit a Moab job through Viewpoint. Here is an example of the form you might see:



From this page, you can also save a job form for later use (see **Saving a job form** on page 12), and load saved job forms (see **Loading a job form** on page 14).

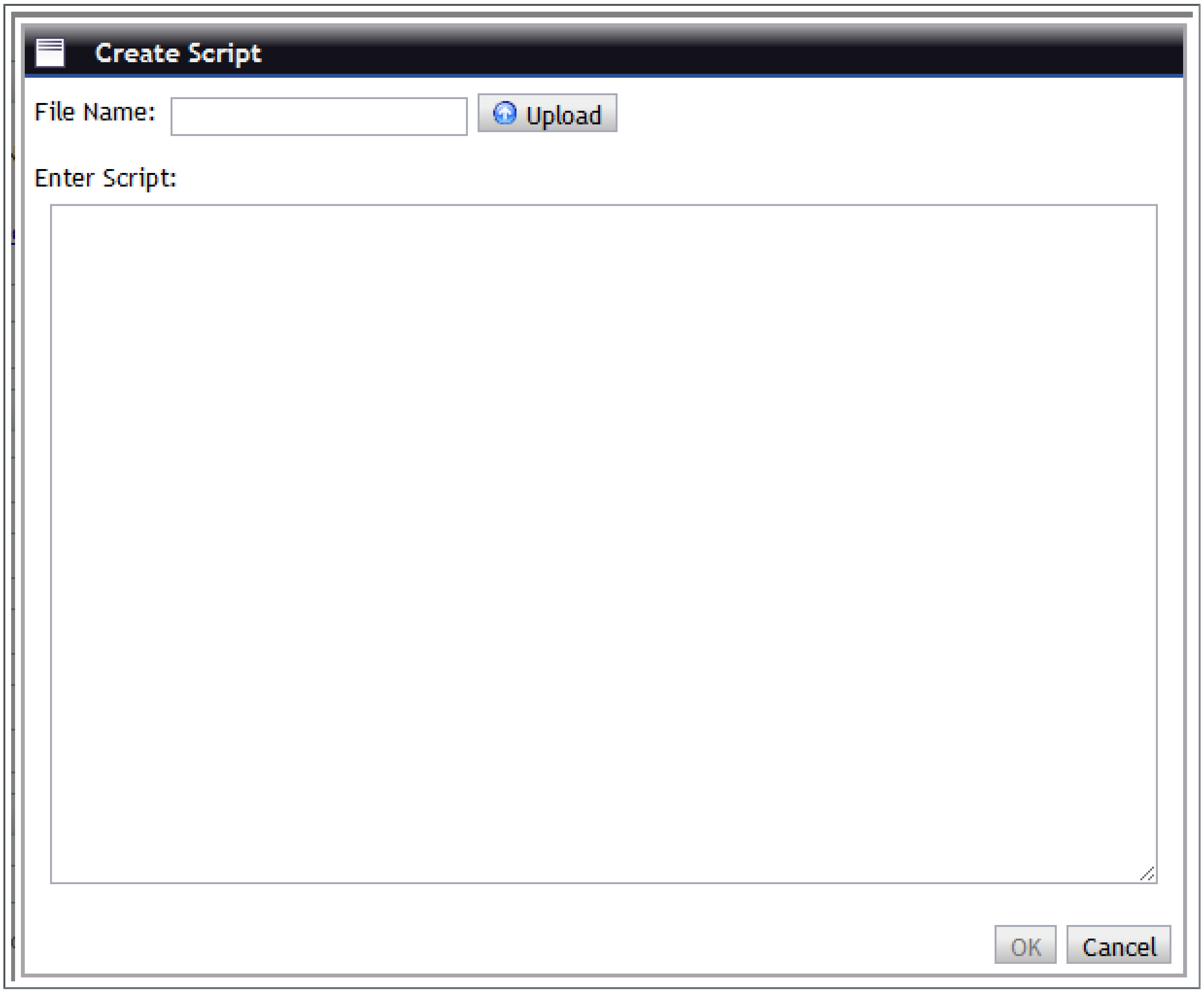
To submit a job from a saved script

1. In the Basic Options tab, select **Upload** in the **Script Type** field.
2. In the **Upload Script File** field, click **Choose File**.
3. Browse to your saved script file.
4. Click **Upload**.
5. Specify a **Node Count**.

6. All other fields in the form are optional. You can configure them or leave them blank.
7. When you have configured all desired fields, choose **Submit**.

To submit a job with a new script

1. In the Basic Options tab, select **Create New** in the **Script Type** field.
2. Click **Create and Upload Script**.
3. A Create Script window opens.



4. In this window, do the following:
   a. Specify a name for your scrip in the **File Name** field.
   b. Enter your custom scrip in the **Enter Script** field.
   c. When you are finished, choose **Upload**.

A confirmation dialog will appear and tell you if the upload was successful.

d. When you are finished, choose **OK**.

5. Specify a **Node Count**.
6. All other fields in the form are optional. You can configure them or leave them blank.
7. When you have configured all desired fields, choose **Submit**.

Viewpoint determines the commands necessary to submit your job. When you have submitted your job, you will be able to view it on the Job Management page (see **Managing jobs** on page 37) and on the View Jobs page (see **Viewing jobs** on page 19).

Related topics

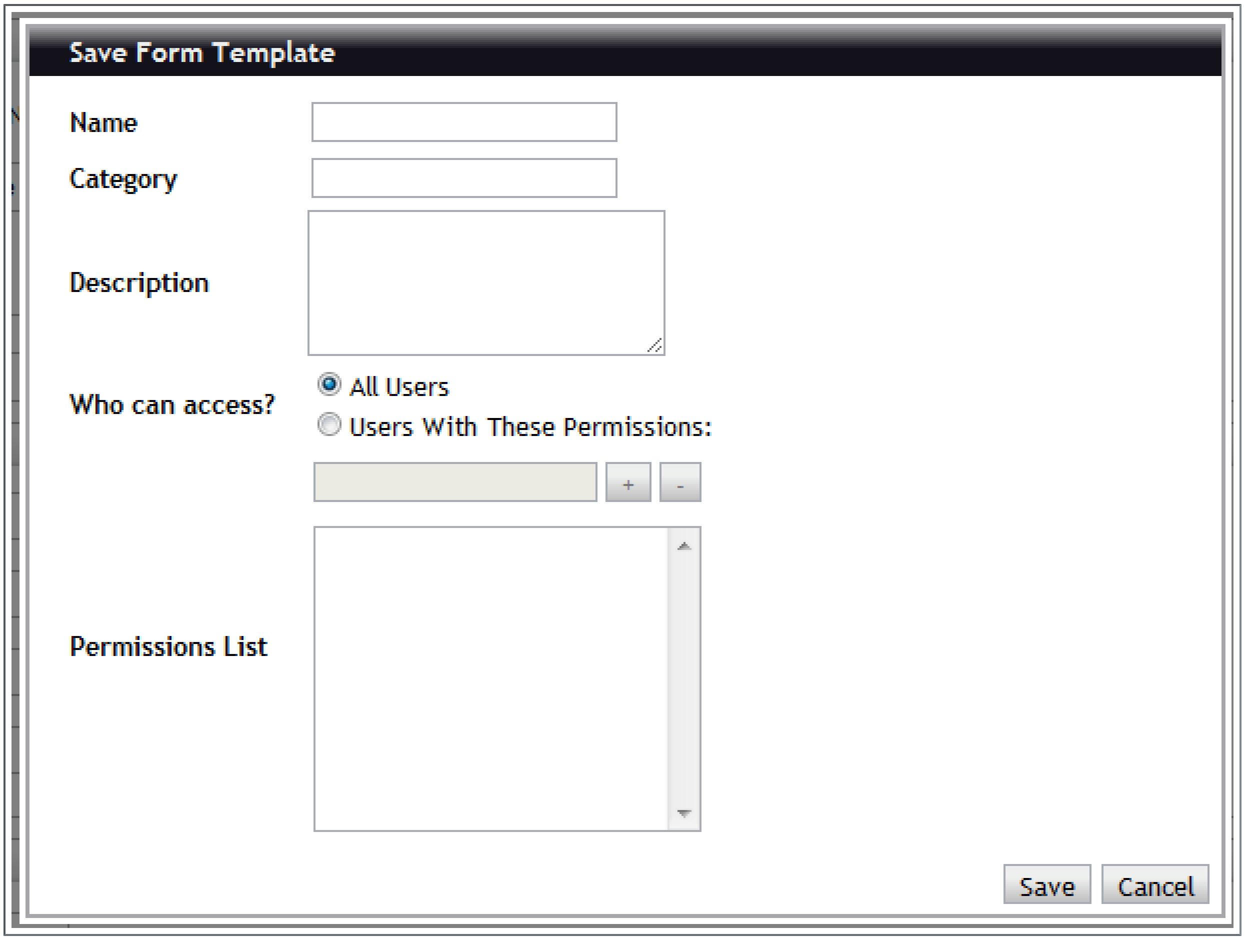
- **"View" menu options** on page 19
- **Viewing jobs** on page 19
- **Managing jobs** on page 37

2.1.1 Saving a job form

The Submit Job page allows you to save frequently used values and load them back in when you want to complete a job submission form with similar values to the saved form.

To save a job form

1. Go to the Submit Job page (**New > Job**).
2. Fill out the job form the way you want it (for more information, see **Submitting a job** on page 9).
3. Choose **Save**.
4. The Save Template Form window appears.



5. Specify a name for your saved form in the **Name** field.
6. In the **Category** field, specify a category.
7. Specify a text description of the job form in the **Description** field.
8. In the **Who can access?** field, specify who can access this job form:

Option	Description
All Users	Specifies that all users can access this form; no permissions are necessary.
Users With These Permissions	Restricts access to this form to users who have the permissions you specify in the **Permissions List**.

9. If you specify **Users With These Permissions**, do the following:
   a. Enter a permission in the text box (for example, **admin**), and click **Add**.

      The permission appears in the Permissions List.
   b. To remove a permission from the list, select the permission and click **Remove**.

