

VVEngine Help

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Table of Contents

Introduction	1
Browser Interface	2
Scheduling Options	7
Conditions	13
Main VVEngine Settings	20
Taskbar Icon	23
Profile Errors (Exit Codes)	25
VVEngine Log	27
Advanced Configuration	28
REST API (JSON)	31
RSS Feeds	36
Profile Statistics	37
VVEngine Gadget	38
VVConsole	41
Running as a Windows Service	43
Solutions to Known Issues	44
How to Buy VVEngine	45
Enter Registration Information	46
License Agreement	47

1 Introduction

VVEngine is an advanced *profile scheduler* for ViceVersa PRO.

VVEngine lets you schedule multiple ViceVersa profiles and create profile chains and categories to run sequentially.

With VVEngine you can:

- Setup and manage multiple ViceVersa profiles and groups
- Automatically run ViceVersa profiles every X minutes, every X hours, every X days
- Exclude specific days and/or hours from the schedule
- Run profiles as soon as file changes are detected
- Run profiles "real-time", only re-scanning and re-comparing detected changes
- Run profiles when USB drives are inserted
- Run profiles when network connections are detected
- Re-run profiles if an error occurs
- Receive an alert if a profile has not run for more than X minutes / hours
- Receive e-mails on profile success, or if a profile is in error, disabled or it has not run for more than X minutes / hours
- Optionally avoid running profiles if the computer is running on battery power or if the computer's IP address does not match a certain value
- Run profiles based on specific processes running or not running, files existing or not existing, or a user-customizable condition
- Run multiple profiles sequentially
- View profile history and detailed results of the most recent 15 runs
- View profile statistics by day, month and totals
- Control VVEngine via a web browser, even from another computer on the network
- Monitor the correct functioning and the latest status of multiple VVEngine installations using JSON and http REST. VVEngine can be monitored as a sensor on your network
- Run all the profiles as a Windows Service

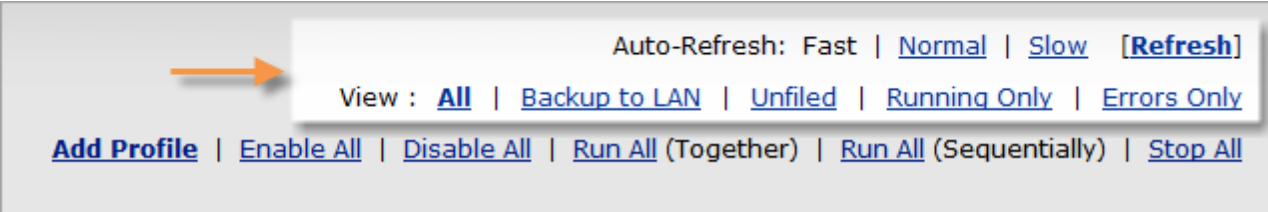
2 Browser Interface

The VVEngine interface is accessed via a Web Browser. Supported browsers are:

- **Internet Explorer** (6 or newer) / **Microsoft Edge**
- **FireFox**
- **Google Chrome**

The following commands are available via the browser:

General Commands

<div>  </div>			
n	Last Successful Run	Next Run	Action
Command	Description		
Auto-Refresh: <u>Fast</u> <u>Normal</u> <u>Slow</u>	Set the VVEngine page auto-refresh rate: <ul style="list-style-type: none"> • Fast: auto-refresh VVEngine pages in browser every 2 seconds. • Normal: auto-refresh VVEngine pages in browser every 5 seconds. • Slow: auto-refresh VVEngine pages in browser every 10 seconds. This value does not affect the way profiles are run in VVEngine. It only sets the automatic refresh rate of VVEngine pages in browsers.		
<u>Refresh</u>	Refresh the current VVEngine page.		
View: <u>All</u> <u>Running Only</u> <u>Error Only</u> ...	View/list only profiles belonging to a certain category.		

Commands Affecting Multiple Profiles

Auto-Refresh: Fast | [Normal](#) | [Slow](#) | [\[Refresh\]](#)

View : [All](#) | [Backup to LAN](#) | [Unfiled](#) | [Running Only](#) | [Errors Only](#)

[Add Profile](#) | [Enable All](#) | [Disable All](#) | [Run All \(Together\)](#) | [Run All \(Sequentially\)](#) | [Stop All](#)

Run	Last Successful Run	Next Run	Action
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Command	Description
Add Profile	Add a ViceVersa profile (.fsf) to the VVEngine profile list.
Enable All	Enable all profiles currently visible on the VVEngine page.
Disable All	Disable all profiles currently visible on the VVEngine page.
Run All (Together)	Run all profiles currently visible on the VVEngine page, <i>at the same time</i> .
Run All (Sequentially)	Run all profiles currently visible on the VVEngine page, <i>sequentially</i> , starting with the profile listed first.
Stop All	Stop all profiles currently visible on the VVEngine page.

Commands Affecting a Single Profile

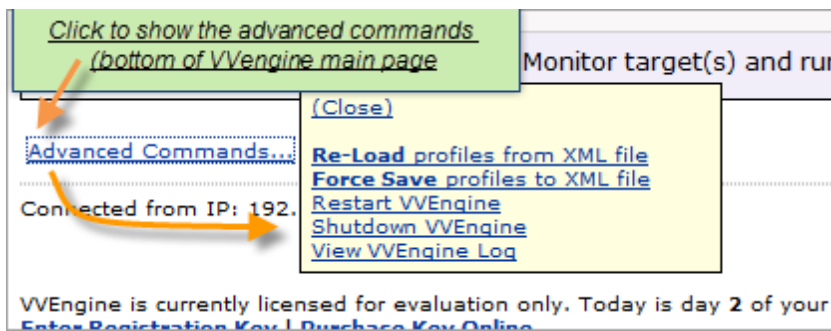
Last Successful Run	Next Run	Action
8/07/2008 9:09:00 PM until 9:09:03 PM (3 sec) - (Scheduled Run) - Successful. More...	None More...	Run Profile Stop Profile Enable Disable Edit Schedule Remove Open in VV Show Compare Move Up Move Down
for source(s) and target(s) and run when file changes are versa PRO 2\profile2.fsf More...		

Command	Description
Run Profile	Run profile (manually). The profile must be enabled first.

Command	Description
	<p>If the ViceVersa profile has NoRescan options set, the command "Run with Rescan" will also be shown. <i>Run with Rescan</i> forces a full rescan of source and target.</p> <p>If the Monitoring Level has been set to <i>File Level</i> or <i>Subfolder Level</i>, the commands <i>Run Profile (Full Recomparison)</i> and <i>Run Profile (Incremental)</i> will also be shown. <i>Run Profile (Full Recomparison)</i> runs the profile now with full recomparison of source and target folders. <i>Run Profile (Incremental)</i> runs profile now with recomparison of detected changes only.</p>
<u>Stop Profile</u>	Stop profile (if running).
<u>Enable</u>	Enable profile schedule.
<u>Disable</u>	Disable profile schedule.
<u>Edit Schedule</u>	Edit profile schedule.
<u>Remove</u>	Remove profile from VVEngine profile list. It does not remove the profile file (.fsf) from disk.
<u>Open in VV</u>	Opens profile in ViceVersa. <i>Note: This command is not available when connecting to VVEngine from a remote computer or when VVEngine is running as a Windows Service.</i>
<u>Show Compare</u>	Open the profile in ViceVersa and shows comparison of source and target folder(s). <i>Note: This command is not available when connecting to VVEngine from a remote computer or when VVEngine is running as a Windows Service.</i>
<u>Move Up</u>	Move profile up the VVEngine list.
<u>Move Down</u>	Move profile down the VVEngine list.
<u>More...</u>	Open the profile's details page.

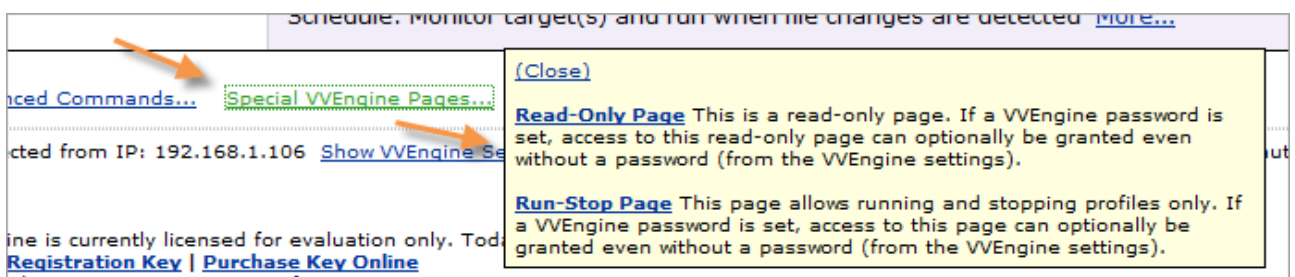
Additional Commands (at the bottom of the VVEngine main page)

Advanced Commands



Command	Description
<u>Re-Load profiles from XML file</u>	If you manually add profiles to the VVEngine.xml configuration file, use this command to refresh the profile list.
<u>Force Save profiles to XML file</u>	This command forces VVEngine to save its configuration, including the profile list, to VVEngine.xml. Usually this is done automatically by VVEngine. This command is useful when testing to see if VVEngine saves the configuration file correctly.
<u>Restart VVEngine</u>	Instructs VVEngine to shut-down and then restart.
<u>Shutdown VVEngine</u>	Shuts down VVEngine. After a manual shutdown VVEngine will NOT restart automatically next time Windows starts.
<u>View VVEngine Log</u>	Shows VVEngine log file.

