

## **Cisco StadiumVision Director Bulk Administration Tool**

**Release 2.3**

**March 2011**

Corporate Headquarters  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
<http://www.cisco.com>  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

Copyright © 2011 Cisco Systems, Inc. All rights reserved.

# Table of Contents

---

<b>Preface .....</b>	<b>4</b>
<b>What's New .....</b>	<b>4</b>
<b>Bulk Administration Tool Overview .....</b>	<b>6</b>
<b>Requirements and Recommendations .....</b>	<b>6</b>
<b>How It Works .....</b>	<b>6</b>
<b>Before you Begin .....</b>	<b>7</b>
<b>Using the Bulk Administration Tool .....</b>	<b>8</b>
<b>Accessing the Bulk Administration Tool.....</b>	<b>8</b>
<b>Exporting/Downloading the CSV File.....</b>	<b>9</b>
<b>Editing the CSV File.....</b>	<b>10</b>
Example of a Bulk Administration Tool CSV File.....	10
<b>Importing/Uploading the CSV File.....</b>	<b>11</b>
<b>DMP to Location Mapping (Link and Unlink) .....</b>	<b>11</b>
Locations & DMPs Tab .....	11
Locations-DMP Mapping Tab .....	11
<b>Bulk Administration Tool CSV File Format .....</b>	<b>12</b>
Locations & DMPs CSV File .....	12
Locations-DMP Mapping CSV File .....	16
<b>Possible Error Messages .....</b>	<b>17</b>

# Preface

---

This section contains information about the purpose, audience and revision history of this document.

## Document Purpose

This document provides instructions for how to use the StadiumVision Director Bulk Administration Tool to perform a bulk upload of information about DMPs, IP Phones, and third-party touch screens.

**Note:** This document describes how to use the Bulk Administration Tool provided with StadiumVision Director version 2.3. This information does not apply to previous versions of the tool.

## Document Audience

This document is written for Customer Facing Engineers (CFEs) who are responsible for designing and deploying a StadiumVision network.

## Related Documentation

- *StadiumVision Video Endpoint Design and Implementation Guide*
- *StadiumVision 2.3 Release Notes*

## Document History

**Table 1.** Revision History

Date	Comments
3/9/2011	First release for Cisco StadiumVision Director Release 2.3.

## What's New

In StadiumVision Director version 2.3, the following changes have been made to the Bulk Administration Tool:

- DMPs, luxury suites and local control devices (IP Phone, AMX or Crestron touch panels) can be loaded into the StadiumVision Director database in a bulk manner.
- Bulk association of DMP to Location is enabled. A new column labeled "Entry Type" has been added to the CSV to support the location association.

- Can be used in connection with an off-the-shelf bar code scanner for capturing DMP MAC addresses and TV Location IDs.
- The tool is now integrated into the StadiumVision Director UI. It no longer needs to be installed separately on the administrator's PC. This ensures that the right version of BAT is always used.
- Incremental updates are supported, allowing the tool and the StadiumVision Director UI to be used interchangeably.
- CSV data is validated upon upload and any errors detected are logged in a separate file.
- Existing database records can be deleted or modified in bulk. A new column labeled "Operation Type" has been added to the CSV to support these actions.
- Existing data in the database can be exported to a CSV file.

# Bulk Administration Tool Overview

---

The StadiumVision Bulk Administration Tool provides an alternative to manually defining DMPs, IP Phones, and third-party touch panels in StadiumVision Director. As the name implies, it is intended for adding, deleting, or modifying device definitions in the StadiumVision Director database in *bulk*.

In addition to defining the DMPs, you can use the Bulk Administration Tool to associate the DMP with a particular location or TV. This is referred to as linking or creating a DMP-to-location mapping.

## Requirements and Recommendations

- You must be logged in as an Administrator to use the Bulk Administration Tool.
- Before using the tool, it is recommended that you determine the TV locations and a naming convention. This will aid in problem isolation and troubleshooting – enabling you to more easily identify a TV or DMP that is experiencing difficulty.
- To avoid errors due to truncation, limit the contents of the CSV fields to 200 characters in length.

