AutomateWorks What's New

Version 6.2.121.5966

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1   What's New in AutomateWorks 6

This document gives you brief summary what has been improved in **AutomateWorks 6** since previous major release, **AutomateWorks 4.** By reading these instructions it will be easier to migrate you to the new release.

1.1   Summary

For those who are too busy to read this document thoroughly, here is a brief summary of major changes in AutomateWorks 6.

- You have right to upgrade to **AutomateWorks 6** if you have active subscription service. If you don't know whether you have one, please contact your reseller.
- AutomateWorks 6 is fully backwards compatible with previous AutomateWorks releases. You don't need to do anything specific to migrate your old configurators to AutomateWorks 6 format.
- In AutomateWorks 6 release there is only one setup file, so you don't need to worry about excel version or whether your system is running on 32 or 64 bit operatin system.
- If your AutomateWorks license is a regular, single license, AutomateWorks 6 requires requires network connection to keep your license up-to-date. Refer to Licensing for details.
- If your AutomateWorks license is Network License, you need to update your Network License Manager before using AutomateWorks 6. Refer to Licensing for details.
- The link tool used to create AutomateWorks commands is now embedded in AutomateWorks user interface and can be used in SolidWorks Add-In.
- AutomateWorks 6 contains more than 35 new commands, which you can use to automate your design process.
- Running configurators can be 4-5 times faster than when using AutomateWorks 4. To achieve this, you need to verify your settings are set correctly.
- AutomateWorks configurators can be driven remotely using new, web-based **AutomateWorks Server**.
- To run AutomateWorks configurators remotely, AutomateWorks 6 contains new application, **AutomateWorks Worker**. To use the worker, you need a separate license.

1.2   Why 6, not 5

The previous release of AutomateWorks was officially named AutomateWorks 4. It would have been logical that next major release would be called **AutomateWorks 5**. However, to streamline our product development and deployment process, we have combined the source code and build processes of AutomateWorks and CustomWorks products. This reduces our workload when developing features which are common to both products, such as licensing, general architecture etc. As result, when building setup files, our both product will get same version number. As the next major release of CustomWorks will be 6, AutomateWorks will get same major version number.

1.3   Backwards compatibility

AutomateWorks 6 is fully backwards compatible to AutomateWorks 4 and older versions. You don't need to do anything specific to migrate your configurators to be used in AutomateWorks6. However, if you add commands which are new in AutomateWorks 6, you won't be able to run the configurator in older versions of AutomateWorks.

1.4   Installing

From now on, installing AutomateWorks is easier as you do not need to worry about whether your operating system is 32 or 64-bit and what your Excel version is. In the AutomateWorks 6 download page you can find **Setup AutomateWorks 6.exe** and **Setup AutomateWorks 6.msi** files. When installing AutomateWorks 6 manually, you can use the executable setup file. If you want to deploy AutomateWorks using eg. group policy, you can use the .msi version of the setup file.

1.5   Licensing

AutomateWorks uses our new license server, which has several improvements when compared with our earlier licensing systems. Single licenses cannot be stuck forever on a workstation if you forget to release a license, so in most cases you don't need to contact us to release a stuck license. All your licenses can be combined to a single activation key, so you don't have to remember multiple activation keys. If you are using network license, your need to install new version of Network License Manager to use AutomateWorks 6.

1.5.1   Activation keys

Our new licensing server allows combining activation keys so that you need only one activation key for all your AutomateWorks and CustomWorks licenses. To get a combined activation key, please contact our product support.

1.5.2   Single licenses

If your AutomateWorks license is a single license, the license activation works a bit differently than in previous AutomateWorks releases. When a license is activated, a license file is automatically downloaded from our license server. By default, the license file is valid for 7 days. Whenever you start AutomateWorks, a new license file is downloaded from the license server, which keep your license information up-to-date. This way of licensing has several effects, which are good to understarnd:

- In regular use you do not need to worry about licensing. Workstations are nowadays usually always connected to the internet, and refreshing license files happens automatically in the background.
- If you lose internet connection, you have a local license file, which is valid for 7 days. You can keep on using AutomateWorks normally, and the license file is refreshed once you gain internet access.
- If your work environment is such that your workstations are not allowed to connect to internet, you need a license file. In a such case please contact our product support, we will generate a license file for you.
- If your workstation gets corrupted or you otherwise forget to release your license, you do not need to contact us unless your case is urgent. Your license will be released automatically after 7 days, as the license file will expire. You can then activate the license on another workstation. In urgent cases you can contact our support for releasing the license.

1.5.3   Floating licenses

If your AutomateWorks lisence is a floating license, you have to upgrade your floating license manager to latest version. The new license manager has several benefits when compared to previous release:

- You need only one, single activation key for all of your AutomateWorks and CustomWorks licenses. To obtain a single activation key for your licenses, please contact our support.
- License files do not need to be updated once in a year, as they used to be. The new license manager keeps all license files up-to-date automatically.
- Once you get your license server up and running with a single activation key, you do not need to modify your license manager, if you purchase new licenses. New licenses are automatically updated to the license manager and are available within minutes of purchasing new licenses.

1.5.3.1 Upgrading license manager

This instruction is for updating CadWorks Software Network License Manager from version 1 to version 2.

The procedure is as follows:

1. Log in to your server, on which your license manager is running
2. If you want to keep your server ports as they are take note of your port configuration in the current license manager installation
3. Delete all license files from current license manager installation
4. Stop and uninstall current license manager
5. Install the new version of the license manager (to the same or another workstation)
6. Activate new license manager using the activation key provided

1. Current port configuration

If you would like to use the same server ports as in previous License Manager installation, for example to keep your firewall configuration the same, take note of the current ports. Otherwise you can skip this step.