10. When you are finished, choose **Save**.

Related topics

- **Loading a job form** on page 14
- **Submitting a job** on page 9

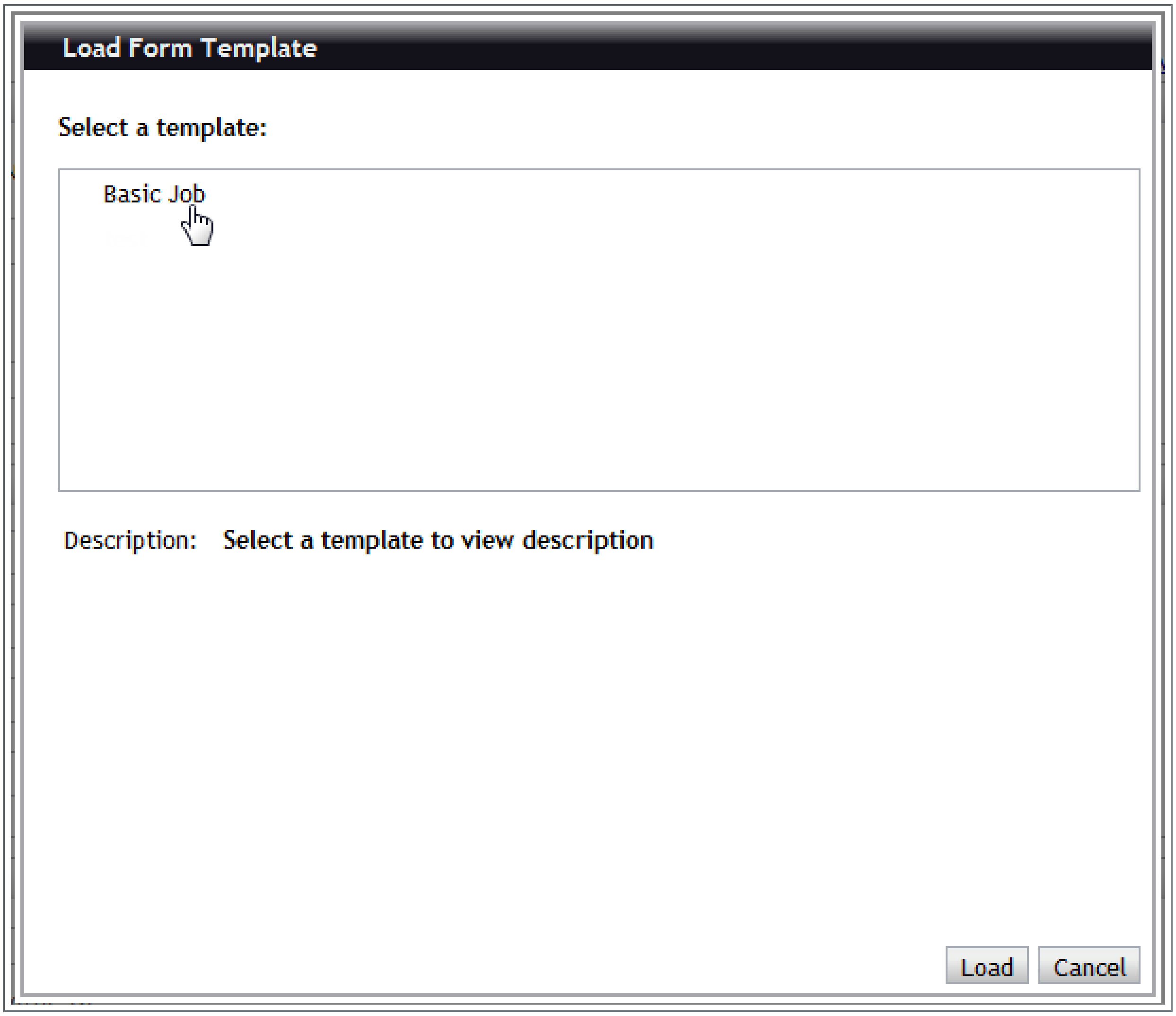
2.1.2 Loading a job form

If you have saved job forms (see **Saving a job form** on page 12), you can load them when you want to complete a job submission form with similar values to the saved form. These instructions explain how to do this.

To load a job form

1. Go to the Submit Job page (**New > Job**).
2. Choose **Load**.

   The Load Form Template window appears.



3. Select the form you want to load from the list.

   When you select a form, the description of the form appears beneath the list to better help you find which form you are looking for.

4. Choose **Load**.

   The window closes and the job form on the Submit Job page displays with the values from the saved form you loaded.

Related topics

- **Submitting a job** on page 9
- **Saving a job form** on page 12

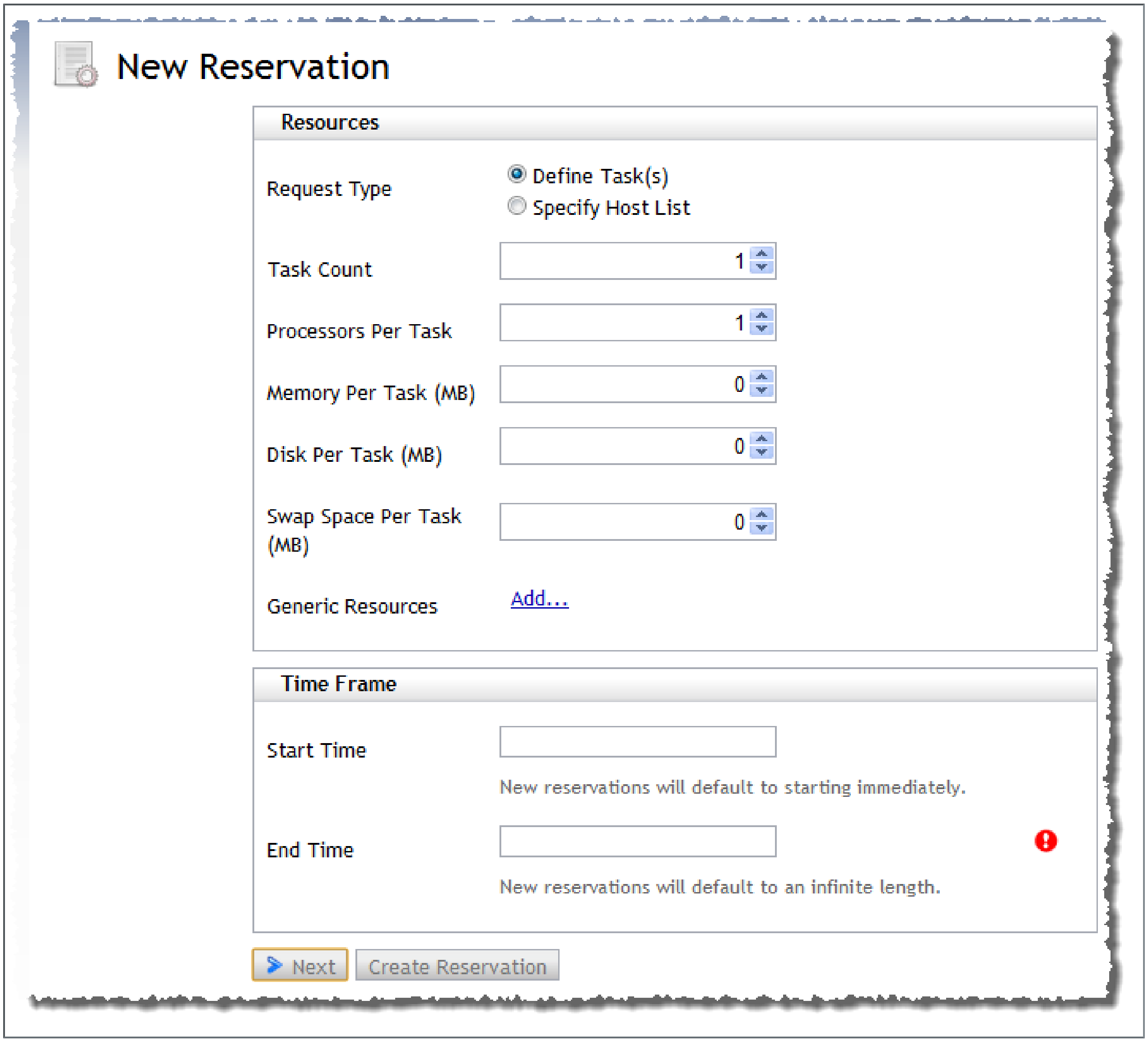
2.2 Creating a new reservation

In Viewpoint, you can reserve resources or a set of tasks. You can create these reservations on the New Reservation page (**New > Reservation**).

Administrators can modify the New Reservation form to fit their needs and preferences.

To create a reservation

1. Go to New Reservation page (**New > Reservation**).



2. Select a **Request Type**. Reservations must have resources to reserve and the resources can be a list of nodes or a set of tasks.

3. Specify a **Start Time** and an **End Time**.

4. All other fields in the form are optional and can be configured or left blank.
5. When all desired fields are configured, choose **Create Reservation**.

Related topics

- **"New" menu options** on page 9

Chapter 3: "View" menu options

By default, the "View" menu contains links to the following pages:

> Administrators can customize Viewpoint menu names, page names so that they do not match what is delivered in Viewpoint by default. Additionally, administrators can customize user roles that affect what pages you may have permissions to access and what actions you are allowed to perform on those pages.

Menu option	Page	What can I do there?	Link to more information
Accounting Manager	Accounting	You can access Moab Accounting Manager through Viewpoint.	**Viewing Moab Accounting Manager** on page 19
Jobs	View Jobs	You can see all the jobs in your data center in tile form.	**Viewing jobs** on page 19
Nodes	View Nodes	You can see all the nodes in your data center in tile form.	**Viewing nodes** on page 22
Reservations	View Reservations	You can view a list of all reservations in your system.	**Viewing reservations** on page 24

3.1 Viewing Moab Accounting Manager

If administrators have configured Viewpoint to embed Moab Accounting Manager, you can access it in the Viewpoint interface by navigating to **View > Accounting Manager**. The Accounting page is simply a Viewpoint-side access to the Moab Accounting Manager URL.

If you have questions regarding this page, please contact your administrator.

Related topics

- **"View" menu options** on page 19

3.2 Viewing jobs

The Viewpoint View Jobs page lets you view all your Moab jobs. This page displays all jobs in a summary (tile) view. You can also select one specific job tile to view its details. In the jobs tile view, you can use sorting options to quickly find what you're looking for (for more information, see **Filtering and sorting** on page 27).

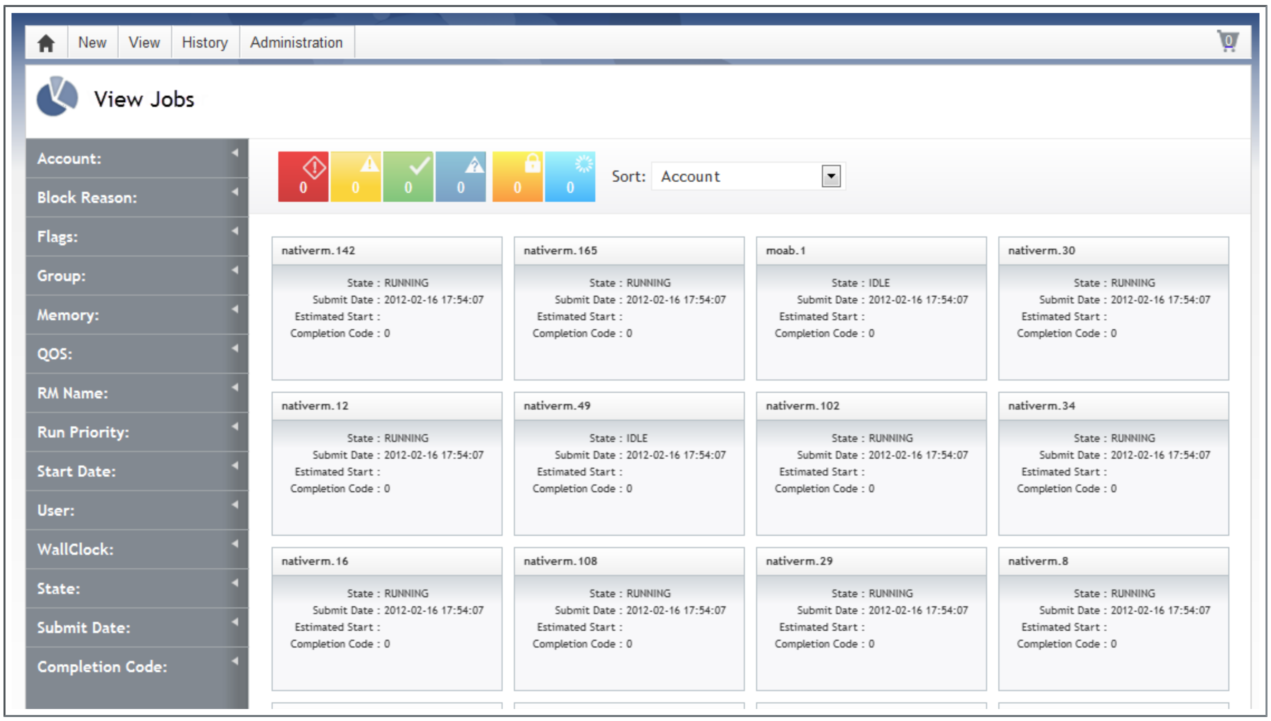
Access the View Jobs page by navigating to **View > Jobs**.

