OmniView

User Manual

apsware

v8.0 rev20230920

Table of Contents

1 Compatibility

OmniView is compatible with the following operating systems:

- Windows 11
- Windows 10
- Windows Server 2022
- Windows Server 2019
- Windows Server 2016

OmniView is compatible with the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9
- Version 8
- Version 6

The WorkFlow activities module of OmniView is compatible with the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9
- Version 8

Schedule objects are supported for the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9 SP3

Statistic objects are supported for the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9 SP3

Calendar objects are supported for the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9 SP3

Gantt-, Start End Time-, Duration-, Frequency- and Status Pie Graphs charts are supported for the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9 SP3

Direct Automic DLL communication is supported for the following Automation Engine versions:

- Version 21
- Version 12.3
- Version 12.2
- Version 12.1
- Version 12
- Version 11.2
- Version 11.1
- Version 10
- Version 9 SP3

Functions available for Direct Automic DLL communication only:

- Automatic refresh of activity Flowcharts
- Automation Engine V21 support (TLS, for versions 21.0.4 and higher see important note in chapter 4.1 section 5)
- Enhanced filter options for definition and activity list

- System Info
- DOCU objects
- EVNT object as start type for visualisation
- Check for use as external object
- Auto reload of activity list
- Advanced Search
- Messages

2 Introduction

Important Note:

Any new installation of OmniView and any upgrade from a previous version to this version of OmniView needs to be thoroughly tested by the user in a test environment before use in a production environment.
It is clearly understood by the user that OmniView is a system designed to assist the user to analyse workflows. Decisions should not be made based on information obtained by OmniView alone; all other possible sources of information outside OmniView need to be considered in addition, before making a decision.

OmniView offers enhanced flow-charting, printing and graphical output capabilities of workflow definitions. Both technical and business users can visualise and more easily understand workflows, sub-flows and their included objects (jobs) in a hierarchical view within a clear and concise structure.

2.1 Key Features

OmniView provides the following features:

- Consolidated online viewing of Schedules, workflows and sub-flows
- Support of all Windows compatible printers and plotters
- Multiple windows for viewing multiple Automation Engines
- Multiple windows for viewing a single Automation Engine
- Output to graphical image formats
- Support of PDF output
- Intelligent print capabilities
- Ability to work connected or offline to Automation Engine

2.1.1 Consolidated view of Schedules, workflows and sub-workflows

Schedules, workflows and sub-flows can be visualised in one consolidated flowchart. Complex relationships between processes are presented in an easily understandable, interactive flowchart. Schedules, workflows and sub-flows are clustered and can be collapsed or expanded. The focus of flowcharts can be as narrow as individual objects (jobs, scripts, etc.) or more broadly across multiple workflows.

2.1.2 Output to Graphical Image Formats

Any workflow visualisation can be exported out of OmniView into several supported image formats (e.g. PNG, GIF, JPEG, TIFF, BMP, WMF, EMF and EMF+). No third-party software is

required. Almost all image formats supported by OmniView can be viewed on any standard desktop workstation.

2.1.3 Intelligent Print Capabilities

Any workflow can also be printed to any Windows compatible printer or plotter. OmniView comes with its own intelligent print facility. When printing, users have several options for scaling the print output or specifying the layout of the pages. To save ink, the cluster background can be set to transparent or shaded drawing styles.
Users can also use the print facility to generate PDF documentation through the print facility using Adobe Acrobat or any available PDF writer.

2.1.4 Ability to work connected or Offline to Automation Engine

OmniView has the capability to work directly connected to the Automation Engine or offline based on a point-in-time repository of the workflows. Working directly connected to the Automation Engine allows users to refresh the workflows on demand. Working offline allows users to utilise OmniView functions independent of the Automation Engine (for further information, please see section 9).

2.2 Key Benefits

OmniView provides the following key benefits:

- Better understanding of your workflows
- Easier recognition of errors and better error diagnostics
- Gain visibility and insight into workflows
- Better document the business processes that Automic supports
- Support of PDF output
- Facilitate accurate communications between interrelated departments

3 Installation

Installation of OmniView is accomplished via a standard Windows install wizard. Prior to the installation there are some prerequisites that must be performed.

Pre-Installation CheckList

Prior to installing OmniView review the check list below and ensure that all prerequisites are met.

#	DESCRIPTION
1	For the activation of OmniView a “OmniView.lic” file must be obtained from Automic first (see section 3.5).
2	Microsoft .NET run-time environment must be installed on the PC where OmniView will be installed. Minimum version is 3.5.1.
3	Java Runtime Environment (JRE) must be installed. This is installed by default with the Automation Engine Java User Interface. Minimum version is 1.7.15 when using legacy, non API DLL communication.
4	The path to the Java executable ‘java.exe’ within the JRE will be required during the installation process / first sign-on.
5	An output directory for XML API transport files generated by the Automation Engine System is required during the installation process / first sign-on.
6	An output directory for export files generated by OmniView is required during the installation process / first sign-on.
7	The Automation Engine IP Address or DNS and Port number are required during the installation process / first sign-on.

Upgrading until Version 4:

If you have already installed an older version of OmniView, please uninstall this old version before installing the new one. Also keep a backup of the license file “OmniView.lic” from your installation directory before uninstalling. Then copy it back to the installation directory after the installation has finished.

Upgrading to Version 4 and later:

Any license file received prior to version 4 is incompatible with version 4. So when upgrading from any older Version to Version 4 you must request a new license file.

3.1 Installation Process

To start the installation process, execute 'OmniView.msi' or 'Setup.exe' from the downloaded installation package. This will invoke the OmniView installation wizard. The following dialog screens will be displayed:

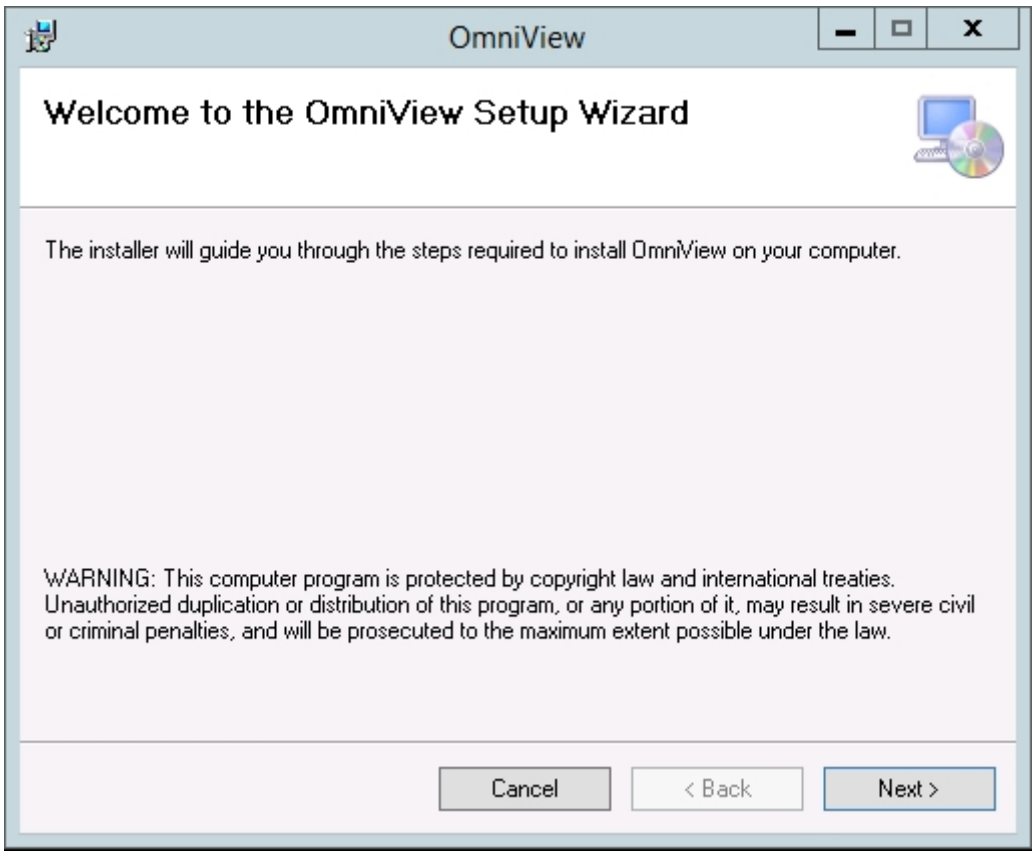


Figure 1 - Installation Screen 1 : Welcome

Click Next to continue the installation process.

FIELD	DESCRIPTION
Installation Folder	The installation folder where the OmniView program files will be installed. The installation folder can be any directory; however, to utilise the integrated “Send To” function within the Automation Engine Java User Interface (see section 7) the installation path should be within a sub-folder of the Automation Engine Client directory (e.g. C:\Automic\) and may not contain any white-space characters. This sub-directory should be created by the installer (e.g. OmniView). Each user must have READ/WRITE access to the specified folder and files

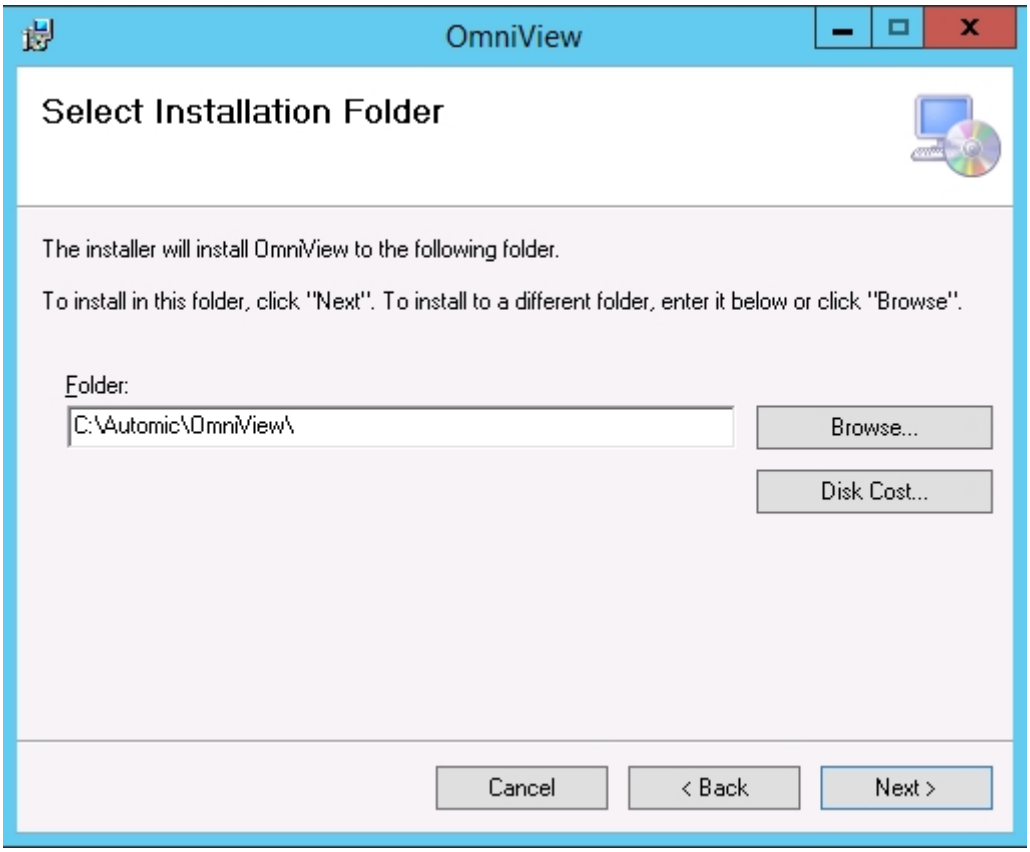


Figure 2 - Installation Screen 2 : Select Installation Folder

Click Next to confirm and start the installation process.