To find out your current port configuration:

1. Log in to your server on which your license manager is running
2. Open Network License Manager
3. Open server administration page from **File -> License Server Administration**
   Note: If this selection is disabled, the license manager is not running. Start License manager by pressing **Start service**
4. Take note of the SERVER port and ISV port on the Status page (port numbers 5053 and 12000 in the example respectively):

2. Delete old license files

Delete old licenses files from the current License Manager:

1. Open Network License Manager
2. Open License File Directory by pressing the **Open...** button
3. Delete all files in the directory
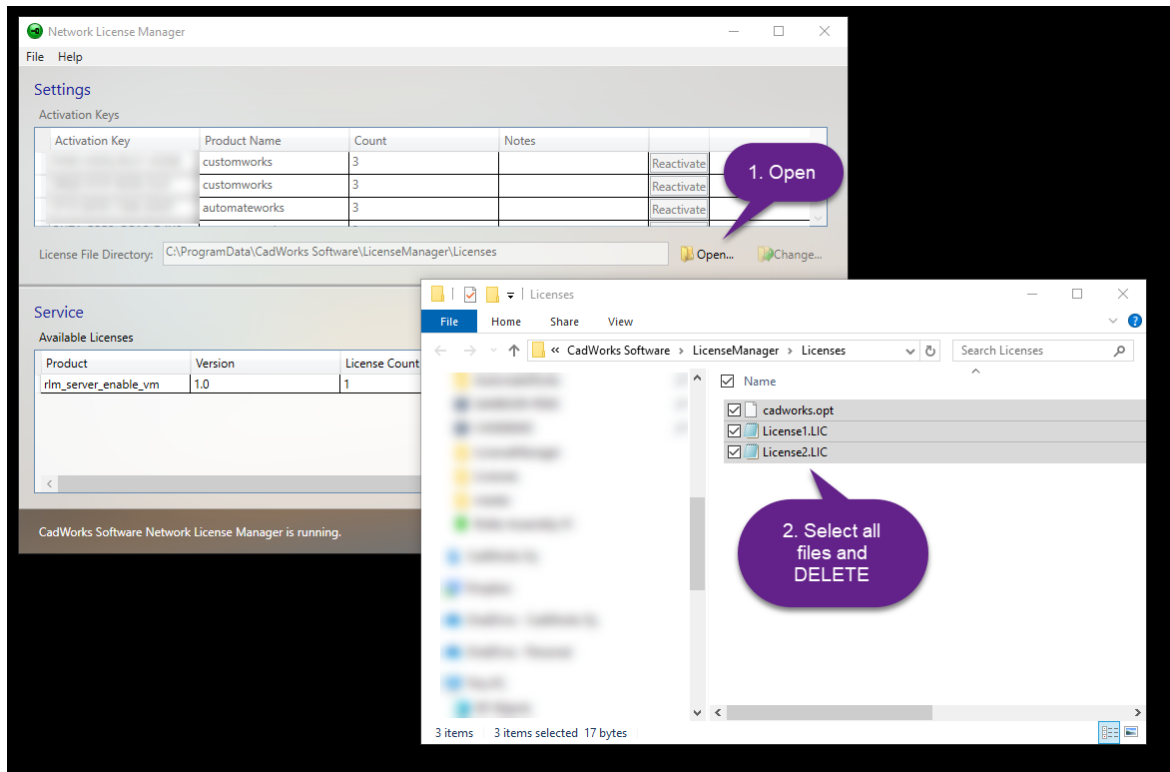
3. Stop and uninstall the current Network License Manager installation

1. Open Network License Manager
2. Stop services by pressing Stop Service
3. Close Network License Manager
4. Uninstall Network License Manager in Windows applications

4. Install and activate the new License Manager version

1. Download **Setup License Manager.exe** from download page for License Manager 2
2. Install the downloaded setup package
3. Open **Network License Manager**
4. Press **Activate license key...**
5. Write the new single **Activation Key** provided by your vendor
   Default Server and ISV ports are 5053 and 5055 respectively
   Optionally change the Server and ISV ports to match the ones from previous installation (as read in step 1). This is especially beneficial when upgrading the license manager without changing the workstation; old firewall and client connection settings can be left unchanged
6. Press **Activate**
7. After activation press **Start Service** to start license manager services
8. Check that your products are displayed in **Available Licenses** list
9. Close the Network License Manager user interface

If you followed step 1 to read current ports the ISV port here would be the port number 12000.
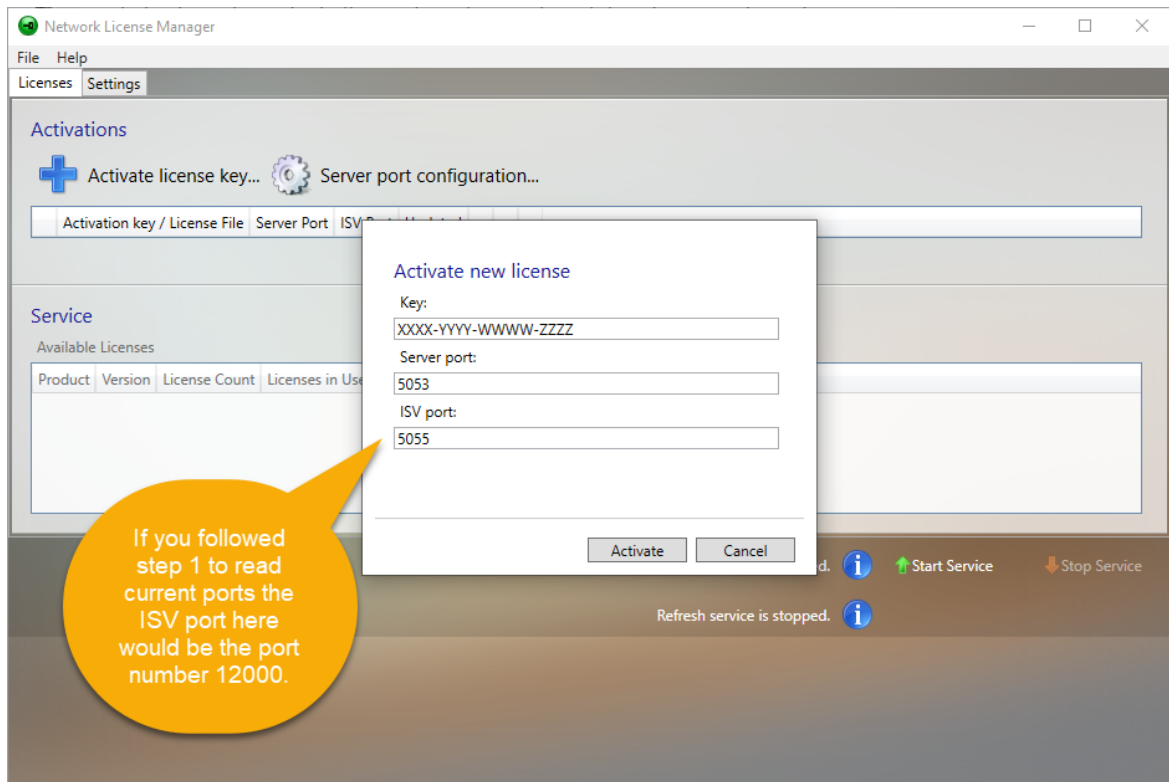
1.6   Using AutomateWorks