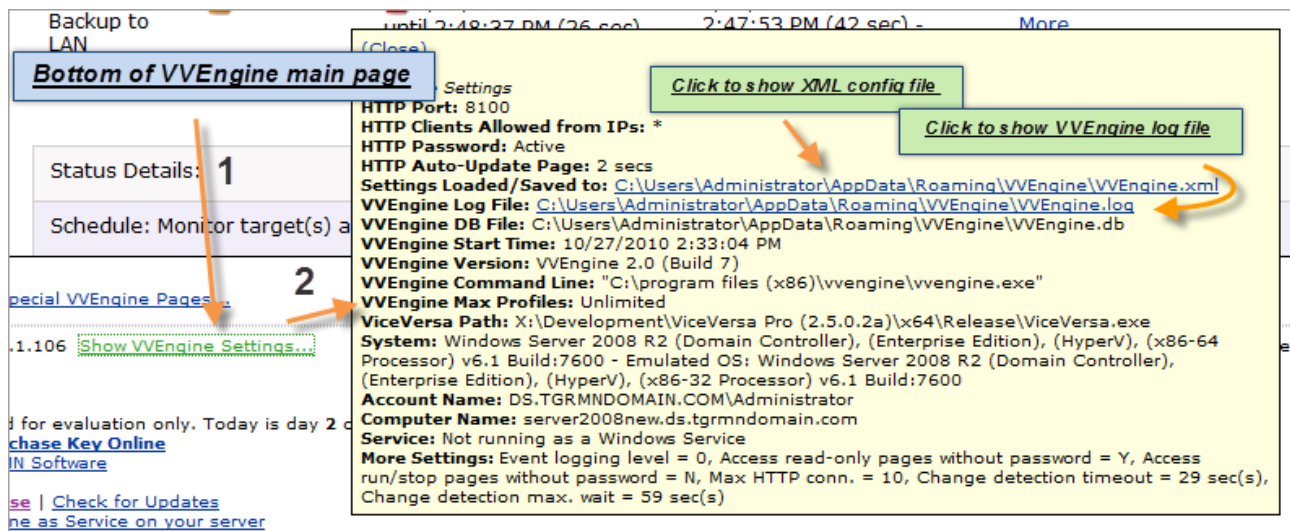
Special VVEngine Pages



Command	Description
<u>Read-Only Page</u>	Opens the read-only page, where profiles can't be changed. If a VVEngine password is set, access to this read-only page can optionally be granted to users even without a password (from the VVEngine settings).
<u>Run-Stop Page</u>	Opens the run-stop page. This page allows running and stopping profiles only. If a VVEngine

Command	Description
	password is set, access to this page can optionally be granted to users even without a password (from the VVEngine settings).
JSON Page	Opens the JSON query page. If a VVEngine password is set, access to this page can optionally be granted to users even without a password (from the VVEngine settings).

Show VVEngine Settings



Clicking on "Show VVEngine Settings ..." at the bottom of the main VVEngine page opens a popup window where all the current VVEngine settings are displayed.

3 Scheduling Options

Option	Description
Profile	The ViceVersa profile file (.fsf) to schedule. This is the only required field in the scheduling options. If you do not specify any additional scheduling options, the profile will be added to the VVEngine list and will only run if started manually, i.e. when clicking on "Run Profile" or can be set to run after another profile.
Description	An optional description for the profile. The description is shown in the profile list.
Category	An optional category for the profile. Categories can be used to group profiles.
Run Profile with Highest Privileges	By default, VVEngine will run the profile with the highest possible privileges, e.g. "elevated" and "as administrator" if possible. Sometimes this is not wanted, due to network connections and other factors. To run the profile with standard privileges, disable this option. When running VVEngine as a service, this option is always enabled and can not be switched off.
Time Scheduling	
Run Every X Minutes, Run Every X Hours, Run Every X Days	Run profile periodically, every X minutes, X hours or X days.
Start Time	This is the start time of the schedule. For example, if you set a profile to run every hour from 5:05 PM, the profile will run again at 6:05 PM, 7:05 PM, 8:05 PM, etc.
If Scheduled Run Is Missed, Run at Next Startup	This option allows you to recover missed scheduled runs, if VVEngine is not running. For example, if you set VVEngine to run once a day but you do not use your computer for a week and you have enabled this option, VVEngine will run the profile immediately, the next time the computer is started.
Schedule Run Only If File Changes Are Detected in Source and/or Target	With this option, VVEngine will schedule a run only if file changes are detected in source and/or target. If file changes are not detected, VVEngine will not schedule the run. For example, if you set the profile to run every 30 minutes only if file changes are detected in the source and during that time there are no changes to your source files, VVEngine will skip the scheduled run.
Monitoring Level	<i>Full Recomparison, Subfolder Level or File Level.</i> Sets the monitoring level for file changes detection. Full Recomparison: When a change is detected, a profile run is initiated. Source and target folders are fully re-compared to find all changes since last run. Subfolder Level: Changes are detected at subfolder level. When a change is detected, a profile run is initiated. However only the subfolders where the changes have occurred are re-compared. This is called an <i>incremental run</i> . An incremental run speeds up profile execution significantly. File Level: Changes are detected at file level. When a change is detected, a profile run is initiated. However only the files with changes are re-compared. This is called an <i>incremental run</i> . An incremental run speeds up profile execution significantly.

	<p><i>Subfolder Level</i> and <i>File Level</i> do not require full re-comparison of source or target like <i>Full Recomparison</i> does and this speeds up execution substantially, especially over slow connections or with a large amount of files. If multiple file changes are happening too fast for VVEngine to keep track, an <i>Overflow</i> situation may be generated by VVEngine. An <i>Overflow</i> situation requires a full recomparison of source and target. In that case VVEngine will report the overflow (and its cause) and it will proceed with a full recomparison automatically. <i>Overflows</i> can happen especially if monitoring files over the network.</p> <p>The difference between <i>Subfolder Level</i> and <i>File Level</i> is that <i>File Level</i> monitoring is more detailed, detecting changes at file level instead of subfolder level. However, because of the level of detail, it may result in more <i>Overflow</i> situations. For most applications, Subfolder Level monitoring will suffice.</p> <p>Profile filters are taken into consideration during change detection for Subfolder Level or File Level monitoring; if a change happens to an excluded file or subfolder, it is then excluded from detection. More info here. Note that not all file / subfolder filters will be taken into consideration. Only absolute filters (filters with a drive or network full path, such as exclude c:\folder*, for example) and file mask filters (include *.txt or exclude [1-9], for example) will be taken into consideration. Relative filters, such as \folder\, will not be taken into consideration. When a filter is not taken into consideration, the change will be detected to a file or subfolder even if it is excluded in the profile settings and ViceVersa will run and will then exclude the object anyway during execution: this might result in a superfluous run. Before VVEngine version 2.2 (build 2230) all filters were ignored during change detection.</p> <p>Note: <i>Subfolder Level</i> and <i>File Level</i> detection options are only available in the VVEngine Server Premium edition or in the VVEngine Client edition. They are not available in the VVEngine Server edition.</p> <p>More details on how to setup subfolder or file level monitoring for achieving <i>real-time backup, replication or synchronization</i> are available in our online FAQ: How to setup Real-Time execution in VVEngine</p>
<p>'Perform full recomparison' condition (optional if Monitoring Level is set to Subfolder or File)</p>	<p>You can instruct VVEngine to perform a full recomparison if a certain condition is true, on the next run. For example you can set VVEngine to perform a full recomparison every hour or on certain days, if more than X changes are detected or when a profile run is scheduled.</p> <div data-bbox="477 1367 1487 1751" style="background-color: #f0f0f0; padding: 10px;"> <p>Examples:</p> <p><i>dayofweek = 1</i> (perform a full recomparison of source and target if the profile runs and it's Monday)</p> <p><i>hour > 20 OR hour < 8</i> (perform a full recomparison if the profile runs at night)</p> <p><i>new_detected_changes > 50 OR elapsed_days > 0</i> (perform a full recomparison if the profile runs and more than 50 changes were detected since last run OR at least 1 day has passed since the last full recomparison)</p> <p><i>elapsed_minutes > 120</i> (perform a full recomparison every two hours)</p> <p><i>scheduled = true</i> (perform a full recomparison if the profile run is a scheduled run)</p> <p><i>changes_detected_run = false</i> (perform a full recomparison if the profile runs and the run is not on detected changes, e.g. a scheduled run, after error run, on available run, etc.)</p> </div> <p>More variables and functions are available. For a complete list of operators, variables and functions supported, see Conditions</p>

Special	
Run At Startup	Runs the profile when VVEngine starts.
Run Immediately / Hourly / Daily / Weekly as soon as Source and Target are Accessible	<p>With this option you can run a profile as soon as all the folders (sources and targets) in the profile are accessible. VVEngine monitors folders' accessibility. As soon as all the folders are available it will start the profile.</p> <p>For example, if a profile performs a replication to a USB drive or network, with this option ViceVersa will run the profile as soon as the USB drive is plugged in or the network becomes available.</p> <p>You can limit the profile to run to once an hour or once a day or once a week specifying <i>Hourly</i>, <i>Daily</i>, or <i>Weekly</i>.</p> <p>Note: on a network connection, VVEngine may take a couple of minutes to detect accessibility.</p>
Check If Source and Target Are Accessible on the Server Using PING Command Only	<p>This is an advanced option which instructs VVEngine to check for folder accessibility on a server by using a PING command to the server, instead of checking for folder accessibility.</p> <p>This option should be used when the network folder can not be detected by VVEngine, i.e. ViceVersa will connect to the network before execution, and the server can only be detected by using a PING command.</p>
If Error Occurs, Re-run After X Minutes	This option sets ViceVersa to re-run after X minutes, if an error is detected during the profile run.
Max. Times	"Max. Times" specifies how many times the profile will try to re-run in case of an error.
After This Profile, Run...	This option specifies a profile to run after the current profile. The profile needs to be already in the VVEngine profile list.
Do Not Run If Error Occurs	If the option " <i>Do not run if error occurs</i> " is set, the second profile will not run if the first profile ends with an error.
File Monitoring	
Monitor Source and Run When File Changes Are Detected	This option instructs VVEngine to monitor the source folders and run as soon as a file change is detected. Note that sometimes folders cannot be monitored by Windows (eg some NAS folders, some network folders). If that occurs VVEngine reports an error.
Monitor Target and Run When File Changes Are Detected	This option instructs VVEngine to monitor target and run as soon as a file change is detected. Note that sometimes folders cannot be monitored by Windows (eg some NAS folders, some network folders). If that occurs VVEngine reports an error.
Monitoring Level	<p><i>Full Recomparison</i>, <i>Subfolder Level</i> or <i>File Level</i>. Sets the monitoring level for file changes detection.</p> <p>Full Recomparison: When a change is detected, a profile run is initiated. Source and target folders are fully re-compared to find all changes since last run.</p> <p>Subfolder Level: Changes are detected at subfolder level. When a change is detected, a profile run is initiated. However only the subfolders where the changes have occurred are re-compared. This is called an <i>incremental run</i>. An incremental run speeds up profile execution significantly.</p> <p>File Level: Changes are detected at file level. When a change is detected, a profile run is initiated. However only the files with changes are re-compared. This</p>

