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SAS[®] vApp Ledger

User's Guide

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SAS® vApp Ledger: User's Guide

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SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513-2414.

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1

Overview of SAS vApp Ledger

<i>What is a vApp?</i>	1
<i>What Is SAS vApp Ledger?</i>	1
<i>About the SAS vApp Ledger Interface</i>	1

What is a vApp?

A virtual application, or vApp, provides a convenient way to use software without the complexity of having to install the software products yourself. The software products in the vApp have already been installed and configured and are run by using virtualization software, such as Oracle VirtualBox, VMware Player, or VMware Fusion. Having a vApp reduces or eliminates the effort needed to install, configure, and maintain complex groups of software and bundles them together in a single, easy-to-use file.

In SAS user documentation and user interfaces, the term *environment* is often used as a synonym for a running vApp.

What Is SAS vApp Ledger?

SAS vApp Ledger is software that is used to manage the configuration of a vApp across one or more virtual machines. SAS vApp Ledger collects information about a running vApp so that administrators and calling programs can retrieve the information when needed.

Administrators with special permissions can use SAS vApp Ledger to perform functions such as applying software updates to a machine, applying vApp configuration changes, collecting vApp logs, and starting and stopping application services. These functions are available only to administrators of the infrastructure on which the vApp is deployed (for example, administrators of the SAS Cloud).

About the SAS vApp Ledger Interface

The SAS vApp Ledger interface consists of the following pages.

Home

contains an icon for each SAS application in the environment that the current user can access, based on the user's assigned roles. To start an application, click the icon.

My Applications

is the same as the Home page.

Machines

lists the virtual machines that are used by the environment and enables you to view detailed information about a machine.

For details, see [Chapter 2, "Viewing Machine Information," on page 3](#).

Job types

lists the types of jobs that are available for administering vApps.

Jobs

displays the ID, description, entry time, wait time, duration, and current state of vApp administration jobs.

For details, see [Chapter 3, "Viewing Jobs," on page 7](#).

Users

lists all users who have a SAS user identity in the environment's metadata.

For details, see ["View the User List" on page 9](#).

Note:

- Users who are assigned to the SAS Administrators role in SAS App Central are automatically assigned to the Infrastructure Users role in SAS vApp Ledger. This role provides access to the pages in the preceding list.
- SAS vApp Ledger contains additional pages, including Properties, Resource Types, Resources, and Licenses. These pages are accessible only to administrators of the infrastructure on which the vApp is deployed (for example, administrators of the SAS Cloud). Those administrators should see *SAS vApp Ledger: Infrastructure Administrator's Guide*.

Note: In some cases, SAS vApp Ledger does not highlight the tab for the currently selected page. The name of the currently selected page appears at the end of the URL in the browser's address bar.

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Viewing Machine Information

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View the Machines List

To view a list of all of the virtual machines that are used by your SAS environment, click the **Machines** tab. A page similar to the following is displayed:

IP Address	Entry Time	Roles	State	Is External
111.1.1.1	2014-06-09 15:58:12.397	[mailhost]	init	true
11.11.11.111	2014-06-09 15:56:48.412	[compute, decoyproxy, master, metadata, perfmonitor, router, uploader, vamidtier, webserver, wipmidtier]	running	false

The following information is displayed for each machine:

IP Address

specifies the machine's Internet Protocol address.

Entry Time

specifies the date and time that the machine was added to your environment.

Roles

specifies the machine's roles in the environment. Typical roles include the following:

- **compute** for machines with compute servers (such as a SAS Workspace Server)
- **metadata** for machines with a SAS Metadata Server
- **midtier** for machines with SAS middle-tier servers and services

State

indicates the current state of the machine, such as `init` (initializing) or `running`.

Is External

indicates whether the machine is external or internal to your SAS environment. A value of `true` indicates that the machine is accessed by your environment but is outside of your environment. A value of `false` indicates that the machine is used only by your environment.

Note: The **Edit Machines** button is for future use. This feature is not currently functional.

View Information about a Specific Machine

To view information about a specific machine, click its IP address in the first column of the machines list. A page similar to the following is displayed:

The screenshot shows the SAS vAppLedge v3 interface. The top navigation bar includes 'Home', 'My Applications', 'Machines', 'Properties', 'Job types', 'Jobs', 'Resource types', and 'Resources'. Below this is a sub-navigation bar with 'Users', 'Licenses', and 'About'. The main content area has tabs for 'All Machines', 'Updates', 'Notices', and 'Surveys'. The machine details are as follows:

IP Address	11.11.11.111
Added to vApp	2014-06-09 15:56:48.412
Roles	[compute, uploader, decoyproxy, vamidtier, webserver, metadata, router, master, perfmontor, wipmidtier]
Is External	false
Identity	group-vavapp-appliance=vavapp.cny.sas.com@sas.vavapp-3w.64on94.1-devel/3-1-122

