



Adding Managed Machines in Horizon Environments

v8.1

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1. Introduction

ControlUp is a tailor-made monitoring system for IT administrators who oversee multi-user environments and are required to prevent and troubleshoot performance issues, application failures, and operating system errors. Typically, these tasks require repetitive and time-consuming execution on existing consoles, scripts and various management tools, none of which can achieve the systems administrator's two primary goals:

- To quickly identify issues in a complex multi-user environment
- To resolve these issues in simply and efficiently

ControlUp's solution is a comprehensive monitoring, management and remediation system. It provides deep visibility into the real-time activity of servers, workstations, user sessions, and the applications they use so administrators and their teams can more effectively reach these goals.

ControlUp Modules

The ControlUp system provides the following main modules:

- **ControlUp Console** - The real-time monitoring ControlUp Console module that gathers and displays a wealth of current information regarding system health and performance allowing powerful management actions to be executed to enable resolving issues and changes to system configurations. The console module is a live spreadsheet-like grid that can be customized and configured to suit a user's requirements. The console grid contains metric columns, that can be sorted and double-clicked in order to navigate across the systems.
- **ControlUp Monitor** - The ControlUp Monitor module, assists with monitoring your assets and alerts about any abnormal behavior according to a customizable set of incident triggers, 24/7. It is similar to the ControlUp Console, but without an interactive user interface. Once installed and launched, the monitor connects to the managed assets of your organization and starts receiving system information and performance updates, just like an additional ControlUp Console user.
- **ControlUp Insight** - The ControlUp Insight module is a reporting and analytics platform that accumulates activity and performance data over time and displays it over a variety of reports and dashboards. This enables the systems administrator to investigate past issues, track usage trends, analyze the system's performance and make decisions regarding future system design and configuration.

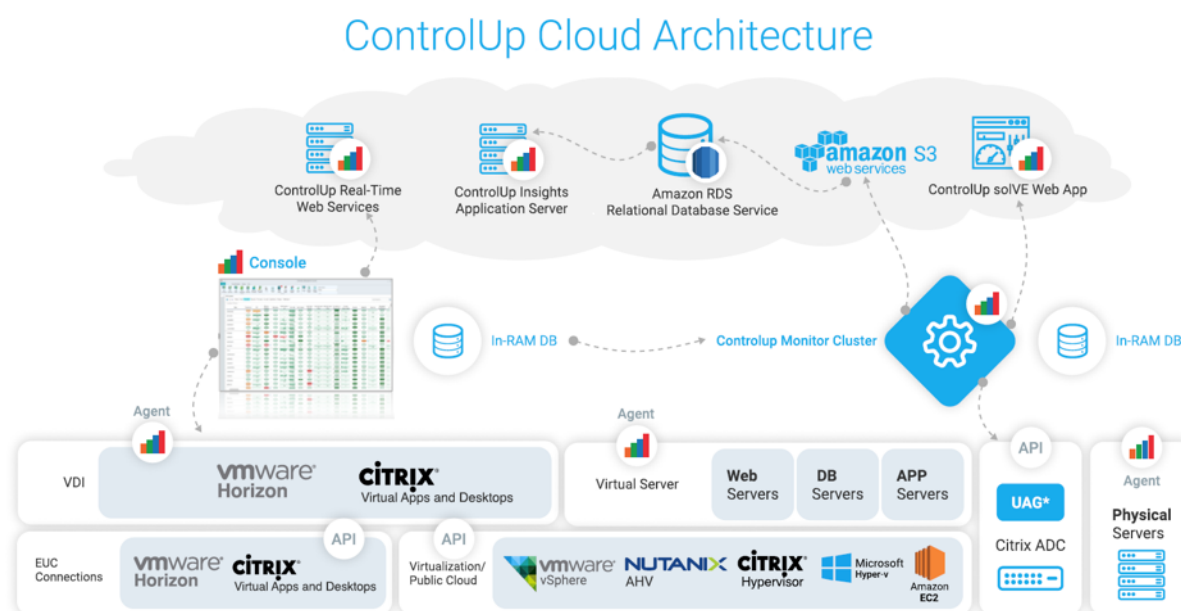
ControlUp Architecture

ControlUp supports various topologies, based on the user’s requirements. This section describes the two major topologies used by ControlUp users.

ControlUp Hybrid Cloud Topology

ControlUp Hybrid Cloud topology is enabled by default (which requires a network with internet connectivity). In this topology, ControlUp’s back-end components are hosted on secure Amazon Web Services Cloud servers, while the ControlUp Console and Monitor modules run inside the enterprise network.

The following figure illustrates the ControlUp Cloud-Based topology:

