Command-Line Tool for View Manager

View Manager 3.1

The Command-Line Tool for View Manager is a utility provided with the View Manager application that allows you to carry out administrative and analytical activities that are not available from within the administrative interface.

The following sections describe the commands that the utility supports:

- “Assign Default Desktop to User” on page 1
- “List User Information” on page 2
- “Change User Assignment” on page 3
- “Show First User to Access Desktop” on page 4
- “Remove View Manager Entry” on page 4
- “List Orphan Desktops” on page 5

Command-Line Tool Usage

You must run the tool locally on the View Manager server. The path to the executable file is:

C:\Program Files\VMware\VMware View\Server\bin\vdmadmin.exe

Use the following syntax to run Command Line Tool instructions from a Windows command prompt:

vdmadmin <command> <parameter(s)>

For example:

vdmadmin -D -d amethyst -u example\fsmith

NOTE To view the command syntax and parameters that the tool supports, enter vdmadmin at the command prompt without any additional arguments.

Assign Default Desktop to User

Users are automatically assigned a desktop the first time they connect to a persistent pool but, under certain circumstances, you may want to pre-assign a desktop to a user in order to prepare their system environment in advance of their initial connection.

Additionally, thin client devices can use this information to set the default for which desktop or desktop pool the specified user should be connected to.

This command and its associated parameters are described in Table 1 and Table 2.

Table 1. Assign a Default Desktop - Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
</table>
| -D      | Assign a default desktop or desktop pool to—or remove one from—a specified user. | To assign a default desktop to a user: 
-D -d <desktop_name> -u <user_name>
To remove the default desktop assigned to a user: 
-D -r -u <user_name> |
Table 2. Assign a Default Desktop - Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-d &lt;desktop_name&gt;</td>
<td>The name of the desktop.</td>
</tr>
<tr>
<td>-r</td>
<td>Remove the default desktop assigned to a user.</td>
</tr>
<tr>
<td>-u &lt;user_name&gt;</td>
<td>Name of the user in the form domain\username.</td>
</tr>
</tbody>
</table>

List User Information

Use this command to display Active Directory information associated with a specified user.

This command and associated parameters are described in Table 3 and Table 4.

Table 3. List User Information - Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>-U</td>
<td>Display information about a user including: desktops to which they are entitled, account-level data, such as group membership and so forth</td>
<td>-U -u &lt;user_name&gt; [-xml]</td>
</tr>
</tbody>
</table>

Table 4. Assign a Default Desktop - Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-u &lt;user_name&gt;</td>
<td>Name of the user in the form domain\username.</td>
</tr>
<tr>
<td>-xml</td>
<td>Produce output in XML.</td>
</tr>
</tbody>
</table>

User Information Report Examples

The data returned from this command can be presented in either plain text or XML. The following examples illustrate the content and format of this information.

Example User Information in Text Form

The User Details provides basic information about the account properties associated with a user.

User Details

CommonName: Fred Smith
Surname: Smith
GivenName: Fred
Domain: EXAMPLE
SAMAccountName: fsmith
Account Properties: [NORMAL USER ACCOUNT]

The Group Membership section lists all Active Directory groups in which this user is a member, and that could be used for desktop entitlement.

Group Membership

EXAMPLE\Domain Users
BUILTIN\Users

The Desktop Entitlements section lists the desktop ID, display name, and description of any desktop to which this user is presently entitled. This section also lists if any of these desktops that are disabled from within the View Administrator interface:

Desktop Entitlements

<table>
<thead>
<tr>
<th>ruby</th>
<th>ruby</th>
<th>[Additional information, if any, is provided here]</th>
</tr>
</thead>
<tbody>
<tr>
<td>quartz</td>
<td>quartz</td>
<td></td>
</tr>
</tbody>
</table>
Example User Information in XML Form

```xml
<?xml version='1.0' encoding='utf-8'?>
<user-entry>
  <user>
    <cn>Fred Smith</cn>
    <sn>Smith</sn>
    <given-name>Fred</given-name>
    <domain>EXAMPLE</domain>
    <domain-full>example.com</domain-full>
    <account-name>fsmith</account-name>
    <account-properties>
      <normal-user-account/>
    </account-properties>
    <sid>S-1-5-21-1184173328-2166697079-800706318-1107</sid>
  </user>
  <group-membership>
    <name>FOOBLEX\Domain Users</name>
    <name>BUILTIN\Users</name>
  </group-membership>
  <entitlement-list>
    <entitlement>
      <cn>ruby</cn>
      <display-name>ruby</display-name>
      <description/>
      <status>disabled</status>
    </entitlement>
    <entitlement>
      <cn>quartz</cn>
      <display-name>quartz</display-name>
      <description/>
      <status>enabled</status>
    </entitlement>
  </entitlement-list>
</user-entry>
```