Machine information	11.11.11.111
application#sasinside-appvirt-sasmanagementconsole	{"iconUri":"/files/icons/SASDefaultApp.png","adminOnly":"true","description":"S
application#sasinside-role-midtier-bidashboard	{"iconUri":"","adminOnly":"false","description":"BI Dashboard","externallyVisible
application#sasinside-role-midtier-biws	{"iconUri":"","adminOnly":"false","description":"BI WebServices for Java","extern
application#sasinside-role-midtier-flexthemedesigner	{"iconUri":"","adminOnly":"false","description":"Theme Designer for Flex","extern
application#sasinside-role-midtier-flexthemes	{"iconUri":"","adminOnly":"false","description":"Flex Application Themes","extern
application#sasinside-role-midtier-helpmetadataviewer	{"iconUri":"","adminOnly":"false","description":"Help Viewer Metadata Config","e

This page contains the following information:

- the machine's IP address, the machine's entry (**Added to vApp**) date and time, the machine's roles, and whether the machine is internal or external to your environment.
- the machine's identity, which is a unique identifier.
- a detailed list of the machine's installed components, physical specifications, configuration properties, counters, and metrics. This information might be useful in troubleshooting issues that occur in the environment.

On this page, you can do the following:

- View a list of pending software updates to the machine by clicking **Updates**.

Note: Pending updates can be applied only by users who have infrastructure administration privileges (for example, administrators of the SAS Cloud). Contact SAS Technical Support for assistance.

- View legal notices that are associated with open-source software installed on the machine by clicking **Notices**. After viewing the notices, click **Back to IP address** to return to the machine information page.

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Viewing Jobs

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<i>View Information about Jobs</i>	7

View Job Types

To view the types of jobs that can be used to administer vApps, click the **Job types** tab. A page similar to the following is displayed:

Action	Description	Command line masked	Available on	Required role
bootstrap	(Re)Initialize machines in this vApp.	false	10.12.34.30	ROLE_INFRASTRUCTURE_POWER_USER
collect_logs	Collect logs from machines in this vApp.	false	10.12.34.30	ROLE_INFRASTRUCTURE_POWER_USER
converge	Apply configuration changes to machines in this vApp.	false	ALL	ROLE_INFRASTRUCTURE_POWER_USER
ldapvalidate	Verify the LDAP Settings	true	10.12.34.30	ROLE_INFRASTRUCTURE_POWER_USER
mountpointvalidate	validate if a mountpoint is can be assigned successfully	false	10.12.34.30	ROLE_INFRASTRUCTURE_ADMIN

View Information about Jobs

To view the ID, description, entry time, wait time, duration, and current state of vApp administration jobs in the environment, click the **Jobs** tab. A page similar to the following is displayed:

SAS® vAppLedger v3 State: running									
Home		My Applications	Machines	Properties	Job types	Jobs	Resource types	Resources	Users
Licenses		About							
Apply configuration changes		Start SAS Services	Stop SAS Services	Restart SAS Services	Collect vApp Logs				
Job id	Description	User	Entry time	Wait	Duration	State			
4054	Collect logs from machine 10.12.16.131	user1@example.com	2015-10-08 10:18:13.655	0.106 seconds		running	Delete	Abandon	
2710	Converge machine 10.12.16.131	user2@example.com	2015-10-06 18:03:13.964	0.152 seconds	1 minutes, 53.594 seconds	completed	Delete		

This example shows the following jobs:

- a log collection job
- a **Converge machine** job, which is used to apply software updates or configuration changes

Note: The following tasks can be performed only by administrators of the infrastructure on which the vApp is deployed (for example, administrators of the SAS Cloud):

- apply configuration changes
- start, stop, and restart SAS services
- collect vApp logs
- delete and abandon jobs

Contact SAS Technical Support for assistance with these functions.

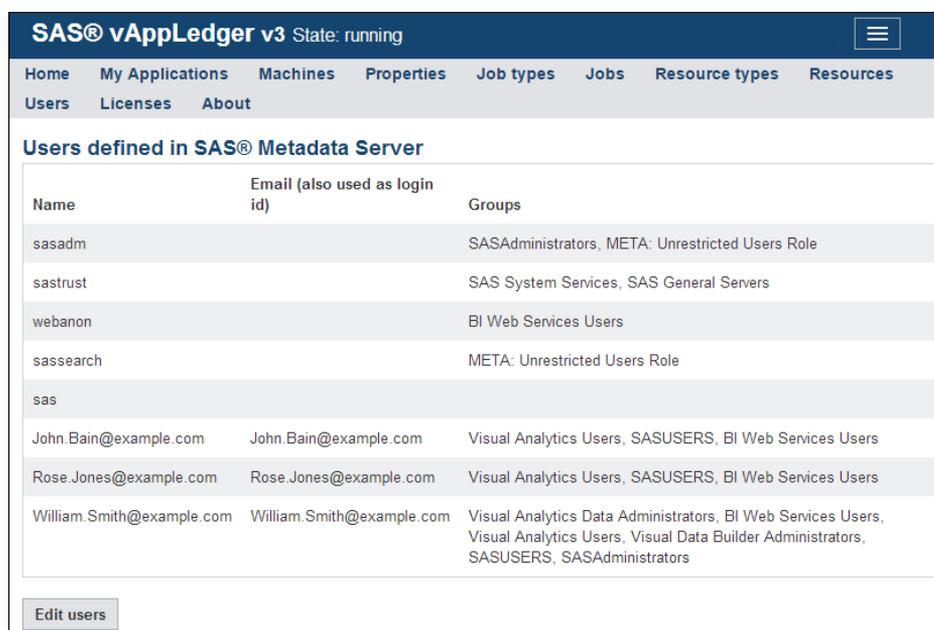
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Viewing User Information