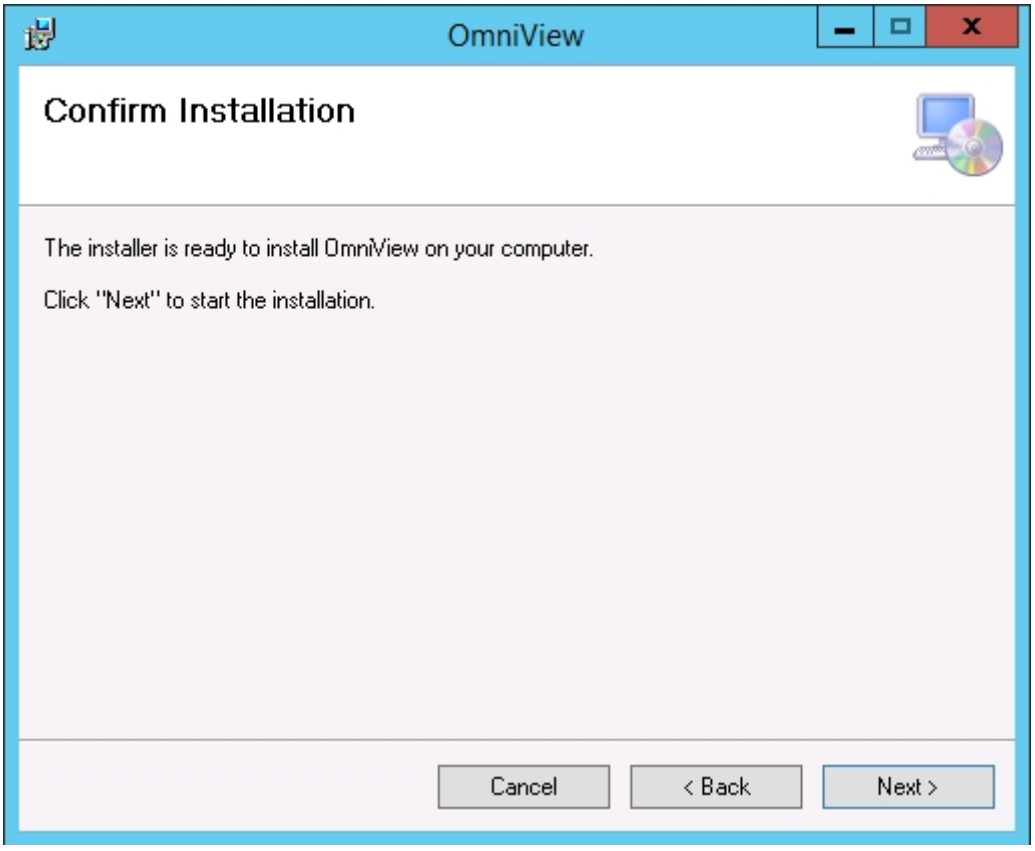


Figure 3 - Installation Screen 3 : Confirm

After all files has been transferred to the installation folder, OmniView has been successfully installed. Click Close to exit the installation process.

Hint:

Please check the file and share permissions for read and write permissions for the installation folder and adjust them if necessary so that access is guaranteed for all users.

3.2 Installation on a Server / NAS Device

These steps describe how to install OmniView in a Windows environment on a Server or NAS device using a single, centralised license file. In the example below the NAS Server name is 'Storage' and the name of the computer the installation process has been initiated from is 'PC01'. Please replace these sample names with the actual name of your NAS device and the Windows machine you are installing OmniView from.

Please, execute following steps in order as described below:

STEP	DESCRIPTION
01	On the NAS Server: • create the directory 'OmniView' • set the network share and user rights for the directory 'OmniView' so all potential users who should be able to access OmniView will have 'read/write' access to this folder and its sub-folders
02	On the computer where you installed OmniView ('PC01'): Check if the share '\\storage\OmniView' on the Server / NAS is visible and accessible over the network.
03	On the computer where you installed OmniView ('PC01'): start the 'OmniView.msi' or 'Setup.exe' to initiate the installation process as described above and follow the instructions below:
04	Installation process adjustments: From dialog 'Choose Destination Location' click the 'Browse' button
05	Installation process adjustments: From dialog 'Select Destination Directory' choose the previously defined network share, e.g. '\\storage\OmniView' and click the OK button.
06	On the computer where you installed OmniView ('PC01'): After successful installation, please check if the directories on the defined network drive, e.g. '\\storage\OmniView', exist.
07	The following adjustments have to be made on the NAS Server: • go to the folder and open the file 'OmniView.exe.config' with an editor

	• edit the value of the 'LicPath' – Setting according the path to your license file of the installation, e.g. <setting name="licPath" serializeAs="String"> <value>\\STORAGE\OmniView</value> </setting>
08	Adjustments and special considerations to run OmniView batch processes in an environment with NAS device: First, all batch processes need to be started from a client with a user having full access rights to the shared OmniView folders on the NAS device. Secondly, the .bat file needs to be customised as described in the example below. The example refers to file 'OmniView.bat' located in the folder \ \STORAGE\OmniView on the NAS device. Open the file 'OmniView.bat' with an editor and replace 'pushd "%~dp0"' entry with 'pushd "\\Storage\OmniView'.

3.3 Special Security consideration

For security reasons, write-able files can be separated from the OmniView installation folder by changing the configuration file manually.

PATH - PARAMETER	DESCRIPTION
Logfiles	<setting name="logFilePath" serializeAs="String"> <value /> </setting>

PATH - PARAMETER	CONFIG USER SETTINGS SECTION	FILENAME
Licensefile	<setting name="licPath" serializeAs="String"> <value /> </setting>	OmniView.lic
Resolve Variable file	<setting name="resVarFilePath" serializeAs="String"> <value /> </setting>	ResVarList.xml
TreeView Filter file	<setting name="filterFilePath" serializeAs="String"> <value /> </setting>	WorkFlowFilter

AE Connection definition file	<setting name="connectionFilePath" serializeAs="String"> <value /> </setting>	UC4Connections.xml

To change a value from default, empty Value (<value />) to a user defined one, please use the syntax shown here:

<value>\\STORAGE\OmniView</value>

WARNING:

Improper changes of the XML structure can result in unexpected and erroneous behaviour of OmniView. Always perform a backup before changing the config file.

Hint:

The template files have to be copied into the appropriate folders manually.

Activating OmniView

After the installation process has completed, the OmniView icon will be placed on your PC Desktop:

Figure 4 - Omniview Icon

Additionally, there are OmniView entries generated in the Windows Start Menu:

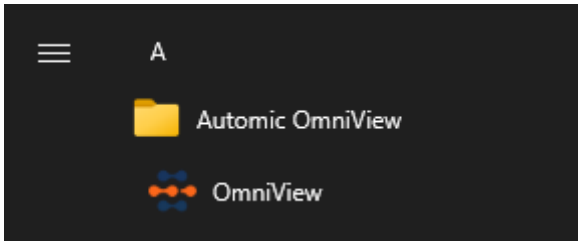


Figure 5 - OmniView Start Menu

In order to activate OmniView, copy the file “OmniView.lic" into your installation folder. If you do not have a “OmniView.lic" License file, following message will appear:

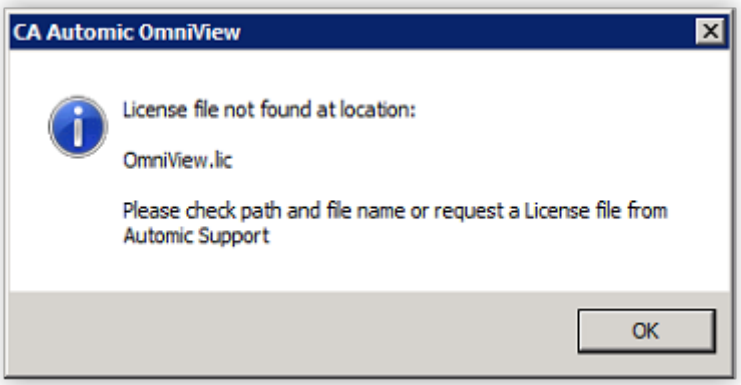


Figure 6 - Licence Message

At the end of a OmniView trial period there will be a request for activation as well.

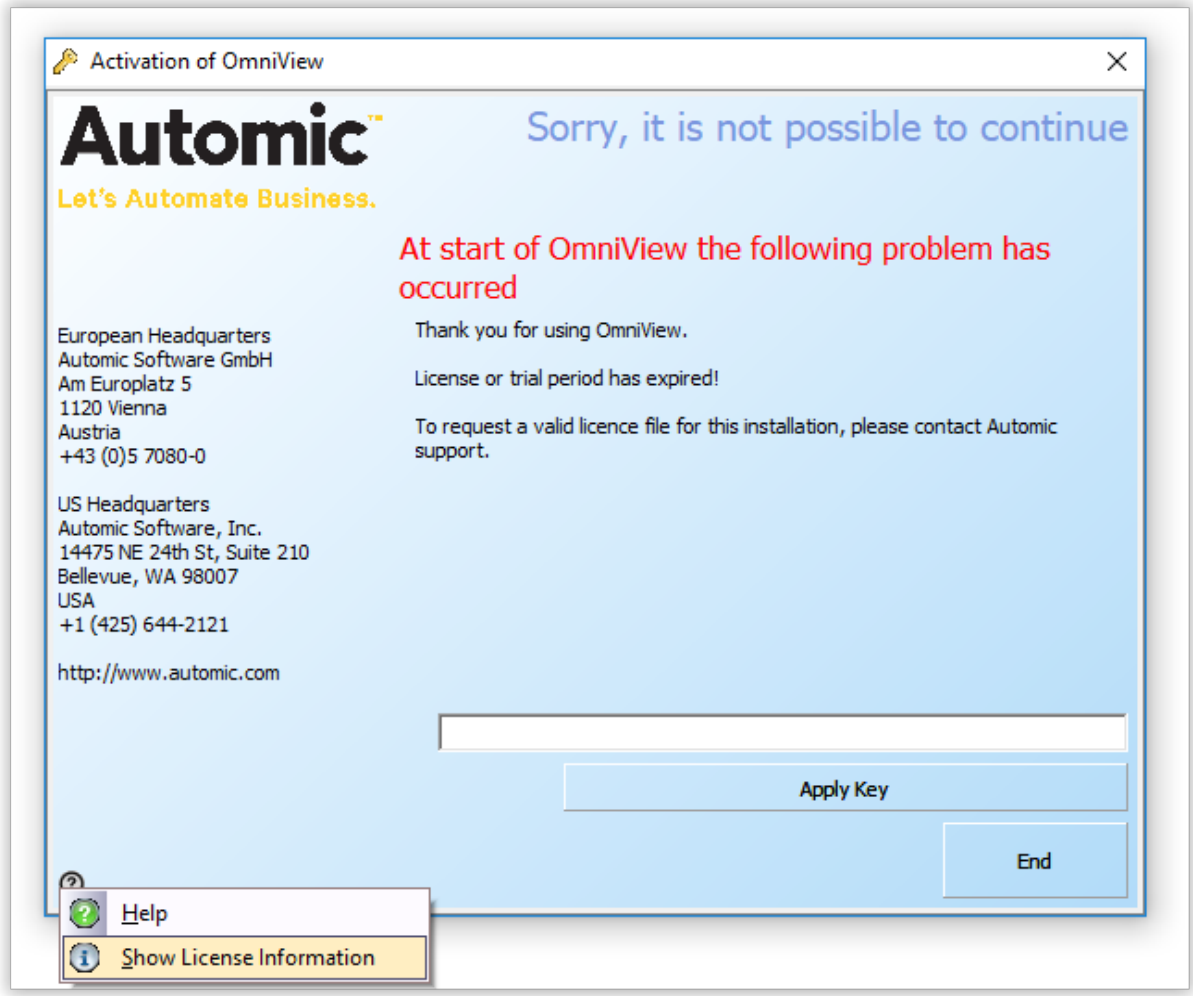


Figure 7 - Activation of OmniView

In both cases, please contact Automic support to obtain a valid license file or see Chapter 8.3 for further information.

4 Interface Overview

The following sections detail the sign-on process and a general overview of the working areas of the OmniView GUI interface.

4.1 First Start and Sign on

To sign on to OmniView, double-click the OmniView icon on your desktop or start OmniView via Windows Start Menu.
If no previous version of OmniView is installed, the dialog for the communication parameter and settings is displayed:

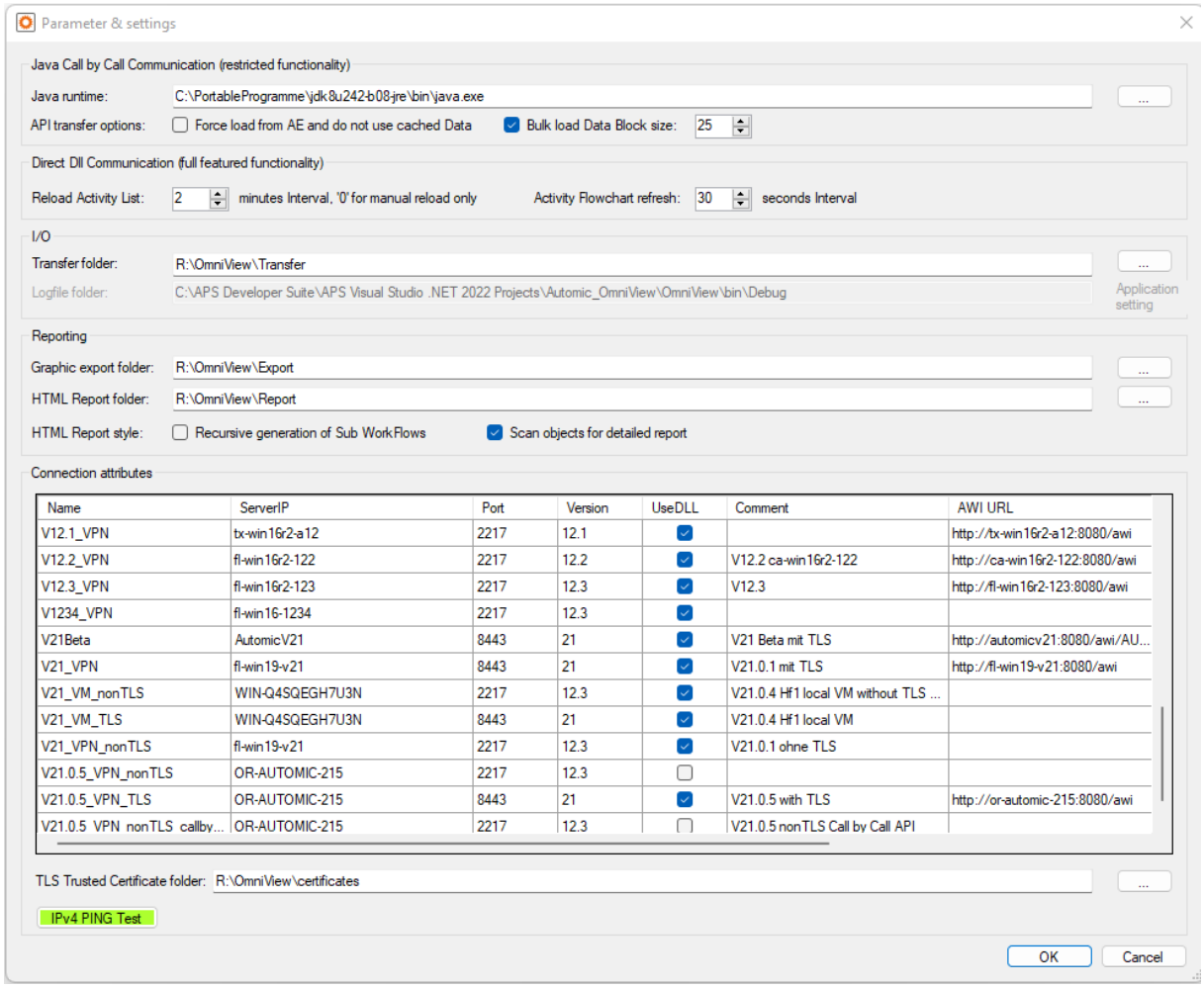


Figure 8 - Communication Parameter & Settings

Please enter the appropriate values for the global settings first.