For more information, see these sections:

- **Viewing job summaries in tile display** on page 20
- **Viewing job details** on page 21

VIEWING JOB SUMMARIES IN TILE DISPLAY

When you open the View Jobs page, tiles display representing each Moab job.



Each tile contains a summary information about the job it represents, including the following:

Field	Description
Name	Name of the job
Submit Date	Date and time job was submitted For example: 2012-02-16 13:56:13
Estimated Start	Estimated start date and time
Completion Code	Completion code

VIEWING JOB DETAILS

Click any job tile to see its detail information. The details view contains all of the same content as the summary tile view and the following additional information:

Field	Description
Account	Account used to create the job
Block Reason	Reason the job is blocked (if blocked)
Holds	List of holds on the job
Messages	Any messages associated with the job
QOS Requested	Requested Quality of Service for the job
Run Priority	Run priority of the job
Active Duration	How long the job has been active
Flags	Any flags that exist on the job
ID	Job ID
Queue	Name of the queue assigned to the job
Start Date	Date and time the job was started
User	User that submitted the job
Allocated Nodes	Nodes where the job will run
Completion Date	Date the job was completed
Group	Group under which the job is running
Memory	Amount of memory (in MB) requested for the job
QOS	Allocated Quality of Service for the job
RM Name	Resource manager name
State	State of the job (Running, Down, etc.)
Wall Clock	Amount of time allocated the job

Related topics

- **Viewing nodes** on page 22
- **"View" menu options** on page 19

3.3 Viewing nodes

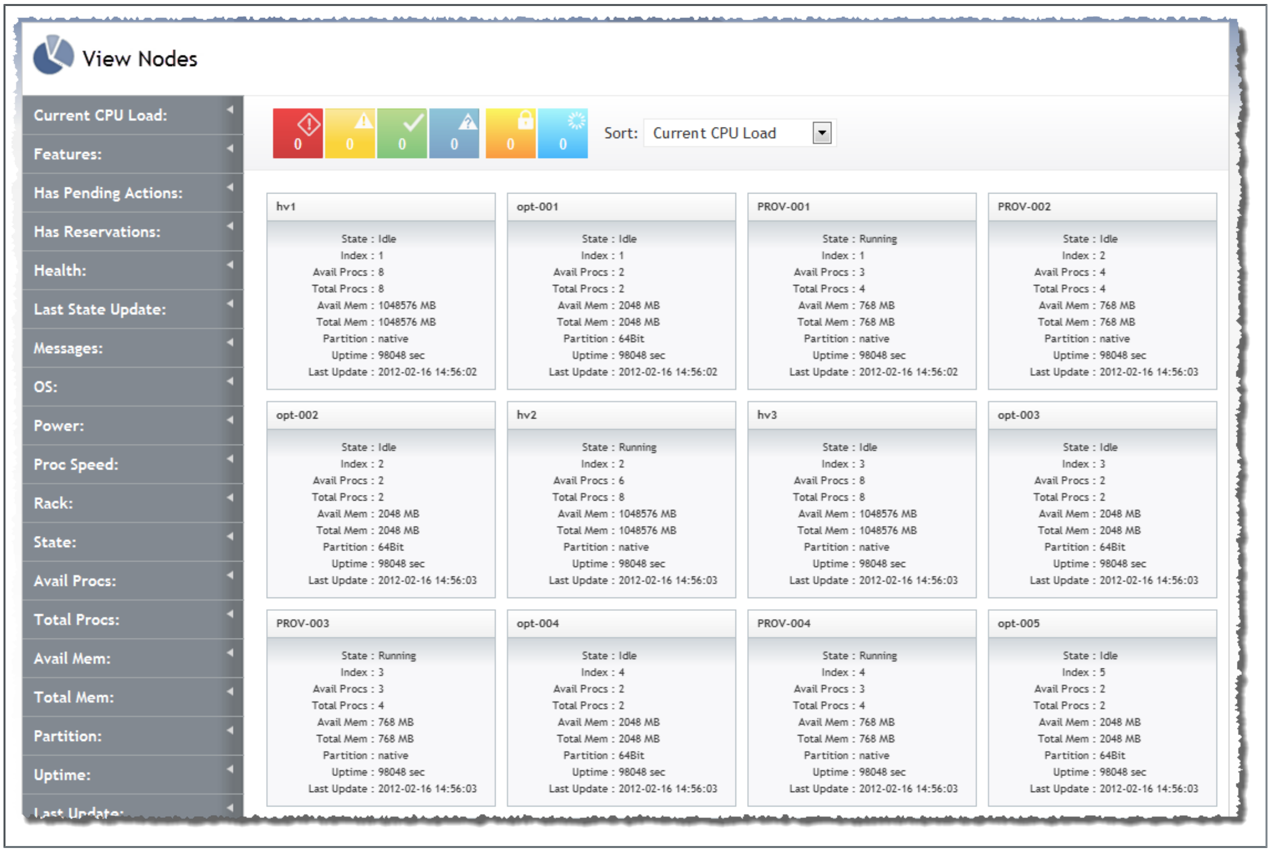
You can use the View Nodes page to obtain visibility into, and information about, your data center. The View Nodes page offers a holistic view of the nodes in your data center in tile view. It also allows you to select one specific node to view its details. In the nodes tile view, you can use filtering and sorting options to help you quickly find what you're looking for (for details, **Understanding "View" pages features** on page 26).

Access the View Nodes page by navigating to **View > Nodes**.

VIEWING NODE SUMMARIES IN TILE DISPLAY

Nodes appear on the View Nodes page.

Image 3-1: View Nodes page



The View Nodes page will not display any storage node tiles. (Storage nodes are nodes without any processors or memory.)

Tiles also graphically display the node state using the following logic (for more information, see **Understanding health/state information** on page 26):

- A node in an OK health state does not display any icon.
- A node with a health state other than OK displays the health state.
- If a node is in a Requested Actions state but also has a health state of anything other than OK (i.e., Failure, Warning, or Unknown), the health icon will display instead of the Requested Actions icon. The same applies for a Reserved node.
- A node in both a Reserved state and Requested Actions state displays the Requested Actions icon.

In addition to displaying the node state, each tile contains summary information about the node it represents, including the following:

Field	Description
Name	Name of the node
State	Running, Idle, etc.
Avail Procs	Number of available processors
Total Procs	Total number of processors
Avail Mem	Amount of available memory
Total Mem	Total amount of memory
Partition	Partition configured in Moab for this node
Uptime	How long the node has been up
Last Update	Date and time the node was last updated

You can use the **Filters** tool to limit the nodes that display in the tile view, and you can sort the limits that do display by using the **Sort** tool. For more information, see **Understanding "View" pages features** on page 26.

Viewing node details

Click any node tile to see its detail information. The details view contains all of the same content as the summary tile view and the following additional information:

Field	Description
Features	Available features on the node
Generic Resources	Available generic resources on the node
Health	One of OK, Unknown, Warning, or Failure (for more information, see **Understanding health/state information** on page 26)

Field	Description
Last State Update	Date and time the node's state was last updated
Power	Either On or Off
Reservation Names	Names of reservations on the node
Generic Events	List of events that have been reported on the node
Has Pending Actions	Either true or false
ID	Node's ID
OS	Operating system installed on the node
Proc Speed	Speed of the processor on the node
Slot	Slot in the rack where the node resides
Current CPU Load	Percent of the CP that is currently being utilized
Generic Metrics	Data regarding the current status of various hardware components within the node
Has Res-ervations	Either true or false
Index	Index assigned by Moab to the node
Messages	Any messages associated with the node
Rack	The rack number where the node resides

Additionally, if there are any jobs associated with the nodes, they appear as summary tiles in the node detail view. For more information, see **Viewing jobs** on page 19.

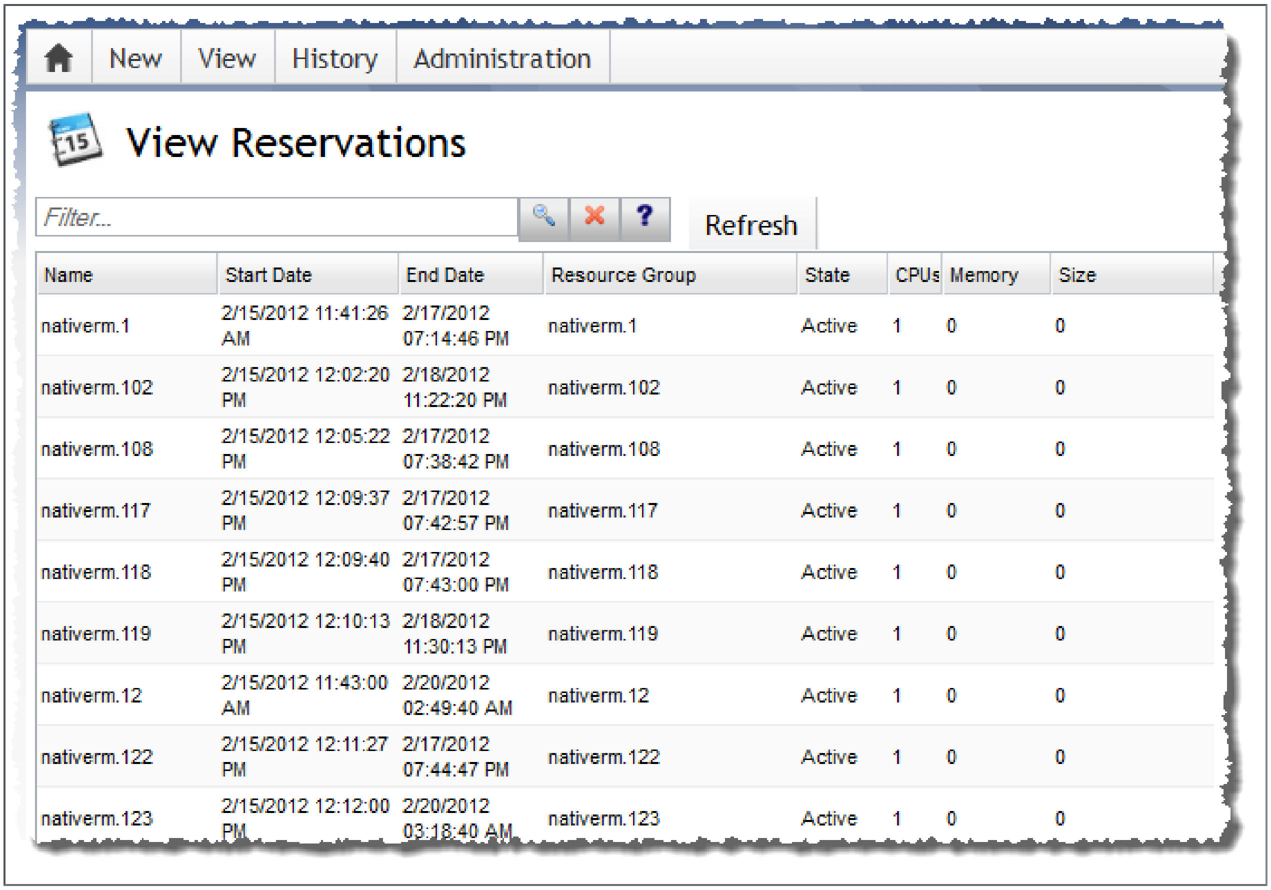
Related topics

- **Viewing jobs** on page 19
- **Understanding "View" pages features** on page 26
- **"View" menu options** on page 19

3.4 Viewing reservations

The View Reservations page is a table grid that displays reservations and their current states.