## How It Works

The Bulk Administration Tool for StadiumVision provides an alternative to manually adding, updating or deleting device information in the StadiumVision Director database. Device information can include DMPs, IP Phones, and third-party touch screens used for local TV control.

The Bulk Administration Tool uses a comma separated value (CSV) file as the mechanism for importing and exporting data. This file can be edited using a standard spreadsheet application, such as Microsoft Excel. The format of the CSV file is described in the “Bulk Administration Tool CSV File Format” section.

Before the data is imported, the Bulk Administration Tool gets the current configuration from StadiumVision Director (which may be null, if this is the first time you are using the tool), merges the two sets of information, and checks for errors. If no errors are found, the Bulk Administration Tool synchronizes the database . If errors are found, the Bulk Administration Tool returns an error message, as described in the “Possible Error Messages” section.

In previous versions of StadiumVision Director, you used a series of Java commands to control the Bulk Administration Tool. Starting with StadiumVision Director version 2.3, the tool has been integrated into the SV Director UI.

## Before you Begin

The input and output files used by the Bulk Administration Tool should be stored in the root directory: */var/sv/bat*

CSV uploads and downloads should go to a different location. Create sub directories, as needed, to keep input and output files in separate folders.

# Using the Bulk Administration Tool

---

At a high-level, the process for using the Bulk Administration Tool to add, change or remove device information is:

1. Access the tool through the StadiumVision Director Control Panel.
2. Export the current CSV file (which may be empty if this is a new installation and no devices have been defined).
3. Edit the CSV file.
4. Import the CSV file.
5. Check for error messages and resolve any errors.

If you want to use the Bulk Administration Tool to modify only the mapping of DMPs to location, see the “Modifying DMP to Location Mapping” section.

## Accessing the Bulk Administration Tool

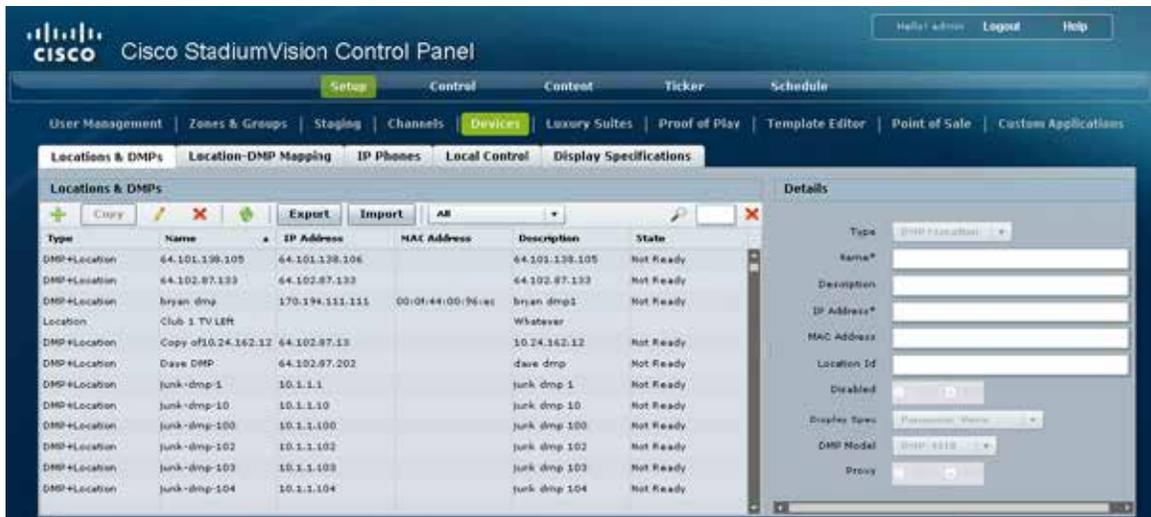
To access the Bulk Administration Tool:

1. Log in to SV Director as the Administrator.
2. Select **Control Panel** from the SV Director main screen.

Figure 1. StadiumVision Director Main Screen



3. Select **Setup > Devices**. A tabbed window is displayed.



The Bulk Administration Tool is accessed from the Locations & DMPs tab.