Section 1: Java Call Communication (for backward compatibility prior to AE System Version 9SP3)

FIELD	DESCRIPTION
Java runtime	The fully qualified path to the JRE executable ‘java.exe’ (make sure not to use 'javaw.exe')
API transfer options	
Force load from AE and do not use cached Data	Force load set to 'True' sends WorkFlow XML files from Automation Engine every time (this may result in slower performance) otherwise primary requested WorkFlow XML files are reused (improved performance)
Bulk load data block size	Set to 'True' tries to request the specified number of objects per call from Automation Engine (less load of PWP, improved performance)

Section 2: Direct DLL Communication (preferred communication with AE System from Version 9SP3 onwards)

FIELD	DESCRIPTION
Reload Activity list	Interval, value in minutes, for automatic reload. Enter '0' for manual reload of list.
Activity Flowchart refresh	Interval, value in seconds, with a minimum of 20 seconds for automatic refresh.

Section 3: I/O Section

FIELD	DESCRIPTION
Transfer folder	User defined location to be used for the storage of transfer files generated by OmniView.
Logfile folder	User defined location to be used for the storage of logfile written by OmniView (view only). As an application setting, it must be set in the OmniView.config

Section 4: Reporting Section

FIELD	DESCRIPTION
Graphic export folder	User defined location to be used for the storage of export files generated by OmniView.
HTML Report folder	User defined location for HTML Report files.

HTML Report style	
Recursive generation of Sub WorkFlows	When activated, all levels of Sub-WorkFlows will be included in the HTML Report generation.
Scan objects for detailed report	When activated, all objects will be scanned for attributes and parameters

Section 5: Connection Attributes Section

FIELD	DESCRIPTION
Name	The name of the connection
Server IP	The IP Address or DNS of the Automation Engine.
Port	The port that Automation Engine is listening on (2217 by default).
Version	The (major) version of the Automation Engine, select Version 6, 8, 9, 10, 11.1, 11.2, 12, 12.1, 12.2, 12.3 or 21.
Use DLL	Mark to use the direct DLL communication, unmark will use java call communication to Automation Engine.
Comment	Free text for hints, will be displayed as connection element tool-tip in the Logon Dialog.
AWI URL	URL for accessing the associated Automic Web Interface
Dialog Client	Fully qualified path to potential Java Interface (prior AE version 12)

TLS Trusted Certificate folder: From Version 21 onward the use of transport layer security (TLS) is mandatory for accessing the Automation Engine. The certificates used are taken from here. For further information see Automation Engine documentation.

Important Note :

Starting with version V21.0.4 the automic DLL version is not supported due to Java runtime incompatibilities, therefore as workaround the non TLS connection to a CP server via port 2217 is used (normally). For this, however, the 12.3 must be used as version in the connection definition.

For every Automation Engine

you would like to connect to please enter the appropriate values in the following fields and click OK. Please test each connection with the IPv4 ping Test button (send a 'ping' to the IP V4 address) to ensure the Automation Engine is reachable on the network.

Hint:

The IPv4 ping Test is a tool used to test whether a particular host is reachable across an IP network only. It does not try to reach or communicate with the Automation Engine. You may change these parameters later or at any time during run-time.

After that the OmniView sign-on screen will appear:

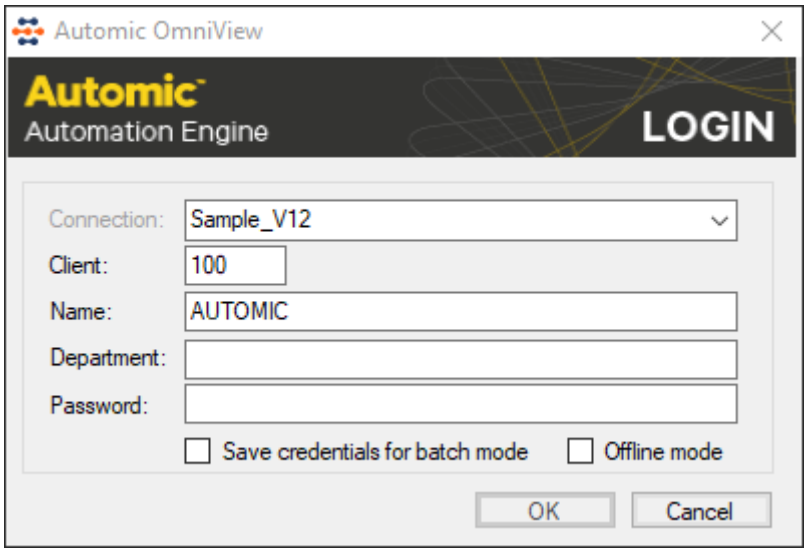


Figure 9 - Sign-On Screen

The following fields are displayed:

FIELD	DESCRIPTION
Connection	Name of the Automation Engine that OmniView will communicate with. A meaningful hint can be shown as a tool-tip when hovering over the connection field.
Client	The Automation Engine Client to be used.
Name	The user name for the specified client.
Department	Department for the specified client
Password	The password for the specified client.

Enter the requested information and click OK. Every time you start OmniView you will be prompted for it again. If you would like to use these credentials for batch mode, please activate the appropriate check-box. Then credentials are stored in a secured file used in batch mode automating user interaction. The file is named as a combination of connection and client name. Only one connection can be used for the batch mode at a time. If you do not want to work online with the Automation Engine System and would rather use WorkFlow files stored locally, please check the Offline mode.

4.2 Interface Overview

For each active connection, the OmniView interface adheres to the standardised format of Windows applications, at least one tabbed window will be shown. It consists of a title bar,

menu bar, tool bar, display area and the status bar and includes three freely arrange-able views or windows. These views are the ListView of available Automation Engine objects for visualisation (see 4.2.3), the FlowchartView for selected and loaded graphical representation of objects (see 4.2.4) and the TreeView for details (see 4.2.5). The FlowchartView and the TreeView are dependent on each other.

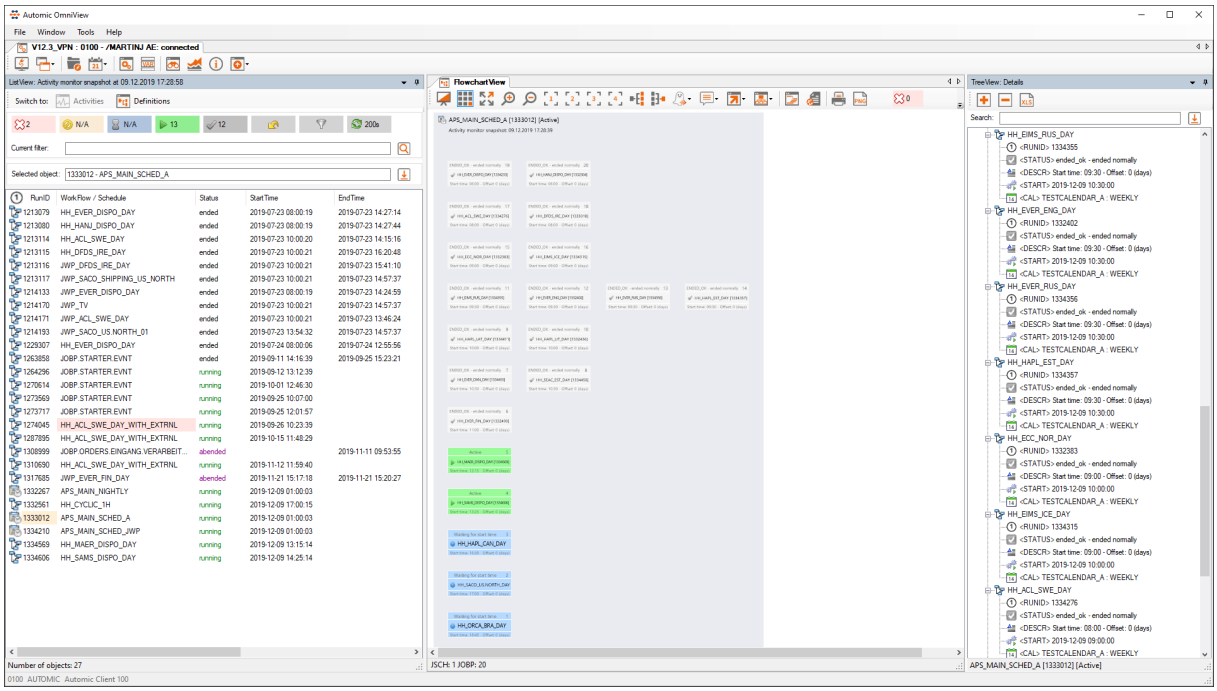


Figure 10 - FlowchartView

The table below describes the areas of the interface:

#	NAME	DESCRIPTION
1	Title Bar	Displays the OmniView icon and name.
2	Menu Bar	Provides access to most functions of OmniView.
3	Tool Bar	Provides access to most used functions of OmniView by icon.
4	ListView: WorkFlow / Schedules overview	Lists the WorkFlows and Schedule objects within the connected Automation Engine. Using Direct DLL communication there are DOCU and EVNT listings available.
5	FlowchartView	The main graphical display area that contains the interactive flowcharts.
6	TreeView / WorkFlow details	Lists additional information of WorkFlows currently active in the Flowchart View.
7	Status Bar	Displays various OmniView messages.

Once successfully signed-on, OmniView will automatically connect to the Automation Engine and generate a list of all WorkFlows within the OmniView ListView. In Offline mode the ListView will not be available.

4.2.1 Main menu bar

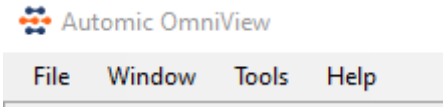


Figure 11 - Main menu bar Overview

The below table describes the areas of the menu bar:

NAME	SUB-MENU	DESCRIPTION
File	Exit	Leave OmniView
Window	New connection	Creates a new window based on provided connection and credential information
Tools	Settings Log file Extract XML Export file	Communication settings dialog Open Logfile Viewer window Open Extract Tool dialog
Help	User guide AE Web guide	Displays this document Displays the Automation Engine documentation from web URL, as defined in the OmniView config file: <setting name="automicWebGuideUrl" serializeAs="String"> <value>http://docs.automic.com/documentation/AE/11.0/english/ AE_WEBHELP/help.htm</value> </setting>
	License Viewer	Displays the License Viewer Dialog with copyright, support and version information
	About	Display the About Box, see Chapter 8.4

4.2.2 Toolbar

For each open connection, the Toolbar groups main functions for quick and easy use.

Figure 12 - Toolbar Overview

The table below describes the areas of the toolbar:

#	NAME	DESCRIPTION
	Working mode	Toggle WorkFlow definition / activities overview, visible and active depending on installed license.

	Views lay-outing	View layout persistence, see hint views lay-outing below
	Open File	Open file dialog for offline viewing.
	Calendar	Get Calendar list from Automation Engine and display items in a drop down list (Online mode only).
	Parameter & settings: Flowchart View	Parameter dialog (see section 5.1.1 for details)
	Variable Dialog	In case activate object uses variables as object names, these variables can be substituted for visualisation. The Variable Dialog handles this mapping.
	Advances Search	Advanced Search, see Section 4.2.1 for details
	System Info	Show System Info, see Section 4.2.13 for details
	Messages	Messages, see Section 4.2.15 for details
	External application	Applications to start: apsware Advisor, Automic Web Interface or Automic Dialog Client

Hint: Views lay-outing

An OmniView connection has three main views, ListView, FlowchartView and TreeView. Each view can be docked or stacked at any side of the main window. The views may be visible at all times (pinned) or having the 'auto hide' property set, they will be shown only while the mouse pointer hovers or focuses them.