Image 3-1: Reservation Management page



From this page, you can view reservation details (see **Viewing a reservation's details** on page 25) or delete a reservation (see **Deleting reservations** on page 26). To manually refresh the table, choose **Refresh**.

Access the View Reservations page by navigating to **View > Reservations**.

This section contains these topics:

- **Viewing a reservation's details** on page 25
- **Deleting reservations** on page 26

3.4.1 Viewing a reservation's details

In addition to the reservation information that displays in the View Reservations table grid, you can get more information about a reservation by opening detail view.

The reservation detail view displays on the right of the table and contains detailed information about the reservation, including ownership and features, who is authorized to use it, its duration, and its allocated resources. From the detail view, you can also delete a reservation. For more information, see **Deleting reservations** on page 26.

To view a reservation's details

1. Go to the View Reservations page (**View > Reservations**).
2. Double-click the reservation from the table that you want to see in a detail view.
3. The reservation's details appear in a new window to the right of the table.
4. Choose **Close** when you are finished viewing the reservation's details.

Related topics

- **Viewing reservations** on page 24
- **Deleting reservations** on page 26

3.4.2 Deleting reservations

From the Reservation page, you can delete a reservation. These steps explain how this is to be done.

To delete a reservation

1. Go to the View Reservations page (**View > Reservations**).
2. Double-click the reservation you want to delete to view the reservation detail view, and click **Delete**.

   A confirmation window appears and asks if you are sure you want to delete the reservation.
3. Choose **Yes** to delete or **No** to cancel.

Related topics

- **Viewing reservations** on page 24
- **Viewing a reservation's details** on page 25

3.5 Understanding "View" pages features

The View Nodes page contains tiles that display health and state information. It also has sorting and filtering options. This topic explains how to understand and use these features.

UNDERSTANDING HEALTH/STATE INFORMATION

There are four different health states for a node resource: Failure, Warning, OK, and Unknown. Each resource will be in one of these states.

State	Summary icon	Tile icon
Failure/Down		

State	Summary icon	Tile icon
Warning		
OK		(none)
Unknown		

There are two other states that are not health-related: Reserved and Requested Actions.

State	Summary icon	Tile icon
Reserved		
Requested Actions		

Because each resource must be assigned a health state, the Reserved and Requested Actions states are additional states added to the resource. (For example, a Reserved node will also have a health state of Failure, Warning, OK, or Unknown.)

Health/state information does not display for storage.

The Quick Filter table displays the number of nodes in your data center in each state. For example:

The Quick Filter table allows you to filter the resources that appear on the page. For more information, see **Filtering and sorting** on page 27.

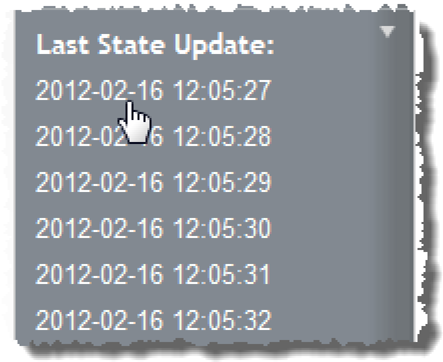
Filtering and Sorting

The page has filtering and sorting options to help you find what you need and organize what you see. The **Filters** option includes a list of fields (for instance, Health, Alias, Available Processors, and so forth) that you can use to filter what resources display.

For example, if you wanted to display all nodes that were last updated on February 16, 2012, you can select **2012-02-16** from the **Last State Update** field in the list. Then only the nodes that were last updated on that day appear in the page.

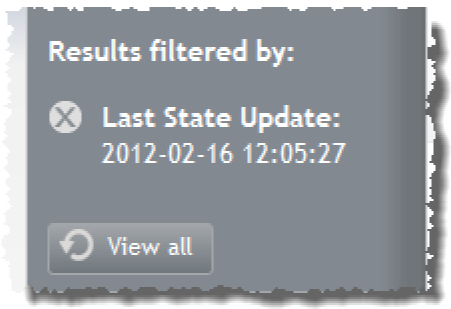
To use the Filters list

1. Locate the field you want to filter by. (Expand and collapse the field by clicking the field name.)
2. Select the field value you want to filter by (in this example, **Last State Update**).



The page is updated so that only the resource summary tiles that fit that field value display.

Also, the field value you selected is noted at the top of the Filters list.

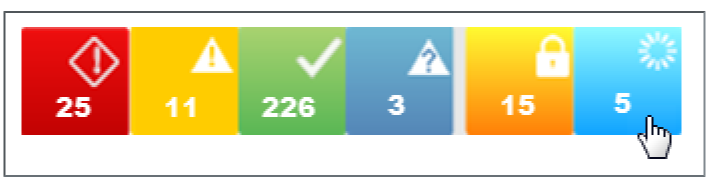


3. If you want to filter by other field values, repeat this process.
4. To remove individual selected field values, click the remove icon (☒).
5. To remove all filters, choose **View all**.

To use the Quick Filter table

➢ Click the icon for the resource state you want to filter by.

(For example, if you want to see only the resources that are in a Requested Actions state, click the Requested Actions icon.)



It is possible that when you filter by Requested Actions or Reserved states, the resource tiles that display will have a Failure, Warning, or Unknown icon. This is because every resource has a health status. If the health status is anything but OK, the health icon overrides the Requested Actions or Reserved icon, even though the resource will still appear in the filter.

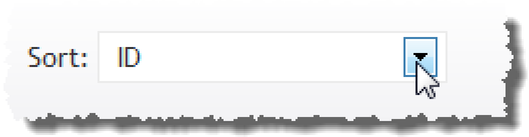
For example, you might have a Reserved resource that has a health status of Warning. If you filter by Reserved, that resource will appear, but its tile will display the Warning icon, not the Reserved icon.

The page also includes a **Sort** option that allows you to sort the order of the resources that appear on the page. This option sorts by the field that you select (for example, ID, Alias, Load, Total Memory, etc.) numerically or alphabetically, depending on the specified criterion. By default, resources are sorted by ID.

To sort resources

You can also sort on the View Jobs page (for more information, see **Viewing jobs** on page 19).

- From the **Sort** drop-down, select the field you want to sort by (for example, **ID**).



The resources will reorder to match your sort selection.

Related topics

- **Viewing jobs** on page 19
- **Viewing nodes** on page 22

Chapter 4: "History" menu options

By default, the "History" menu contains links to the following pages:

> Administrators can customize Viewpoint menu names, page names so that they do not match what is delivered in Viewpoint by default. Additionally, administrators can customize user roles that affect what pages you may have permissions to access and what actions you are allowed to perform on those pages.

Menu option	Page	What can I do there?	Link to more information
Event Logs	Event Logs	You can query major events that have been reported to the Moab event logs.	**Viewing event logs** on page 31
Job Management	Job Management	You can view submitted jobs. You can also cancel or hold submitted jobs.	**Managing jobs** on page 37
Reports	Reports	You can execute reports in HTML, PDF, or Microsoft Excel formats.	**Viewing reports** on page 39
Requested Actions	Requested Actions	You can view user requests that are associated with nodes.	**Viewing requested actions** on page 43

4.1 Viewing event logs

The Viewpoint Event Logs page lets you query major events that have been reported to the Moab event logs. These events include JOBSTART, JOBEND, and JOBMODIFY. By default, the event log is maintained in the statistics directory and rolls on a daily basis.

The Event Logs page displays items returned from the Moab event logs in list form with the following fields:

- ID
- Date
- Time
- Event
- Object
- Name
- Description

Because your system can potentially have a very large number of items in the event log, the Viewpoint interface has filtering and sorting tools to help you find the items in the log you are looking for (see **Using filters** on page 32).

You can access the Event Logs page by navigating to **History > Event Logs**.

This section explains how to set up and manage your own search filters and how to navigate the Event Logs page. It contains these topics:

- **Using filters** on page 32
- **Creating new filters** on page 35
- **Managing filters** on page 36

4.1.1 Using filters

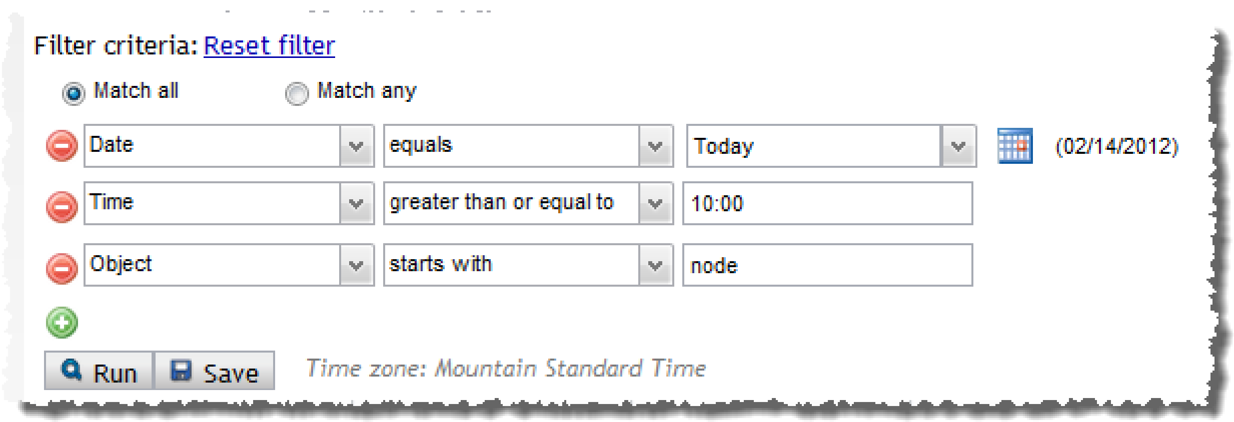
Event log filters are used to save and load queries on the Event Logs page. The Viewpoint user interface lets you set your own filter criteria to run filtered searches against the log items in your system. This section explains the following tasks associated with using filters:

- **Setting filter criteria** on page 32
- **Loading saved filters** on page 33
- **Sorting log items in the list** on page 34

SETTING FILTER CRITERIA

Filters consist of different search criteria options that you configure. A search criterion can be any of the following:

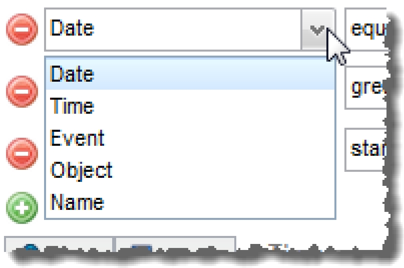
- Date
- Time
- Event
- Object
- Name



When you open the Event Logs page, the filter criterion is set to the current date by default.