Using AutomateWorks does not change significantly when migrating to AutomateWorks 6. However, several user interfaces have been improved and using specific settings the performance of AutomateWorks can be significantly better than in previous AutomateWorks version. Here is a brief summary of how using AutomateWorks has been improved:

- You can enter Link and Run modes directly from AutomateWorks Home mode.
- You can link your model to AutomateWorks configurator using AutomateWorks user interface instead of old pop-up dialog.
- You can run your configurator inside AutomateWorks Add-In for SolidWorks. This improves performance significantly.
- You can disable updating Status Column in Excel to speed up your configurator even more.
- You can see details of commands being executed in the user interface of Run Mode.

1.6.1   Home Mode

When compared to AutomateWorks 4, AutomateWorks 6 Home Mode view has different layout and some new buttons:

- Open for Running opens an excel workbook in Read-Only mode for running.
- Open for Editing opens an excel workook in Read/Write mode for editing.
- Run Configurator enters Run Mode for running the active configurator.
- Edit Configurator enters Link Mode for adding new commands to Command Sheet.
- In the lower right corner there is a button for sending feedback to our developers.
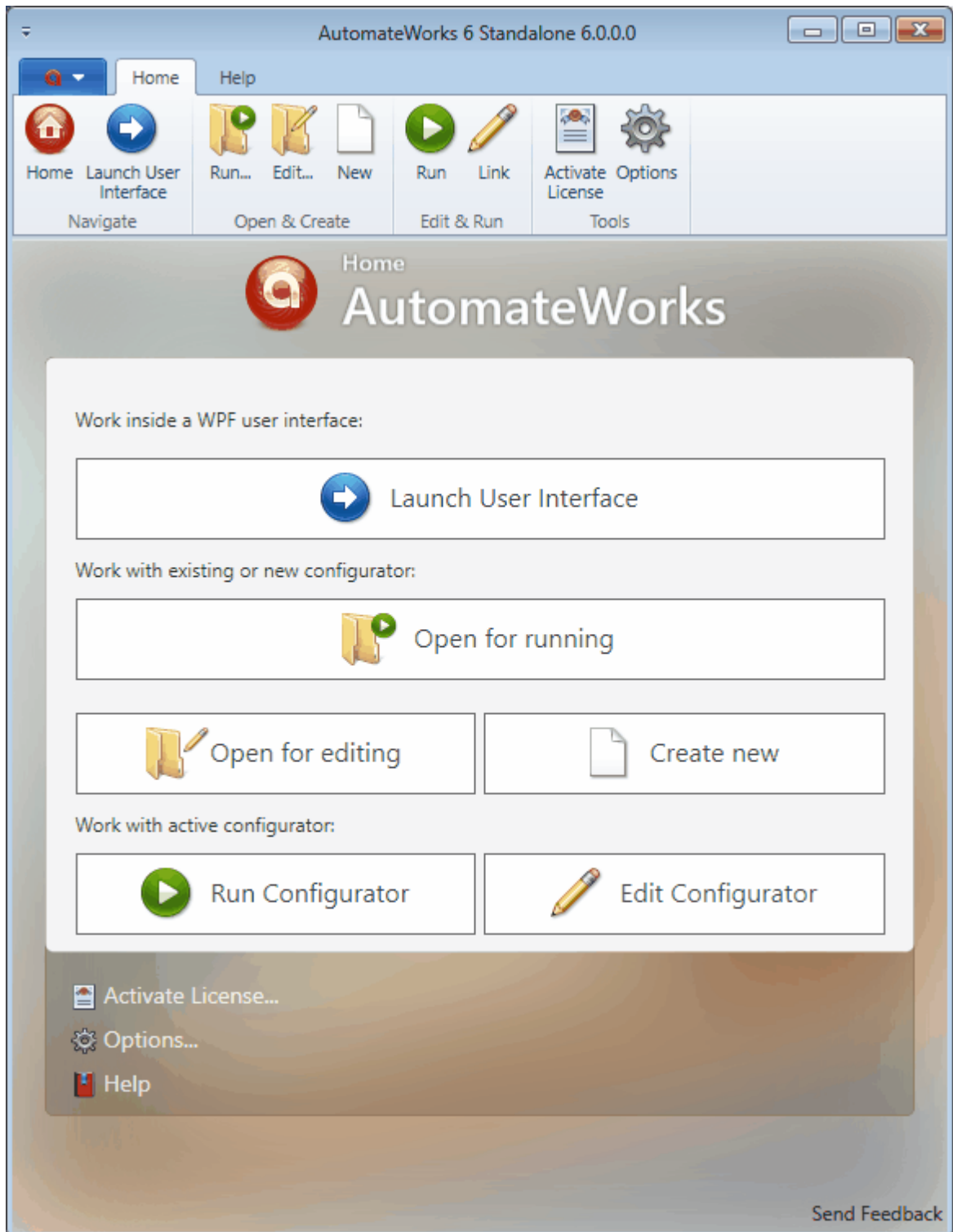
1.6.2 Options

The Options Mode has several options, which can be used to alter how AutomateWorks behaves:

AutomateWorks Settings

- If **Ignore Errors** if turned on, command rows are shown as gray color in Run Mode if a command faild. Otherwise failed commands are shown in red color, which helps in finding errors in your command sheet.
- If **Stop on error** is checked, running configurator stops if any of the commands fail while running the configurator. This can help in finding problems in your configurators.
- If **Do automatic rebuild** is checked, AutomateWorks tries to rebuild documents automatically whenever needed. If you want to control rebuilding manually, you can turn this setting off and use Rebuild command in your command sheet.
- If **Update excel status column**-setting is turned on, the status of each command is written to excel workbook when configurator is running. Turning this setting off increases configurator performance significantly.