Change User Assignment

Desktops in persistent pools are assigned to a specific user the first time the user connects, and remain assigned for the lifespan of the desktop source. As part of a recovery exercise (for example, when View LDAP data has been lost) or when you want to change ownership of a particular desktop source you can use this command to assign the desktop to a different entitled user.

Additionally, you can use this command to either completely remove a user assignment from a desktop, or to remove a specific user’s assignment (where applicable) from all desktop sources in the pool.

The commands and associated parameters are described in Table 5 and Table 6.

**Table 5.** Change User Assignment - Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-L</td>
<td>Update or remove the user assignment for a desktop.</td>
<td>To assign a desktop to a different user:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-L -d &lt;desktop_name&gt; -m &lt;machine_name&gt; -u &lt;user_name&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To remove the user assignment from a specific desktop source:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-L -d &lt;desktop_name&gt; -m &lt;machine_name&gt; -r</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To remove the assignment of a specific user from all desktop sources:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L -d &lt;desktop_name&gt; -u &lt;user_name&gt; -r</td>
</tr>
</tbody>
</table>
Show First User to Access Desktop

In the event of a View LDAP failure, it may be necessary to manually reassign desktops to users; this can be accomplished by using the “Assign Default Desktop to User,” command described on page 1. In order to ensure that each assignment is correct, you can use this command to determine the initial assignment (if any) of each managed system.

The commands and associated parameters are described in Table 7 and Table 8.

Table 7. Show First User to Access Desktop - Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-R</td>
<td>Display the first user that accessed a physical or virtual system.</td>
<td>-R -i &lt;IP_address&gt;</td>
</tr>
</tbody>
</table>

Table 8. Show First User to Access Desktop - Commands

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-i</td>
<td>The IP address of the physical or virtual system.</td>
</tr>
</tbody>
</table>

Remove View Manager Entry

To ensure high availability, View Manager allows one or more replica servers to be added to your View Manager environment. During installation, the replica server is manually associated with an existing View Manager and its information is added to the local View LDAP repository of all other similarly associated servers already present within your environment. Subsequent changes to global settings, users, or desktops are then propagated between all of the servers in the replicated group.

If a server is removed from the connection group through disconnection or uninstallation, the entry for that server persists within each View LDAP repository, and therefore in the View Servers section of the Configuration view within View Administrator for each remaining server.

This may be desired behavior, such as in instances where the disconnection is temporary. If the removal is permanent, you can use the Command Line Tool to remove the server entry from the View LDAP repository and View Servers list.

The commands and associated parameters are described in Table 9 and Table 10.

Table 9. Remove View Manager Entry - Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-S</td>
<td>Manage a View Manager entry.</td>
<td>-S -r -s &lt;server_name&gt;</td>
</tr>
</tbody>
</table>

Table 10. Remove View Manager Entry - Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-r</td>
<td>Remove a View Manager entry from the local View LDAP instance. This information is then propagated throughout any other standard or replica servers remaining in the replicated group.</td>
</tr>
<tr>
<td>-s &lt;server_name&gt;</td>
<td>Name of the View Manager server.</td>
</tr>
</tbody>
</table>
NOTE You must run this command on one of the remaining servers in the cluster and not on the server that is being uninstalled.

**List Orphan Desktops**

After a persistent desktop or physical system is assigned, the View Manager administrator can modify the user entitlement criteria for the desktop or desktop pool. However, revoking the entitlement for a user assigned a persistent desktop or physical system does not revoke the associated desktop assignment.