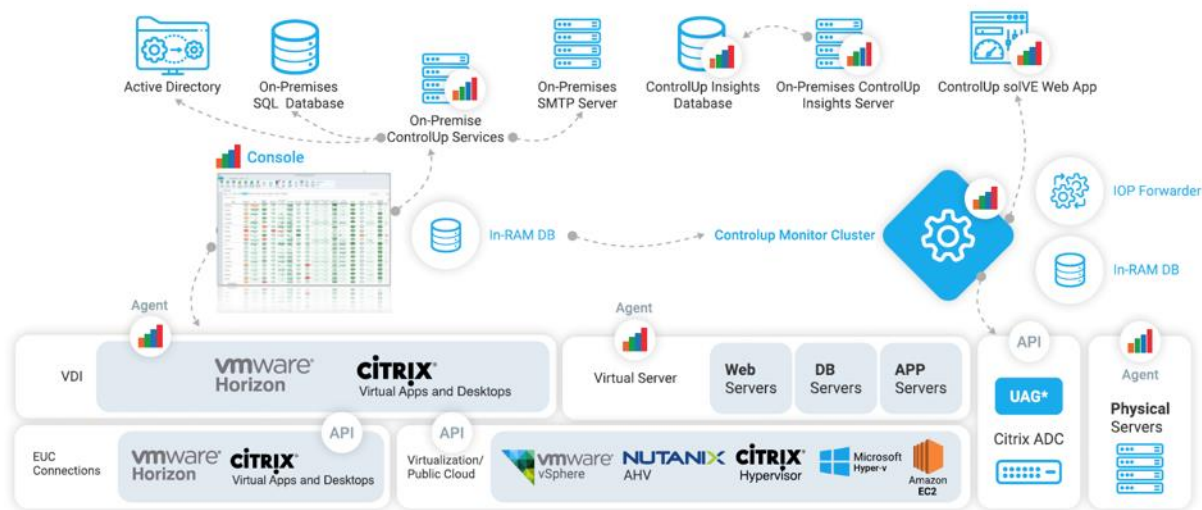


ControlUp On-Premises Topology

ControlUp's On-Premises topology enables organizations to install the ControlUp back-end components on their on-premises datacenter. In this topology, both the ControlUp back-end components and the ControlUp Console and Monitor run inside the enterprise network.

The following figure illustrates the On-Premises architecture:

ControlUp On-Premises Architecture



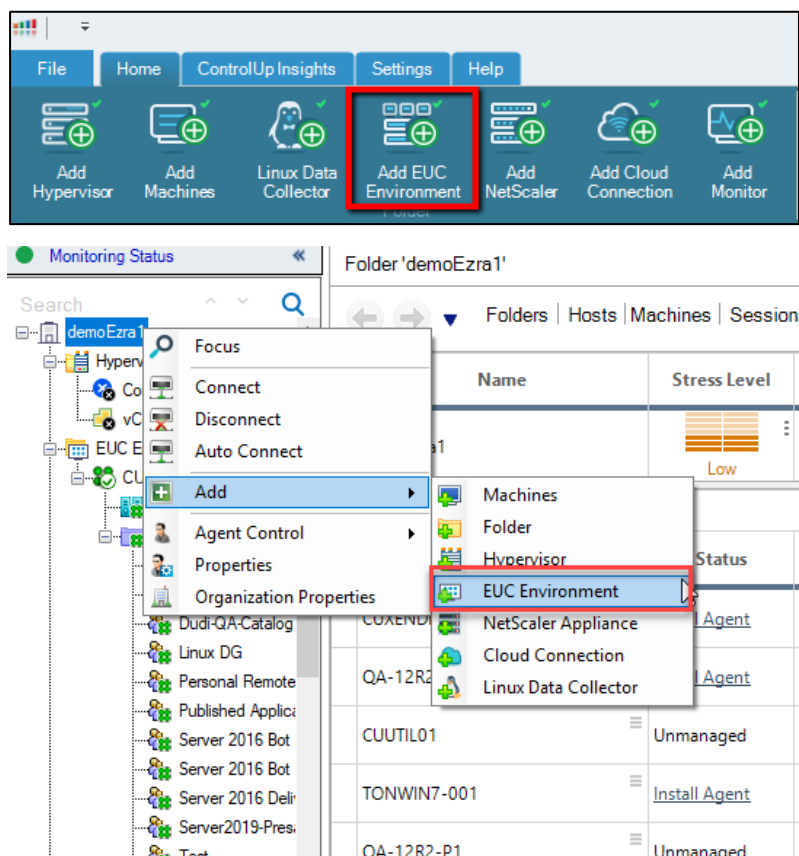
2. Adding a VMware Horizon Connection

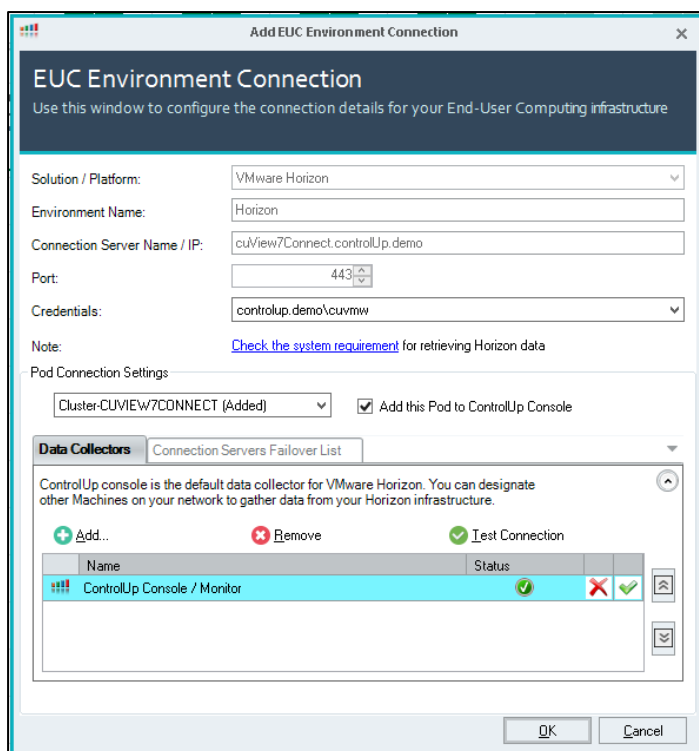
To connect ControlUp to your Horizon deployment, you must create a VMware Horizon site connection in the ControlUp Console. The connection will specify the Horizon pools(s) from which data will be gathered, as well as the credentials used for data collection and management actions. The following are mandatory prerequisites for adding a Horizon **EUC Environment** connection:

- Port TCP 443 opened between Console <> Connection Server or Data Collector <> Connection Server

To add a Horizon site connection:

1. Click **Add EUC Environment** in the main ribbon menu and select **Add > EUC Environment** and the Add EUC Environment Connection dialog box appears.