The layout of views can be controlled by the following menu entries:

- Default layout
- Load layout
- Save layout

The actual view arrangement can be saved and loaded. The view arrangement will be restored next time OmniView will be loaded as well.
As a default layout the ListView is docked at the left side, Flowchart View is centered and the TreeView is docked at the right side of the main window.
This can be invoked by the Default layout menu entry at any time.

4.2.3 ListView - Schedule/WorkFlow overview

The ListView provides two operational modes, the activities mode or the Definitions mode. The following buttons are to be used for selecting a mode:

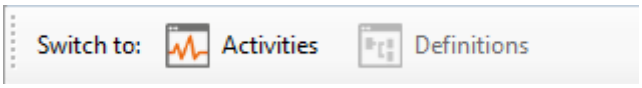


Figure 13 - Switch Activities and Definitions

Depending on the WorkFlow definitions or activities mode there are two types of Quickfilter bars available.

For the WorkFlow Definition mode the filters are focused on object types:

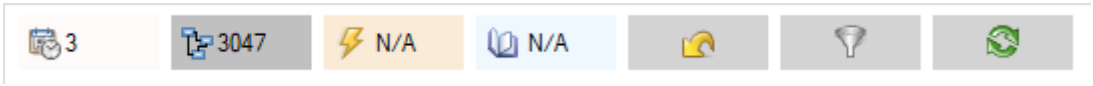


Figure 14 - Toolbar Overview

FILTER	DESCRIPTION
1	Schedules only, AE Type JSCH
2	WorkFlows only, AE Type JOBP
3	Events only, AE Type EVNT. Direct DLL communication only.
4	Documentation Objects only, AE Type DOCU. Direct DLL communication only
5	Reset all filter
6	Open Filterdialog
7	ReloadListView

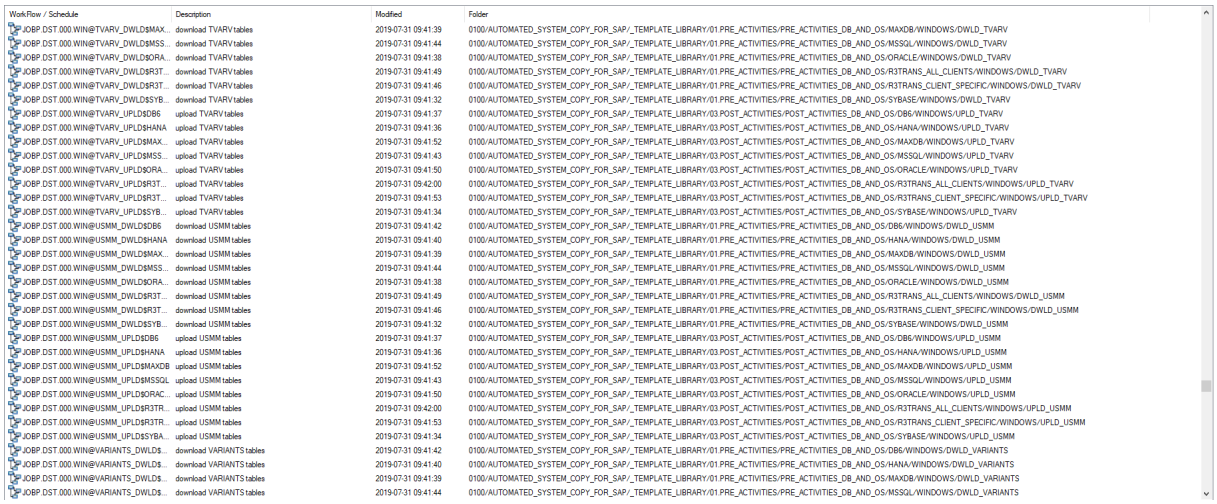
For Activities mode the filters are focused on the status of objects.

Figure 15 - Activitiesmode Quickfilter

FILTER	STATUS DESCRIPTION
1	NOTOK
2	BLOCKING
3	WAITING
4	RUNNING/ACTIV
5	ENDED
6	RESET ALL FILTER
7	Open FILTERDIALOG
8	Reload LISTVIEW

The ListView – Schedule/WorkFlow overview lists the WorkFlows and Schedule objects within the connected Automation Engine. Depending on Automation Engine rights, privileges of the user logged on or filter used, not all objects may be visible or be accessible. OmniView inherits the Automation Engine user rights and privileges because of the API oriented communication structure and therefore does not require handling of its own security settings.

The content of the ListView reflects the type selected, example for Schedule/WorkFlow definition mode:



Workflow / Schedule	Description	Modified	Folder
JOBP.DST.000.WIN@TVARV_DWLD$MAX...	download TVARV tables	2019-07-31 09:41:39	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/MAXDB/WINDOWS/DWLD_TVARV
JOBP.DST.000.WIN@TVARV_DWLD$MSS...	download TVARV tables	2019-07-31 09:41:44	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/MSSQL/WINDOWS/DWLD_TVARV
JOBP.DST.000.WIN@TVARV_DWLD$ORA...	download TVARV tables	2019-07-31 09:41:38	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/ORACLE/WINDOWS/DWLD_TVARV
JOBP.DST.000.WIN@TVARV_DWLD$R3T...	download TVARV tables	2019-07-31 09:41:49	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/R3TRANS_ALL_CLIENTS/WINDOWS/DWLD_TVARV
JOBP.DST.000.WIN@TVARV_DWLD$R3T...	download TVARV tables	2019-07-31 09:41:46	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/R3TRANS_CLIENT_SPECIFIC/WINDOWS/DWLD_TVARV
JOBP.DST.000.WIN@TVARV_DWLD$SYB...	download TVARV tables	2019-07-31 09:41:32	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/SYBASE/WINDOWS/DWLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$DB6	upload TVARV tables	2019-07-31 09:41:37	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/DB6/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$HANA	upload TVARV tables	2019-07-31 09:41:36	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/HANA/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$MAX...	upload TVARV tables	2019-07-31 09:41:52	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/MAXDB/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$MSS...	upload TVARV tables	2019-07-31 09:41:43	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/MSSQL/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$ORA...	upload TVARV tables	2019-07-31 09:41:50	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/ORACLE/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$R3T...	upload TVARV tables	2019-07-31 09:42:00	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/R3TRANS_ALL_CLIENTS/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$R3T...	upload TVARV tables	2019-07-31 09:41:53	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/R3TRANS_CLIENT_SPECIFIC/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@TVARV_UPLD$SYB...	upload TVARV tables	2019-07-31 09:41:34	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/SYBASE/WINDOWS/UPLD_TVARV
JOBP.DST.000.WIN@USMM_DWLD$DB6	download USMM tables	2019-07-31 09:41:42	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/DB6/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$HANA	download USMM tables	2019-07-31 09:41:40	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/HANA/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$MAX...	download USMM tables	2019-07-31 09:41:39	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/MAXDB/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$MSS...	download USMM tables	2019-07-31 09:41:44	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/MSSQL/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$ORA...	download USMM tables	2019-07-31 09:41:38	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/ORACLE/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$R3T...	download USMM tables	2019-07-31 09:41:49	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/R3TRANS_ALL_CLIENTS/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$R3T...	download USMM tables	2019-07-31 09:41:46	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/R3TRANS_CLIENT_SPECIFIC/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_DWLD$SYB...	download USMM tables	2019-07-31 09:41:32	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/SYBASE/WINDOWS/DWLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$DB6	upload USMM tables	2019-07-31 09:41:37	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/DB6/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$HANA	upload USMM tables	2019-07-31 09:41:36	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/HANA/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$MAXDB	upload USMM tables	2019-07-31 09:41:52	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/MAXDB/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$MSSQL	upload USMM tables	2019-07-31 09:41:43	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/MSSQL/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$ORAC...	upload USMM tables	2019-07-31 09:41:50	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/ORACLE/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$R3TR...	upload USMM tables	2019-07-31 09:42:00	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/R3TRANS_ALL_CLIENTS/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$R3TR...	upload USMM tables	2019-07-31 09:41:53	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/R3TRANS_CLIENT_SPECIFIC/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@USMM_UPLD$SYBA...	upload USMM tables	2019-07-31 09:41:34	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/03.POST_ACTIVITIES/POST_ACTIVITIES_DB_AND_OS/SYBASE/WINDOWS/UPLD_USMM
JOBP.DST.000.WIN@VARIANTS_DWLD$...	download VARIANTS tables	2019-07-31 09:41:42	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/DB6/WINDOWS/DWLD_VARIANTS
JOBP.DST.000.WIN@VARIANTS_DWLD$...	download VARIANTS tables	2019-07-31 09:41:40	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/HANA/WINDOWS/DWLD_VARIANTS
JOBP.DST.000.WIN@VARIANTS_DWLD$...	download VARIANTS tables	2019-07-31 09:41:39	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/MAXDB/WINDOWS/DWLD_VARIANTS
JOBP.DST.000.WIN@VARIANTS_DWLD$...	download VARIANTS tables	2019-07-31 09:41:44	0100/AUTOMATED_SYSTEM_COPY_FOR_SAP/_TEMPLATE_LIBRARY/01.PRE_ACTIVITIES/PRE_ACTIVITIES_DB_AND_OS/MSSQL/WINDOWS/DWLD_VARIANTS

Figure 16 - ListView - Activity window

For an Activity window, parameters like Status, Start/Endtime, Queue, Archive and Starttype are visible:

RunID	Workflow / Schedule	Status	StartTime	EndTime	Queue	Archive 1	Archive 2	StartType
1214133	JWP_EVER_DISPO_DAY	ended	2019-07-23 08:00:19	2019-07-23 14:24:59	JWP_QUEUE	JWP Archive 21	JWP Archive 22	<JSCH>
1214170	JWP_TV	ended	2019-07-23 10:00:21	2019-07-23 14:57:37	CLIENT_QUEUE			<JSCH>
1214171	JWP_ACL_SWE_DAY	ended	2019-07-23 10:00:21	2019-07-23 13:46:24	JWP_QUEUE	JWP Archive 1	JWP Archive 2	<JSCH>
1214193	JWP_SACO_US.NORTH_01	ended	2019-07-23 13:54:32	2019-07-23 14:57:37	CLIENT_QUEUE			<JOBP>
1229307	HH_EVER_DISPO_DAY	ended	2019-07-24 08:00:06	2019-07-24 12:55:56	CLIENT_QUEUE			<JSCH>
1263858	JOBP.STARTER.EVNT	ended	2019-09-11 14:16:39	2019-09-25 15:23:21	CLIENT_QUEUE			
1264296	JOBP.STARTER.EVNT	running	2019-09-12 13:12:39		CLIENT_QUEUE			
1270614	JOBP.STARTER.EVNT	running	2019-10-01 12:46:30		JWP_QUEUE			
1273569	JOBP.STARTER.EVNT	running	2019-09-25 10:07:00		CLIENT_QUEUE			
1273717	JOBP.STARTER.EVNT	running	2019-09-25 12:01:57		CLIENT_QUEUE			
1274045	HH_ACL_SWE_DAY_WITH_EXTRNL	running	2019-09-26 10:23:39		CLIENT_QUEUE			
1287895	HH_ACL_SWE_DAY_WITH_EXTRNL	running	2019-10-15 11:48:29		CLIENT_QUEUE			
1308999	JOBP.ORDERS.EINGANG.VERARBEIT...	abended		2019-11-11 09:53:55	CLIENT_QUEUE	Orders	Edifact	
1310690	HH_ACL_SWE_DAY_WITH_EXTRNL	running	2019-11-12 11:59:40		CLIENT_QUEUE			
1317685	JWP_EVER_FIN_DAY	abended	2019-11-21 15:17:18	2019-11-21 15:20:27	JWP_QUEUE	Archive 1 : Whatever will...	Archive 2	<JSCH>
1331291	HH_ACL_SWE_DAY	running	2019-12-10 09:00:25		CLIENT_QUEUE			<JSCH>
1331292	HH_DFDS_IRE_DAY	running	2019-12-10 09:00:27		CLIENT_QUEUE			<JSCH>
1331313	JWP_SACO_US.NORTH_01	running	2019-12-10 10:46:46		CLIENT_QUEUE			<JOBP>
1332656	APS_MAIN_SCHED_A	running	2019-12-10 01:00:06		CLIENT_QUEUE			
1332693	JWP_EVER_DISPO_DAY	running	2019-12-10 07:00:14		JWP_QUEUE	JWP Archive 21	JWP Archive 22	<JSCH>
1332711	JWP_TV	running	2019-12-10 09:00:26		CLIENT_QUEUE			<JSCH>
1332713	JWP_SACO_SHIPPING_US_NORTH	running	2019-12-10 09:00:27		CLIENT_QUEUE			<JOBP>
1332744	HH_ECC_NOR_DAY	running	2019-12-10 10:00:18		CLIENT_QUEUE			<JSCH>
1332768	JWP_EIMS_RUS_DAY	running	2019-12-10 10:30:18		JWP_QUEUE	JWP Archive 111	JWP Archive 211	<JSCH>
1332769	HH_EVER_ENG_DAY	running	2019-12-10 10:30:18		CLIENT_QUEUE			<JSCH>
1332770	HH_EVER_RUS_DAY	running	2019-12-10 10:30:18		CLIENT_QUEUE			<JSCH>
1332809	HH_HAPL_LIT_DAY	running	2019-12-10 11:00:18		CLIENT_QUEUE			<JSCH>
1332834	JWP_EVER_DAN_DAY	running	2019-12-10 11:30:17		JWP_QUEUE	JWP Archive 21	JWP Archive 22	<JSCH>
1332835	HH_SEAC_EST_DAY	running	2019-12-10 11:30:18		CLIENT_QUEUE			<JSCH>
1333131	APS_MAIN_SCHED_JWP	running	2019-12-10 01:00:06		JWP_QUEUE			
1333157	JWP_ACL_SWE_DAY	running	2019-12-10 09:00:25		JWP_QUEUE	JWP Archive 1	JWP Archive 2	<JSCH>
1333209	HH_CYCLIC_1H	running	2019-12-10 11:00:16		CLIENT_QUEUE			<PERIOD>
1334793	APS_MAIN_NIGHTLY	running	2019-12-10 01:00:06		CLIENT_QUEUE			
1334813	HH_EVER_DISPO_DAY	running	2019-12-10 07:00:14		CLIENT_QUEUE			<JSCH>
1334814	HH_HANJ_DISPO_DAY	running	2019-12-10 07:00:13		CLIENT_QUEUE			<JSCH>
1334859	JWP_DFDS_IRE_DAY	running	2019-12-10 09:00:27		JWP_QUEUE	JWP Archive 1	JWP Archive 2	<JSCH>
1334893	JWP_ECC_NOR_DAY	running	2019-12-10 10:00:18		JWP_QUEUE			<JSCH>
1334926	HH_EIMS_RUS_DAY	running	2019-12-10 10:30:18		CLIENT_QUEUE			<JSCH>
1334927	JWP_EVER_ENG_DAY	running	2019-12-10 10:30:18		JWP_QUEUE	JWP Archive 21	JWP Archive 22	<JSCH>
1334928	HH_HAPL_EST_DAY	running	2019-12-10 10:30:18		CLIENT_QUEUE			<JSCH>
1334986	HH_HAPL_LAT_DAY	running	2019-12-10 11:00:17		CLIENT_QUEUE			<JSCH>
1335015	HH_EVER_DAN_DAY	running	2019-12-10 11:30:17		CLIENT_QUEUE			<JSCH>