	<p>is called an <i>incremental run</i>. An incremental run speeds up profile execution significantly.</p> <p><i>Subfolder Level</i> and <i>File Level</i> do not require full re-comparison of source or target like <i>Full Recomparison</i> does and this speeds up execution substantially, especially over slow connections or with a large amount of files. If multiple file changes are happening too fast for VVEngine to keep track, an <i>Overflow</i> situation may be generated by VVEngine. An <i>Overflow</i> situation requires a full recomparison of source and target. In that case VVEngine will report the overflow (and its cause) and it will proceed with a full recomparison automatically. <i>Overflows</i> can happen especially if monitoring files over the network.</p> <p>The difference between <i>Subfolder Level</i> and <i>File Level</i> is that <i>File Level</i> monitoring is more detailed, detecting changes at file level instead of subfolder level. However, because of the level of detail, it may result in more <i>Overflow</i> situations. For most applications, Subfolder Level monitoring will suffice.</p> <p>Profile filters are taken into consideration during change detection for Subfolder Level or File Level monitoring; if a change happens to an excluded file or subfolder, it is then excluded from detection. More info here. Note that not all file / subfolder filters will be taken into consideration. Only absolute filters (filters with a drive or network full path, such as exclude c:\folder*, for example) and file mask filters (include *.txt or exclude [1-9], for example) will be taken into consideration. Relative filters, such as \folder\, will not be taken into consideration. When a filter is not taken into consideration, the change will be detected to a file or subfolder even if it is excluded in the profile settings and ViceVersa will run and will then exclude the object anyway during execution: this might result in a superfluous run. Before VVEngine version 2.2 (build 2230) all filters were ignored during change detection.</p> <p>Note: <i>Subfolder Level</i> and <i>File Level</i> detection options are only available in the VVEngine Server Premium edition or in the VVEngine Client edition. They are not available in the VVEngine Server edition.</p> <p>More details on how to setup subfolder or file level monitoring for achieving <i>real-time backup, replication or synchronization</i> are available in our online FAQ: How to setup Real-Time execution in VVEngine</p>
<p>'Perform full recomparison' condition (optional if Monitoring Level is set to Subfolder or File)</p>	<p>You can instruct VVEngine to perform a full recomparison if a certain condition is true, on the next run. For example you can set VVEngine to perform a full recomparison every hour or on certain days, if more than X changes are detected or when a profile run is scheduled.</p> <div data-bbox="477 1430 1487 1835" style="background-color: #f0f0f0; padding: 10px;"> <p>Examples:</p> <p><i>dayofweek = 0</i> (perform a full recomparison of source and target if the profile runs and it's Sunday)</p> <p><i>hour >= 0 AND hour < 8</i> (perform a full recomparison if the profile runs at night)</p> <p><i>new_detected_changes > 50 OR elapsed_days>0</i> (perform a full recomparison if the profile runs and more than 50 changes were detected since last run OR at least 1 day has passed since the last full recomparison)</p> <p><i>elapsed_minutes>120</i> (perform a full recomparison every two hours)</p> <p><i>scheduled = true</i> (perform a full recomparison if the profile run is a scheduled run)</p> <p><i>changes_detected_run = false</i> (perform a full recomparison if the profile runs and the run is not on detected changes, e.g. a scheduled run, after error run, on available run, etc.)</p> </div> <p>More variables and functions are available. For a complete list of operators,</p>

	variables and functions supported, see Conditions
Restrictions	
Do Not Start (days)	Nominate days of the week the profile should not run.
Do Not Start (hours)	Nominate hours of the day the profile should not run.
Combine days and hours	<p>Day and hour restrictions to be combined.</p> <p>For example, if "Do not start (days)" is set to Sun and Sat, and "Do not start (hours)" is set to 8am, and the "Combine days and hours" option is enabled, the profile will not run on Sun and Sat at 8 am. However if "Combine days and hours" is NOT specified the profile does not run on Sun and Sat (the whole day) and will not run every day at 8am.</p>
Do not start if "Computer is on battery power" or "Computer is on battery power and battery level is low"	Profile will not start (run is skipped), if the computer is on battery power or computer is on battery power and battery level is low. Profile runs resume when restriction no longer applies.
Start only if all source and target folders in the profile are accessible	<p>Unless all source(s) and target(s) are available, the profile does not start and the run is skipped.</p> <p>For example, you can schedule a profile to run every 10 minutes and have this option enabled. If source or target folders are not available, the profile run is skipped (e.g. a USB drive is not inserted or a network connection is not available). Profile runs resume when folders become available.</p>
Start only if computer IP address matches ...	If you want to run a profile only when the computer IP address matches a certain value, you can use this option. You can use * to match multiple addresses, for example entering 197.* will match 197.1.4.5, 197.1.4.6, 197.10.4.100, etc.
'Start only if' condition	<p>You can set VVEngine to run a profile only if a condition is true. This condition restricts other scheduling options specified. For example you can set a profile to run every hour and use this condition to restrict the profile to run only on certain days. Or you can set a profile to run on detected changes and use this condition to start the profile only on certain days, or if a certain file exists, if a process is not running, etc.</p> <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p>Examples:</p> <p><i>day = 15 OR dayofweek = 1</i> (start only on Mondays or on the 15th of every month)</p> <p><i>day is one of {1,2,3,4,5,6,7,8}</i> (start only on 1,2,3,4,5,6,7,8 of every month)</p> <p><i>minute >= 30</i> (in the second half of each hour).</p> <p><i>"outlook.exe" is not one of running_processes</i> (start only if Outlook is not running)</p> <p><i>battery_power <> "low" OR elapsed_days > 0</i> (start only if computer is not running on low battery power or more than 1 day has passed since last run)</p> <p><i>file_exists("c:\test.txt")</i> (start only if c:\test.txt exists)</p> <p><i>file_exists("c:\test.txt") = false</i> (start only if c:\test.txt does not exist)</p> <p><i>new_detected_changes > 10</i> (start the profile only if more than 10 new changes have been detected. This value is only valid if the Monitoring Level is set at File Level or Subfolder Level, see above)</p> </div> <p>More variables and functions are available. For a complete list of operators, variables and functions supported, see Conditions</p>

Alerts	
Report error if this profile has not run for more than X minutes	If a profile has not run for more than X minutes (for whatever reason, including VVEngine was not running for a period of time), VVEngine will set the profile status to error. If an e-mail error notification has been set for this profile in the profile settings, an email will be sent.
'Set profile to error only if' condition	<p>You can override the default behavior and instruct VVEngine to set a profile to error (which means an error icon is shown on the taskbar) only if a certain condition is true. For example you can instruct VVEngine to set a profile to error only on certain days, or only if the profile error code returned by ViceVersa is different from a certain value, or after a certain period of time has passed from the first error.</p> <p>Examples: <code>elapsed_minutes > 10</code> (profile can be set to error only if 10 minutes have passed since the first error) <code>exit_code isnotoneof {1,2,3,4,6,8}</code> (profile can be set to error only if exit code is not 1,2,3,4,6 or 8) <code>error_runs >= 3</code> (profile can be set to error only after 3 consecutive error runs) <code>error_runs >= 10 OR exit_code <> 3</code> (profile can be set to error only after 10 consecutive error runs or if exit code is not 3) <code>day = 15 OR dayofweek = 1</code> (profile can be set to error only on Mondays or on the 15th of every month) <code>day isoneof {1,2,3,4,5,6,7,8}</code> (profile can be set to error only on 1,2,3,4,5,6,7,8 of every month) <code>minute >= 30</code> (profile can be set to error only on the second half of each hour). <code>"outlook.exe" isnotoneof running_processes</code> (profile can be set to error only if Outlook is not running) <code>file_exists("c:\test.txt")</code> (profile can be set to error only if c:\test.txt exists)</p> <p>More variables and functions are available. For a complete list of operators, variables and functions supported, see Conditions</p>

4 Conditions

Conditions are expressions that can evaluate to true or to false. They control certain features in the VVEngine settings. An action is performed if a certain condition is true and it is not performed if a certain condition is false. The following tables apply to ALL conditions that are present in VVEngine:

OPERATORS (USABLE IN ALL CONDITIONS)

Operators	Explanation	Example
=	Equal	dayofweek = 1 (true if dayofweek is 1)
<> , !=	Not equal	day != 15 (true if day is not equal to 15) month <> 1 (true if day is not equal to 1)
> , >= , < , <=	Greater than, greater than or equal, smaller than, smaller than or equal	(hour >= 20 AND hour <= 24) OR (hour > 2 AND hour < 4)
+ , - , * , /	Addition, subtraction, multiplication, division	hour + 10 < 20
%	Modulo operation: finds the remainder of division of one number by another	day % 2 = 0 (true on even days) day % 2 = 1 (true on odd days) day % 5 = 0 (true every 5 days)
OR , AND	Logical operators. Group parenthesis for precedence.	(elapsed_days > 7 AND day != 10) OR (elapsed_days > 3 AND day != 5)
isoneof	True if a value is contained in a list of values. The list of values must be enclosed in { } and each value separated by ; or , For text values, * can be used a wildcard to match any text.	day isoneof {1,2,3,4,5,6,7,8} (true if day is 1,2,3,4,5,6,7 or 8) month isoneof {1;3;7;12} (true if month is 1,3,7 or 12) "Vice*" isoneof {"Outlook.exe","ViceVersa.exe"} (true)
isnotoneof	True if a value is NOT contained in a list of values. The list of values must be enclosed in { } and each value separated by ; or ,	day isnotoneof {1,2,3,4,5,6,7,8} (true if day is not 1,2,3,4,5,6,7 or 8) "ViceVersa.exe" isnotoneof {"Outlook.exe","ViceVersa.exe"} (true)
contains	True if a text value contains another text value	ip_address contains "255" (true if ip_address contains 255)
starts_with	True if a text value starts with another text value	ip_address starts_with "198." (true if ip_address starts with 198.)
ends_with	True if a text value ends with another text value	ip_address ends_with "100" (true if ip_address ends with 100)

matches	True if a text value matches another text value. Using * matches any text at that location	ip_address matches "198.1.1.1*" OR ip_address matches "127.*"
regex_matches	True if a text value matches another text value using regular expression syntax.	ip_address regex_matches "198(.*) 197(.*)"

TIME VARIABLES (USABLE IN ALL CONDITIONS)

Time Variables	Explanation	Example
day	The day of the month, in the range 1 through 31	day = 15 OR dayofweek = 1 (true on Mondays or on the 15th of every month).
month	The month of the year, in the range 1 through 12 (1 = January, 12 = December)	month = 1 (true in January).
year	The year, 1970 to 2038	year <> 2012 (true if the current year is not 2012).
date	Today's date: "YYYY-MM-DD"	date = "2012-04-03" (true if date is 2012-04-03) date matches "2012-04-*" (true in April 2012)
hour	The current hour, in the range 0 through 23	hour >= 0 AND hour <= 7 (true between midnight and 7:59 am).
minute	The current minute, in the range 0 through 59	minute >= 30 (true in the second half of each hour).
second	The current second, in the range 0 through 59	second >= 30 (true in the second half of each minute).
dayofweek	Day of the week (0 = Sunday, 1 = Monday, etc. to 6 = Saturday)	dayofweek = 0 (true on Sundays). dayofweek = 0 OR dayofweek = 6 (true on Sundays and Saturdays). dayofweek <> 1 (true if day of week is not Monday).
dayofyear	The day of the year. Number from 1 to 366	dayofyear = 32 (true on the 1st of February) dayofyear % 2 = 0 (true on even days)
weeknumber	Current week number (ISO 8601)	weeknumber = 32 (true on the 32nd week of the year)
endofmonth	End of month's date: "YYYY-MM-DD"	endofmonth = "2012-04-30" (true in April 2012) endofmonth matches "*-*-30" (true if today's month has 30 days)