## Exporting/Downloading the CSV File

To export the CSV file:

1. Go to the Locations & DMPs tab.
2. Click **Export**.

3. In the Export CSV File window, click **Download**.
4. In the Select Location window, navigate to the directory where you want to download the file, specify the name you wish to use, and click **Save**.

## Editing the CSV File

To edit the CSV file:

1. Open the file using a standard spreadsheet tool, such as Microsoft Excel.
 

If this is the first time you have exported the CSV file and no DMPs, IP Phones, or 3<sup>rd</sup> party devices are defined in StadiumVision Director, the spreadsheet will contain only headings.
2. Edit the fields in the column below each heading as needed. For a description of each column, see the “Bulk Administration Tool CSV File Format” section.
3. Save the modified file.

### Example of a Bulk Administration Tool CSV File

The following illustration shows an example of a modified CSV file in which one entry has been deleted, one entry has been updated, and several entries have been created.

	A	B	C	D	E	F	G	H	I	S
	Operation Type	Entry Type	MAC Address	IP Address	Name	Old Name	Model Name	LocationID	State	
1	delete	LOCATION			200-NW-001				NotReady	
2	update	LOCATIONn	00:0f:44:01:53:88	10.50.1.4	100-SE-031	300-SW-021	DMP-4310	1003	Production	
3		DMP	00:0f:44:01:a5:ec	10.50.1.5	Unassigned-00-0f-44-01-a5-ec		DMP-4310		Ready	
4	create	LOCATION			300-SW-001					
5	create	LOCATION			300-SW-002					
6	create	LOCATION			300-SW-003					
7	create	LOCATION			300-SW-004					
8	create	LOCATIONn		10.50.2.1	400-NW-001					
9	create	LOCATIONn		10.50.2.2	400-NW-002					
10	create	LOCATIONn		10.50.2.3	400-NW-003					
11	create	LOCATIONn		10.50.2.4	400-NW-004					
12	create	DMP	00:0f:44:01:a5:01	10.50.20.5	500-NW-001					
13	create	DMP	00:0f:44:01:a5:02	10.50.20.6	500-NW-002					
14	create	DMP	00:0f:44:01:a5:03	10.50.20.7	500-NW-003					
15										
16										

## Importing/Uploading the CSV File

To import the CSV file:

1. Go to the Locations & DMPs tab.
2. Click **Import**.
3. In the Select File to Upload window, navigate to the directory where you stored the file, select the file that you wish to upload, and click **Open**.

When the importing is complete, a message is displayed that show the total number of records that were processed, the number that were successfully processed, and the number that failed. If any records failed, the message box allows you to click **Download** to download a CSV file that includes only the rows that contain errors along with an indicator of the error (error message).

Refer to the “Possible Error Messages” section for a listing of error messages, their meanings, and recommended resolutions.

## DMP to Location Mapping (Link and Unlink)

There are two options for using a CSV file to map (link) DMPs to Locations – either from the Locations & DMPs tab or from the Locations-DMP Mapping tab.

You can remove the mapping (unlink) using a CSV file only from the Locations-DMP Mapping tab.

### Locations & DMPs Tab

You can set the DMP-to-location mapping (link) when you import the CSV file on the *Locations & DMPs* tab. To link the DMP to a location, you must include the following information in the CSV file:

- The MAC address of the DMP.
- The IP Address of the DMP.
- The location Name
- All the other fields are optional

### Locations-DMP Mapping Tab

As an alternative, after you have defined all the DMPs and Locations while in the Locations & DMP Mapping tab, you can set or modify the mapping (or linking) of DMPs to locations, using a CSV file in the Locations-DMP Mapping tab.. The CSV file and process used in this method is slightly different.

To link the DMP to a location, you must include the following information in the imported CSV file:

- The MAC address of the DMP.

- The Location Name.
- The LocationID is optional

To unlink the DMP from a location, simply remove the MAC address from the imported CSV file.