In some cases, such as when a user is temporarily suspended or is on a sabbatical, the desired behavior is that when entitlement is reinstated, the user can continue to use the same desktop as before. In other cases, such as when a user leaves the organization, this behavior is not desirable as no other employee can access the desktop and it is considered to be orphaned.

Administrators can use the List Orphan Desktops command to examine the assignment information for View Manager desktops where the user entitlement does not correlate with current assignment. This information is displayed in a plain-text or XML report and the resulting data can be grouped either by desktop or by user.

The report includes:

- Desktops assigned to an unentitled user
- Policy overrides for desktops that reference an unentitled user
- Offline desktops that have been checked out by an unentitled user

You can use this information to assist you in ensuring that no desktop continues to remain allocated to a user after their entitlement to that desktop has been permanently removed.

To remove desktop assignment in the administrative interface, select the appropriate entry from list displayed under the Desktop Sources tab and click Remove.

To remove offline desktops that are currently checked out to an unentitled user, you must additionally click the Offline Sessions tab, select the appropriate entry from list displayed under the Desktop Sources tab and click Discard.

The commands and associated parameters are described in Table 11 and Table 12.

**Table 11. List Orphan Desktop - Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-O</td>
<td>Show assigned desktops that are unentitled.</td>
<td>-O [-ld</td>
</tr>
<tr>
<td>-P</td>
<td>Show user policies associated with desktops that are unentitled.</td>
<td>-P [-ld</td>
</tr>
</tbody>
</table>

**Table 12. List Orphan Desktop - Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ld</td>
<td>List unentitled desktops or policies, grouped by desktop.</td>
</tr>
<tr>
<td>-lu</td>
<td>List unentitled desktops or policies, grouped by user.</td>
</tr>
<tr>
<td>-noxslt</td>
<td>Suppress the default XSLT stylesheet reference in the XML output. For XML reports containing user policies applied to unentitled desktops (-P), the default reference is: &lt;?xml-stylesheet type=&quot;text/xsl&quot; href=&quot;c:\Program Files\VMware\VMware View\server\etc\unentitled-policies.xsl&quot;?&gt; For XML reports containing assigned desktops that are unentitled (-O), the default reference is: &lt;?xml-stylesheet type=&quot;text/xsl&quot; href=&quot;c:\Program Files\VMware\VMware View\server\etc\unentitled-machines.xsl.xsl&quot;?&gt;</td>
</tr>
<tr>
<td>-xml</td>
<td>Produce output in XML.</td>
</tr>
<tr>
<td>-xsltpath &lt;path&gt;</td>
<td>Override the default XSLT stylesheet reference in the XML output to use a stylesheet in the location specified by &lt;path&gt;.</td>
</tr>
</tbody>
</table>
Command-Line Report Examples

You can view the data that this command returns in either plain text or XML. The following examples describe the content and format of this information.

Unentitled Desktops Grouped by User in Text Form

Unentitled machines grouped by user

===================================

Display Name: [display name for desktop in View LDAP]
Id: [id of desktop in View LDAP]
Dn: [dn of desktop in View LDAP]

User Details

CommonName: [common name of user]
Surname: [surname of user]
Given Name: [given name of user]
Domain: [domain in which user account is defined]
SAMAccountName: [account name]
Account Properties: [general properties of account]

Machine

Display Name: [display name for desktop in VirtualCenter]
Id: [id for desktop in VirtualCenter]
Dn: [dn for desktop in VirtualCenter]
MOID: [MOID for VirtualCenter instance that manages the desktop]
VMPath: [Path to the desktop in VirtualCenter]
VirtualCenter URL: [address for accessing VirtualCenter]
Entitlement: [Message indicating the (un)entitlement status. Can be either:
- “The assigned user is no longer entitled to this machine”
- “The user who has this VM checked out is no longer entitled”]