2. From the **Solution/Platform** drop-down box, select **VMware Horizon**.
3. In the **Connection Server Name/IP** enter the full name (FQDN), hostname or IP address of a Connection Server in your Horizon site. It will auto discover all the components in the Horizon Environment.
4. From the **Credentials** dropdown box, select or add a set of credentials that will be used for data collection from your Horizon infrastructure.
5. Click **OK** and the Horizon site is connected.
6. Once connected, you are prompted to configure the **Pod Connection Settings**.
If you would like to remove one of the Pod connections, select it from the dropdown and uncheck **Add this Pod to ControlUp Console**.
Tip: Configure a dedicated data collector. For more informations see [here](#).
7. Click **OK** and the VMWare Horizon connection is complete.

3. Adding Managed Machines

This section covers the actions required for getting ControlUp running with managed machines.

To add Managed Machines in ControlUp, two distinct operations are required:

1. Adding the machine to the ControlUp organization.
2. Deploying the ControlUp Agent on the machine.

Each of these actions can be completed either manually or automatically as follows:

- **Manually** – Using the ControlUp Console
- **Automatically** – Using PowerShell scripts and an MSI package

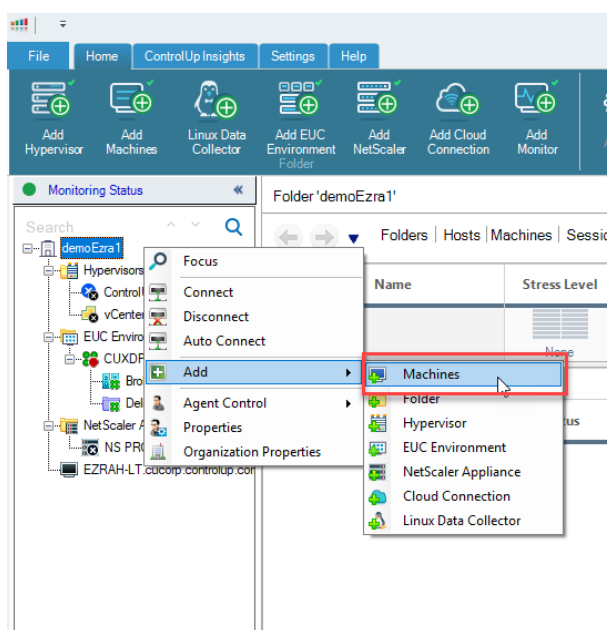
This section covers the required steps for each operation.

Adding Managed Machines Manually to the Console

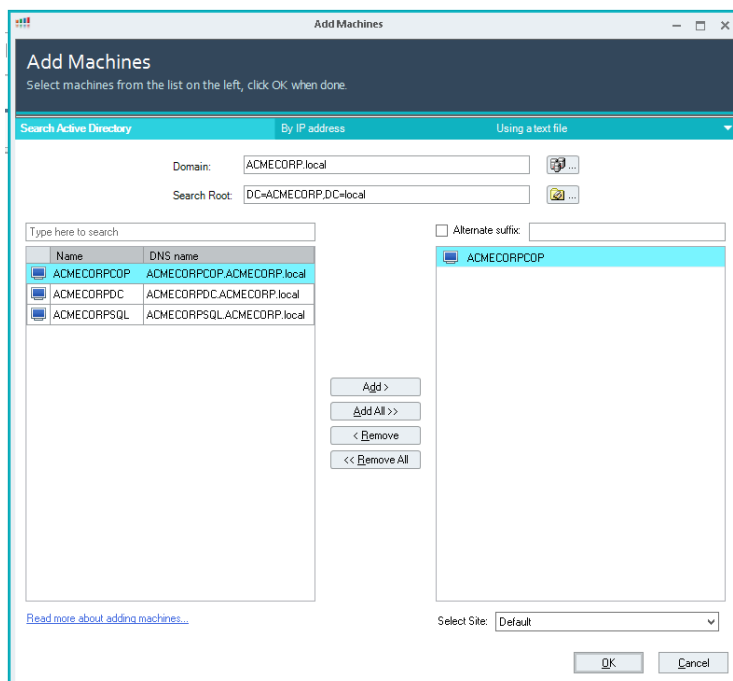
The firewall port 40705 must be open. For more information, see [here](#).

To add a managed machine manually:

1. Open the **Add Machines** window by right-clicking the Root Folder or any other folder in the organizational Tree and select **Add > Machines** and the **Add Machines Window** appears:



2. For more information regarding ports, see [here](#). Alternatively, you can click the **Add Machine** button in the Home ribbon and the Add Machines window appears:



To select a machine from your active directory:

1. Use the **Domain** selector button to choose a domain containing the names of the machines to be added.
2. Use the **Search Root** selector to choose a root OU for the Active Directory search.
3. Search for the machines you want to add and select them from the Search tab.

Tip: Typing text inside the Search Filter box performs inline filtering of the result table, which allows for faster location of machine accounts. The text that you type in the Search Filter box can be any part of the machine name and does not require the use of wildcard characters.

4. Select the machines and click **Add** or **All All**.
5. Click **OK** and the Machines are added to the Organizational Tree.

By default, once a machine is added to the organizational tree, the ControlUp Agent is automatically installed on that machine. However, ControlUp also enables you to disable the automatic installation of the agent in cases where you would like to manually control and initiate the installation process.