To set or modify the mapping using a CSV file on the Locations-DMP Mapping tab:

1. On the Control Panel, go to **Setup > Devices**.
2. Click on the Locations-DMP Mapping tab.
3. To download a list of MAC addresses for the DMPs in the system, click **Export** under the Available Devices column and save the file to the desired location. The result is a file that contains only MAC addresses.
4. To download the current mapping of DMPs to Locations, click **Export** under the Locations column and save the file to the desired location. The result is a file that contains MAC addresses, Location names and Location IDs.
5. Use a spreadsheet application to modify the file downloaded in Step 4.
  - Add a MAC address to “Link” a DMP to a location. You can enter the MAC addresses or copy them from the Available Devices file (downloaded in Step 3).
  - Delete the MAC address to “Unlink” a DMP from a location.
6. Save the file.
7. On the Locations-DMP Mapping tab under the Locations column, click **Import**.
8. In the Select File to Upload window, navigate to the directory where you stored the file, select the file that you wish to upload, and click **Open**.

When the importing is complete, a message is displayed that show the total number of records that were processed, the number that were successfully processed, and the number that failed. If any records failed, the message box allows you to click Download to download a CSV file that includes only the rows that contain errors along with an indicator of the error (error message).

Refer to the “Possible Error Messages” section for a listing of error messages, their meanings, and recommended resolutions.

## Bulk Administration Tool CSV File Format

The format of the CSV file differs depending on whether you are using export/import from the Locations & DMPs tab or from the Locations-DMP Mapping tab.

### Locations & DMPs CSV File

The fields (or columns) in the CSV file used on the Locations & DMPs tab are as follows.

Field	Required	Description	Possible Values
Operation Type	Yes	Indicates the action that you want to take with this entry.	<ul style="list-style-type: none"> <li>• <b>Create</b> – Creates an entry</li> <li>• <b>Delete</b> – Deletes the entry that matches the data in this row</li> <li>• <b>Update</b> – Updates the entry with data in this row</li> </ul>
Entry Type	Yes, for DMPs and Locations. This field does not apply to IP Phones and 3 <sup>rd</sup> party devices.	Indicates the type of entry to which the information in this row applies.	<ul style="list-style-type: none"> <li>• <b>DMP</b> – The entry is for a DMP. Data supplied should include MAC address, IP address, Name, and TV Type.</li> <li>• <b>LOCATION</b> –The entry is for the physical location of the TV to which the DMP is attached. Data supplied should include the Location Name and the Location ID (optional).</li> <li>• <b>LOCATIONn</b> – The entry is for both the DMP and the location.</li> </ul>
MAC Address	Yes, if performing a link operation.	The MAC address of the device.	May be in the form AA:BB:CC:DD:EE:FF or aabb.ccdd.eeff or aabbccddeeff The only permitted characters are 0-F and colon, dash, period as shown above and letters are not case sensitive.
IP Address	Yes	The IP address of the device. For DMPs, this is the static address that was assigned to the DMP when it was installed.	Must be unique, valid IPv4 address (e.g. 0.0.0.256 is not permitted). StadiumVision Director does not validate the address or check for duplicates; it only verifies that the IP Address is in the correct format.
Name	Yes	The human readable name that you would like to use to refer to this device.	Should only use A-Z a-z 0-9 space _ - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces. Note: StadiumVision Director does not prevent use of the same name for different devices. Therefore, ensure that you define unique names to each device. See the <i>StadiumVision Video Endpoint Design and Implementation Guide</i> for recommended naming best practices.
Old Name	No	The existing human readable name of the device. This field is required if the operation type is Update and the Name is being changed.	Must match an existing device name.
Model Name	Yes, if device is a DMP	The model of the DMP.	<b>DMP-4305</b> or <b>DMP-4310</b>