To set filter criteria

1. Go to the Event Logs page (**History > Event Logs**).
2. Load a saved filter (see **Loading saved filters** on page 33), or begin with the default filter already displayed.
3. Choose the criterion option you want to use from the drop-down.



4. Set the option parameters.

   For example, if you want a criterion to filter items that were logged after 10:00 am today, you would select **greater than** in the second drop-down, and enter **10:00** in the third drop-down.
5. If you need more than one criterion, select the **Add** button (), and repeat the process.

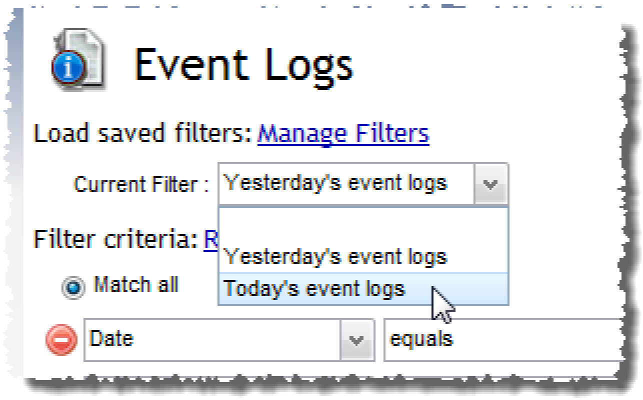
   To remove a criterion, select the **Remove** button ().
6. When you run your search, you can set Viewpoint return items that match all your search criteria by selecting **Match all**. If you want your search to return items that match one or more of your criteria options select **Match any**.
7. When you are finished setting your criteria, choose **Run** to run the search.

LOADING SAVED FILTERS

You can load previously saved filters (a grouped set of search criteria) to filter the log items.

To load a saved filter

1. Go to the Event Logs page (**History > Event Logs**).
2. Select the filter you want to load from the **Current Filter** drop-down.



The search runs when you load select a saved filter, and the log items in the list update automatically.

Sorting log items in the list

You can sort the log items in the list by these fields:

- ID
- Date
- Time
- Event
- Object
- Name
- Description

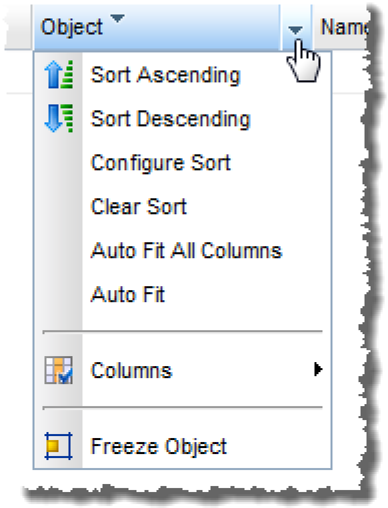
To sort log items in the list

Do one of the following:

- Click the field that you want to sort by. (For example, if you want to sort by item name, click **Name**.) Click once to sort ascending; click again to sort descending.

  OR

➢ Select the option drop-down on the field you want to sort by and select the option you wish to apply.



Related topics

- **Viewing event logs** on page 31
- **Creating new filters** on page 35
- **Managing filters** on page 36

4.1.2 Creating new filters

You can save your customized filters for later use. This allows you to quickly retrieve saved filters without having to fill in the form each time. Saved filters are stored using the internal Viewpoint database so you will still see your filters even if you are logged in on a different machine.

To create new a filter

1. Go to the Event Logs page (**History > Event Logs**).
2. Set your search criteria (for details, see **Setting filter criteria** on page 32).
3. Choose **Save.**
4. Enter the name you want to specify as the name of the filter.
5. If you are modifying an existing filter, select the name of the filter you are modifying. This will overwrite the old saved filter with the new one.
6. Choose **Save.**

Related topics

- **Using filters** on page 32
- **Viewing event logs** on page 31

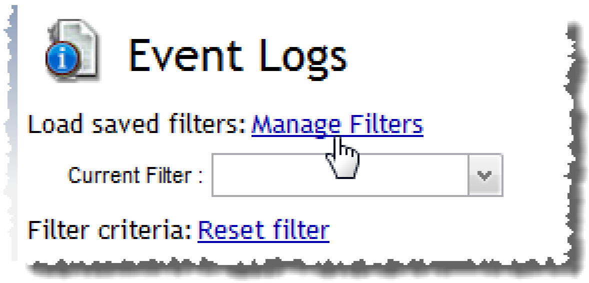
- Managing filters on page 36

4.1.3 Managing filters

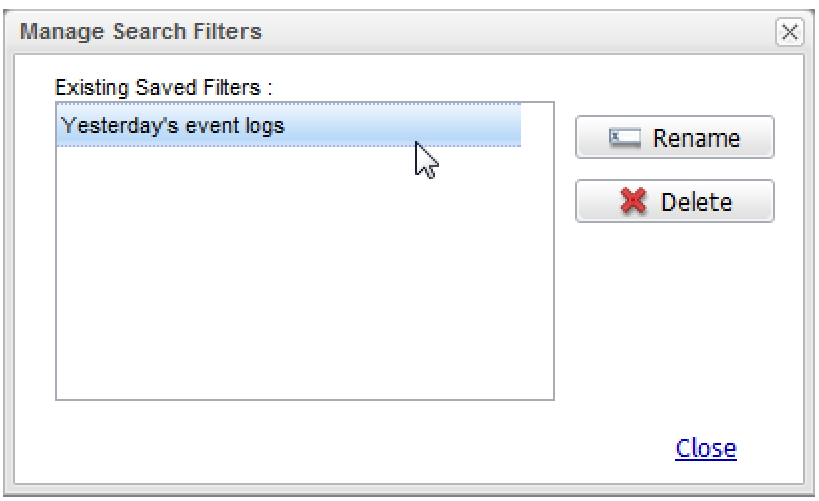
Viewpoint's Manage Search Filters option lets you rename or delete existing filters.

To manage filters

1. Go to the Event Logs page (**History > Event Logs**).
2. Choose **Manage Filters**.



The Manage Search Filters window opens.



3. To rename a filter, do the following:
    a. Select the filter you want to rename and choose **Rename**.

       The name text becomes editable.

    b. Enter the new name, and click outside the text box.

4. To delete a filter, do the following:
    a. Select the filter you want to rename and choose **Delete**.

       A confirmation box appears and asks if you are sure you want to delete.
    b. Choose **Yes** if you want to delete, or **No** to cancel.
5. When you are finished, close the Manage Search Filters window.

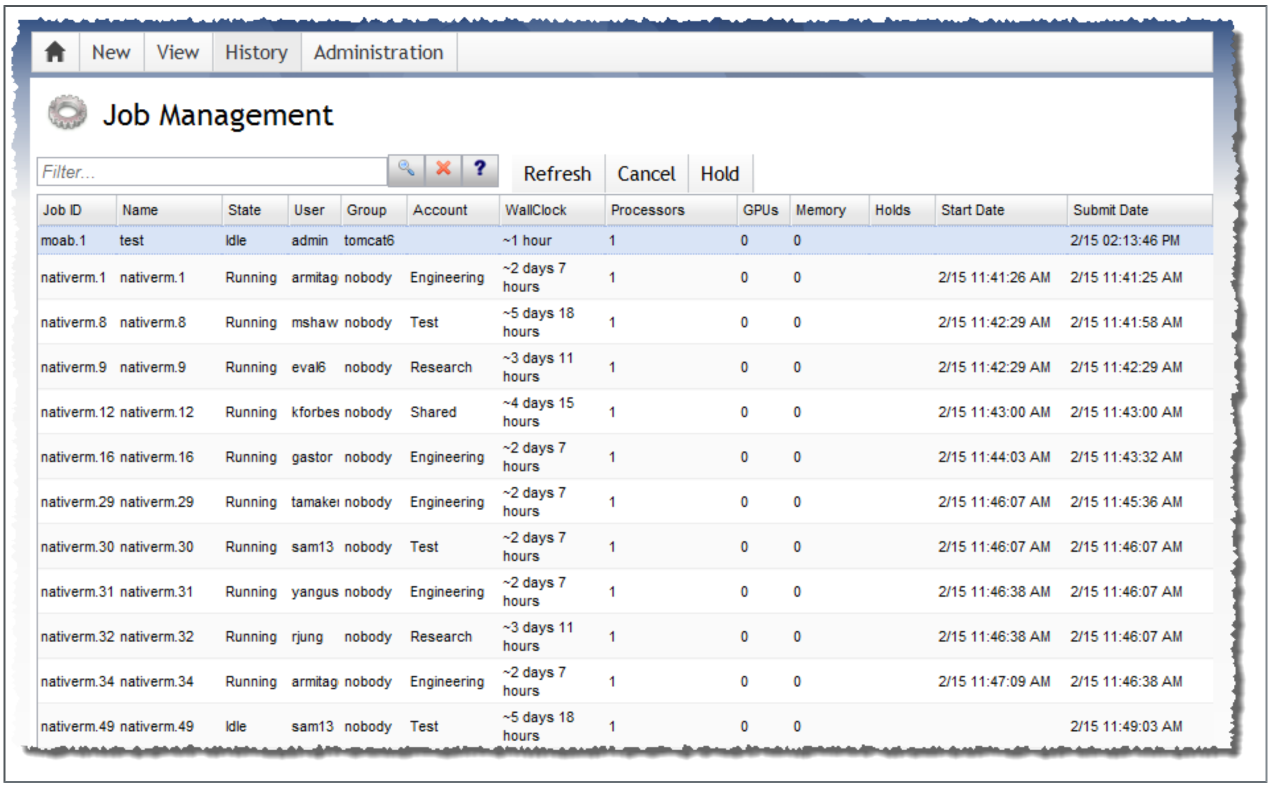
Related topics

- **Using filters** on page 32
- **Viewing event logs** on page 31

4.2 Managing jobs

The Job Management page is a table grid that displays your Moab jobs.