To disable the automatic installation of the agent:

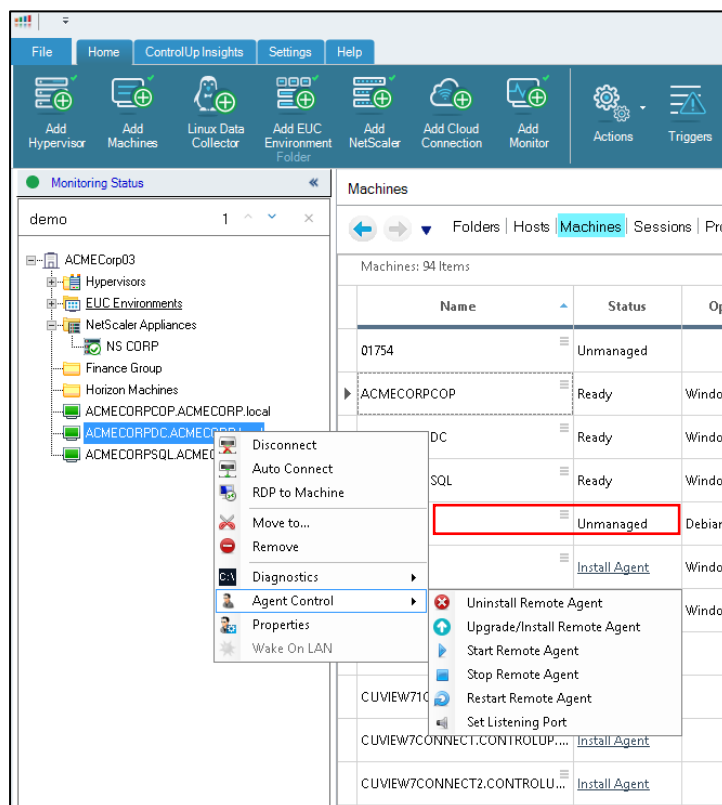
1. Go to the Settings tab and click **Agent** and the **Agent Deployments** setting screen appears.
2. Uncheck the **Deploy Agents Automatically** option and the automatic installation of the agent is disabled.

Deploying the Agent Manually

Once this function is disabled, you will need to install the agent remotely via the ControlUp Console. To push the agents to the remote machines, the AD user you are logged in with when starting the console must have administrative permissions on the remote machine.

To install the agent remotely:

In the organizational tree, right click the machine you would like to install the agent on and select **Agent Control** and then **Upgrade/Install Remote Agent**.



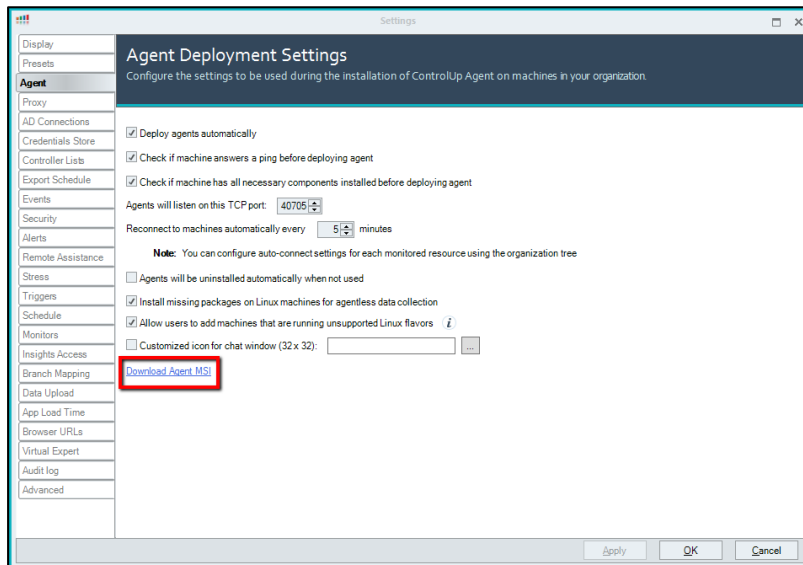
It is also possible to install the agent remotely to several machines by multi-selecting them by holding the CTRL key and right-clicking over a folder.

Deploying the Agent MSI Package on a Golden Image

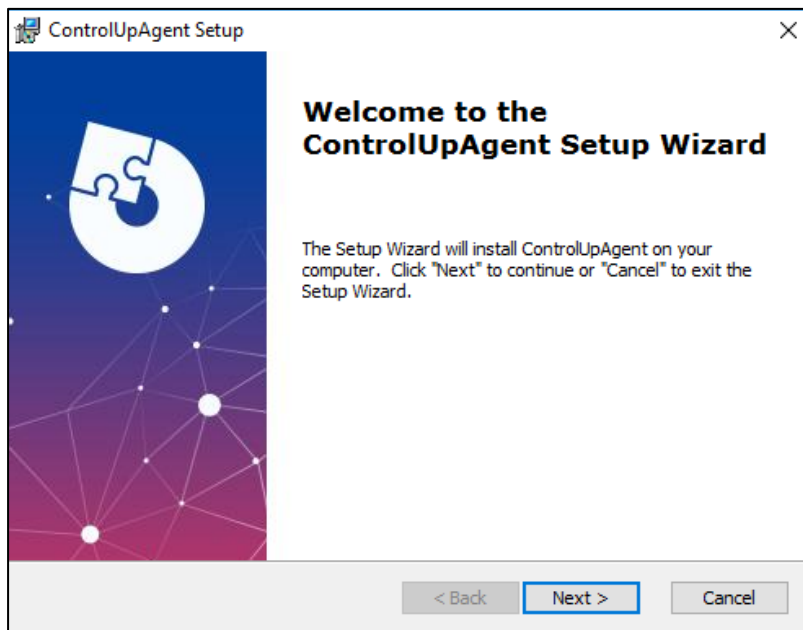
ControlUp enables you to deploy the ControlUp Agent onto a golden image using the ControlUp **Agent MSI package**, as well the ability to distribute the **Agent MSI Package** in advance to machines, using SCCM or other similar systems, logon script or via a group policy.

To install the MSI package:

1. Download the package from this [link](#) or from the console by selecting the **Settings** tab and then selecting **Agent** and clicking **Download Agent MSI**.



2. Install the MSI package on the golden image using the setup wizard. No other configurations required.



Auto Adding Machines Installed with the MSI Package

To support the dynamic nature of Horizon environments, where desktop pools are constantly updated, ControlUp has created sync scripts that make the machine adding process easy and automated.