JWP_EVER_DAN_DAY

Figure 17 - ListView – Activity window

Hint:

The Automation Engine has some limitations of sizes defined in Client 0, UC_SYSTEM_SETTINGS.

KEY	VALUE

GENERIC_ACTIVITIES_LIMIT	Maximum value of objects shown in Activity list.
GENERIC_SEARCH_LIMIT	Maximum value of objects shown in Definition list.
GENERIC_STATISTICS_LIMIT	Maximum value of objects shown in Statistic list.

If objects do not appear in the ListView, please adjust these values and/or use filters. The ListView can be organised by Quickfilter, right mouse button context menu or using a filter dialog invoked by clicking the filter symbol in the toolbar:

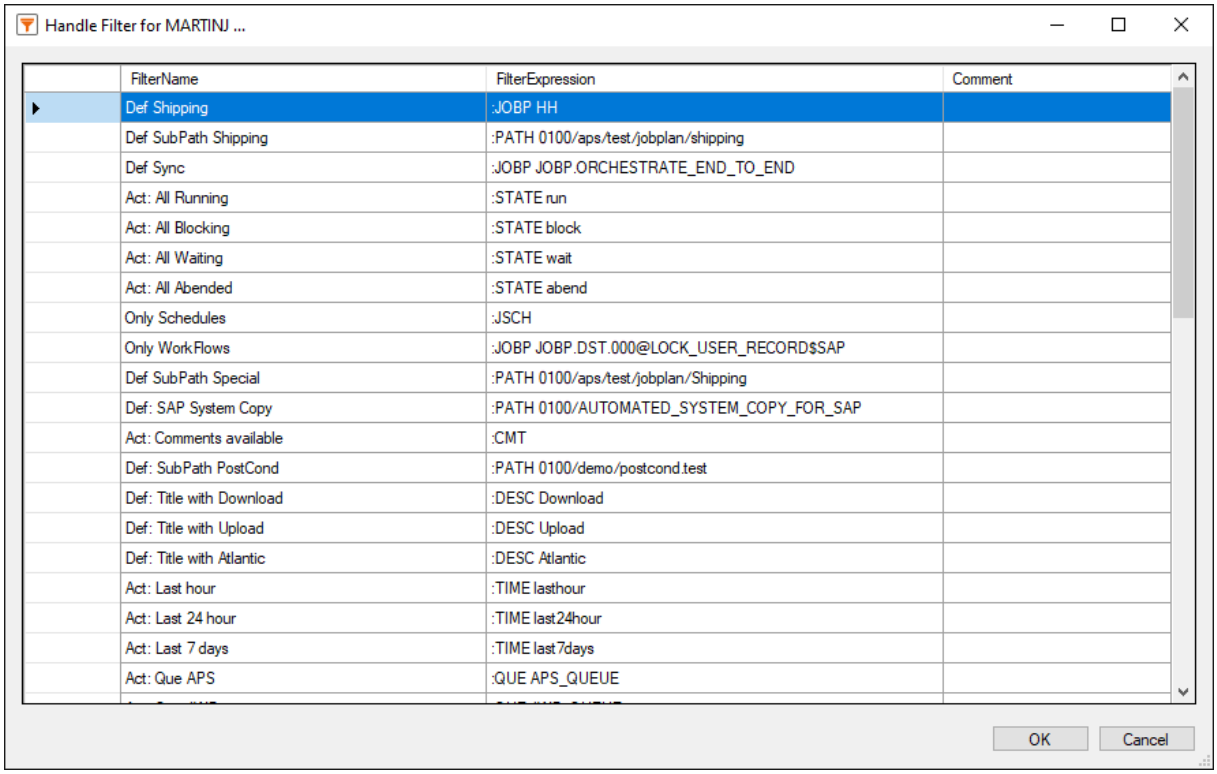


Figure 18 - Handle-Filter View

A filter definition consists of a Name and the Expression and combinations of Expressions are possible as well. Filter names should be unique and for good practice, a prefix for Activities ("Act:") or Definitions ("Def:") will help to arrange Filters properly by name.

EXPRESSION	PARAMETER
:STATE	Expressions like 'run', 'block', 'wait', 'abend', ...
:JOBP	Full name or fragments of WorkFlow names (JOBP.ORCHESTRATE …) - If no parameter is given, WorkFlows only will be shown
:JSCH	Full name or fragments of WorkFlow names. In case no parameter is given, Schedule Objects only will be shown
:RUNID	Full value or fragments of RUNID (17, 173456)
:PATH	Objects in given SubPath(0003/demo) only
:CMT	Only activity objects with user comments will be shown
:TIME	Valid sub-parameter: lasthour last24hour last7days
:QUE	Complete queue name must be provided

:AKEY1	Complete archive key string must be provided
:AKEY2	Complete archive key string must be provided
:DOCU	No parameter. Direct DLL communication only
:EVNT	Object name as filter parameter. Direct DLL Communication only.
Expression combination :STATE :JOBP	':STATE end :JOBP HH' will show WorkFlows containing the name 'HH' and the state containing 'end'

A new filter can be added by typing a name and an expression in the new line row indicated by a '*'.
A selected filter becomes active by leaving the View "ok". The expression will be placed into the Filter Input Text Box of the Toolbar and activated.
To remove a filter definition from the list simply select the row and hit the 'DELETE' key on your keyboard.

By using the right mouse button context menu of the ListView, a filter can be defined for an Attribute of the selected ListView item. For activities, a filter of the attributes Type, Name, Status and Queue are available.

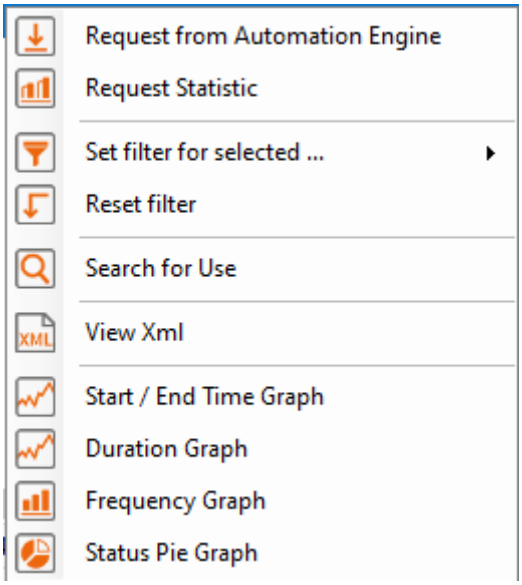


Figure 19 - ListView / WorkFlow overview context menu filter

For definitions, a filter can be made of the attributes Type, Name and Path.

Search for Use (ListView enhancement)

The option 'Search for use' of the ListView will result in a list of usages for the selected Workflow and may lead to a new starting point of Workflow visualisation.

The search result is displayed in a list and can be sorted, filtered and grouped. There is also an option to export the list to a csv- or xml-file.
Objects of type Schedule (JSCH) or Workflow (JOBP) can be requested from the Automation Engine for visualizing in the Flowchart View.

4.2.4 FlowchartView

The main graphical display area that contains the interactive flowcharts with all objects of the WorkFlows like calls, events, files, jobs, scripts, sub WorkFlows in their graphical representation (see chapter 5 for detailed information).

Figure 20 - Toolbar Overview - Flowchart

ICON	NAME	DESCRIPTION
	Clear Flowchart	Remove all graphical objects from Flowchart view.
	Automic based node layout	Use saved object positions of the Automation Engine User Interface. Only available for the visualisation of a single WorkFlow.
	View All	Fit all objects in View.
	Zoom in	Visually enlarge objects
	Zoom out	Visually decrease objects
	ViewRegion1	Save/Restore view region 1. Use: First mouse click saves the current View region coordinates, second mouse click restores the view region and clears the coordinates saved.
	ViewRegion2	Save/Restore view region 2. See ViewRegion1 for details.
	ViewRegion3	Save/Restore view region 3. See ViewRegion1 for details.
	ViewRegion4	Save/Restore view region 4. See ViewRegion1 for details.
	Expand cluster	Load & display next level of WorkFlows in an expanded, detailed style.
	Collapse cluster	Changes WorkFlow detail display style to collapsed.
	Scan objects	Scan all objects for details
	Object details	Show additional details for object
	Show/Hide objects	Objects to show or hide form Flowchart Graph: Workflows only, Activated objects by PostCond ,Activated objects by script, SYNC, XTRNL
	Text- and Infoboxes	Group of operations for showing text related information's like scripts, reports or comments

	Resolve XTRNL WorkFlows	Resolve WorkFlows, select able by Sub-types: All types, XTRNL definition, Activate Object by script, Pre / Post Condition activation, Time checkpoint
	Check for Use	Check for use as external. Options: check direkt path objects or check all objects, details see below.
	GanttView	Show Objects in GanttView (Activities only) based on the current Flowchart View of WorkFlows.
	HTML Report	Generate HTML Report for the current Flowchart View content.
	Flowchart Print Preview	A Print Preview Dialog will be shown with available options for output (page design, printer options et al.)(see 5.1.9)
	Export Flowchart to graphic file	A Save as Dialog will be shown with options for destination path and output type (see 5.1.8)

Check for use as XTRNL (Flowchart View enhancement)

Objects in the Flowchart View can be used as starting point for a 'use as external' analysis. Each object is checked and dependent Workflows are added to the Flowchart View. The starting objects are marked with a accentuate hightlight. Two options are available:

- Check direct path for use as XTRNL:
  Only direct predecessor dependencies based on XTRNL definitions will be resolved, by-pathes will not be visualised. This will lead to a condensed path dependency visualisation.
- Check all objects for use as XTRNL:
  All predecessor dependencies based on XTRNL definitions will be resolved may lead to an overall picture of dependencies with parallel pathes.

4.2.5 TreeView: Details

The TreeView lists additional information about Flowchart View loaded WorkFlows as described in the table below.
The content varies for Activities and Definition, see chapter '6.3 TreeView for WorkFlow activities'.