OTHER VARIABLES (USABLE IN ALL CONDITIONS)

Other Variables	Explanation	Example
ip_addresses	A list of current IP addresses for the computer where ViceVersa is running. You can use this variable to make a condition true or false based on computer IP.	"198.1.1.1" isoneof ip_addresses (true if one of the IP address of the computer where ViceVersa is running is 198.1.1.1) "198.*" isoneof ip_addresses (true if one of the IP address of the computer where ViceVersa is running starts with 198.) "198.*" isoneof ip_addresses OR "162.*" isoneof ip_addresses (true if one of the IP address of the computer where ViceVersa is running starts with 198. or 162.)
running_processes	A list of current running processes on the computer where ViceVersa is running. You can use this variable to make a condition true or false based on which processes are currently running on the computer.	"outlook.exe" isoneof running_processes (true if outlook is running)
battery_power	The current battery level. Possible values: "no" (computer is not running on battery power) "yes" (computer is running on battery power) "low" (computer is running on battery power and battery power is low)	battery_power <> "low" (true if computer is not running on low battery power) battery_power = "no" (true if computer is not running on battery power)

SPECIAL FUNCTIONS (USABLE IN ALL CONDITIONS)

Special Functions	Explanation	Example
file_exists("filepath")	True if file exists. File path must be enclosed in quotes.	file_exists("c:\test.txt") (true if c:\test.txt exists, false otherwise)
folder_exists("folderpath")	True if folder exists. Folder path must be enclosed in quotes.	folder_exists("c:\myfolder\subfolder") (true if c:\myfolder\subfolder exists, false otherwise)
get_env("env")	Returns the value of the Windows environment variable env. Environment variable must be enclosed in quotes.	get_env("username") = "administrator" (true if current user running ViceVersa is administrator)
running_process_exists("processname")	True if process processname is a running process. Process name must be enclosed in quotes.	running_process_exists("viceversa.exe") (true if ViceVersa.exe is a running process)

ip_address_matches ("IP")	True if computer has an IP address matching IP. IP must be enclosed in quotes.	ip_address_matches("198.162.1.100") (true if IP address of computer running ViceVersa is 198.162.1.100) ip_address_matches("198.*") (true if IP address of computer running ViceVersa starts with 198.*)
------------------------------	--	---

The following only applies to the 'Start only if' restrictive condition (in [scheduling options](#)):

VARIABLES THAT ARE SPECIFIC TO THE 'START ONLY IF' CONDITION

'Start Only If' Condition Variables	Explanation	Example
elapsed_days	The number of days that have passed since the last profile run.	elapsed_days > 7 (only start the profile if the number of days that have passed since the last run is greater than 7).
elapsed_hours	The number of hours that have passed since the last profile run.	elapsed_hours > 4 (only start the profile if the number of hours that have passed since the last run is greater than 4).
elapsed_minutes	The number of minutes that have passed since the profile run.	elapsed_minutes > 30 (only start the profile if the number of minutes that have passed since the last run is greater than 30).
new_detected_changes	The number of new detected changes (this value is populated only if the Monitoring Level is set at File Level or Subfolder Level, see <i>scheduling options</i>)	new_detected_changes > 10 (only start the profile if more than 10 new changes have been detected).
last_exit_code	The exit code for the last run. 0 if profile has never run before.	last_exit_code=3 OR elapsed_hours > 4 (only start the profile if more than 4 hours have passed since the last run or the last exit code was 3).
scheduled_run	True if the profile run is a time scheduled run (see "Run Every X Minutes, Run Every X Hours, Run Every X Days " in the VVEngine scheduling options)	scheduled_run = true (start only if the run is a time scheduled run)
missed_run	True if the profile run is a missed scheduled run (see "If Scheduled Run Is Missed, Run at Next Startup" in the VVEngine scheduling options)	missed_run = true
changes_detected_run	True if the profile run is a run on detected changes.	changes_detected_run = false

after_error_rerun	True if the profile run is a rerun after profile error. (see "If Error Occurs, Re-run After X Minutes" in the VVEngine scheduling options)	after_error_rerun = true
on_available_run	True if the profile run is a run after source / target are available (See "Run As Soon As Source and Target are Accessible" in the VVEngine scheduling options)	on_available_run = true
at_startup_run	True if the profile run is startup a run (See "Run At Startup" in the VVEngine scheduling options)	at_startup_run = true

The following only applies to the 'Set profile to error' condition (in [scheduling options](#)):

VARIABLES THAT ARE SPECIFIC TO THE 'SET PROFILE TO ERROR ONLY IF' CONDITION

'Set Profile To Error' Condition Variables	Explanation	Example
elapsed_days	The number of days that have passed since the initial error. Use this variable to set a profile to error only after a certain amount of days have passed since the initial error.	elapsed_days > 7 (set profile to error only after 7 days have passed since the first error).
elapsed_hours	The number of hours that have passed since the initial error. Use this variable to set a profile to error only after a certain amount of hours have passed since the initial error.	elapsed_hours > 4 (set profile to error only after 4 hours have passed since the first error).
elapsed_minutes	The number of minutes that have passed since the initial error. Use this variable to set a profile to error only after a certain amount of minutes have passed since the initial error.	elapsed_minutes > 10 (set profile to error only after 10 minutes have passed since the first error).
exit_code	The exit code for the last, most recent run.	exit_code <> 3 AND exit_code <> 10 (set profile to error only if exit code is not 3 and not 10). exit_code is not one of {1,2,3,4,6,8} (set profile to error only if exit code is not 1,2,3,4,6 or 8).
error_runs	The number of consecutive error runs.	error_runs >= 3 (set profile to error only after 3 consecutive error runs).

The following only applies to the 'Perform full recomparison' condition (in [scheduling options](#)):

VARIABLES THAT ARE SPECIFIC TO THE 'PERFORM FULL RECOMPARISON' CONDITION

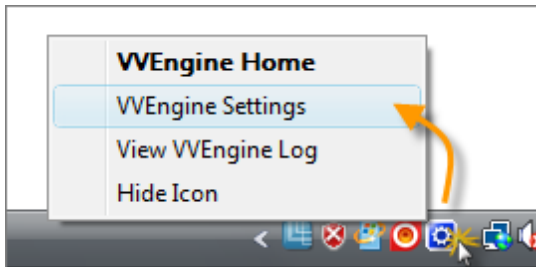
'Set Profile To Error' Condition Variables	Explanation	Example
elapsed_days	The number of days that have passed since the last full recomparison.	elapsed_days >= 7 (perform a full recomparison if the profile runs and at least 7 days have passed since the full recomparison).
elapsed_hours	The number of hours that have passed since the last full recomparison.	elapsed_hours >= 4 (perform a full recomparison if the profile runs and at least 4 hours have passed since the full recomparison).
elapsed_minutes	The number of minutes that have passed since the last full recomparison.	elapsed_minutes >= 10 (perform a full recomparison if the profile runs and at least 10 minutes have passed since the full recomparison).
new_detected_changes	The number of new detected changes (this value is populated only if the Monitoring Level is set at File Level or Subfolder Level, see <i>scheduling options</i>)	new_detected_changes > 100 (perform a full recomparison if more than 100 new changes have been detected). new_detected_changes = 0 (perform a full recomparison if the profile is running but no changes were detected, e.g. a scheduler run or a startup run).
last_exit_code	The exit code for the last run. 0 if profile has never run before.	last_exit_code != 0 (perform a full recomparison if the last exit code was not 0, that is after a profile execution error).
scheduled_run	True if the profile run is a time scheduled run (see "Run Every X Minutes, Run Every X Hours, Run Every X Days" in the VVEngine scheduling options)	scheduled_run = true (perform a full recomparison if the run is a time scheduled run).
missed_run	True if the profile run is a missed scheduled run (see "If Scheduled Run Is Missed, Run at Next Startup" in the VVEngine scheduling options)	missed_run = true
changes_detected_run	True if the profile run is a run on detected changes.	changes_detected_run = false (perform a full recomparison if the run is not a run because of detected changes).
after_error_rerun	True if the profile run is a rerun after profile error. (see "If Error Occurs, Re-run After X Minutes" in the VVEngine scheduling options)	after_error_rerun = true

on_available_run	True if the profile run is a run after source / target are available (See "Run As Soon As Source and Target are Accessible" in the VVEngine scheduling options)	on_available_run = true
at_startup_run	True if the profile run is startup a run (See "Run At Startup" in the VVEngine scheduling options)	at_startup_run = true

5 Main VVEngine Settings

The main VVEngine settings are accessible two ways:

- From the Windows Start Menu. Start -> All Programs -> VVEngine for ViceVersa PRO -> VVEngine Settings.
- From the [VVEngine icon on the Windows Taskbar](#). Right-click on the VVEngine icon and select VVEngine Settings:



The main settings are divided into 2 categories: HTTP Settings and Other Settings. HTTP settings require VVEngine to restart when applied (VVEngine will restart automatically).

HTTP Settings

HTTP Port

Sets the VVEngine HTTP port. The default port is 8001. The HTTP port is needed to connect to VVEngine with a web browser, e.g. using the address <http://127.0.0.1:8001> or <http://198.162.1.1:8001>

HTTP Password

Sets a password to restrict access to VVEngine. When a password is set, each time you connect to VVEngine with a web browser, you need to enter the password to be granted access.


Allowed IPs

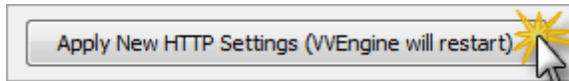
Sets which client IPs are allowed to connect to VVEngine using a web browser. By default, only the IP 127.0.0.1 is allowed, which is the local computer. This means that by default, VVEngine is accessible only from the same machine where VVEngine is running. You can change this by specifying an address mask here. Multiple IP addresses can be listed, separated by the "|" symbol, e.g. 127.0.0.1|198.162.1.1 (without spaces) allows access from 127.0.0.1 and 198.162.1.1

You can also use the "*" symbol in the mask, e.g. 127.0.0.1|198.162.* allows the local IP 127.0.0.1 and all the IP addresses starting with 198.162.