Image 4-1: Job Management page



Job ID	Name	State	User	Group	Account	WallClock	Processors	GPUs	Memory	Holds	Start Date	Submit Date
moab.1	test	Idle	admin	tomcat6		~1 hour	1	0	0			2/15 02:13:46 PM
nativerm.1	nativerm.1	Running	armitag	nobody	Engineering	~2 days 7 hours	1	0	0		2/15 11:41:26 AM	2/15 11:41:25 AM
nativerm.8	nativerm.8	Running	mshaw	nobody	Test	~5 days 18 hours	1	0	0		2/15 11:42:29 AM	2/15 11:41:58 AM
nativerm.9	nativerm.9	Running	eval6	nobody	Research	~3 days 11 hours	1	0	0		2/15 11:42:29 AM	2/15 11:42:29 AM
nativerm.12	nativerm.12	Running	kforbes	nobody	Shared	~4 days 15 hours	1	0	0		2/15 11:43:00 AM	2/15 11:43:00 AM
nativerm.16	nativerm.16	Running	gastor	nobody	Engineering	~2 days 7 hours	1	0	0		2/15 11:44:03 AM	2/15 11:43:32 AM
nativerm.29	nativerm.29	Running	tamake	nobody	Engineering	~2 days 7 hours	1	0	0		2/15 11:46:07 AM	2/15 11:45:36 AM
nativerm.30	nativerm.30	Running	sam13	nobody	Test	~2 days 7 hours	1	0	0		2/15 11:46:07 AM	2/15 11:46:07 AM
nativerm.31	nativerm.31	Running	yangus	nobody	Engineering	~2 days 7 hours	1	0	0		2/15 11:46:38 AM	2/15 11:46:07 AM
nativerm.32	nativerm.32	Running	rjung	nobody	Research	~3 days 11 hours	1	0	0		2/15 11:46:38 AM	2/15 11:46:07 AM
nativerm.34	nativerm.34	Running	armitag	nobody	Engineering	~2 days 7 hours	1	0	0		2/15 11:47:09 AM	2/15 11:46:38 AM
nativerm.49	nativerm.49	Idle	sam13	nobody	Test	~5 days 18 hours	1	0	0			2/15 11:49:03 AM

From this page, you can cancel jobs or put them on hold. To manually refresh the table, choose **Refresh.**

Access the Job Management page by navigating to **History> Job Management**.

This section contains these topics:

- **Viewing a node's details** on page 46
- **Powering a node on/off** on page 47
- **Reprovisioning a node** on page 47

4.2.1 Viewing a job's details

In addition to the job information that displays in the Job Management table grid, you can get more information about a node by opening the job detail view.

The job detail view displays on the right of the table and contains detailed information about the job. From the detail view, you can also take the following actions:

Action	Description
Refresh	Refreshes the job detail view with any updated information.
Cancel	Cancels the job. For more information, see **Canceling jobs** on page 38.
Hold	Puts the job on hold. For more information, see **Putting jobs on hold** on page 39.

To view a job's details

1. Go to the Job Management page (**History > Job Management**).
2. Double-click the job from the table that you want to see in a detail view.
3. The job's details appear in a new window to the right of the table.
4. Choose **Close** when you are finished viewing the node's details.

Related topics

- **Managing jobs** on page 37

4.2.2 Canceling jobs

From the Job Management page, you can cancel your jobs. These steps explain how this is to be done.

To cancel a job

1. Go to the Job Management page (**History > Job Management**).
2. Do one of the following:
    - Select the job you want to cancel (it will become highlighted), and choose **Cancel**.

      OR
    - Double-click the job you want to cancel to view the job detail view, and click **Cancel**.

   A confirmation statement appears and tells you if your job was successfully canceled or not.

Related topics

- **Managing jobs** on page 37
- **Putting jobs on hold** on page 39

4.2.3 Putting jobs on hold

From the Job Management page, you can put a hold on your jobs. These steps explain how this is to be done.

To put a job on hold

1. Go to the Job Management page (**History > Job Management**).
2. Do one of the following:
    - Select the job you want to hold (it will become highlighted), and choose **Hold**.

      OR

    - Double-click the job you want to hold to view the job detail view, and click **Hold**.

   A confirmation statement appears and tells you if your job was successfully put on hold or not.

Related topics

- **Managing jobs** on page 37
- **Canceling jobs** on page 38

4.3 Viewing reports

When Viewpoint is configured to include the Reporting Portal, new reports included in the `reporting.xml` file appear on the Reports page. They can include any of the following:

Report	Description
Events	A report showing historical event information in the form of a table, pie chart, or bar chart
Job and Processor Hours by Credential	A list report of processor hours and jobs by credential. The data is displayed in table format by year, then by month.
Job and Processor Hours by Month	A bar chart of the chosen year with total processor hours and jobs for each month
Jobs and Processor Hours by Quarter and Year Bar Chart	A bar chart of totals for jobs and processor hours by quarter and year

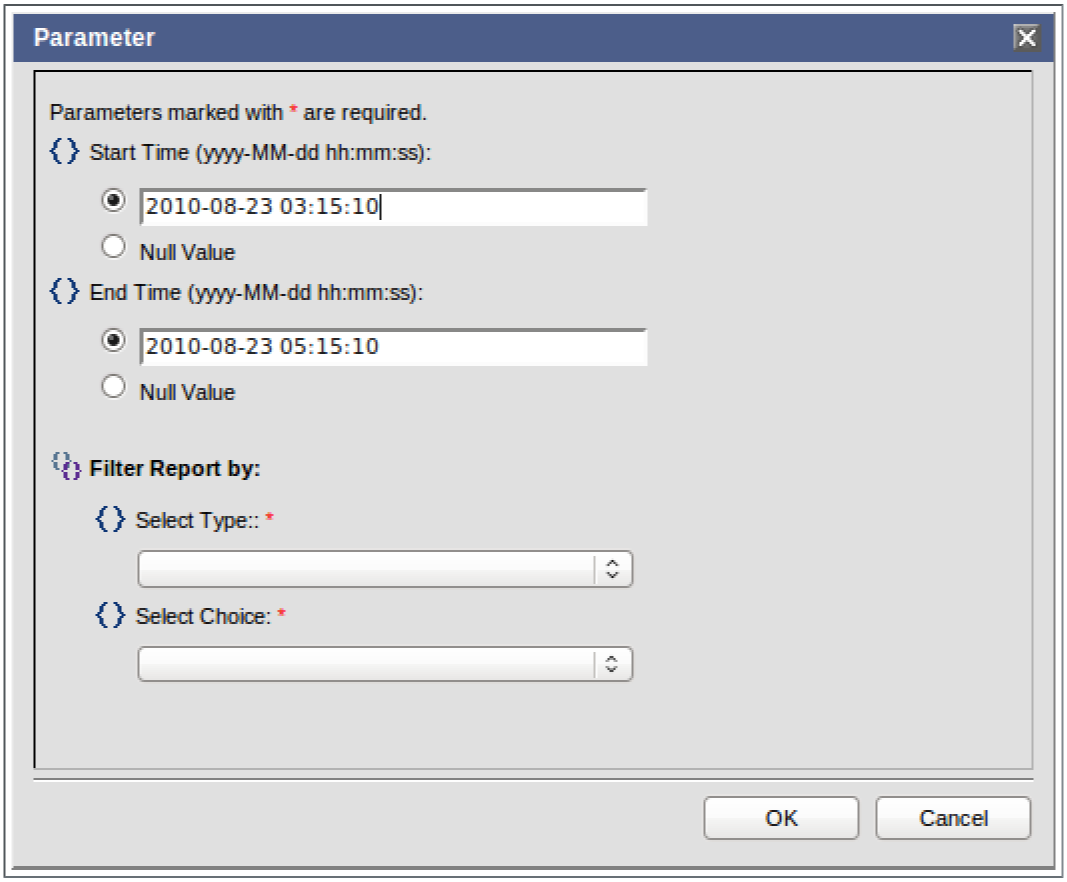
Report	Description
Jobs Submitted	A report presenting the jobs submitted by credentials (user, group, account, and quality of service) for the supplied time in table format with name and total of jobs
Jobs Submitted and Completed Line Chart	A line chart showing number of jobs over the specified time and for the specified credential with the option of showing completed jobs
Total Active Processor Count	Line chart showing the number of active processors over the specified credential and credential name
Total Allocated Node Count	Displays the number of total allocated nodes over time in a line chart for the given start and end time by credential and credential name
Total Queue Time	A table and pie chart view of queue hours over the specified time and for the specified credential
Used Wallclock Time	A table and pie chart view of used wallclock hour for the specified time and for the specified credential

To run a report

1. Open the report according to the desired format. To view a report in HTML format, click the title of the report. To view the report in PDF or Excel format, click on the corresponding icon:

	PDF
	Microsoft Excel

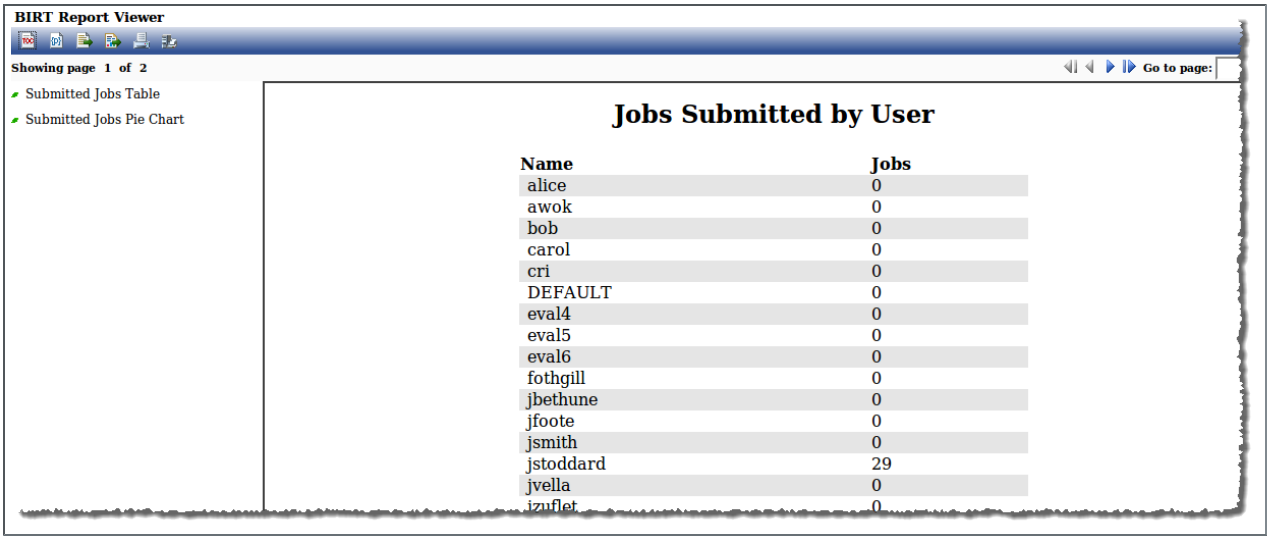
2. A pop-up window prompts you for parameters. Select or fill in all required fields and any desired optional fields. Required parameters are indicated by a red asterisk (*). Some report parameters are cascading. This means the first parameter in a group determines the available choices in the second parameter. In the image below, the **Select Choice** parameter options are determined by the **Select Type** selection. The Type and the Choice parameters are indicated as required.