Excel Add-In Settings

- If **Run configurator usign SolidWorks add-in** is checked, clicking Run button in Excel toolbar tries to run configurator in SolidWorks Add-In. If SolidWorks is already running, Run mode is activated in SolidWorks Add-In, which leads into better performance. If SolidWorks is not running, configurator is executed using command line application.
- If **Link commands using SolidWorks Add-In** is checked, clicking Link button in Excel toolbar tries to activate Link mode in SolidWorks Add-In. If SolidWorks is not running, **AutomateWorks Standalone** is started and link mode is activated.
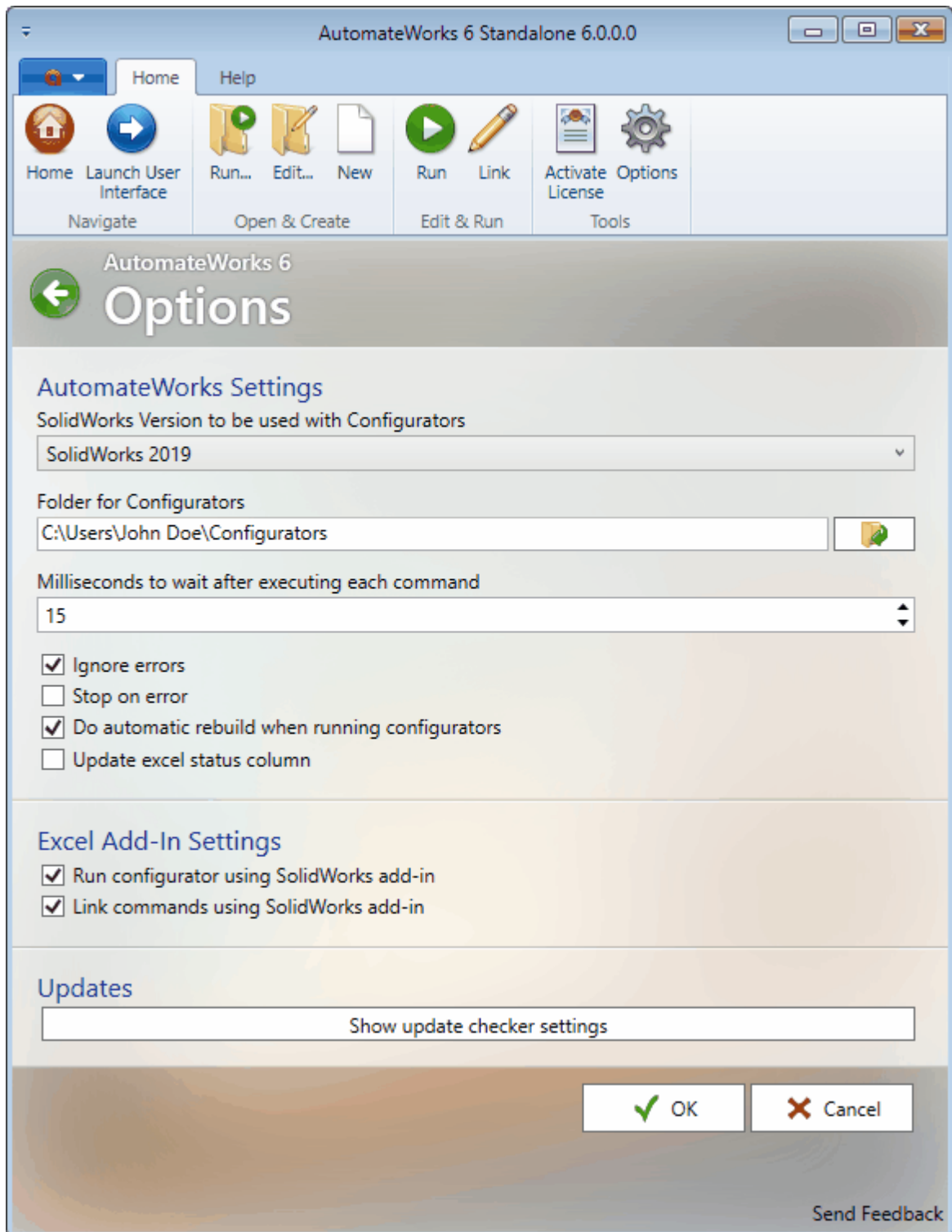
1.6.3 Link Tool

The AutomateWorks Link Tool is now embedded in AutomateWorks user interface. This makes it easier to link eg. dimensions inside SolidWorks Add-In.

- Each command has an intuitive icon and short summary to help recognizing commands.
- Help button can be used to read documentation related to the selected command.
- You can select a command in Excel workbook, change it's settings in Link mode and use **Apply changes** -button to write values back to the command sheet.