Field	Required	Description	Possible Values
LocationID	No	This is user assigned and has no special meaning to StadiumVision Director. The LocationID is intended used to easily identify the physical location of the devices. For example, a location that is identified by the Architectural Diagram or Map used to install TVs at a venue.	Should only use A-Z a-z 0-9 space _ - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces. Note: StadiumVision Director does not prevent use of the same name for different devices. Therefore, ensure that you define unique names to each device.
State	No	The current state of the DMP. This field is provided in the export process for convenience. It is not used during the import process.	Not used during import.
Service Type	No	For IP Phones that are used for local control, this indicates the StadiumVision service to be run on the phone. ( <b>Note:</b> The specified service must be loaded into CUAЕ as part of the Luxury Suite Control application).	<ul style="list-style-type: none"> <li>• <b>Luxury Suite</b> service includes support for both StadiumVision Director Video Management Services and Commerce Services.</li> <li>• <b>AdminOffice</b> service includes support for only the StadiumVision Director Video Management Services. This is designed for use in locations where a Cisco IP Phone will be used for local TV control and there is no need for commerce integration, such as an administrative office.</li> </ul>
Description	No	A text description of the device.	Should only use A-Z a-z 0-9 space _ - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces.
TV Type	No	The device specification associated with the model of the TV to which the DMP is attached. All TVs of the same model should have the same TV Type. This information is used for managing the RS-232 codes for each model.	Must match the name of an existing device specification. Device specifications are created in the Control Panel under Setup > Devices > Device Specifications.
Suite Control Type	Yes, if device is associated with a local control area	The device to be used for local TV control in the luxury suite or other local control area.	<b>Infrared, IP Phone, or 3rd Party</b>
Suite Name	Yes, if device is associated with a local control area	The name of the luxury suite or other local control area.	Should only use A-Z a-z 0-9 space _ - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces.

Field	Required	Description	Possible Values
Old Suite Name	No	The name of an existing luxury suite or other local control area. This field is required if the operation type is Update and the Suite Name is being changed.	Must match an existing suite name.
Suite DMP Logical ID	Yes, if device is associated with a local control area	For a given suite, the logical number for each device. This determines the order in which the TV labels are displayed on the IP phone. For example, in a given suite, Main may be 1, Bar may be 2, outside may be 3.	A numeric value 1 through x, where x is the total number of TVs/DMPs in the suite.
TV Name	No	The label shown on the TV when the banner is brought up on the TV. This is also the name displayed on the IP phone identify the TV. For example, the label may be a description of the TV's location in the suite, like Main or Bar.	Alphanumeric text. Because this name (or label) is displayed on the IP Phone, the name should be limited to 12 characters or less. Due to the space allotted for display labels on the IP Phone interface, more than 12 characters may have undesirable results.
Suite Controller IP	Yes, if device is associated with a local control area (not required if Suite Control Type is Infrared)	The IP address of the IP phone or third party device that will be controlling this suite.	Must be unique. Must be a valid IPv4 address (e.g. 0.0.0.256 is not permitted). StadiumVision Director does not validate the address or check for duplicates; it only verifies that the IP Address is in the correct format.
Suite Controller MAC	No	The MAC address of the IP phone or third party device that will be controlling this suite.	May be in the form AA:BB:CC:DD:EE:FF or aabb.ccdd.eeff or aabbccddeeff The only permitted characters are 0-F and colon, dash, period as shown above and letters are not case sensitive.
Suite Controller Name	Yes, if device is associated with a local control area (not required if Suite Control Type is Infrared)	The human readable name of the local control device.	Should only use A-Z a-z 0-9 space - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces.
Old Suite Controller Name	No	The existing human readable name of the local control device. This field is required if the operation type is Update and the Suite Controller Name is being changed.	Must match an existing device name.
External Suite ID	No	The suite ID used to identify this suite in the Point of Sale system.	The external suite ID must match value configured in the Point of Sale system.
External Suite Name	No	The suite name used to identify this suite in the Point of Sale system.	The external suite name (if configured) must match value configured in the Point of Sale system.

