Scripted Events

Virtual Desktop Service

NetApp
December 18, 2020

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Overview

Scripted Events provides the advanced administrator with a mechanism to create custom automation for system maintenance, user alerts, group policy management, or other events. Scripts can be designated to run as an executable process with arguments, or can be used as arguments for a different executable program. This functionality allows for scripts to be combined and nested to support complex customization and integration needs.

A detailed example of scripted events in action is found in the Application Entitlement Guide.

Additionally, Scripted Events allows for the creation of automation that does not require a script to process, rather the automation flow is launched by a system trigger and executes an existing program or system utility with optional arguments.

Scripts Events contains both a **repository** of scripts and **activities**. Scripts contain the instructions on **what** to do while activities link the scripts with the appropriate trigger and target (**when and where**) for the script.

Repository

The Repository Tab shows a list of all scripts available to be deployed from within your VDS account. This is a custom repository that is shared by all administrators in your VDS instance. Access to Scripted Events can be managed on the *VDS > Admins > Permissions page*.

[Management.Scripted Events.scripted events 823b2] | */Management.Scripted_Events.scripted_events-*

823b2.png

Add Script

Clicking on the *+ Add Script* button opens a new page for creating a script and saving it to the repository.

[Management.Scripted Events.scripted events 8360c] | */Management.Scripted_Events.scripted_events-*

8360c.png

The following fields need to be completed to create a new script:

- **Name**
- **Include Script File**
  - Yes - Allows for a script file (e.g. a .ps1 file) to be uploaded and executed by the "Execute With" executable.
  - No - Removes the "Script File" field (below) and simply executes the "Execute With" and "Arguments" command
- **Script File**
  - If *Include Script File* = *Yes* this field is visible and allows for the upload of a script file.
- **Execute With**
  - Defines the path of the executable that is used to execute the script file or the the command that is executed.
  - For example, to execute with PowerShell the "Execute With" value would be *C:\Windows\system32\WindowsPowerShell\v1.0\powershell.exe*
- **Arguments**
  - Defines any additional arguments that are executed against the "Executes With" command.
  - VDS offers some context aware variables that can be used including:
    - %companycode% - Company code at runtime
    - %servername% - VM name at runtime
    - %samaccountname% - <username>.<companycode>
    - %applicationname% - Requested application name at runtime
    - %scriptname% - Script name at runtime
    - %username% - username@loginidentifier at runtime

Edit Script

Clicking the name of a script in the repository opens a new page with details about the script and an action button to **edit**.

When editing a script the same fields are editable as documented above in the Add Script section.

On this script detail page, you can also **delete** the script and **download** any uploaded script file.

[Management.Scripted Events.scripted events 4b491] | */Management.Scripted_Events.scripted_events-*

4b491.png

Activities

Activities link a script from the repository to a Deployment, a subset of VMs and a trigger event.

[Management.Scripted Events.scripted events f971c] | */Management.Scripted_Events.scripted_events-*

f971c.png

Add Activity

Clicking on the *+ Add Activity* button opens a new page for creating an Activity.

[Management.Scripted Events.scripted events 02ef8] | */Management.Scripted_Events.scripted_events-*

02ef8.png

The following fields need to be completed to create a new activity:

- **Name**
- **Description** (Optional)
- **Deployment**
- Script
- Arguments
- **Enabled** checkbox
- **Event Settings**

Activity Triggers

- **Application Install**
  - This is triggered when the VDS Admin clicks "+ Add…" from the *Workspace* > *Applications* page.
  - This selection allows you to select an application from the Application Library and to pre-define the shortcut of the application.
  - Detailed instructions for this trigger are highlighted in the *Install Adobe Reader DC* script documentation.
- **Application Uninstall**
  - This is triggered when the VDS Admin clicks **Actions › Uninstall** from the *Workspace* > *Applications* page.
  - This selection allows you to select an application from the Application Library and to pre-define the shortcut of the application.
  - Detailed instructions for this trigger are highlighted in the *Uninstall Adobe Reader DC* script documentation.
- **Clone Server**
  **
- **Create Cache**
  - This is triggered anytime a new VM is built by VDS for a provisioning collection cache
- **Create Client**
  - This is triggered anytime a new Client organization is added to VDS
- **Create Server**
  - This is triggered anytime a new VM is built by VDS
- **Create User**
  - This is triggered anytime a new user is added via VDS
- **Delete User**
  - This is triggered anytime a new user is deleted via VDS
- **Manual**
  - This is triggered by a VDS admin manually from within the **Scripted Events › Activity** page
- **Manual Application Update**

**

- **Scheduled**
  - This is triggered when the defined date/time is reached
- **Start Server**
  - This is triggered on a VM each time it boots up

Clicking on the *Name* opens a dialog box where the activity can be edited.