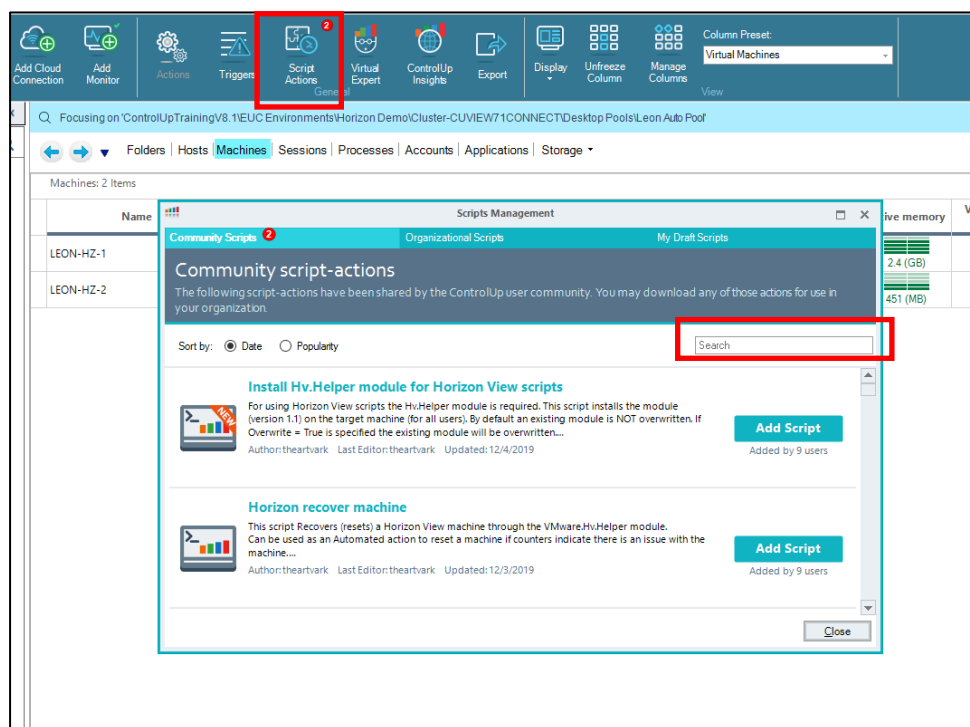
The machine running the monitor must go through a short preparation process to run several PowerShell scripts.

Installed software prerequisites:

- PowerShell 5.0
- PowerShellCLI 11.0 or later. To install the PowerShellCLI, type **Install-Module VMware.PowerCLI** in the PowerShell command line.
- The controlup.cli PowerShell module. To install the controlup.cli, type **install -module controlup.cli** in the PowerShell command line.

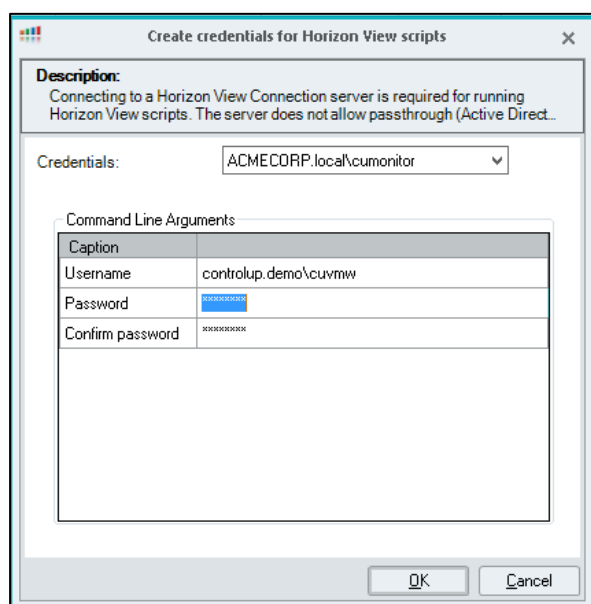
To prepare the monitor for running the Horizon Sync Script:

1. Open ControlUp Console and click **Script Actions** and the Scripts Management screen appears.



2. From the Scripts Management screen, search for **Create credentials for Horizon View scripts** and then click **Add Script** and the Add a Shared Script Action popup appears.

3. Click the **Accept the terms** checkbox and click **OK** and the script are added. You are returned to the Scripts Management screen.
4. From the Scripts Management screen, search for **Install Hv.Helper module for Horizon View scripts** and then click **Add Script** and the Add a Shared Script Action popup appears.
5. Click the **Accept the terms** checkbox and click **OK** and the scripts are added. You are returned to the Scripts Management screen.
6. Click **Close** and the ControlUp Console grid appears.
7. From the ControlUp Console grid, locate the monitor server you would like to prepare and right-click it. The Management Actions menu appears.
8. Hover over **Script Actions** and select **Create credentials for Horizon View scripts** and the Create credentials for Horizon View popup appears.



9. From the Credentials dropdown, select the user to be used to run the monitor account. That is the account you used while setting up the monitor's primary domain identity.
10. In the Command Line Arguments text box, enter the credentials you used to connect to the Horizon Connection Server while adding the EUC environment to the console.
11. Click **OK** and the Action Results Screen appears.
12. In the Errors tab in the Action Results Screen, check that the action is complete with no errors. If the action is successful a credentials XML file is created under **C:\ProgramData\ControlUp\ScriptSupport**
13. Close the screen Action Results Screen and you are returned to the ControlUp Console grid.

14. Run the second script by hovering over Script Actions and select **Install Hv.Helper module for Horizon View scripts** and the Action Results screen appears. Make sure the action is complete with no errors and the scripts are applied.

Creating a Scheduled Task to Run the Script

Once the monitor machine is prepared, a Windows Task Scheduler task must be created to regularly run a sync script.