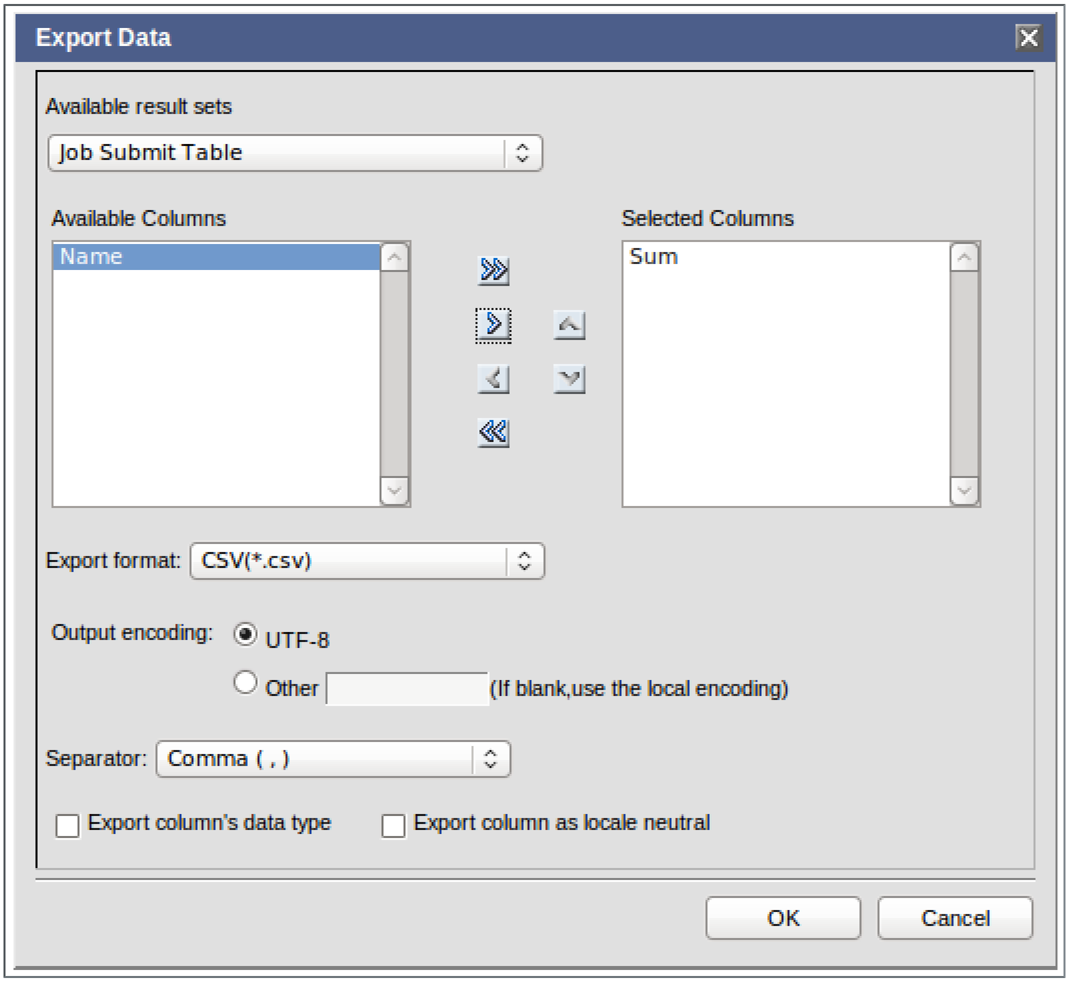
3. Click **OK**. The report runs based on your parameters, and then the report displays in the specified format.
4. (Optional) When you run an HTML report, you can use the buttons at the top of the BIRT Report Viewer.

Use these buttons to do the following:

- View, and select from, the TOC



- Rerun the report with a new set of parameters
- Choose a different format
- Export data



- Print the report

Related topics

- **"History" menu options** on page 31

4.4 Viewing requested actions

The Requested Actions page displays user requests that are associated with nodes. Node pending actions are "starting", "stopping" and "reprovisioning" (the node's operating system is being changed).

Access the Requested Actions page by navigating to **History > Requested Actions**.

The Requested Actions page consists of a table where each row represents a pending action and each column represents attributes. The columns included in the default view are:

- ID
- Type

- Status
- Started
- Requester
- Source
- Destination
- Failure Details
- Hosts
- Substate

The **Refresh** button requests the most current list of pending actions.

You can sort the items that appear in the Requested Actions list. Click the field column that you want to sort by. (For example, if you want to sort by item ID, click **ID**.) Click once to sort ascending; click again to sort descending.

Related topics

- **"History" menu options** on page 31

Chapter 5: "Administration" menu options

By default, the "Administration" menu contains links to the following pages:

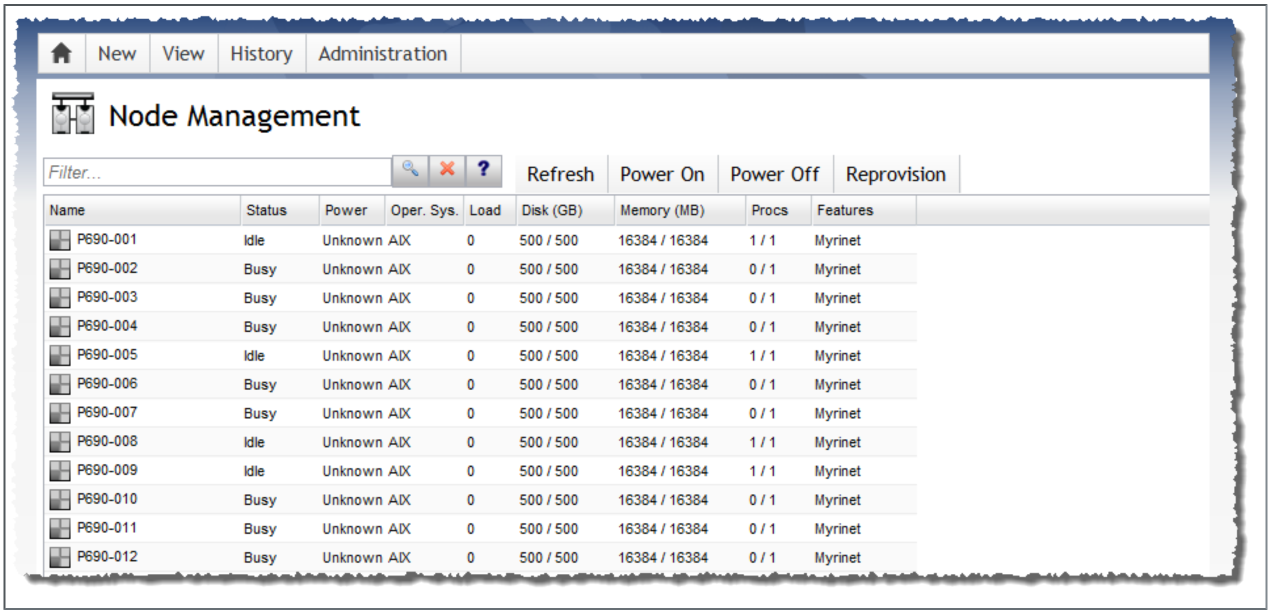
Administrators can customize Viewpoint menu names, page names so that they do not match what is delivered in Viewpoint by default. Additionally, administrators can customize user roles that affect what pages you may have permissions to access and what actions you are allowed to perform on those pages.

Menu option	Page	What can I do there?	Link to more information
Configuration	Viewpoint Configuration	You can configure and modify connection information to Moab Workload Manager, the Viewpoint database, Moab Web Services, etc.	Please refer to the Viewpoint for Moab HPC Suite Administrator Guide for information about how to use the Configuration options in Viewpoint.
Node Management	Node Management	You can view nodes in a list or their details. You can also power nodes on/off or reprovision them.	**Managing nodes** on page 45
Policy Management	Policy Management	You can edit Moab policies.	**Managing policies** on page 48
User Management	User Management	You can add users, modify user permission roles, or change user passwords.	**Managing users** on page 50

5.1 Managing nodes

The Node Management page is a table grid that displays nodes.

Image 5-1: Node Management page



From this page, you can power nodes on or off. You can also reprovision nodes. To manually refresh the table, choose **Refresh**.

Access the Node Management page by navigating to **Administration > Node Management**.

This section contains these topics:

- **Viewing a node's details** on page 46
- **Powering a node on/off** on page 47
- **Reprovisioning a node** on page 47

5.1.1 Viewing a node's details

In addition to the node information that displays in the Node Management table grid, you can get more information about a node by opening the node detail view.

The node detail view displays on the right of the table and contains detailed information about the node, including capabilities, associated job, and metrics information. From the detail view, you can also take the following actions:

Action	Icon	Description
Power off node		If the node is on, the option will be to power off. For more information, see **Powering a node on/off** on page 47.
Power on node		If the node is off, the option will be to power on. For more information, see **Powering a node on/off** on page 47.
Reprovision this node		Reprovisions the node. For more information, see **Reprovisioning a node** on page 47.

To view a node's details

1. Go to the Node Management page (**Administration > Node Management**).
2. Double-click the node from the table that you want to see in a detail view.
3. The node's details appear in a new window to the right of the table.
4. Choose **Close** when you are finished viewing the node's details.

Related topics

- **Managing nodes** on page 45

5.1.2 Powering a node on/off

From the Node Management page, you can power a node on or off. These steps explain how this is to be done.

To power a node on/off

1. Go to the Node Management page (**Administration > Node Management**).
2. Do one of the following:
    - Select the node you want to power on or off (it will become highlighted), and choose **Power on/Power off**.

      OR

    - Double-click the node you want to power on or off to view the node detail view, and click the **Power on node** or **Power off node** icon.

   A confirmation window appears and asks if you are sure you want to power the node on/off.
3. Choose **Yes** to power the node on/off or choose **No** to cancel.

   A confirmation statement appears and tells you if your request to power the node on/off was submitted successfully or not.

Related topics

- **Managing nodes** on page 45
- **Powering a node on/off** on page 47
- **Viewing a node's details** on page 46

5.1.3 Reprovisioning a node

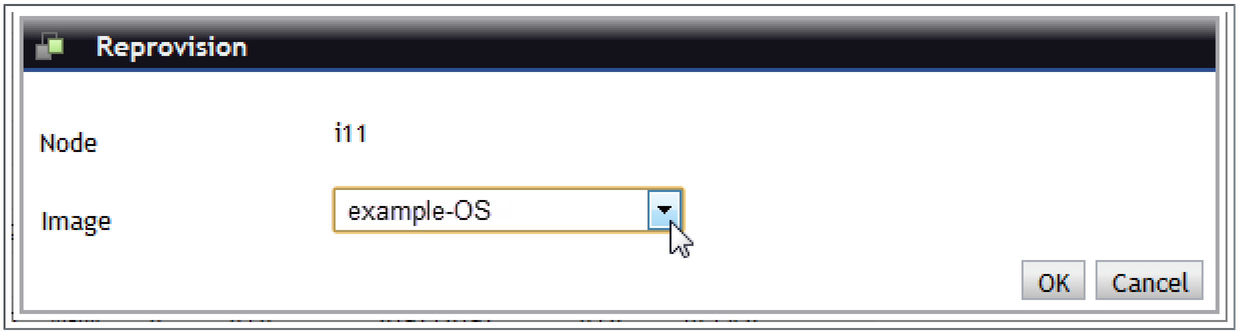
From the Node Management page, you can reprovision your nodes. These steps explain how this is to be done.