- Each command has an editor, which can be used to set command-specific settings.
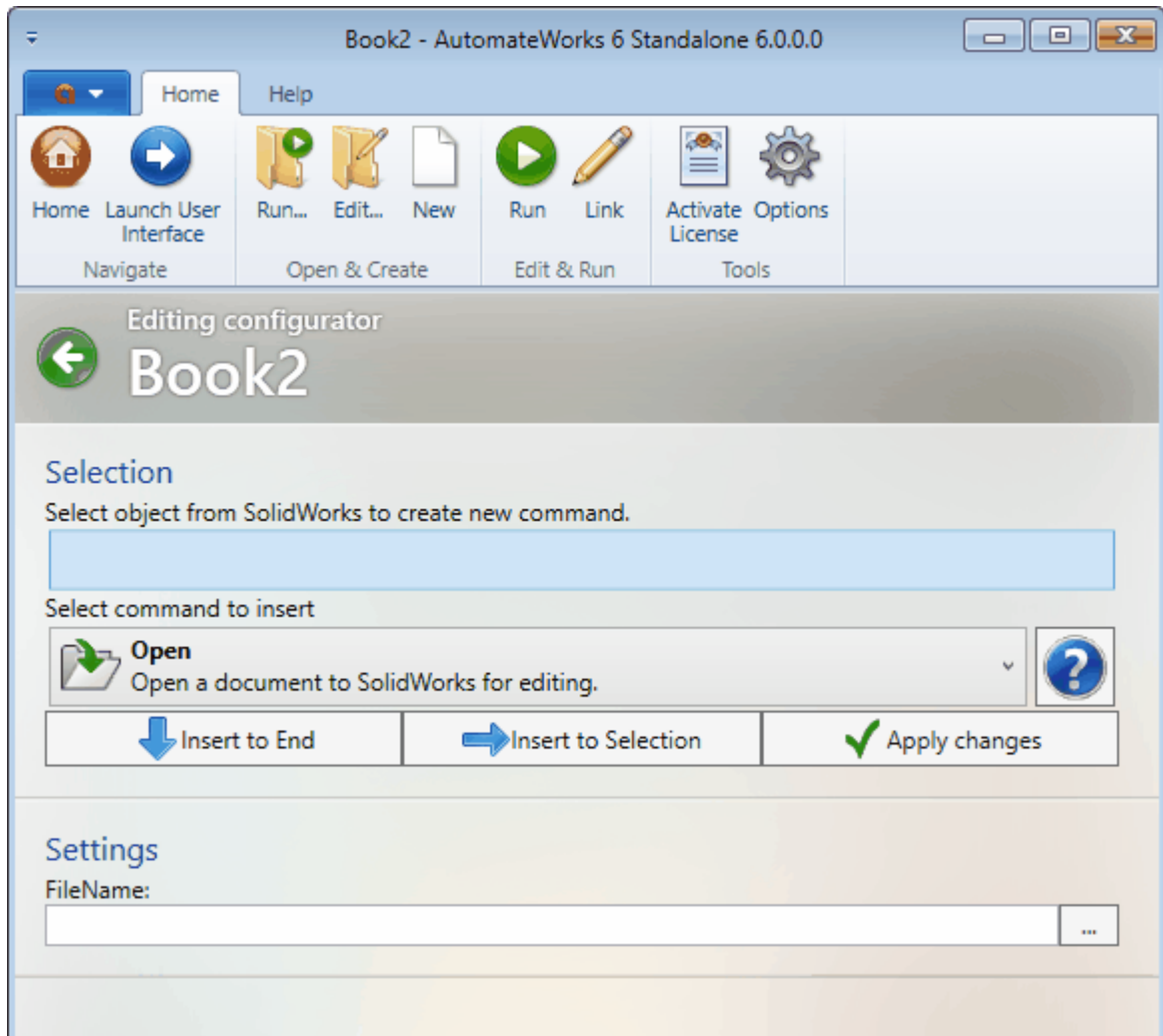
1.6.4 Excel Add-In

Toolbar in Excel Add-in has some minor changes:

- You can click the **Add Command Sheet**-button multiple times. The first time creates the initial command sheet, from which running the configurator starts. This sheet is named **SolidWorks** as usual. You can add multiple command sheets and use eg. the new **Call command** to treat the command sheet as subroutine.
- **Submit Job**-button can be used with the new **AutomateWorks Server** to add a job to a web-based configurator using values in the current excel workbook.
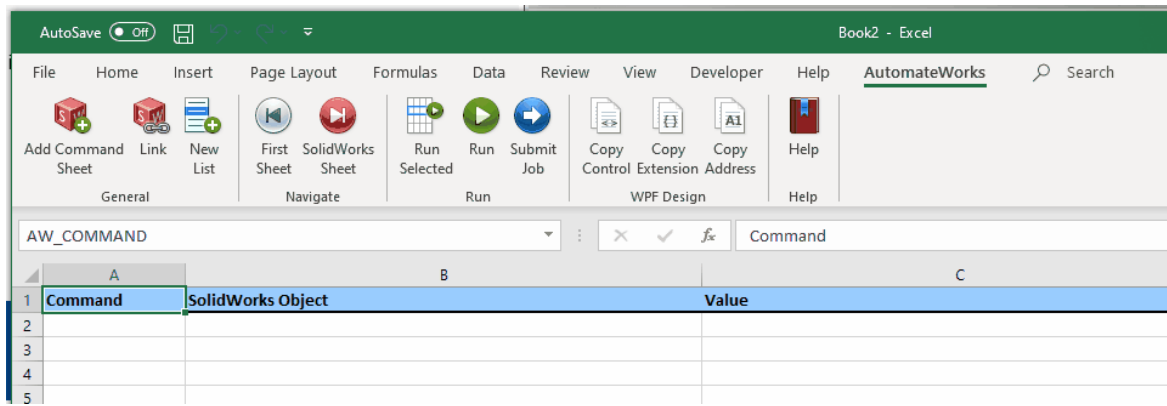
1.6.5 Running Configurator

Configurators can be run using AutomateWorks user interface by clicking the Run button in the home mode.

- In Run mode you can inspect the configurator as it is being executed and after the execution is completed.
- You can use the time columns to measure configurator performance.
- You can select a row in the user interface and jump to the corresponding row in Excel Workbook by selecting **Select in Excel** from the context menu.
- You can re-run a command by selecting **Run** from the context menu.
- You can see command details by selecting **Show properties** from the context menu.
- You can stop and re-run the configurator by using the **Stop** and **Run** buttons.