The following procedures must be performed prior to creating the Task Scheduler:

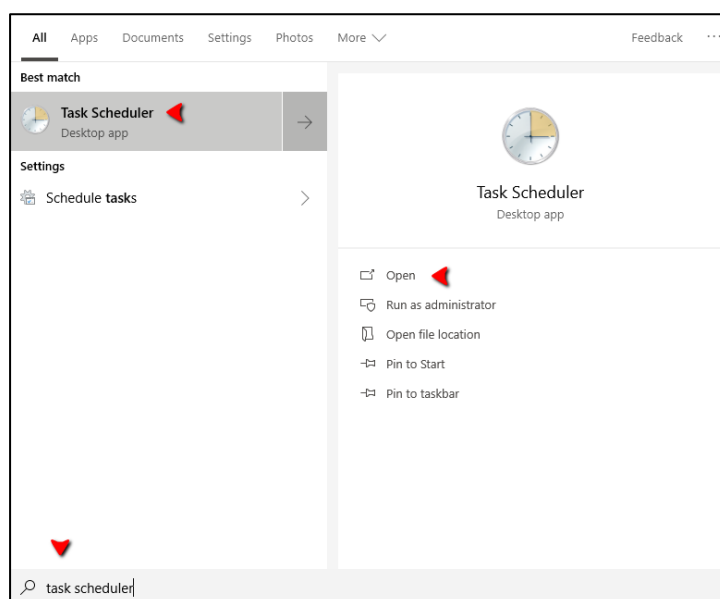
1. Download the PS script linked here.
2. Create a new folder for example, Horizon_Sync_Script, and place the file in this folder.
3. If you would like to exclude pools from being added to the console, create an **exceptions.txt** file with the names of the pools you would like to exclude, and place it in the folder.
4. Create a Task Scheduler that will run this script daily.

Creating a Task Scheduler for Automatically Adding Horizon Machines via a Script

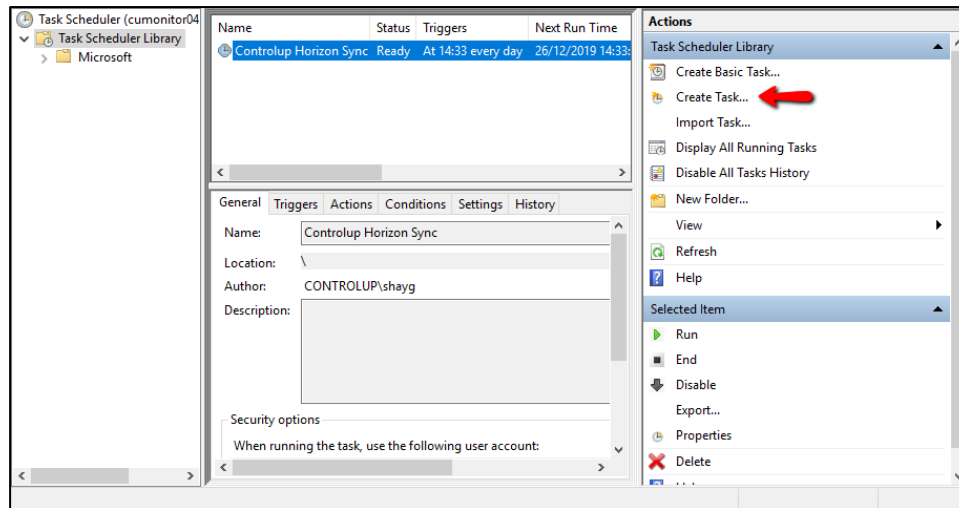
The Task Scheduler for automatically adding Horizon machines via a script, must be created on the ControlUp Monitor server machine.

To Create the Task Scheduler:

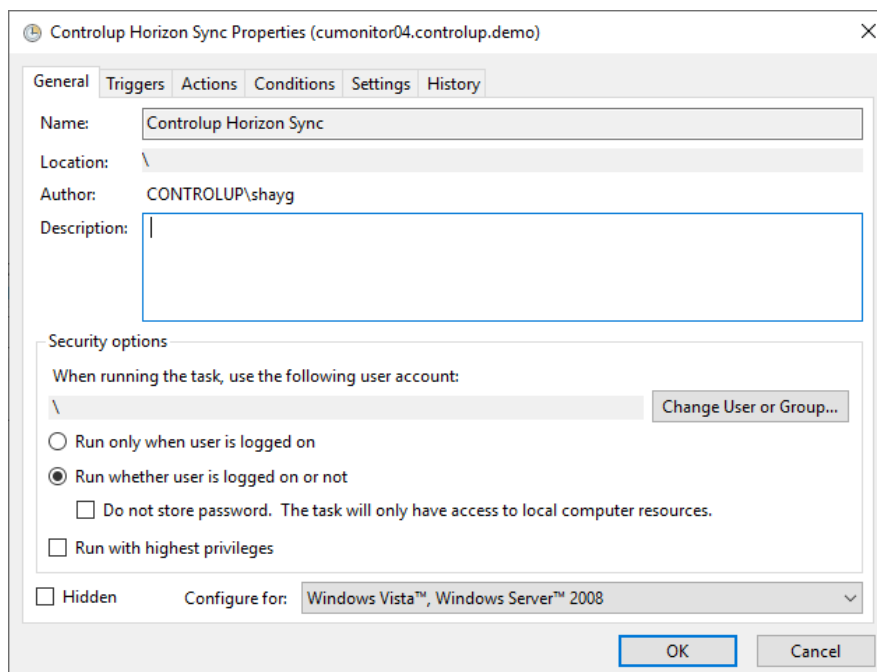
1. Open the Task Scheduler.



2. In the Task Scheduler window, go to the **Actions** panel and click **Create Task** and the Create Task window is displayed.