To reprovision a node

1. Go to the Node Management page (**Administration > Node Management**).
2. Do one of the following:
    - Select the node you want to reprovision (it will become highlighted), and choose **Reprovision**.

      OR
    - Double-click the node you want to reprovision to view the node detail view, and click the **Reprovision this node** icon.

   A new Reprovision window appears.



3. Select the image you want to use from the **Image** field drop-down.
4. Choose **OK** to save your changes.

Related topics

- **Managing nodes** on page 45
- **Powering a node on/off** on page 47
- **Viewing a node's details** on page 46

5.2 Managing policies

The Policy Management page lets you edit Moab policies. You can currently edit the following policies in Viewpoint:

- Allocation Policy (see **Editing the Allocation Policy** on page 49)

To manage policies

1. Go to the Policy Management (**Administration > Policy Management**).
2. Select a policy to modify.

   The policy opens in the right of the window for editing.

Related topics

- **Editing the Allocation Policy** on page 49
- **"Administration" menu options** on page 45

5.2.1 Editing the Allocation Policy

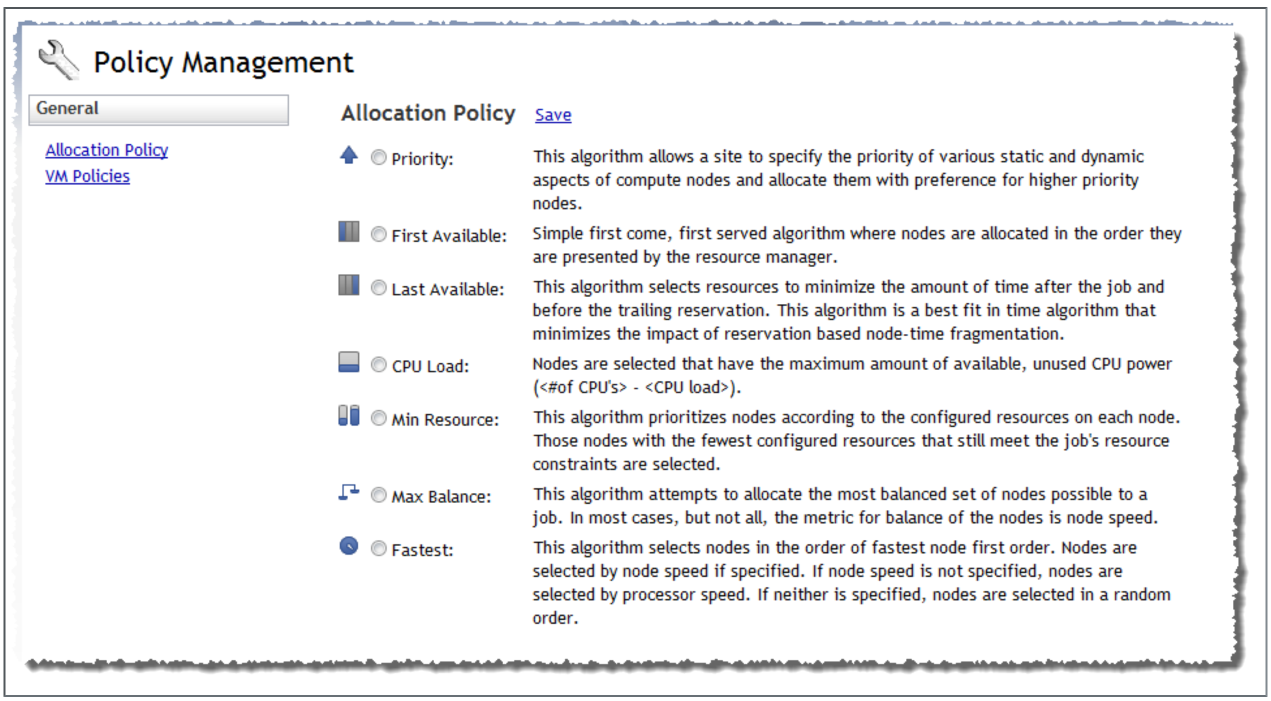
The Allocation Policy editor allows you to edit the allocation algorithm associated with Moab scheduling (for more information, see the Moab Workload Manager documentation). The Allocation Policy Viewpoint page includes the ability to select from various algorithms.

> You must restart Moab in order for any Allocation Policy changes to take effect.

To edit the Allocation Policy

1. Go to the Policy Management page (**Administration > Policy Management**).
2. Select **Allocation Policy**.

   The Allocation Policy opens in the window for editing.



3. Select the algorithm you want to use.
4. If you select the **Priority** algorithm, the Priority Function editor appears.

> The node allocation priority function specified in Viewpoint is done on a cluster-wide basis. Node-by-node allocation is permitted through the `moab.cfg` file.

Do the following:

a. Choose from the drop-down any priority function you want to apply for compute nodes, and enter a coefficient in the text box.

b. If you want to add another priority function, choose **Add** (or choose **Add All** to add all possible functions).

c. If you want to remove a priority function, click the **Clear** icon ( ) (or choose **Clear All** to remove all priority functions).

5. When you are finished, choose **Save**.

A dialog displays and gives you the following options:

Option	Description
Save and Restart Moab	Saves your changes and restarts Moab.
Save	Saves your changes, but does not restart Moab. If you choose this option, your changes will not take effect until Moab is restarted.
Cancel	Takes you back to the editor.

Related topics

- **Managing policies** on page 48

5.3 Managing users

The User Management page in Viewpoint lets you manage users and their respective roles in the system. It lets you add or modify users, and change users' passwords.

When ViewpointLoginModule is used for security, user roles grant users permissions to access certain pages and to perform certain actions in the Viewpoint user interface.

To use the User Management page, you must use ViewpointLoginModule as your authentication module (not LDAP or SSO).

This section contains these topics

- **Adding users** on page 50
- **Modifying users** on page 52
- **Changing user passwords** on page 52

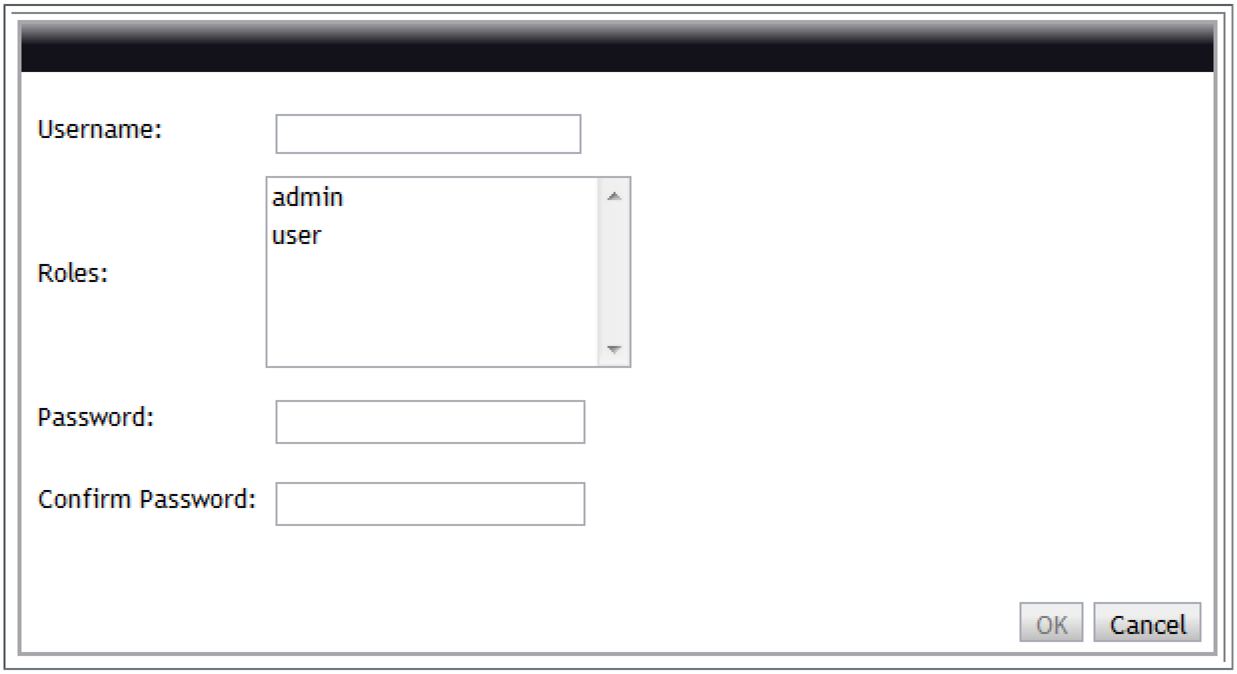
5.3.1 Adding users

From the User Management page, you can create new users and assign them permission roles. These steps explain how this is to be done.

To add a new user

1. Go to the User Management page (**Administration > User Management**).
2. Choose **Add**.

   A new window opens and displays the user fields.



3. In the **Username** field, enter the name of the user. (This will be used to log in to Viewpoint.)
4. The **Roles** field displays all the available roles. Select the role(s) you want to associate with the user.

   If you want to assign more than one role to a user, simply *Ctrl + click* so that all the roles you want to assign are highlighted.

5. In the **Password** field, enter the new password.
6. Retype the new password in the **Confirm Password** field.
7. Choose **OK** to save your changes.

Your new user will now appear on the User Management page.

Related topics

- **Managing users** on page 50
- **Modifying users** on page 52

5.3.2 Modifying users

From the User Management page, you can modify (add or remove) the roles associated with a specific user. These steps explain how this is to be done.

To modify a user

1. Go to the User Management page (**Administration > User Management**).
2. Select the user whose roles you want to modify, and choose **Modify User**.

   A new window opens and displays a list of roles. Highlighted roles are assigned to the user.

   In the following example, the user "ken" is assigned the **admin** role.

3. To assign a new user role, select it so that it is highlighted.

   > If you want to assign more than one role to a user, simply *Ctrl + click* so that all the roles you want to assign are highlighted.

4. To remove roles from the user, *Ctrl + click* the role(s) you want to deactivate so they are no longer highlighted.

   > There must always be ate least one role associated with a user.

5. When you are finished, choose **OK** to save your changes.

Related topics

- **Managing users** on page 50
- **Adding users** on page 50

5.3.3 Changing user passwords

From the User Management page, you can change different users' passwords. These steps explain how this is to be done.

To change a user's password

1. Go to the User Management page (**Administration > User Management**).
2. Select the user user whose password you want to change, and choose **Change password**.

   A new window opens.

3. In the **Password** field, enter the new password.
4. Retype the new password in the **Confirm Password** field.
5. Choose **OK** to save your changes.

Related topics

- **Modifying users** on page 52
- **Managing users** on page 50