Note that if you use the Run mode to follow the progress of your configurator, you do not need to write status information to the Status column in the Excel workbook. If you uncheck the **Update status column** command in AutomateWorks options, status information is not written to Excel, which can improve configurator performance significantly.
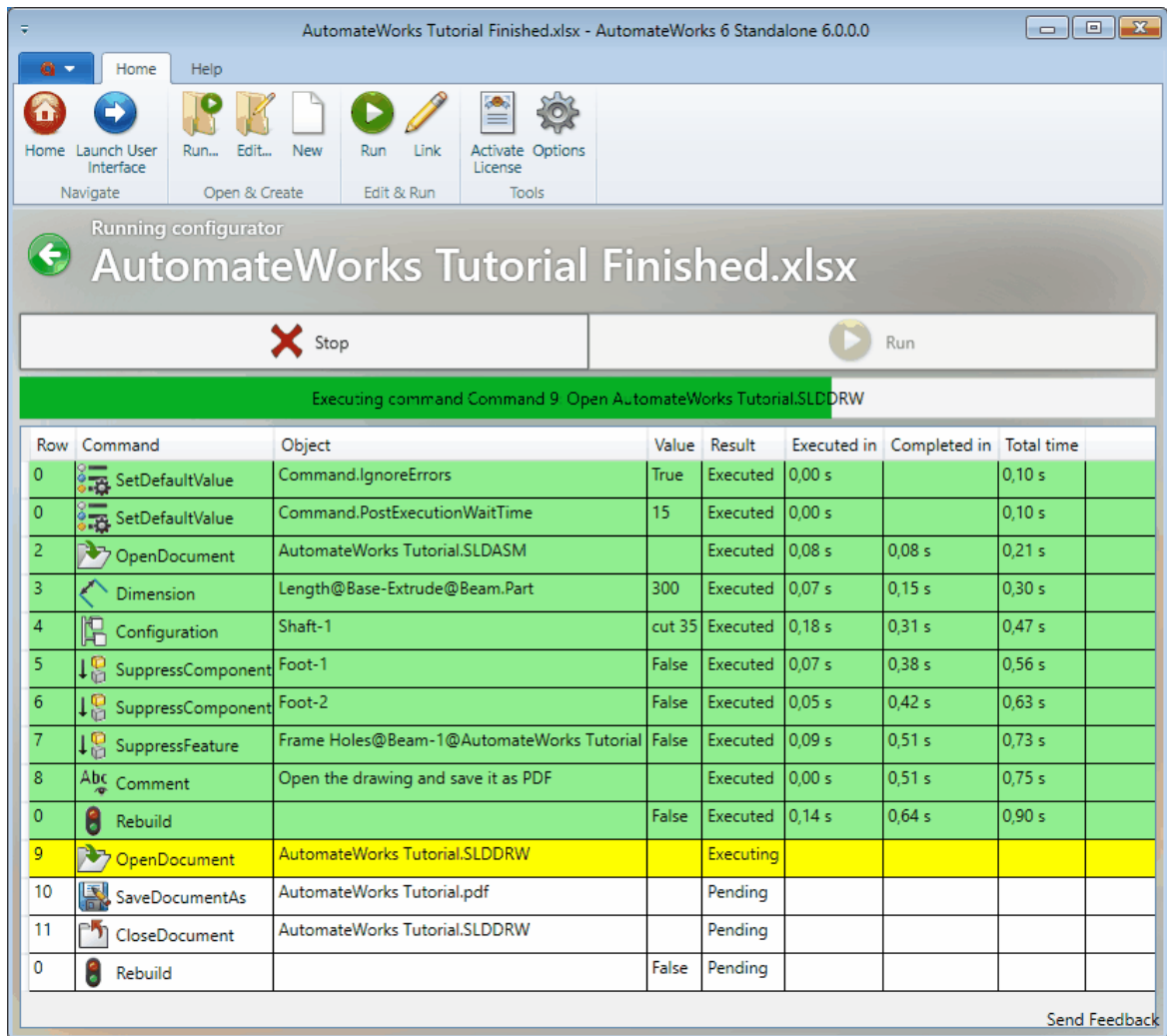
1.6.6 Performance

Overall performance of AutomateWorks 6 is greatly improved, if the configurator is run using SolidWorks Add-In and writing status information to the Excel workbook is disabled in options. Experiments have shown performance being at least 4 to 5 times better when compared to AutomateWorks 4. To improve performance, disable **Update excel status column** in Options and enable "**Run configurator using SolidWorks Add-In**".

1.7 New Commands

AutomateWorks 6 has at least 35 new commands, which can be used in automating your product. You can find the documentation of all AutomateWorks commands in AutomateWorks help. Here is a brief summary of most significant new commands.

1.7.1 Call subroutine

You can use Call command to call a subroutine in your worksheet. Call command acts like regular Goto command by jumping to another location in your configurator. However, when using Call command, you can (and have to) add a corresponding Return command to continue from the next line. You can for example divide your configurator to separate worksheets as as in the example below, and thus simplify your main command sheet to contain only calls to subroutines.

	Command	Object	Value	Status	Comment
1	Command	Object	Value	Status	Comment
2	pdmloginex				
3	setdefault	PdmGetFileversionCopyCommand.PdmPath	Kaappi.SLDASM		
4	PdmGetFileVersionCopy				
5	goto		9		Skip pack&go
6	open	Kaappi.SLDASM			
7	packAndGo		..\Workspace\10000\		
8	close	Kaappi.SLDASM			
9	call	Door			
10	call	Frame			
11	call	Cabinet			
12					

For the subroutine to work correctly, you need to add a Return command to the end of your subroutine, as in the following example.

	A	B	C	D	E
1	Command	Object	Value	Status	Comment
2	Orientation		*Isometric		
3	saveas	Ovi.jpg			
4	UploadFile	Ovi.jpg			
5	saveas	Ovi.easm			
6	run	C:\Temp\EdrwToHtml.exe	"419f7794-e679-46bc-98d3-6ad7f2f5c75c\Ovi.easm" 3000		
7	UploadFile	Ovi.html			
8	return				
9					

1.7.2   Set default value

You can use SetDefault command to set default values for command properties. For example, you could set a default value for "DirectoryName" property in SaveAs command. As a result, each time you use SaveAs command, you would not need to specify directory name, as it has already been set by SetDefault command. You can thus simplify your command sheet so that you don't need to include eg. directory names etc. in your command rows.

Initialize command sheet

You can add separate worksheet in your configurator and give it name **Initialize**, as in the following example. If AutomateWorks finds a command sheet named Initialize in your configurator, it is executed always first, even if you use **Run Selected Rows** -button in Excel toolbar. This can help in defining default settings for commands in a centralized fashion.

If you create an initialization worksheet, you need to end it with Return command to ensure it works correctly.