Page Refresh Rate

Sets how often the VVEngine web page automatically refreshes in the web browser. The default value is 5 seconds. This value can also be set from the VVEngine web page itself, see [Browser Interface](#)

 To apply the new 'HTTP Settings' click on the 'Apply New HTTP Settings' button. VVEngine will restart automatically.



Other Settings

Windows Event Logging

Sets the Windows Event logging level performed by VVEngine. Three levels are available:

1. *Log profile execution errors only.* When running profiles only errors are added to the Windows Event Log.
2. *Log profile execution errors and success.* When running profiles errors and successful runs are added to the Windows Event Log.
3. *Do not log profile execution results.* When running profiles neither errors or successful runs are added to the Windows Event Log. Only global VVEngine status errors and warnings are logged.

Allow Access to VVEngine Read-Only Page without Password

If a VVEngine access [password](#) is set, use this option to grant access to the VVEngine [read-only page](#) and other read-only pages such as [RSS feeds](#), without a password.

Allow Access to VVEngine Run/Stop Page without Password

If a VVEngine access [password](#) is set, use this option to grant access to the VVEngine [run/stop page](#) without a password.

Max Simultaneous HTTP connections

Use this option to set the maximum simultaneous HTTP (browser) connections. Default is 10 which is sufficient in most cases.

After First File Change is Detected...

This option defines the VVEngine behavior when file changes are detected.

You can set the amount of seconds of inactivity to wait, after the first file change is detected, before VVEngine starts a profile. You can also set the total maximum time to wait in seconds.

For example, the default values are 3 and 10, which means that VVEngine will look for a period of inactivity of 3 seconds before starting a profile, after the first file change is detected, but limited to a total maximum of 10 seconds. If after 10 seconds, there is no period of inactivity of 3 seconds, VVEngine will start the profile anyway.

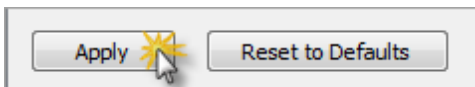
Take Profile Filters into Consideration During Change Detection

This option is enabled by default. With this option enabled, VVEngine will take the profile filters into consideration also during change detection for monitoring level File and Subfolder (not for Full Recomparison). See scheduling option [here](#).

Note that not all file / subfolder filters will be taken into consideration. Only absolute filters (filters with a drive or network full path, such as exclude c:\folder*, for example) and file mask filters (include *.txt or exclude [1-9], for example) will be taken into consideration. Relative filters, such as \folder\, will not be taken into consideration. When a filter is not taken into consideration, the change will be detected to a file or subfolder even if it is excluded in the profile settings and ViceVersa will run and will then exclude the object anyway: this might result in a superfluous run. Before VVEngine version 2.2 (build 2230) all filters were ignored during change detection. If you need the old behavior you can set this option to No.




To apply the new 'Other Settings' click on 'Apply'.



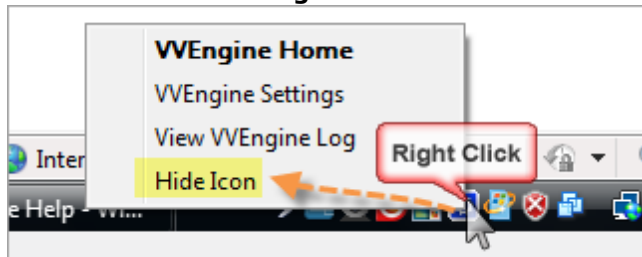
6 Taskbar Icon


The VVEngine Taskbar icon is visible on the Windows Taskbar (next to the Windows Clock) on the computer where VVEngine is installed and running:



 If you do not want the VVEngine icon to show on the taskbar, you may close it from the icon menu (right-click to open the menu).






How to Hide the VVEngine taskbar icon:



 If the icon is **not** showing on the Taskbar, you can make it visible. Select Windows Start Menu -> All Programs -> VVEngine for ViceVersa PRO -> Show Icon on Taskbar.

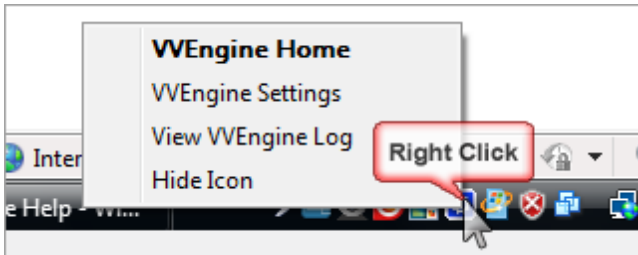
Different Taskbar Icons and Meaning

The icon on the taskbar can be one of the following icons, depending on the VVEngine status:

Icon	Description
	VVEngine is OK.
	VVEngine is not running.
	All profiles in VVEngine are disabled.
	One or more profiles have errors.
	One or more profiles are currently running.

Clicking on the Taskbar Icon

- **Left-Click on the VVEngine taskbar icon:** opens the VVEngine main page with the default web browser.
- **Right-Click on the VVEngine taskbar icon:** opens the VVEngine taskbar menu:



Taskbar Icon	Description
VVEngine Home	Opens the VVEngine main page with the default web browser (or Left-Click on the VVEngine taskbar icon).
VVEngine Settings	Opens the main VVEngine Settings .
View VVEngine Log	Opens the VVEngine log file.
Hide Icon	Hides the VVEngine Taskbar icon.

7 Profile Errors (Exit Codes)

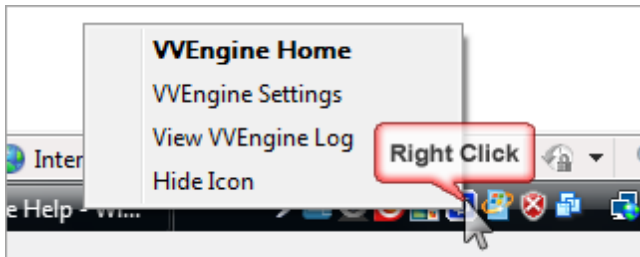
Exit Code	Description	Comments
1	Execution not completed: unspecified error.	See ViceVersa profile log file.
2	Execution not completed.	See ViceVersa profile log file.
3	Execution completed with file copy/delete errors.	Profile execution completed, but some files could not be copied or deleted.
4	Execution canceled by user.	Profile execution was canceled by user (e.g. computer shutdown or manual stop from VVEngine).
5	Execution completed with conflicts. Some files were in conflict and not copied. These files need to be reconciled manually.	Some source/target files are in conflict. See: http://www.tgrmn.com/web/kb/item35.htm
6	Profile file (.fsf) is invalid.	Invalid ViceVersa profile file .fsf
7	Profile file contains incorrect settings.	Profile file .fsf contains incorrect settings.
8	Unable to open log file. It may be inaccessible or in use by another ViceVersa process.	This can occur if the log file cannot be written to or another profile is running and using the same log file.
9	Unable to open tracking database. It may be inaccessible or in use by another ViceVersa process.	This can occur if the tracking database file cannot be written to or another profile is running and using the same tracking file.
10	Backup completed with warning. Some files are present both in source and in target but are newer in target. If you want to overwrite these files, use the profile option 'Replace newer target files with older source files'.	There are some files that are newer in target. If you want to overwrite these newer target files with the corresponding older source files, use the profile option 'Replace newer target files with older source files': ViceVersa PRO -> Change Profile Settings -> Advanced Settings
13	Source folder not found.	See below
14	Target folder not found.	See: http://www.tgrmn.com/web/kb/item93.htm <ul style="list-style-type: none"> • If you are running VVEngine as a Windows Service under the <i>LocalSystem</i> account, VVEngine does not have access to the network. Run the service under an account with network access. • If you are using a mapped drive and running VVEngine as a Windows Service, use a UNC path instead in the profile settings, e.g. \\server\share\

Exit Code	Description	Comments
15	Archive folder not found.	See above.
16	Profile file (.fsf) not found.	The profile (.fsf) is not accessible. Make sure the profile location is accessible by the account running ViceVersa/VVEngine
17	Execution method not specified in profile file.	The profile does not have an execution method specified. Open the profile in ViceVersa and set an execution method.
18	Errors on command line.	Command line is incorrect.
19	Profile settings have changed since the last time the tracking database was saved. The synchronization tracking database in the profile settings needs to be reset.	The profile settings have changed since the last time the tracking database was saved. You will need to open the profile in ViceVersa PRO and reset the tracking database: profile settings -> execution -> reset tracking database

8 VVEngine Log

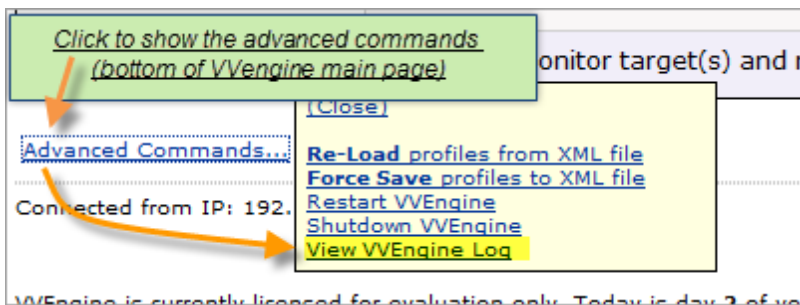
The VVEngine log can be accessed from:

- **The VVEngine Icon on the taskbar:**



📌 If the VVEngine icon is not showing on the taskbar, you can make it visible from the Windows Start Menu -> All Programs -> VVEngine for ViceVersa PRO -> *Show Icon on Taskbar*

- **The VVEngine Main Page (bottom of the page):**



9 Advanced Configuration

Although not required, VVEngine can be configured directly by editing the file *VVEngine.xml*

This file is stored in the Windows Application Data folder *C:\Documents and Settings\%USER%\Application Data\VVEngine*, where %USER% is the user account running VVEngine (in Windows 7, Vista, 2008, that is *C:\Users\%User%\AppData\Roaming\VVEngine*).

When first started, VVEngine uses a default configuration file.



Note: Only change the *VVEngine.xml* file when VVEngine is not running, otherwise your changes will be overwritten when VVEngine shuts down. The correct procedure is to shut-down VVEngine, change the *VVEngine.xml* file and then restart VVEngine. Always check the VVEngine log (it is stored in the same folder as the XML file) to see if the XML file was correctly formatted and loaded.

Structure of the VVEngine XML configuration file

XML Header

The following line **MUST** appear at the top of the configuration file.

```
<?xml version="1.0" encoding="UTF-16"?>
```

The XML file **MUST** be saved as a **UNICODE** text file.

The file **MUST** have at least the **<SETTINGS>** tag, i.e.

```
<SETTINGS>
</SETTINGS>
```

A basic empty XML file will look like this:

```
<?xml version="1.0" encoding="UTF-16"?>
<SETTINGS>
</SETTINGS>
```

The configuration above does not load any profile in VVEngine.