Field	Required	Description	Possible Values
Vendor Installation	No	The name of a point of sale vendor that will service this luxury suite.	Alphanumeric text. The vendor installation must match the name configured in SV director.
Store	No	The name of the store (within the vendor installation) that will service this luxury suite	Alphanumeric text. The store must match the store name configured in SV director.
Group1 - 8	No	The name of each group with which the DMP is associated. <b>Note:</b> You should add all DMPs to the nonevent_group.	Alphanumeric text. The group must match the group name configured in SV Director.

## Locations-DMP Mapping CSV File

The fields (or columns) in the CSV file used on the Locations-DMP Mapping tab are as follows.

Field	Description	Possible Values
MAC Address	The MAC address of the device.	May be in the form AA:BB:CC:DD:EE:FF or aabb.ccdd.eeff or aabbccddeeff The only permitted characters are 0-F and colon, dash, period as shown above and letters are not case sensitive.
LocationID	This is user assigned and has no special meaning to StadiumVision Director. The LocationID is intended used to easily identify the physical location of the devices. For example, a location that is identified by the Architectural Diagram or Map used to install TVs at a venue.	Should only use A-Z a-z 0-9 space _ - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces. See the <i>StadiumVision Video Endpoint Design and Implementation Guide</i> for recommended naming best practices.
LocationName	This is the name column in the sne_device table. To be most effective a naming convention is typically employed by the user. This naming convention may use a hierarchic naming convention to efficiently identify a location and make its assignment to Zones and Groups more natural. Note that SV Director does not enforce any naming convention, however, it does enforce uniqueness for the name attribute.	Should only use A-Z a-z 0-9 space _ - Invalid Characters % * , : ? = / \ " ' [ ] ( ) + Not to exceed 200 characters and spaces. See the <i>StadiumVision Video Endpoint Design and Implementation Guide</i> for recommended naming best practices.

# Possible Error Messages

Following is the list of validation/error messages which are generated in the Error column of the error CSV file generated by the Bulk Administration Tool.

Message	Description	Resolution
Invalid Device MAC Address:{MAC}	The MAC address entered was not 12 valid hexadecimal characters. The Bulk Administration Tool translates the MAC address entered into a valid MAC format ( for example, 00:0f:01:02:03:04) after which the tool validates the format and characters.	Enter 12 valid hexadecimal characters in the row that contains this error.
Invalid Suite Controller MAC Address:{MAC}	The MAC address entered was not 12 valid hexadecimal characters. The Bulk Administration Tool translates the MAC address entered into a valid MAC format ( for example, 00:0f:01:02:03:04) after which the tool validates the format and characters.	Enter 12 valid hexadecimal characters in the row that contains this error.
Invalid Suite Controller MAC Address:{MAC}	The MAC address entered was not 12 valid hexadecimal characters. The Bulk Administration Tool translates the MAC address entered into a valid MAC format ( for example, 00:0f:01:02:03:04) after which the tool validates the format and characters.	Enter 12 valid hexadecimal characters in the row that contains this error.
Device named {device name} has empty IP Address	The IP address of the device either was not entered or was entered as blank.	Enter a valid IP address in the row that contains this error.
Invalid IP Address Format:{IP Address}	The format of IP address entered was incorrect.	Correct the format of the IP address in the row that contains this error.
Invalid Controller IP Address Format{IP Address}	The format of IP address entered was incorrect.	Correct the format of the IP address in the row that contains this error.
Suite Controller Ip Address is empty	The IP address of the Suite Controller either was not entered or was entered as blank.	Enter a valid IP address in the row that contains this error.
Device Name has invalid character colon	The device name contains a colon, which is not allowed.	Remove or replace the colon from the device name in the row that contains this error.