	A	B	C	D	E	
1	Command	Object	Value	Status	Comment	
2	SetDefault	SaveDocumentAsCommand.IsDisabled	FALSE		Asetustiedostos	
3	SetDefault	SaveDocumentAsCommand.PostExecutionWaitTime	2000			
4	SetDefault	CloseDocumentCommand.IsDisabled	FALSE		Asetustiedostos	
5	SetDefault	DocumentPrefixCommand.DirectoryName	Models			
6	SetDefault	Command.TimeOut	30000			
7	SetDefault	PdmCommand.Vault	TK-Heikki-2			
8	SetDefault	PdmFileCommand.Vault	TK-Heikki-2			
9	SetDefault	PdmFolderCommand.PdmPath	Projektit\10000			
10	SetDefault	PdmLoginCommand.UserName	heikki.leivo			
11	SetDefault	PackAndGoCommand.Prefix	10000_			
12	SetDefault	SaveDocumentAsCommand.DirectoryName	C:\Temp\419f7794-e679-46bc-98d3-6	Asetustiedostos		
13	SetDefault	SaveDocumentAsCommand.CreateDirectory	TRUE			
14	SetDefault	UploadFileCommand.DirectoryName	C:\Temp\419f7794-e679-46bc-98d3-6	Asetustiedostos		
15	SetDefault	PdmGetFileVersionCopyCommand.Refs	TRUE			
16	SetDefault	PdmGetFileVersionCopyCommand.RefsLatestVersion	TRUE			
17	SetDefault	PdmGetFileversionCopyCommand.IsDisabled	FALSE		Asetustiedostos	
18	SetDefault	UploadFileCommand.IsDisabled	FALSE		Asetustiedostos	
19	Return					
20						
21						
22						

Sheet tabs: Laskenta | Oven tyyppi | Jalat | Ovi | SolidWorks | **Initialize** | Door | Frame | Cabinet | Proj

1.7.3　Pack and Go

You can use Pack and Go command to copy your assemblies. You can use prefix or suffix to rename your documents and exclude specific components by using either directory name of list of excluded filenames.
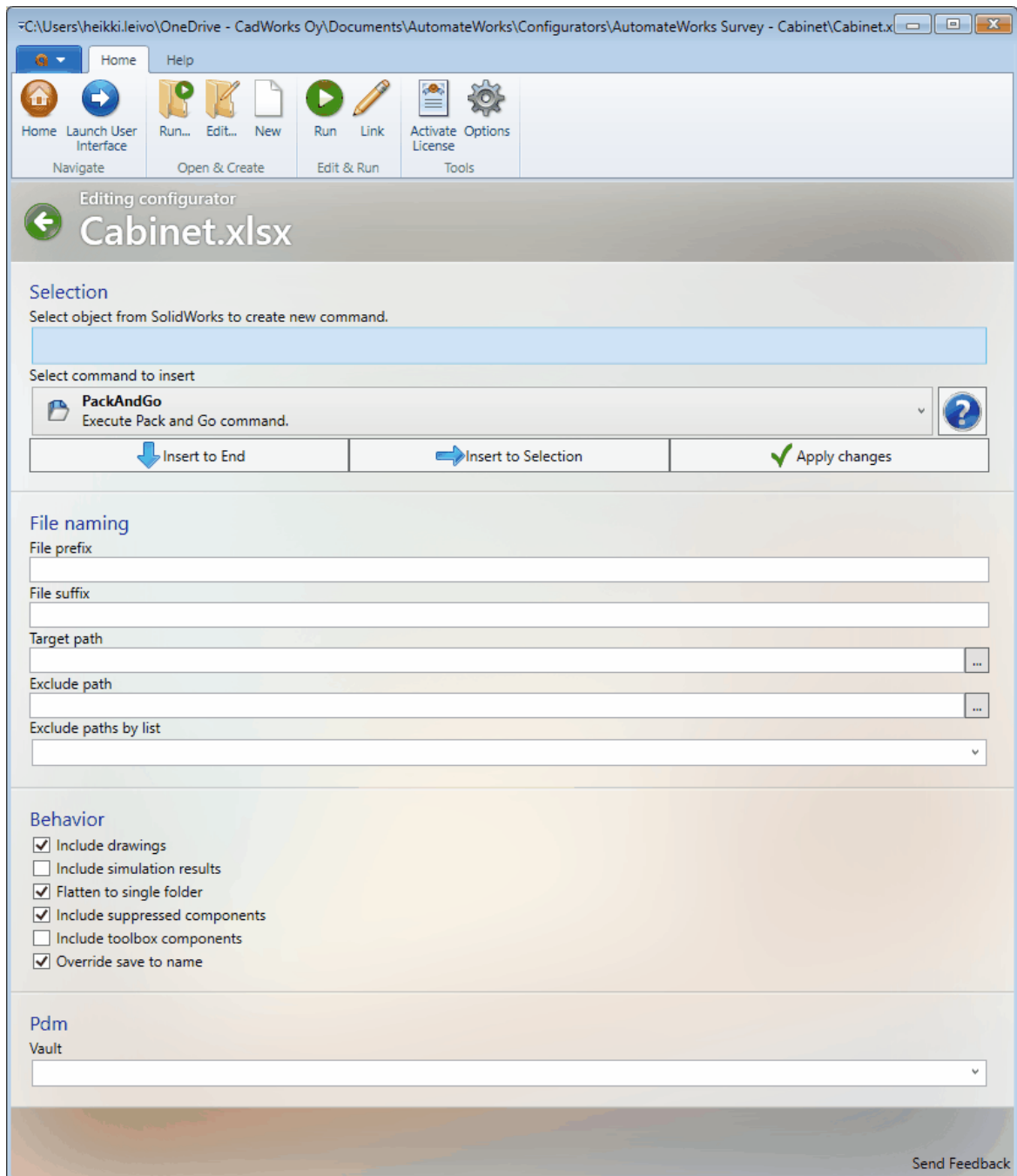
1.7.4 Pdm commands

You can use Pdm commands to manipulate files in your SolidWorks Pdm vault. You can eg. check in and out documents, add new documents to the vault or set file or folder variables. You can work simultaneously with multiple vaults, if you need to eg. have your configurator in one vault and export result documents into another vault.