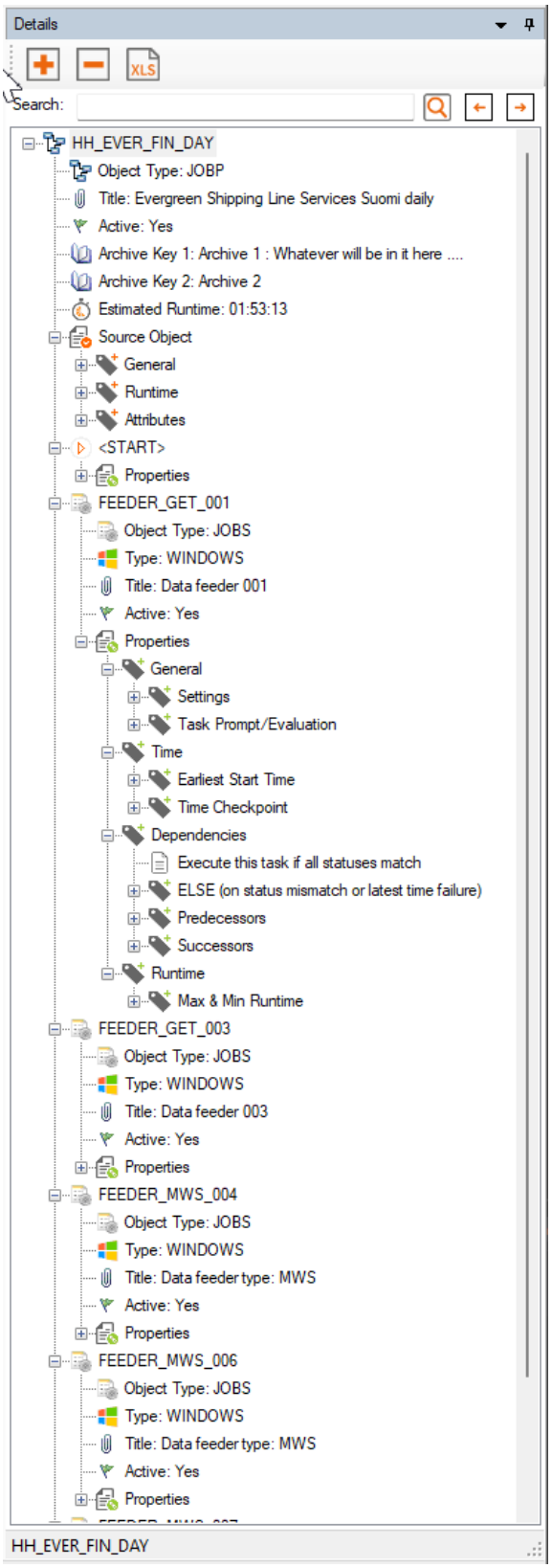


Figure 21 - TreeView Details

ICON	TOOLBAR FUNCTIONS	DESCRIPTION

	Expand all items	Expand all items of the whole tree-structure
	Collapse all items	Collapse all items of the whole tree-structure
	Export to XLS (Excel XMLfile)	Export to Excel XML format file
	Search function	Type in any text and click on find button. Any matching results are highlighted and the count is displayed in the status bar of the window.
	Previous matching item	Select previous matching result
	Next matching item	Select next matching result

4.2.6 Statistic View

The Statistic View of Schedule or WorkFlow objects can be invoked within the ListView by selecting 'Request Statistic' in the right-button Menu of the object.

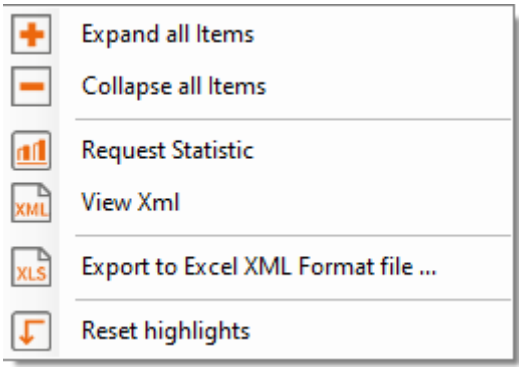


Figure 22 - Example of a Statistic View

The statistic information of the object will be requested from the Automation Engine and is shown in a separate View.

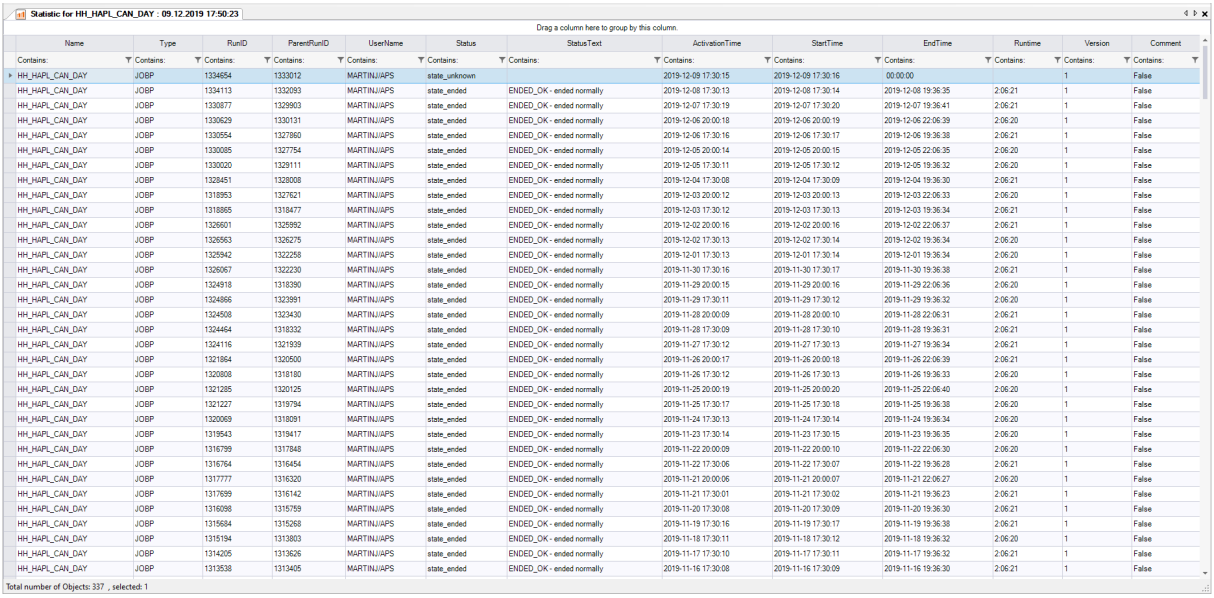


Figure 23 - Example of a Statistic View

The Statistic View offers self-explanatory options like advanced grouping, sorting and filtering. One or multiple selections can be used to generate a Flowchart by selecting 'Request from Automation Engine' from the right-button Menu:

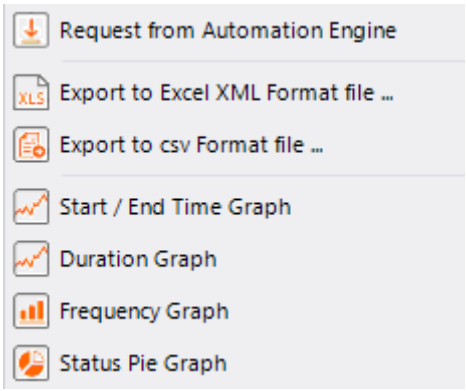


Figure 24 - Statistic View right-button Menu

The Start/End Time, Duration, Frequency and Status Pie graphs for the selected data lines can be invoked as well and will be shown in a separate window. These graphs can be invoked by the right-button Menu of the ListView without selection of specific dates, so all available statistic data entries of an object are used.

4.2.7 Gantt View

The Gantt View of Schedule or WorkFlow objects can be invoked for objects of the current Flowchart View of the type of Activities only. The statistic or time information of the objects needed will be requested from the Automation Engine and then shown in a separate Gantt View window.

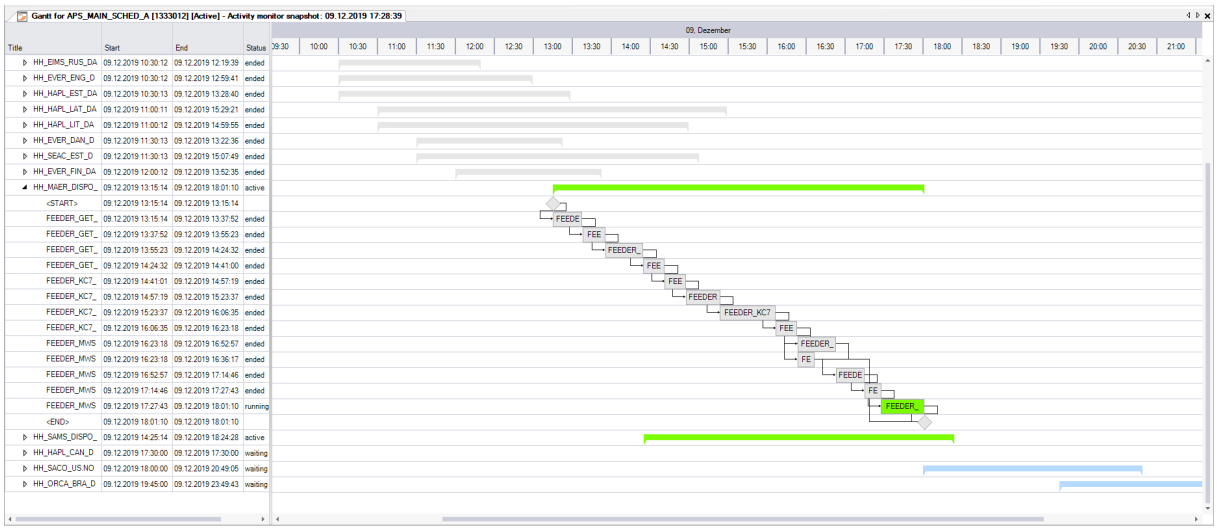


Figure 25 - Example of a Gantt View

In the table section on the left hand side the Tasks are shown hierarchically with their Start and End Times. Unfinished or not even started Tasks may have predicted values based on dependencies and average run-times.

GanttView Color-coding is shown in the table below:

COLOR	MEANING
Red	Task is in error state
Green	Task is currently active or running
Blue	Task is waiting for execution
Grey	Task has ended

4.2.8 Start End Time Graph

The Start End Time Graph of Schedule or WorkFlow objects can be invoked within the ListView by selecting 'Start End Time Graph' in the right-button Menu of the object or as a selection of entries in a Statistic View. The Statistic or run-time information of the object will be requested from the Automation Engine and is shown in a separate view.

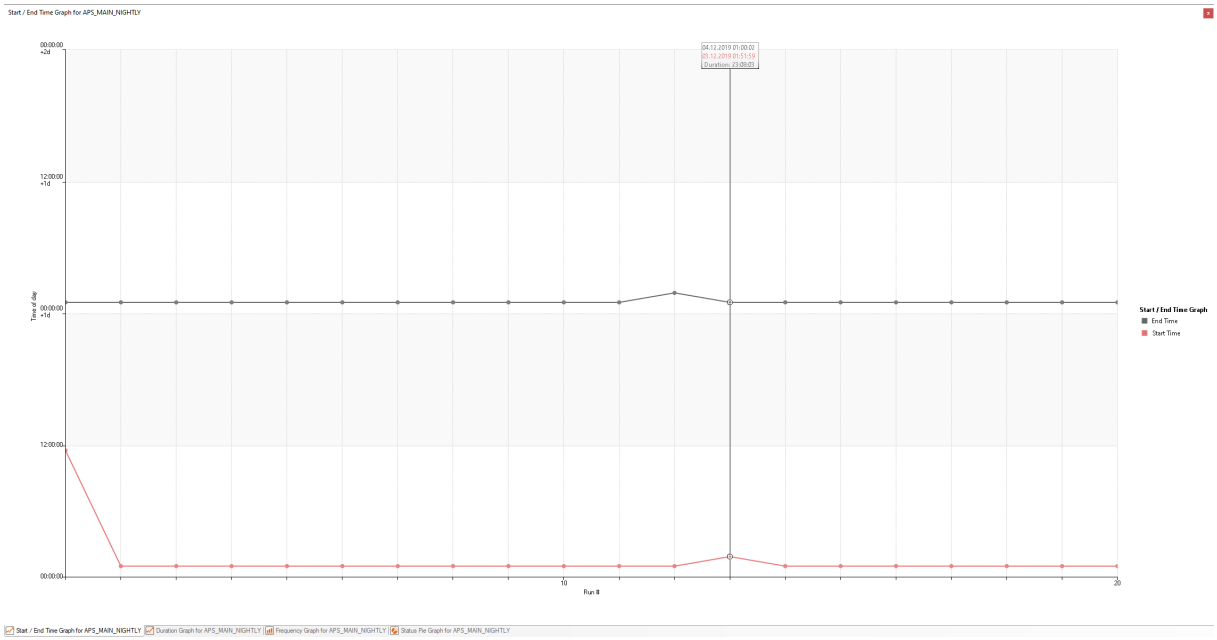


Figure 26 – Example of a Start End Time Graph

This Graph displays the Start / End Times over the last x runs. The tool-tip shows the Start Time, the End Time and the duration as a formatted time-span. Unexplainable or unexpected Start / End Time changes over the runs may be an indicator for deeper analysis.