HTTP Tags

HTTP statements are enclosed within **<HTTP>** **</HTTP>** tags.

HTTP statements control the HTTP protocol used by VVEngine.

<PORT> **</PORT>** = HTTP port to be used to connect to VVEngine. If not specified, by default VVEngine uses port 8001, i.e. to connect from a browser you use *http://127.0.0.1:8001/* ; if port 8001 is already used by another application, VVEngine will try using port 8100.

<CLIENTS> **</CLIENTS>** = Client IP addresses allowed to connect to VVEngine using an Internet Browser. If not specified only IP 127.0.0.1 can connect, that is, you can connect only from the local computer where VVEngine is running. You can use wildcards. Use **|** to specify multiple IP addresses.

Examples:

192.168.*.* = all IP addresses starting with 192.168 are allowed to connect.

127.0.0.1|192.168.*.* = local computer plus all IP addresses starting with 192.168 are allowed to connect.

* = all IP addresses are allowed to connect using an Internet Browser.

<PWD></PWD> = Password to restrict HTTP access.

<CHECKNEW></CHECKNEW> = How often the VVEngine page is automatically refreshed in the browser. The value is in seconds.

HTTP Example:

```
<?xml version="1.0" encoding="UTF-16"?>
<SETTINGS>
<HTTP>
<PORT>7000</PORT>
<CLIENTS>127.0.0.1|192.168.*.*</CLIENTS>
<PWD>mypassword</PWD>
<CHECKNEW>5</CHECKNEW>
</HTTP>
</SETTINGS>
```

ITEM Tags

Each profile schedule is enclosed within <ITEM> </ITEMS> tags.

For explanation of the scheduling tags see the [scheduling options](#).

```
<PROFILE></PROFILE> = Profile Name
<DESCRIPTION></DESCRIPTION> = Profile Description
<CATEGORY></CATEGORY> = Profile Category
<STARTUP/> = Run profile at startup
<EVERYMINUTE></EVERYMINUTE> = Run every X minutes
<EVERYHOUR></EVERYHOUR> = Run every X hours
<EVERYDAY></EVERYDAY> = Run every X days
<STARTTIME></STARTTIME> = Start Time
<EXCLUDEDAYOFWEEK></EXCLUDEDAYOFWEEK> = Exclude weekdays
<EXCLUDEHOUROFDAY></EXCLUDEHOUROFDAY> = Exclude hours of day **
<EXCLUDECOMBINE/> = Combine exclusion days and hours **
<ONERROR_RERUN></ONERROR_RERUN> = Re-run after error (minutes)
<MAX_RERUN></MAX_RERUN> = Max Re-run times after error
<RUNMISSED/> = Run missed runs
<ONLYIFCHANGED/> = Run scheduled only if changed
<ASSOONASCHANGED/> = Run as soon as changed
<MONITORSOURCE/> = Monitor source
<MONITORTARGET/> = Monitor target
<ASAVAILABLE/> = Run as soon as available
<PROFILEAFTER></PROFILEAFTER> = Profile to run after
<PROFILEAFTER_NOTONERROR/> = Do not run profile on error
<PING/> = Use PING command to check server
<ERROR_IFNOTRUNFOR></ERROR_IFNOTRUNFOR> = Report error if profile has not run for X minutes **
<POWER></POWER> = Options are DO NOT RUN ON BATTERY and DO NOT RUN ON LOW BATTERY **
<IPADDRESS_MATCH></IPADDRESS_MATCH> = Run a profile only when the computer IP address matches a
certain value **
<CHECK_FOLDERS/> = Unless all source(s) and target(s) are available, the profile does not start and the
run is skipped **
<DISABLEDATSTARTUP/> = Profile disabled at startup
```

** = new in VVEngine Version 2.

WVEngine.xml example:

```
<?xml version="1.0" encoding="UTF-16"?>
<SETTINGS>
<HTTP>
<PORT>7001</PORT>
<CLIENTS>127.0.0.1|192.168.*.*</CLIENTS>
<PWD>mypassword</PWD>
<CHECKNEW>100</CHECKNEW>
</HTTP>
<ITEM>
<PROFILE>C:\Documents and Settings\Administrator\My Documents\ViceVersa PRO 2\backup.
fsf</PROFILE>
<DESCRIPTION>Backup to Network</DESCRIPTION>
<CATEGORY>Network</CATEGORY>
<STARTUP/>
<EVERYMINUTE>10</EVERYMINUTE>
<STARTTIME>9/15/2006 04:04 PM</STARTTIME>
<EXCLUDEDAYOFWEEK>Sun, Mon, Tue</EXCLUDEDAYOFWEEK>
<ONERROR_RERUN>1</ONERROR_RERUN>
<MAX_RERUN>5</MAX_RERUN>
<RUNMISSED/>
<ASSOONASCHANGED/>
<MONITORSOURCE/>
<MONITORTARGET/>
<ASAVAILABLE/>
<PROFILEAFTER>C:\Documents and Settings\Administrator\My Documents\ViceVersa PRO 2
\archive.fsf</PROFILEAFTER>
<PROFILEAFTER_NOTONERROR/>
<PING/>
<DISABLEDATSTARTUP/>
</ITEM>
<ITEM>
<PROFILE>C:\Documents and Settings\Administrator\My Documents\ViceVersa PRO 2
\archive.fsf</PROFILE>
<DISABLEDATSTARTUP/>
</ITEM>
</SETTINGS>
```


10 REST API (JSON)

The current status of VVEngine can be queried via the VVEngine REST API.

VVEngine supports the following HTTP requests and it will return the queried information via JSON objects.

It is recommended to use the VVEngine REST API and its JSON returned objects to monitor multiple VVEngine installations remotely. Using the VVEngine REST API it is possible to monitor the correct functioning and the latest status of multiple VVEngine installations. Each VVEngine can become a monitored sensor on your network, queried via HTTP. [See below for more info.](#)


URL	Description	JSON returned	Examples
/profiles/	<p>Returns a list of all profiles currently present in VVEngine with their properties.</p> <p>Supported parameters: Parameters are specified as query parameters using ?. Multiple parameters can be specified using &. See examples.</p> <p>profile=<profilename> (this is the same as using /profiles/<profilename>/ see below)</p> <p>fields=<fields> (multiple fields can be specified, separated by ' ')</p> <p>category=<categories> (multiple categories can be specified, separated by ' ')</p> <p>filter=<expression> (multiple expressions can be specified, separated by ' ')</p>	<p>An array of objects representing the profiles, with their attributes, that are in VVEngine.</p> <p>Example:</p> <pre>{ "profiles":[{ "_list":"http://127.0.0.1:8001/profiles/", "_self":"http://127.0.0.1:8001/profiles/copyattr.fsf", "category":"Unfiled", "current_time":"Wed, 29 Jul 2020 07:39:44 GMT", "description":"", "last_exit_code":13, "last_run":"Error - 7", "next_run":"2020 2:55:27 PM until 2:55:30 PM (3 sec) - (Manual Run) - Source folder not found.", "last_successful_run":"None", "name":"copyattrtest.fsf", "next_run":"None", "path":"C:\\ViceVersa PRO\\copyattr.fsf", "schedule":"Run manually", "status":"Disabled", "status_details":"", "status_has_any_errors":false, "status_has_any_errors_or_disabled":true, "status_is_active":false, "status_is_disabled":true, "status_is_error":false, "status_is_exec_error":false, }] }</pre>	<p>http://<ip>:<port>/profiles/ (e.g. http://127.0.0.1:8001/profiles/ for the local computer or http://197.168.1.1:8001/profiles/ for a remote computer)</p> <p>-----</p> <p><i>With profile parameter:</i></p> <p>http://127.0.0.1:8001/profiles/?profile=augmenttest.fsf (only returns info for augmenttest.fsf)</p> <p>-----</p> <p><i>With fields parameter:</i></p> <p>http://<ip>:<port>/profiles/?fields=name (http://127.0.0.1:8001/profiles/?fields=name to only include the field 'name' in the returned objects)</p> <p>http://<ip>:<port>/profiles/?fields=name status (http://127.0.0.1:8001/profiles/?fields=name to only include the fields 'name' and 'status' in the returned objects)</p> <p>-----</p> <p><i>With category parameter:</i></p> <p>http://<ip>:<port>/profiles/?category=Unfiled backup (http://127.0.0.1:8001/</p>

		<pre> "status_is_not_avail": false, "status_is_pending": false, "status_is_running": false, "url": "http:// 127.0.0.1:8001/profile. htm?SHOWPROFILE=C%3a %5c%5c%5ccopyattr% 2efsf", "url_summary_status_ json": "http:// 127.0.0.1:8001/profiles/ status/" }] }</pre>	<p>profiles/? category=Unfiled backup to only include profiles with category 'Unfield' or 'backup' in the returned JSON)</p> <p>----- <i>With filter parameter:</i></p> <p>http://127.0.0.1:8001/ profiles/? filter=status_has_any_err ors=true (returns only profiles with status_has_any_errors equal to true)</p> <p>----- <i>With profile and fields parameters (use &):</i></p> <p>http://127.0.0.1:8001/ profiles/?profile=augment. fsf&fields=name status url</p>
/profiles/ <profilename>/	<p>Returns the profile <profilename> with its properties. Shorthand for /profiles/? profile=<profilename></p> <p>Supported parameters: Supports the parameters 'fields', 'category' and 'filter', see above.</p>	<p>Array of only one object representing the profile <profilename></p>	<p>http://<ip>:<port>/ profiles/myprofile.fsf/ (e.g. http://127.0.0.1:8001/ profiles/myprofile.fsf/ for the local computer or http://10.1.1.1:8001/ profiles/myprofile.fsf/ for a remote computer)</p> <p>http://127.0.0.1:8001/ profiles/augment.fsf/? fields=name status status_has_any_errors</p>
/profiles/ <errors disabled active running>/	<p>Returns profiles matching a specified status: errors, disabled, active or running.</p> <p>/profiles/errors/ is a shorthand for /profiles/ &filter=status_has_any_e rrors=true</p> <p>/profiles/disabled/ is a shorthand for /profiles/ &filter=status_is_disabled</p>	<p>An array of profiles matching the specified status.</p>	<p>http://127.0.0.1:8001/ profiles/errors/</p> <p>http://197.168.1.1:8001/ profiles/running/</p> <p>http://10.10.0.1:8001/ profiles/disabled/</p>