[View the User List](#) 9

View the User List

The Users page lists all of the users in the environment, as shown in the following example:



The screenshot shows the SAS vAppLedger v3 interface. The top navigation bar includes links for Home, My Applications, Machines, Properties, Job types, Jobs, Resource types, Resources, Users, Licenses, and About. The main content area is titled "Users defined in SAS® Metadata Server" and contains a table with the following data:

Name	Email (also used as login id)	Groups
sasadm		SASAdministrators, META: Unrestricted Users Role
sastrust		SAS System Services, SAS General Servers
webanon		BI Web Services Users
sassearch		META: Unrestricted Users Role
sas		
John.Bain@example.com	John.Bain@example.com	Visual Analytics Users, SASUSERS, BI Web Services Users
Rose.Jones@example.com	Rose.Jones@example.com	Visual Analytics Users, SASUSERS, BI Web Services Users
William.Smith@example.com	William.Smith@example.com	Visual Analytics Data Administrators, BI Web Services Users, Visual Analytics Users, Visual Data Builder Administrators, SASUSERS, SASAdministrators

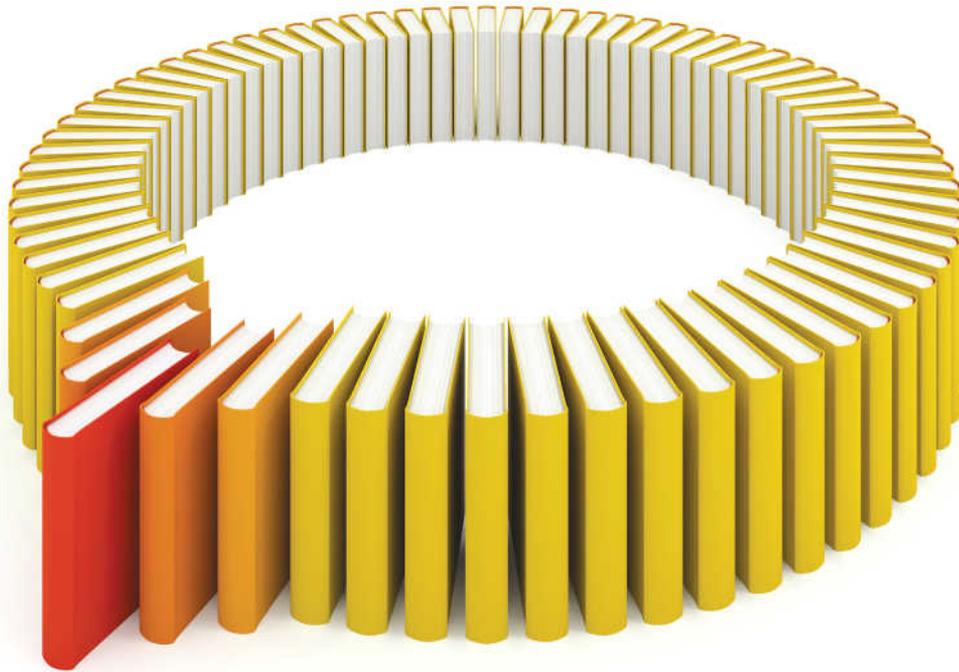
Below the table is an "Edit users" button.

The list includes all users who have a user identity on the environment's SAS metadata server. It includes standard users (such as sasadm) that were created by default when the environment was created, as well as users that were added by environment administrators. The following information is displayed for each user:

- the user name that is to be stored in SAS metadata to uniquely identify the user's metadata identity.
- the user's e-mail address, which is used to log on to the environment.
- the groups that the user should be a member of in SAS metadata, based on the roles that the user is assigned to in the vApp. This property is updated

when the user is assigned to or removed from a vApp role. When a converge machine job is run, the user is added to these groups if the user is not already a member.

Note: User information can be edited in SAS vApp Ledger only by users who have infrastructure administration privileges (for example, administrators of the SAS Cloud). To edit user information, use the appropriate application as directed by the documentation for your vApp.



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