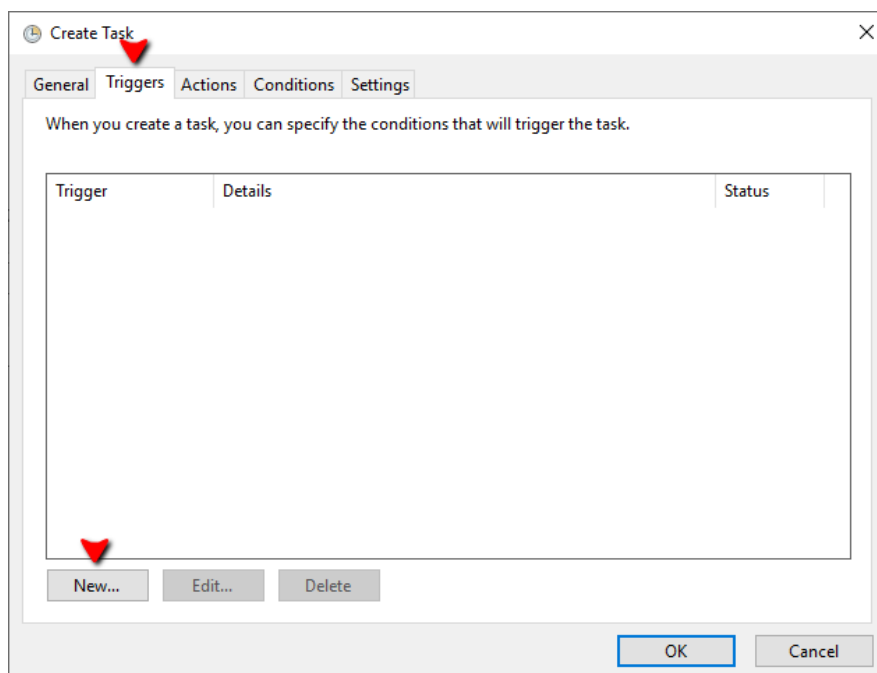


3. In the **General** tab, name the newly created task “ControlUp Horizon Sync”.
4. In the Security options, Click **Change Users or Group** and select the service account used for running the monitor.
5. Select **Run whether a user is logged on or not**, and add a description if needed.



Set the triggers:

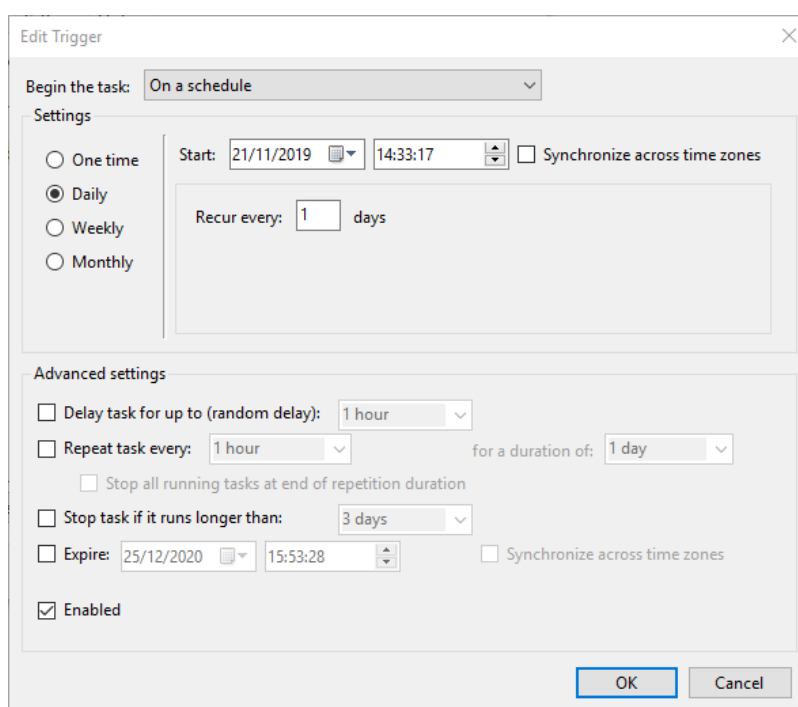
- To add a new trigger, select the **Triggers** tab and click **New**.



- Click **Begin** in the task drop-down box and select **On a schedule** and select **Daily** and set a daily time to start the task in Task Scheduler in the '**Recur every**' text box to 1 days. Click **OK** and the trigger is set.

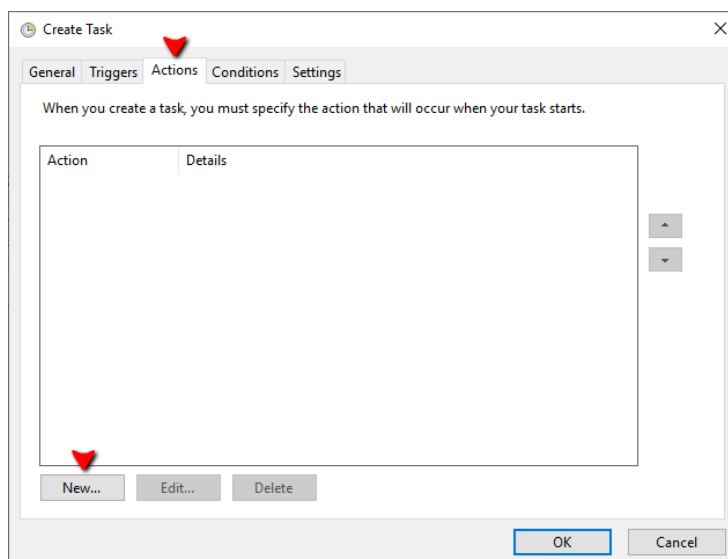
Note

The time you set will also be the time the task runs daily.