Example Use Cases

Automate Application Installs

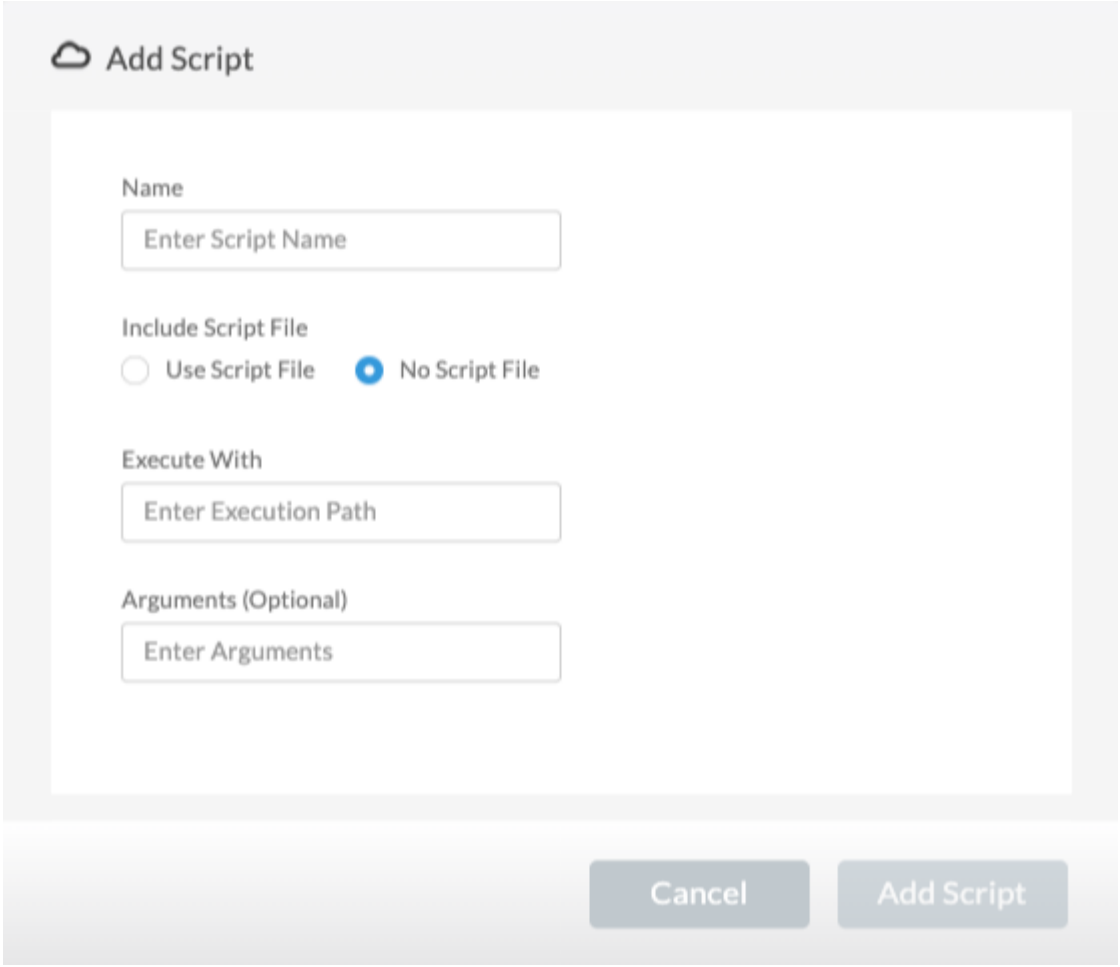
Application install, as part of the RDS Application Workflow, is a very common use for Scripted Events.

First, any host where you'll automate installs will need Chocolatey pre-installed, this can be added to the VM image or automated as shown below.

To automate the install of Chocolatey, follow these steps

1. Installing Chocolatey is the first step, this utility can then be used to automate app installs. To do so, you'll build a scripted event that executes Powershell.exe with the following arguments:
   `Set-ExecutionPolicy Bypass -Scope Process -Force; iex New-Object System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))`
2. Once the script is built it can be triggered in a variety of ways. The simplest is to manually run it but there are other options such as running this at *server create*.

Once the host(s) has Chocolatey, automate with Scripted events can install a wide variety of applications from the Chocolatey repository. A complete list of available applications can be found at https://chocolatey.org/packages



To automate the install of an applications, follow these steps (using 7-Zip as an example)

1. Navigate to Scripted Events > Script Repository > Add
2. Select `No Script File`
3. Execute With: `c:\programdata\chocolatey\choco.exe`
4. Arguments (Optional): *leave blank*
5. Once the Script is saved, the next step is to associate that script with a Trigger. Navigate to Scripted Events > Activities > Add
    a. Enter a name for the activity (e.g. *choco install 7-Zip*)

    Develop a consistent naming convention as the library of Scripts can get large

    b. Optionally give a description
    c. Select the script created in the previous section
    d. In *Enter Arguments (Optional):* enter `install 7zip -y -f` (which is found here: https://chocolatey.org/packages/7zip)
        i. `-y` is required to unattended installs
        ii. `-f` forces the install, even if the app was previously installed and is optional
    e. Select the deployment
    f. Check the enable checkbox

g. under *Trigger On* select *Application install*

h. Click *Add Application*

i. Select the application name (e.g. *7-Zip File Manager*)

j. Enter the shortcut path for the application icon (e.g. \\shortcuts\7-Zip File Manager.lnk)

You'll need to know the shortcut path during this creation wizard. This can be found by looking at other installs of the app or by doing a manual install on the machine and browsing to it from the service board entry.

k. Click Update > Add Activity

Going forward, the act of adding that application to the Workspace will trigger the install of that application across all session hosts.