	<p>=true</p> <p>/profiles/active/ is a shorthand for /profiles/ &filter=status_is_active=true</p> <p>/profiles/running/ is a shorthand for /profiles/ &filter=status_is_running=true</p> <p>Supported parameters: Supports the parameters 'fields', 'category' and 'filter', see above.</p>		
/profiles/status/	<p>Returns an overall status summary for all the profiles in VVEngine.</p> <p>Supported parameters: It supports the parameters 'fields' and 'category', see above.</p>	<p>Returns a status overview of all the profiles in VVEngine.</p> <p>Includes number of profiles active, disabled, error (=profile error), exec_error (=have an execution error), have_any_errors (=have any errors), have_any_errors_or_disabled (=have any errors or disabled), not_avail (=source or target not available), pending (=changes detected and execution is pending), running (=currently running).</p> <p>Also the total amount of profiles and the VVEngine url are included.</p> <p>Example:</p> <p>/profiles/status/ might return:</p> <pre>{ "active":2, "disabled":2, "error":0, "exec_error":0, "have_any_errors":2, "have_any_errors_or_disabled":2, "not_avail":0, "pending":1,</pre>	<p>Accessible via http://<ip>:<port>/profiles/status/ (e.g. http://127.0.0.1:8001/profiles/status/)</p> <p>http://197.168.1.100:8001/profiles/status/</p>

		<pre>"running":0, "total_profiles":4, "url_vvengine":"http://127.0.0.1:8001" }</pre>	
/profiles/status/<field>/	<p>Returns a status summary for all the profiles, only including the field specified.</p> <p>/profiles/status/active/ is a shorthand for /profiles/status/&fields=active</p> <p>/profiles/status/disabled/ is a shorthand for /profiles/status/&fields=disabled</p> <p>/profiles/status/error/ is a shorthand for /profiles/status/&fields=error</p> <p>/profiles/status/exec_error/ is a shorthand for /profiles/status/&fields=exec_error</p> <p>/profiles/status/have_any_errors_or_disabled/ is a shorthand for /profiles/status/&fields=have_any_errors_or_disabled</p> <p>/profiles/status/not_avail/ is a shorthand for /profiles/status/&fields=not_avail</p> <p>/profiles/status/pending/ is a shorthand for /profiles/status/&fields=pending</p> <p>/profiles/status/running/ is a shorthand for /profiles/status/&fields=running</p> <p>/profiles/status/total_profiles/</p>	<p>Status overview of all the profiles, only including the field specified.</p> <p>Example:</p> <p>/profiles/status/have_any_errors_or_disabled/</p> <p>might return:</p> <pre>{"have_any_errors_or_disabled":2}</pre> <p>which means that there are 2 profiles that have any errors or are disabled.</p>	<p>http://127.0.0.1:8001/profiles/status/have_any_errors_or_disabled/</p> <p>http://8.1.1.2:8001/profiles/status/disabled/</p>

	is a shorthand for /profiles/status/ &fields=total_profiles		
--	---	--	--

 **Note:** If a [password](#) is set to access VVEngine, the REST requests will require a password too. If the option '[Allow Access to VVEngine Read-Only Pages without Password](#)' is enabled in the VVEngine global settings, then the REST requests are accessible without a password, since they are read-only pages.

Using the VVEngine REST API to monitor multiple VVEngine installations

You can use the VVEngine REST API to easily query VVEngine in automated mode. Each running VVEngine on the network can become a monitored sensor for your network and server monitoring software.

For example, the HTTP request to VVEngine running on <IP>:<PORT>

`http://<IP>:<PORT>/profiles/status/have_any_errors_or_disabled/`

will always return:

```
{"have_any_errors_or_disabled":0}
```

if there are no profile errors nor disabled profiles, that is, all is good!


It will instead return:

```
{"have_any_errors_or_disabled":1}
```

if there is one profile that requires attention for that VVEngine that is running on <IP>:<PORT>

So checking for the returned text `{"have_any_errors_or_disabled":0}` will assure that VVEngine is up and running with no errors.

Other more specific REST API queries can also be used and values can be parsed out of the JSON object(s). Most network monitoring software allow parsing out values from returned JSON data.

 **IMPORTANT:** To monitor VVEngine remotely, you will need to allow access to the VVEngine from non-local IPs within the VVEngine settings and also make sure that the HTTP protocol is allowed and the port used by VVEngine is opened in your Firewall. Read more in our Knowledge Base:

- [VVEngine and Firewalls](#)
- [Can I Connect to VVEngine from a Remote Computer?](#)

11 RSS Feeds

VVEngine supports three RSS feeds. Each feed publishes the latest status for each profile in VVEngine and is accessible via any standard RSS reader. The following is a description of each feed:

RSS Feed	Description	Examples
rss.xml	This RSS feed publishes the latest status for all profiles that are not disabled.	Accessible via <code>http://<ip>:<port>/rss.xml</code> (e.g. <code>http://127.0.0.1:8001/rss.xml</code> for the local computer or <code>http://197.168.1.1:8001/rss.xml</code> for a remote computer)
errors.xml	This RSS feed publishes that latest status for profiles with errors.	Accessible via <code>http://<ip>:<port>/errors.xml</code> (e.g. <code>http://127.0.0.1:8001/errors.xml</code>)
rssall.xml	This RSS feed publishes the latest status for all profiles regardless if they are enabled or disabled.	Accessible via <code>http://<ip>:<port>/rssall.xml</code> (e.g. <code>http://127.0.0.1:8001/rssall.xml</code>)



Note: If a [password](#) is set to access VVEngine, the RSS feeds will require a password too. If the option '[Allow Access to VVEngine Read-Only Pages without Password](#)' is enabled the RSS feeds are accessible without a password, since they are read-only pages.

12 Profile Statistics

VVEngine keeps track of all profile statistics: added files, updated files, deleted Files, added subfolders, deleted subfolders, errors, conflicts, etc.

You can access the profile statistics by clicking on '[Show More Stats]' in the profile page. Statistics are shown by day for the last 7 days, and by month for the last 3 months plus the totals. Each statistic can be individually reset.

Totals		Source		Target	
Runs: 0 - Error Runs: 0		Total	Size	Total	Size
Added Files		0	0	0	0
Updated Files		0	0	0	0
Deleted Files		0	0	0	0
Errors		0	0	0	0
Added Subfolders		0	-	0	-
Deleted Subfolders		0	-	0	-
Errors		0	-	0	-
[Reset]		Last Run: None			

Stats by Day (Last 7 Days)

11/17/2023		Source		Target	
Runs: 0 - Error Runs: 0		Total	Size	Total	Size
Added Files		0	0	0	0
Updated Files		0	0	0	0
Deleted Files		0	0	0	0
Errors		0	0	0	0
Added Subfolders		0	-	0	-
Deleted Subfolders		0	-	0	-
Errors		0	-	0	-
[Reset]		Last Run: None			

11/14/2023		Source		Target	
Runs: 0 - Error Runs: 0		Total	Size	Total	Size
Added Files		0	0	0	0
Updated Files		0	0	0	0
Deleted Files		0	0	0	0
Errors		0	0	0	0
Added Subfolders		0	-	0	-
Deleted Subfolders		0	-	0	-
Errors		0	-	0	-
[Reset]		Last Run: None			

13 VVEngine Gadget

Keep an eye on VVEngine! The VVEngine gadget puts the latest VVEngine information right on your desktop. You can keep track of what's happening in VVEngine while you work, you don't have to stop what you're doing to check the results of a running profile. You can run and check a profile right from your desktop.

The VVEngine Windows Gadget is only available for Windows 7 or Vista. Windows 8, 10, 11 or newer no longer supports Windows Gadgets.

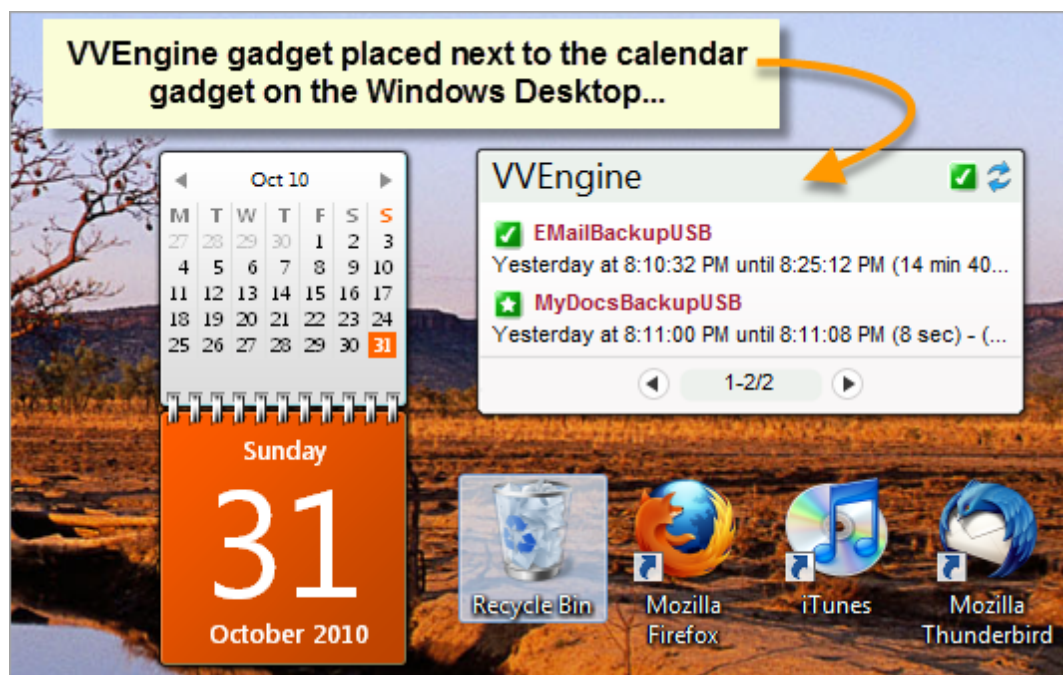
In Windows Vista, the VVEngine gadget is on the right side of your desktop. In Windows 7 you can position it anywhere on the screen: you can move it and resize it as you like.

The free VVEngine Windows Gadget requires VVEngine version 2.0 or newer to be installed. It can be **downloaded** from our website.