Set a task action:

8. Select the **Actions** tab, and click **New** and the Set Actions popup appears.



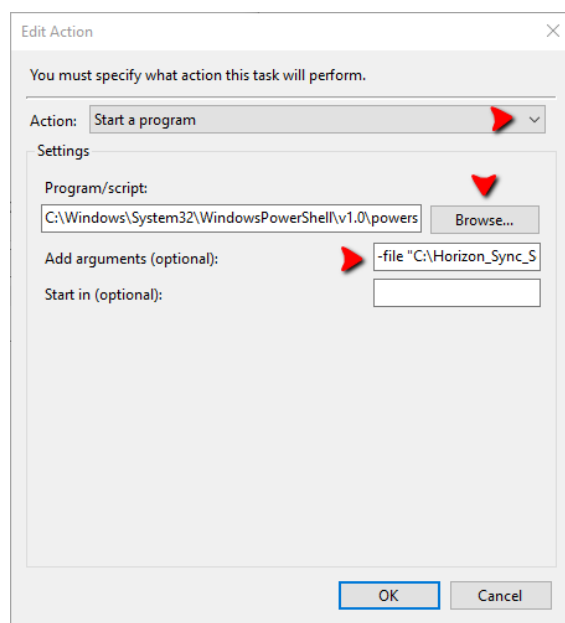
9. In the Set Actions popup, select **Start a program** from the dropdown menu.

10. Click **Browse...** and choose **powershell.exe** located in:

C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe.

Add the following arguments to the template below:

-file "[FILE NAME AND PATH]" -hvconnectionserverfqdn "[CONNECTION SERVER FQD]" -targetfolderpath "[ORG TREE FOLDER PATH]" -pooldivider "[ORG TREE DESKTOP POOLS FOLDER NAME]" -rdsdivider "[RDS FARMES FOLDER NAME]" -exceptionfile "[EXEPTION FILE NAME AND PATH]"

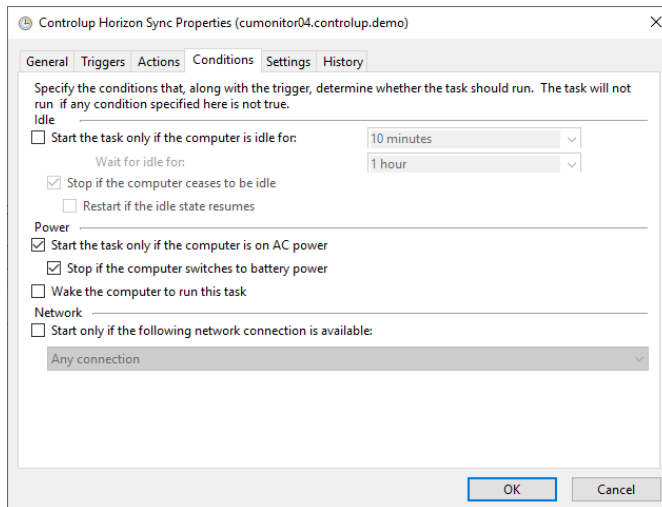


You will need to modify the arguments depending on the outcome you want.

11. Click **OK** and the actions are set.

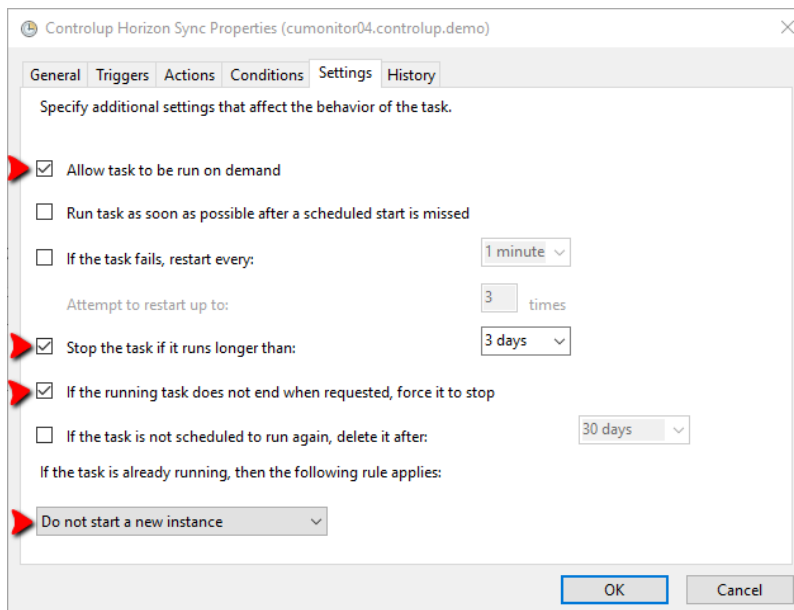
Conditions setting:

12. Leave the task conditions with the default values and click **OK**.



Settings Tab:

13. In the Settings tab, make sure that the following are checked:



14. Click **OK** and the settings are set.

Argument Description:

The following is a description of the argument variables used in the script. These allow you to control the outcome according to your needs.

The Argument:

```
-file "C:\Horizon_Sync_Script\Sync_ControlUP_With_Horizon_View_v2.ps1" -
hvconnectionsserverfqdn "horizon.controlup.demo" -targetfolderpath "controlup demo\il
datacenter\virtual desktops\horizon demo" -pooldivider "Desktop Pools" -rdsdivider "RDS Farms" -
exceptionfile "C:\Horizon_Sync_Script\exceptions.txt"
```

The Description:

- **file** - (Mandatory) - "C:\Horizon_Sync_Script\Sync_ControlUP_With_Horizon_View_v2.ps1" -
- The location of the Sync PS Script can be changed to any location.
- **hvconnectionserverfqdn** - (Mandatory) - "horizon.controlup.demo" - The FQDN of a Connection Server.
- **targetfolderpath** - (Mandatory) - "controlup demo\il datacenter\virtual desktops\horizon demo" - The path of the folder where all objects will be placed in the ControlUp organizational tree.
- **pooldivider** - (Mandatory) - "Desktop Pools" - The Name of the folder where the Desktop Pools will be placed in the ControlUp organizational tree.
- **rdsdivider** - (Mandatory) - "RDS Farms" – The name of the folder where RDS Farms will be placed in the ControlUp organizational tree.
- **exceptionfile** - (Not mandatory) - "C:\Horizon_Sync_Script\exceptions.txt" – The location of a text file with the list of DNS names for machines you DO NOT want to be added to the ControlUp organizational tree.