1.7.5 SetRangeVAlue

You can manipulate Excel workbook contents using SetRangeValue command. This makes it possible to eg. call subroutines with arguments or to create counters for loops. It is recommended to use named cells in excel when using SetRangeValue command for clarity.

19	goto		26	
20	Open	Vasen ovi.SLDASM		
21	setrangevalue	DrawingName	Vasen ovi	
22	call	ExportJpg		
23	attribute	Description2	1 ovi oik., Salpa	
24	setrangevalue	DrawingName	Vasen ovi	
25	call	ExportDrawing		
26	goto		27	
27	Open	Oikea ovi.SLDASM		

1.8   Using AutomateWorks Server

AutomateWorks Server has been improved significantly in AutomateWorks 6. Previously AutomateWorks Server was a tool intended to run configurators using text files as input. In AutomateWorks 6, the AutomateWorks Server is now a web portal, which makes it possible to run configurators using web-based user interfaces. To use new AutomateWorks Server, you need to purchase a license for AutomateWorks Worker and create an user account to **AutomateWorks web portal**.

If you want to try using AutomateWorks Server and Worker, please contact us and request a trial license for AutomateWorks Worker.

1.8.1   AutomateWorks Server Portal

AutomateWorks Server is web portal in which you can run your AutomateWorks configurator remotely. You can access AutomateWorks Server by using web browser either on your workstation on mobile device. To run configurators, you need to have one or more AutomateWorks Workers running in your environment.

By using AutomateWorks Server portal you can create a form for creating jobs for your configurator. Each new job is added to job queue, and the jobs are executed by an AutomateWorks Worker running in your environment.

Create a new job for configurator Cabinet:

Customer

Customer 1

Project

10000

Door type*

1 door opening to right ▼

Door handles*
○ Handle
◉ Latch

Wheels*
○ Furniture wheels
◉ Leveling feet

Height

500.00000

300.00 - 2000.00

Width

500.00000

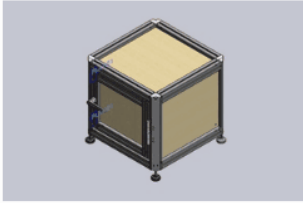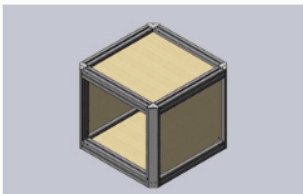300.00 - 2000.00

Depth

500.00000

300.00 - 1500.00

[Save]   [Cancel]

When running a configurator using AutomateWorks Worker, you can use Upload command to upload files to the AutomateWorks portal. You can then view and download the files using web browser. This is very useful if you want eg. a salesperson to be able to run configurators and to create quotes for your customers.

1.8.2 AutomateWorks Worker

AutomateWorks Worker is a software robot, which can be used with AutomateWorks Server to run configurators remotely. The basic idea is that the AutomateWorks Worker runs in the environment and network of your organization. Thus your configurators and business logic stays in safe environment in your local network. You can use AutomateWorks Server portal to run your configurators remotely, but the portal itself has minimal information about your business logic. Therefore security is not compromised.
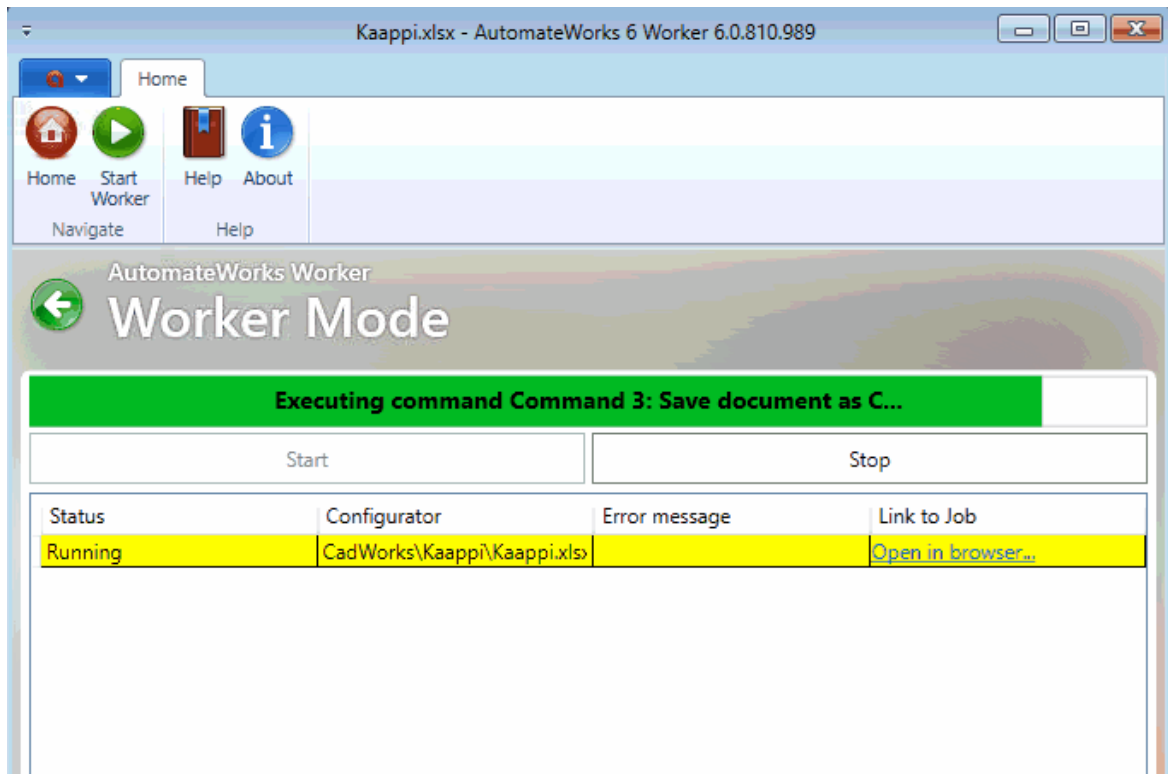
1.8.3 AutomateWorks Server Api

You can use the application programming interface (API) of AutomateWorks Server to control your configurators remotely. You can easily connect 3rd party tools, such as CPQ softwares, external websites etc. to AutomateWorks Server. For details read the AutomateWorks Server API documentation.