4.2.9 Duration graph

The Duration Graph of Schedule or WorkFlow objects can be invoked within the ListView by selecting 'Duration Graph' in the right-button Menu of the object or as a selection of entries in a Statistic View. The statistic or run-time information of the object will be requested from the Automation Engine and is shown in a separate view.

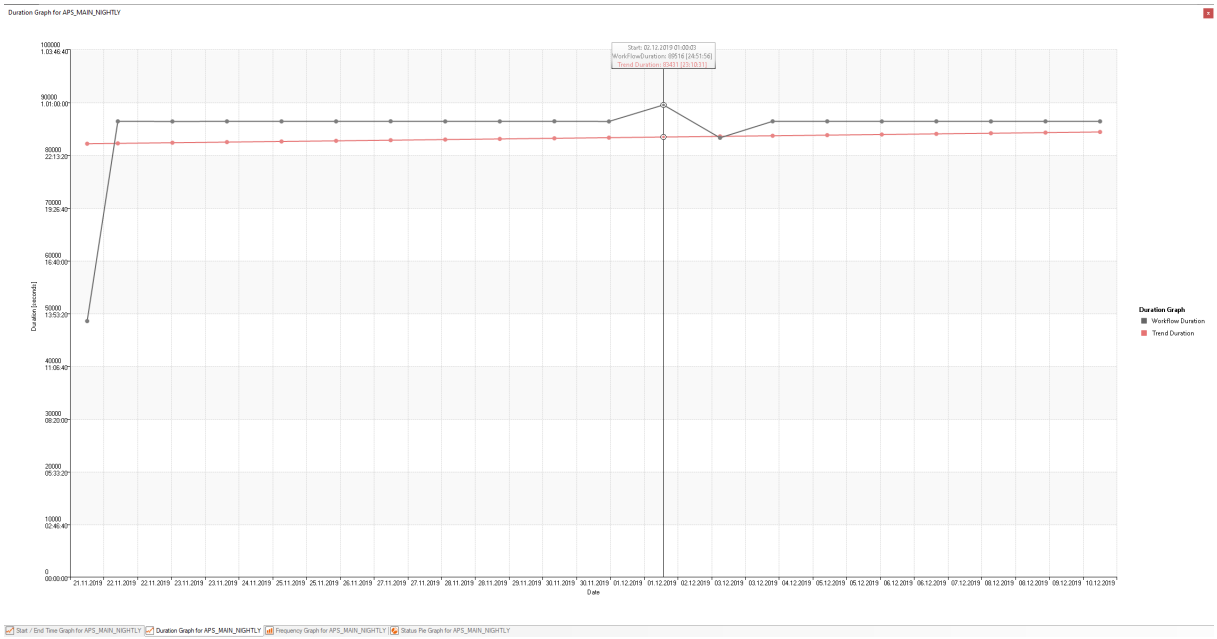


Figure 27 – Example of a Duration Graph

This Graph displays the trend of the overall Workflow duration in seconds over the last x runs. The tool-tip shows the Start Date, the WorkFlow and the trend duration as a formatted time-

span.
An unexplainable or unexpected trend duration may be an indicator for deeper analysis.

4.2.10 Frequency Graph

The Frequency Graph of Schedule or WorkFlow objects can be invoked within the ListView by selecting ‘Frequency Graph’ in the right-button Menu of the object or as a selection of entries in a Statistic View. The Statistic or run-time information of the object will be requested from the Automation Engine and is shown in a separate View.

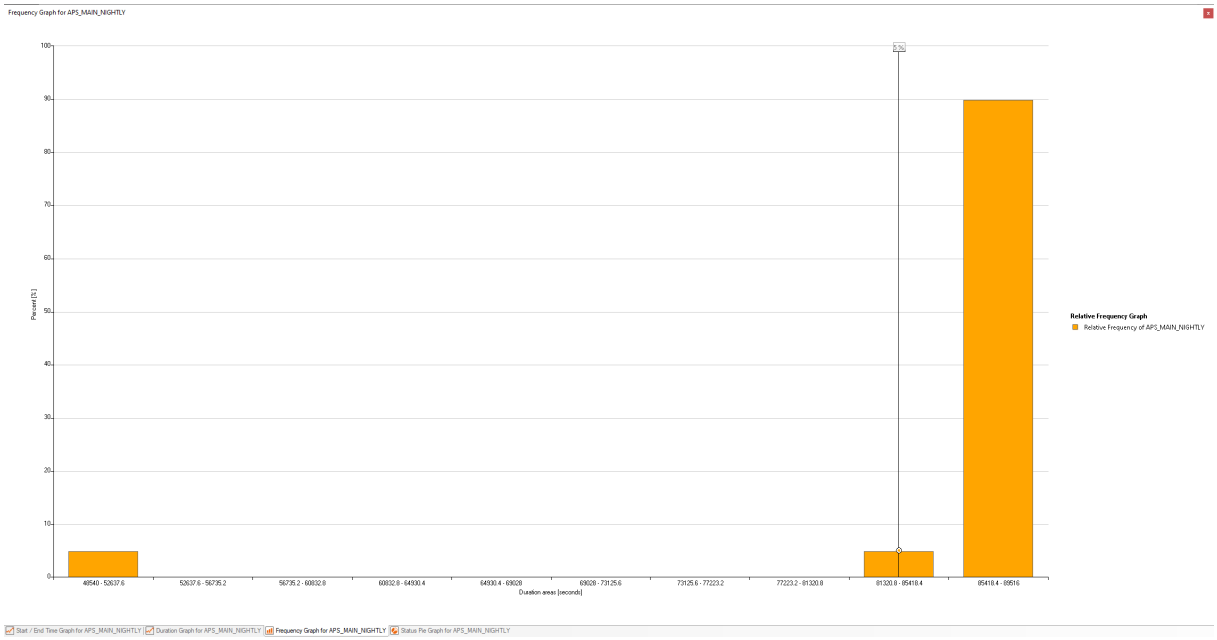


Figure 28 – Example of a Frequency Graph

This histogram presents the frequency distribution of ten percent of steps between the Workflow run with the longest and shortest duration.
A wide time spread or an unsymmetrical bar may be an indicator for deeper analysis.

4.2.11 Status Pie Graph

The Status Pie Graph of Schedule or WorkFlow objects can be invoked within the ListView by selecting ‘Status Pie Graph’ in the right-button Menu of the object or as a selection of entries in a Statistic View. The Statistic or run-time information of the object will be requested from the Automation Engine and is shown in a separate view.

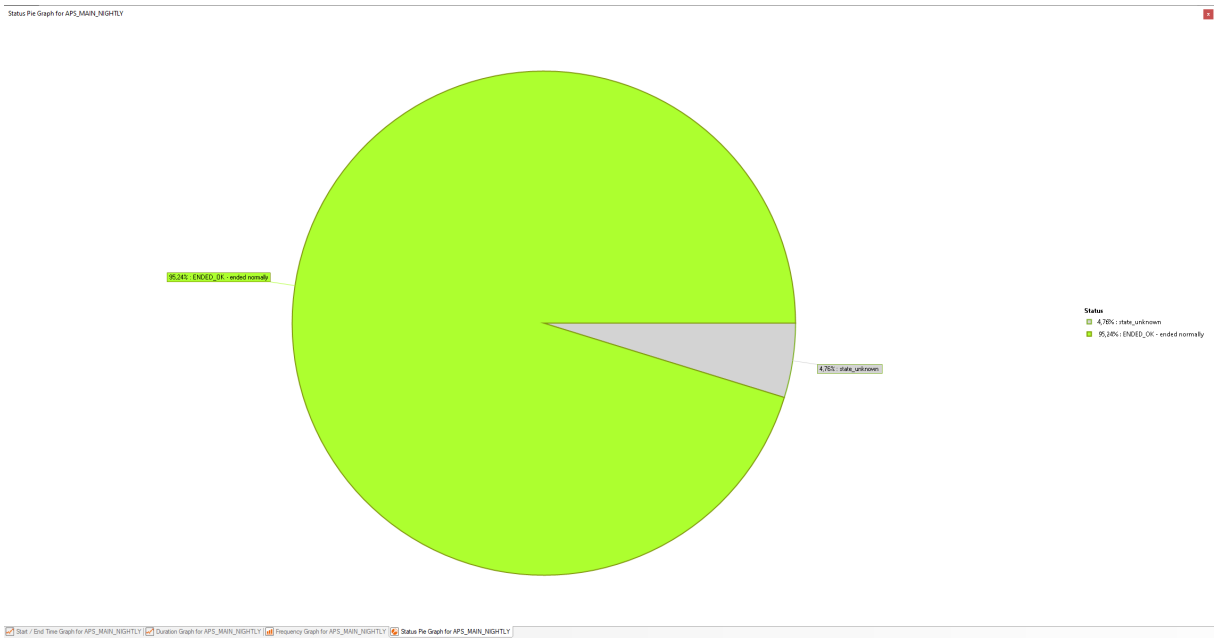


Figure 29 – Example of Status Pie Graph

The pie chart shows the proportion of the various Workflow status types of the selected Runs. The presence of any kind of 'ERROR' status, like 'ENDED_NOT_OK', may be an indicator for deeper analysis.

4.2.12 Calendar View

A Calendar View can be invoked from the drop-down list of Calendars in the main menu or by right-clicking on the Calendar item of an object in the TreeView. When invoked from TreeView, the Calendar Keyword is preselected for the Calendar View data. Any other Calendar Keywords can be selected from the drop-down list. The current year will be shown by default, and navigating to previous or next years is self-explanatory and is done by using the arrows in the header line.

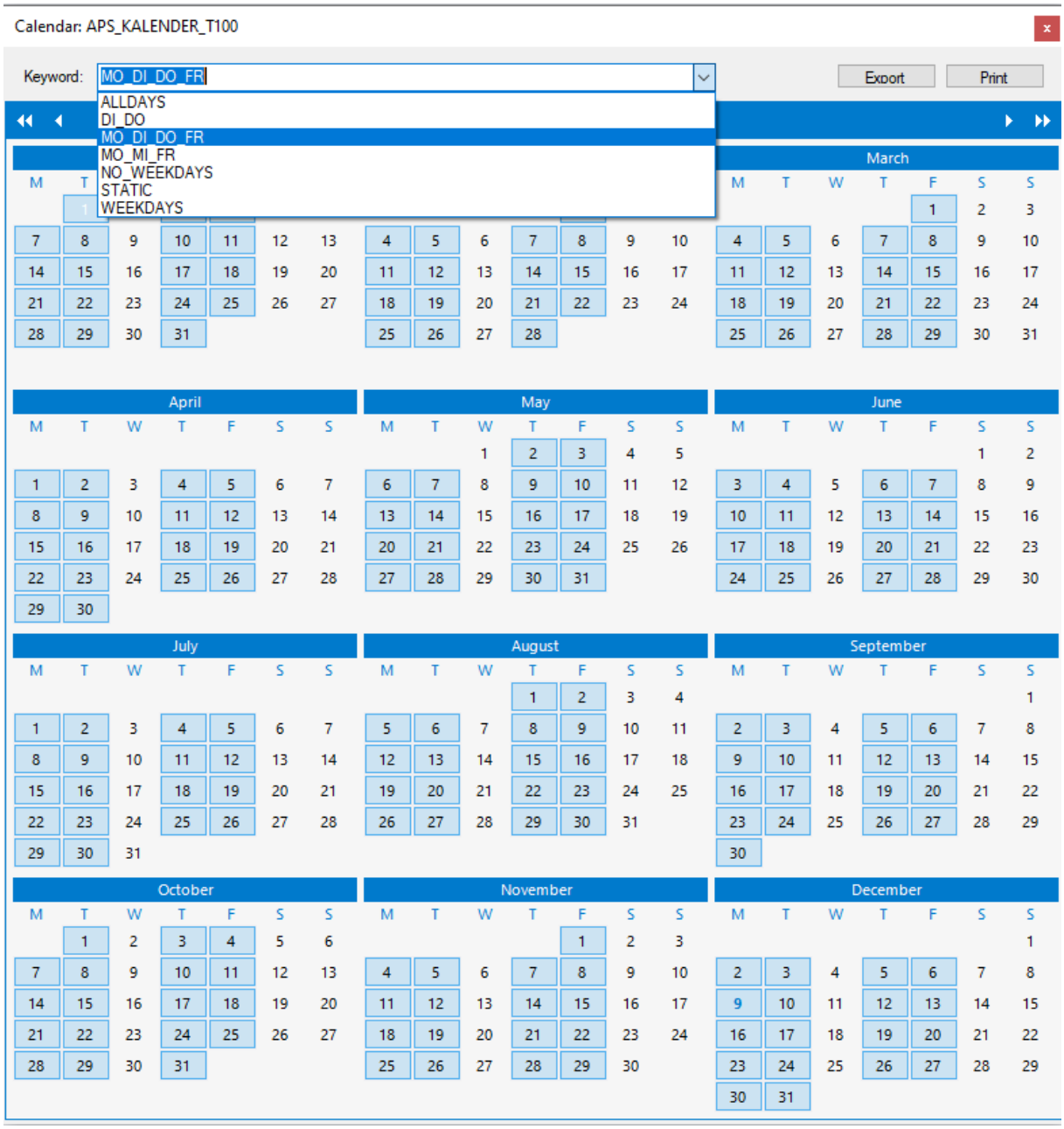


Figure 30 - Example of Calendar View

The Calendar View can be exported to a graphic file by using the Export Button or printed out by using any connected Windows printer.