➔ [Download Free VVEngine Gadget](#)

Gadget Screenshots

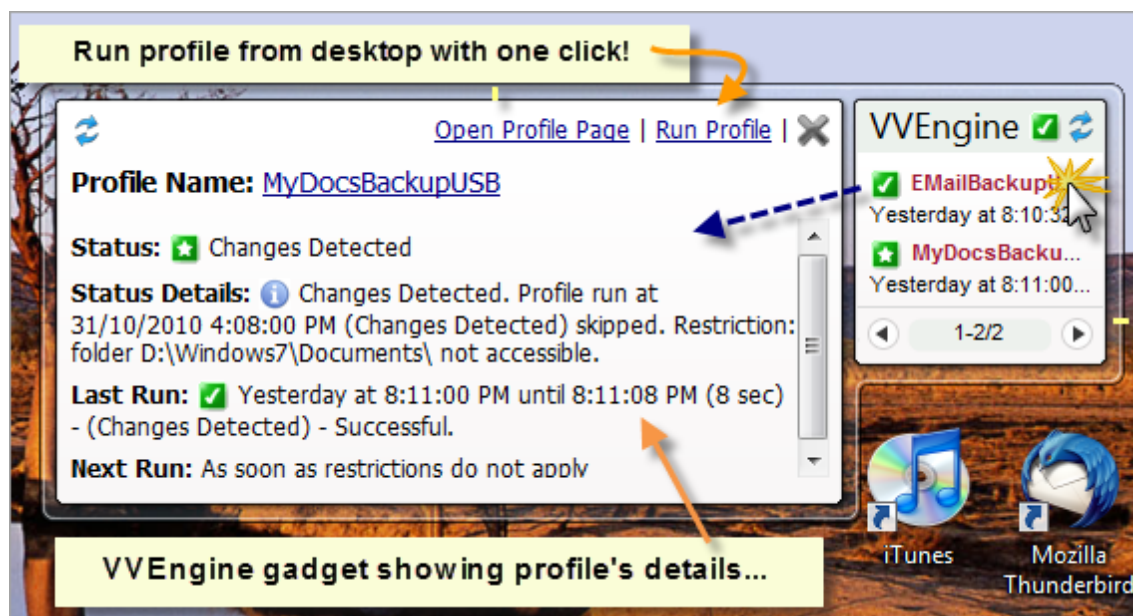
VVEngine gadget on the desktop showing two ViceVersa profiles:



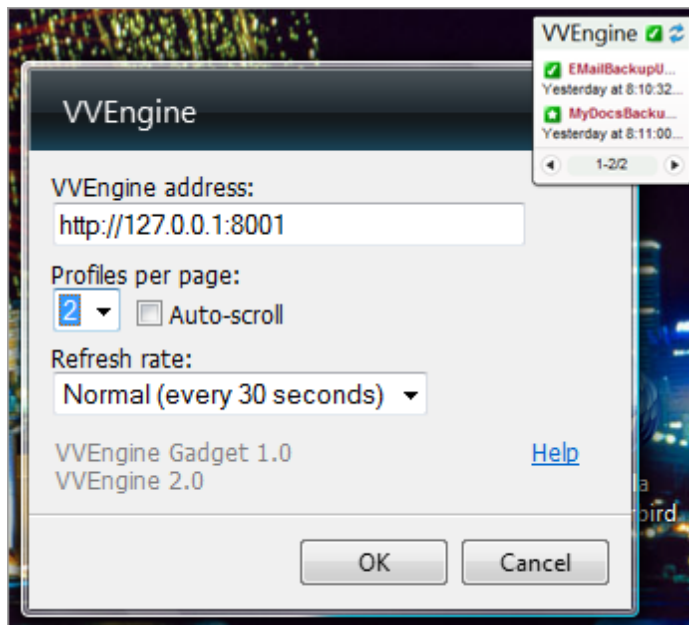
VVEngine gadget showing 21 profiles, 6 per page:



Run a profile directly from the VVEngine gadget:



VVEngine gadget options:



14 VVConsole

VVConsole.exe is a command line program that can be used to control VVEngine. VVConsole can send commands to VVEngine, like "run a profile" or "shutdown". VVConsole can be found in the "serv" directory under the VVEngine installation path.

VVConsole.exe [-h] [-e] ["-c:<commands>"] ["-i:<filename>"] [-n] ["-m<msg>"] [-b]

- [-h] Hidden (run commands if any and exit).
- [-e] Exit immediately if VVEngine is not running.
- [-c] <commands> contains a list of command to execute when VVConsole starts. Multiple commands must be separated by a |
For example:
"-c:shutdown|q" = shutdown VVEngine and exit VVConsole
"-c:run profile1.fsf|q" = run profile1.fsf and exit VVConsole
Use " to surround commands.
- [-i] <filename> is the name of a text file containing a list of commands to execute when VVConsole starts. One command per line.
- [-n] Do not maximize the VVConsole window when VVConsole starts.
- [-m] Print a message <msg> on the output when VVConsole starts.
For example:
"-mWelcome!" shows the text Welcome! when VVConsole starts.
- [-b] Do not show the VVConsole banner when VVConsole starts.

* VVConsole Exit Codes: 0 = OK, 1 = VVEngine not running, 2 = Command Error

VVConsole Commands:

```

HELP | show this help
WHO | show machine name where vvengine is running
VER | show vvengine version
ECHO | echo command
KEY | wait for user to press any key
PAUSE [secs] | pause x seconds; 1 second if not specified
RESET ERROR | reset error (= exit code) to 0
QUIT, Q or EXIT | Close VVConsole and exit

SHUTDOWN | shutdown vvengine
SHUTDOWNANDWAIT | shutdown vvengine and wait until completed
RESTART | restart vvengine and reload settings from XML configuration file
RELOAD | reload settings from XML configuration file
SAVE | save settings to XML configuration file

LIST | list all VVEngine profiles
STATUS <profilename> | show profile status by name; use STATUS ALL to show all
ENABLE <profilename> | enable profile by name; use ENABLE ALL to enable all
DISABLE <profilename> | disable profile by name; use DISABLE ALL to disable all
RUN <profilename> | run profile by name; use RUN ALL to run all
RUNWITHRESCAN <profilename> | run profile by name with forced rescan,
                                only applicable for profiles with no rescan options set
RUNFULL <profilename> | run profile and perform a full recomparison of source and
                                target. Only applicable for File or Subfolder
                                monitoring level (see scheduling options)
WAIT <profilename> | wait for profile to finish running
VERIFY <profilename> | return an error if the last run was unsuccessful
STOP <profilename> | stop running profile by name; use STOP ALL to stop all

```

```
ADD <XML> | add new profile schedule using XML. See VVEngine help
SET <XML> | set existing schedule using XML. See VVEngine help
REMOVE <profilename> | remove profile from VVEngine
GET <profilename> | get profile schedule in XML format
```

Note: <profilename> can also be just a part of the entire profile name,
e.g. using 'profi' matches 'profile1.fsf'

* Use 'Ctrl-C' to stop a VVConsole command.

```
LOADCOMMANDS <filename> | Load and execute a batch of commands from a text file
                        The text file should contain one command per line
```

Example:

VVConsole.exe -h -e "-c:RUN profile1.fsf|WAIT profile1.fsf|VERIFY profile1.fsf|QUIT"

This command will run VVConsole hidden (**-h**) and it will exit immediately if VVEngine is not running (**-e**). It will then run profile profile1.fsf (**RUN profile1.fsf**), wait for it to finish (**WAIT profile1.fsf**) and verify that its execution is successful (**VERIFY profile1.fsf**). Finally it will exit (**QUIT**).

The return code will be 0 = OK or 1 = VVEngine not running or 2 = command error, e.g. if profile1.fsf does not exist or it can't be started or profile run is unsuccessful.

15 Running as a Windows Service

Running VVEngine as a Windows Service on a Windows Server allows you to keep VVEngine running even when no one is logged onto the server. It also allows you to run VVEngine under a different account from the current logged-in account.

When VVEngine is installed as a Windows Service, you are still able to control it with a web browser, even from a remote machine.

See the following link (online) for more information: [How Do I Install VVEngine as a Windows Service?](#)

16 Solutions to Known Issues

Folder not accessible

- If the Source or Target paths are over the network or are mapped drives, they could be inaccessible because VVEngine runs with elevated privileges, and the network paths or mapped drives might have been connected as standard-user only.
- To check, you can open a command line (*cmd*) and type *net use*. If you start the command line as *Administrator* (right-click on *cmd* and select 'Run as Administrator') and then type *net use*, the network connection or mapped drive might not be listed.
- In that case, the best solution is to re-enter the network credentials used to login to the network in the ViceVersa profile settings, under Folders -> Network, then fill in Path, User, Password, and optionally Map to Drive. Then save the profile.
- See also FAQ [Mapped Drives Might Not Be Available or Not Found When ViceVersa Is Run with 'Elevated Privileges'](#) and [Mapped Network Drives Do Not Work in Scheduled Tasks](#)

17 How to Buy VVEngine

Buy VVEngine online with all major credit cards, paypal, check, or bank transfer.

Order page:

 www.tgrmn.com/web/buy.htm

TGRMN Software homepage:

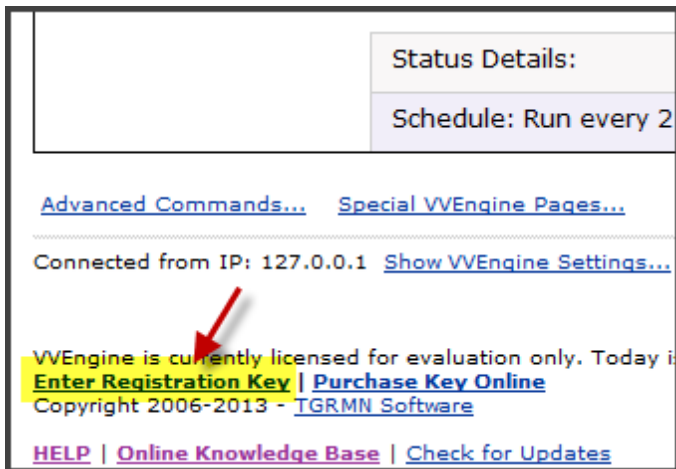
 www.tgrmn.com

18 Enter Registration Information

Once you have received your **Registration Key** and **Text** via e-mail, you will need to enter it in VVEngine. You can do this in two ways:

From the VVEngine Main Page:

Go to the VVEngine Main Page and click on "[Enter Registration Key](#)", located at the bottom of the page. A new window will open where you can enter your registration key and text, copy and paste from e-mail is the easiest way.



Using VVReg.exe:

If VVEngine is setup to run as a Windows Service or if you are upgrading your VVEngine license, go to the VVEngine installation folder and locate the program VVReg.exe, run this program by double-clicking on it. A new window will open where you can enter your registration key and text, copy and paste from e-mail is the easiest way.

Using VVReg.exe from the command line:

You can use VVReg.exe to enter the registration information in VVEngine from the command line (go to the VVEngine installation folder and locate the program VVReg.exe). Use the parameter /writeregkey:

```
VVReg.exe /writeregkey:"AAAA|BBBB"
```

where AAAA is the registration text and BBBB the registration key, separated only by the character |. The whole text must be surrounded by quotes ".

VVReg.exe will return 0 if the operation was successful.

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