Device Name is Empty	The device name either was not entered or was entered as blank.	Enter the device name in the row that contains this error.
Invalid Model Name	The device model is invalid. Only DMP-4305G and DMP-4310G are valid entries.	Enter a valid model name (DMP-4305G or DMP-4310).
Duplicate entry '{value}' for key 1 Duplicate entry '{value}' for key 2 Duplicate entry '{value}' for key 3	A duplicate value was entered for one of the following fields: Name, MAC address, or LocationID.	Search for {value} in the row that contains this error and correct the duplication.
Invalid CSV File Heading(Column #1 should be MAC , and Column #2 should be LocationName or LocationID)	When importing a CSV file on the Locations-DMP Mapping tab, the first row of the CSV file (which is the header) is incorrect.	Check the input CSV file. The first entry in the row should be MAC address, the second column should be LocationName or LocationID. Other columns are ignored.
Source Device is null	The Source Device referred to by the MAC address in the CSV file, does not exist in the database.	Verify the MAC address using Export.
Destination Device is null	The Destination Device referred to by the LocationName or Location ID in the CSV file does not exist in the database.	Verify the LocationName or LocationID using Export.
Source and Destination Device are the same	The Source MAC address and Destination Location specified in the CSV file refers to the same device. For Link Operation these should be different.	Verify the Source MAC address and Destination Location using Export.
Invalid source or destination id	The Source Device or the Destination Device ID specified does not exist in the database. This message is generated when the Link Operation is performed using the UI.	Verify the Source Device ID and the Destination Device ID using Export.
Invalid Source and Destination device id specified in LinkRequestVO	The Source Device or the Destination Device ID specified does not exist in the database. This message is generated when the Link Operation is performed using the UI.	Verify the Source Device ID and the Destination Device ID using Export.
Error: Could not get the source device, ID:{SourceDeviceID}	The Source Device ID specified does not exist in the database. This message is generated when the Link Operation is performed using the UI.	Verify the Source Device ID using Export.
Error: Could not get the Destination device, ID:{DestinationDeviceID}	The Destination Device ID specified does not exist in the database. This message is generated when the Link Operation is performed using the UI.	Verify the Destination Device ID using Export.

Source Device MAC address is null or empty	The MAC address for the Source Device is empty or null.	The Source MAC address must exist before performing a Link Operation. Run getStatus before running the Link Operation.
Link Unsuccessful, For SouceMAC : {SourceDevice MAC Address} , Destination Location Name : {destnLocName} Exception Message: {Exception Message returned from Data Access Layer}	This is a Duplicate or Database low level error.	Report this error to the escalation team.
Invalid Destination ID Specified , ID:{Destination ID}	The Destination ID specified in the Unlink Operation is invalid.	Specify a valid Destination ID.
UnLink Unsuccessful, Destination : {destiondeviceid} Exception Message:{Data Access Layer exception	This is a Duplicate or Database low level error.	Report this error to the escalation team.
Destination Device:{destiondeviceid} not found	The Destination Device ID specified in the Unlink Operation does not exist in the database.	Enter a valid Destination Device ID.
Destination Object Types is invalid for link operation( it should be Type- #2 or Type - #3)	In the linking process, the Destination Object can be a LOCATION (Type 2) or a LOCATIONn (Type 3).	Verify that the destination object being linked is either a LOCATION or a LOCATIONn.
Source Object Type is invalid for link operation(It should be #1 or #3	In the linking process, the Source Object can be a DMP (Type 1) or a LOCATIONn (Type 3).	Verify that the source object being linked is either a DMP and a LOCATIONn.
Source , Destination Object Type combination is invalid for link operation	In the linking process: <ul style="list-style-type: none"> <li>The Destination Object can be a LOCATION (Type 2) or a LOCATIONn (Type 3).</li> <li>The Source Object can be a DMP (Type 1) or a LOCATIONn (Type 3).</li> </ul>	Verify that the source and destination object types are correct.
Mac Address is null or empty	The Source Device MAC is null or empty . This message is generated when the Link Operation is performed using the UI.	Check the Source Device MAC address. If it is empty, run getstat().
Destination Object Type invalid for Unlink operation( it should be Type- #3)	In the unlinking process, the Destination Object must be a LOCATIONn (Type 3).	Verify that the destination object being unlinked is either a LOCATIONn.
Could not get the device , ID:{deviceid} ,Exception:{Data Access Layer Exception}	An error occurred while retrieving the Device information for export .	Verify that the device ID being exported exists in the database. If it exists, then further troubleshooting is required based on the Data Access Layer Exception. Contact the escalation team.