Unentitled Desktops Grouped by User in XML Form

<?xml version='1.0' encoding='utf-8'?>
<unentitled-vm-report>
<byuser-list>
<user-entry>
<user>
<cn>[common name of user]</cn>
<sn>[surname of user]</sn>
<givenName>[given name of user]</givenName>
<domain>[domain in which user account is defined]</domain>
<account-properties>
<normal-user-account/>
<account-disabled/>
<smartcard-required/>
<account-locked-out/>
<password-expired/>
</account-properties>
</user>
<desktop-list>
<desktop-entry>
<desktop>
<displayname>[optional (user-defined) display name for desktop in View]</displayname>
<id>[id of desktop in View LDAP]</id>
<d人都 [dn of desktop in View LDAP]></dn>
</desktop>
<vm-list>
  <vm>
    <displayname>[display name of desktop source]</displayname>
    <unentitled-type>
      <checked-out-by-user/>
      <!-- AND/OR -->
      <assigned-to-user/>
    </unentitled-type>
    <id>[id of desktop in VirtualCenter]</id>
    <dn>[dn of desktop in VirtualCenter]</dn>
    <moid>[MOID of VirtualCenter that manages the VM]</moid>
    <vmpath>[Path of desktop in VirtualCenter]</vmpath>
    <vcdn>[dn of VirtualCenter in View LDAP]</vcdn>
    <vcurl>[address for accessing VirtualCenter]</vcurl>
  </vm>
  <!-- AND/OR -->
  <vm>
    <displayname>[display name of desktop source]</displayname>
    <unentitled-type>
      <checked-out-by-user/>
      <!-- AND/OR -->
      <assigned-to-user/>
    </unentitled-type>
    <id>[id of desktop in VirtualCenter]</id>
    <dn>[dn of desktop in VirtualCenter]</dn>
    <moid>[MOID of VirtualCenter that manages the VM]</moid>
    <vmpath>[Path of desktop in VirtualCenter]</vmpath>
    <vcdn>[dn of VirtualCenter in View LDAP]</vcdn>
    <vcurl>[address for accessing VirtualCenter]</vcurl>
  </vm>
</vm-list>
</desktop-entry>
</desktop-list>
</byuser-list>
</unentitled-vm-report>

Transforming the XML Output

You can use an XSLT stylesheet to transform The XML output that the List Orphan Desktops commands generate. A number of sample stylesheets are provided with the Command-Line Tool for View Manager, and are located in the following directory:

C:\Program Files\VMware\VMware View\Server\Extras\XsltFiles

The following stylesheets convert XML to HTML in order to present the data as a series of bulleted lists:

- `unentitled-machines.xsl` - Transforms reports that contain a list of unentitled desktops, grouped either by user or system, that are currently assigned to a user
- `unentitled-policies.xsl` - Transforms reports that contain a list of desktops with user-level policies applied to unentitled users
- `list-checkedout-unentitled.xsl` - Transforms reports that contain a list of desktops that are checked out by unentitled users

You can use the `-xslt` parameter to modify the default XSLT stylesheet reference included in the XML output.

For example, the following simple XSLT 2.0 data transforms a list of unentitled desktops that are grouped by user into a basic table:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="2.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="html" indent="yes" encoding="utf-8" doctype-public="-//W3C//DTD XHTML 1.1//EN" doctype-system="http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd"/>
  <xsl:strip-space elements="*"/>
  <xsl:template match="byuser-list">
    <html xmlns="http://www.w3.org/1999/xhtml">
      <head>
        <title>Local Name</title>
      </head>
      <body>
        <table border="1" summary="local-name()">
          <xsl:for-each select="user-entry">
            <tr>
              <xsl:apply-templates select="user | desktop-list/desktop-entry[1]"/>
            </tr>
            <xsl:for-each select="desktop-list/desktop-entry[position() != 1]">
              <tr>
                <xsl:apply-templates select="user | desktop-list/desktop-entry[1]"/>
              </tr>
            </xsl:for-each>
          </xsl:for-each>
        </table>
      </body>
    </html>
  </xsl:template>
</xsl:stylesheet>
```
The preceding file can be saved in the following location as an XSLT stylesheet:

C:\unentitled-users-table.xsl

The following command changes the default stylesheet reference in the resulting XML output to point at the new file, and writes the results out to a file called output.xml:

vdmadmin -O -lu -xml -xsltpath "C:\unentitled-users-table.xsl" > output.xml

If output.xml is now opened in a browser, the transformation that the referenced stylesheet contains is applied and the data is presented in tabular form.