4.2.13 System Info View

System Info can be invoked from the main toolbar by clicking the icon:
Details are available for the client plus the cumulative status of previous runs, as well as a graph and details from the Automation Engine.

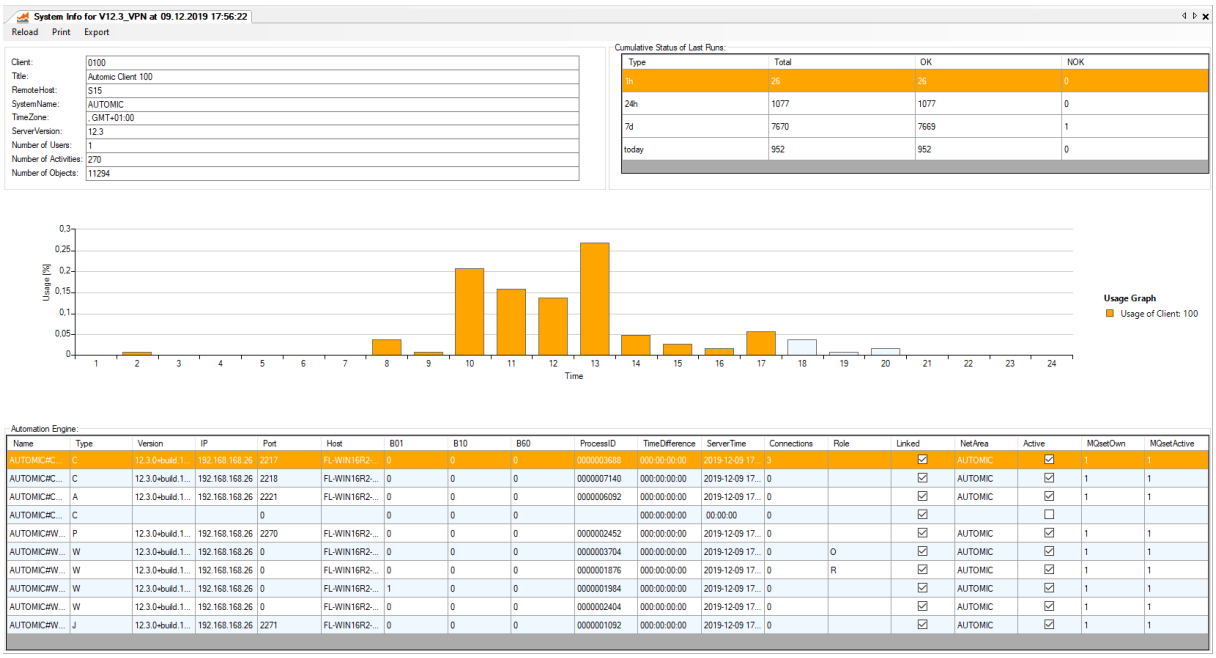


Figure 31 - Example of System Info View

The System Info View can be exported to a graphic file by using the Export Button or printed out by using any connected Windows Printer.

4.2.14 Advanced Search

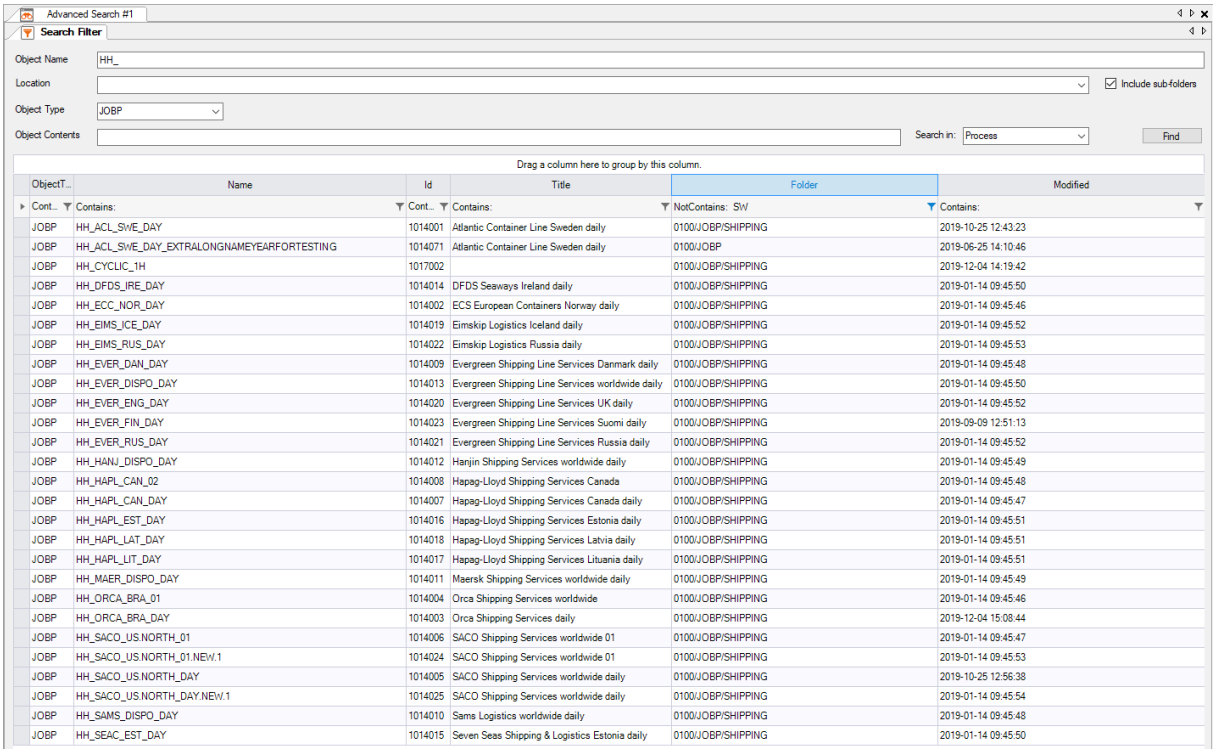


Figure 32 - Example for Search Filter

The Advanced Search helps to find and identify objects based on criteria like the object name, object type and it's location.
Each parameter used is 'and' - linked to restrict the amount of search results.

It is highly recommended to use a combination of these parameters, especially in large installations.
The search result is displayed in a list and can be sorted, filtered and grouped.

Depending on the object type some functions are available using the right button menu, like direct 'Request from Automation Engine' for visualising the WorkFlow in the Flowchart View.

The option 'Search for use' will result in an additional list of object usages and may lead to new starting point of Workflow visualisation.

A full text search for content of Process, Object title, Documentation and Archive key is available by using the parameter 'Object Contents'.
For limits and restrictions please see the Automation Engine Documentation.

4.2.15 Messages

For a temporary need of information, a Message listener can be connected to the Automation Engine.
Messages will be shown as long the window is open, starting with the 'OmniView: Message listener connected' message.
All messages will be written as plain text and can be copied by selecting and the key Ctrl-C for further processing.

Example:

2019-12-12 15:25:23 Job 'FEEDER_KC7_003' (RunID '0001337231' / Workflow-RunID: '0001337225') on Host 'WIN01' ended normally. Remote ID=7060
2019-12-12 15:17:58 Job 'FEEDER_GET_004' (RunID '0001336711' / Workflow-RunID: '0001336709') on Host 'WIN01' ended normally. Remote ID=192
2019-12-12 15:16:14 OmniView: Message listener connected.

The connection will be closed when closing the Messages window. A re-open starts from the beginning, older messages will not be available.

5 Creating Flowcharts and Documentation

5.1 Creating Flowcharts and Documentation Overview

Within OmniView you can flowchart job-flow to analyse the batch WorkFlow. Flow charting can be accomplished at a very granular level (e.g. one WorkFlow) to an entire batch flow. Options and parameters allow you to add or remove pertinent information from the flowchart. Flowcharts are generated and graphically displayed within the Flowchart View frame of the OmniView dialog. Different graphics, icons, colours, lines, etc. are used to represent the job-flow and its hierarchy.

Generating a job-flow flowchart can be accomplished by the following methods:

1. Double-click a workflow within the ListView

2. Specify the workflow name (fully qualified) within the text box at the top of the ListView and click Go.

3. Right-click on a workflow in the ListView and select Request from Automation Engine DB.

4. Select 'Request from Automation Engine' within the right-button Menu of the Statistic View.

The job-flow flowchart will be displayed within the Flowchart View. Below is an example of a WorkFlow flowchart:

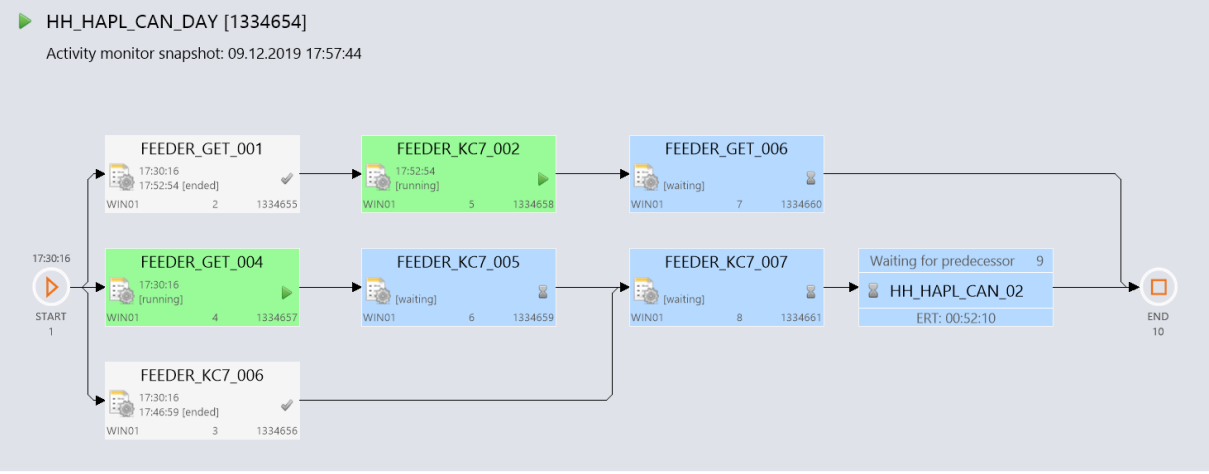


Figure 33 - Example for Workflow Flowchart Example 1

The highest level within the job-flow hierarchy is a Workflow. A Workflow is represented by the graphical node below:

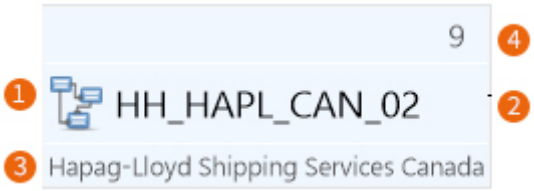


Figure 34 - Example for Workflow Node

The Workflow node is divided into segments providing specific information relative to that Workflow. The table below describes the segments of the Workflow node:

SEGMENT	DESCRIPTION
1	Object type icon.
2	WorkFlow Name.
3	WorkFlow Title.
4	Sequential number of WorkFlow

Within a WorkFlow there may exist several different object types (Job, Script, File Transfer, etc.). These objects are represented by the object node below:

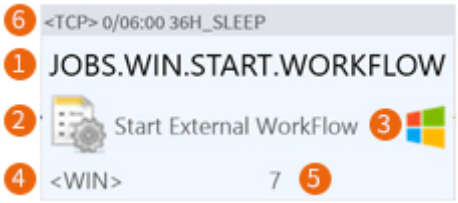


Figure 35 - Object Node

The table below describes the segments of the object node:

SEGMENT	DESCRIPTION
1	Object name (e.g. Job Name).
2	Object type icon.
3	Short form text for the object type.
4	Object type. Note: If the object type is File Transfer, then this segment is populated with the sender and receiver node information.
5	Short form for the legal conditions separated by "|".
6	Earliest start time or checkpoint in the format 'DD/HH:MM'

The dependency links that exist between WorkFlows and the objects within those WorkFlows are represented by different link lines. Link lines will be color coded based upon their dependency type. The table below describes the types of link lines displayed:

LINK-LINE	DESCRIPTION

	Dependencies between objects within the same WorkFlow or between objects within different WorkFlows, where the WorkFlows are fully expanded within the flowchart (please see Figure 25 - WorkFlow Flowchart Example 1).
	Dependencies between objects within different WorkFlows that are not on the same expanded level (please see Figure 29 - WorkFlow Flowchart Example 2)

The WorkFlow Name, Title, Date/Time Created, Date/Time Last Modified, and modification iteration (e.g. '4x') will be displayed at the top of the WorkFlow cluster (see top gray area in Figure 25 - WorkFlow Flowchart Example 1).

5.1.1 Additional Flowchart View parameters

For additional Flowchart View parameters, select Parameter & settings: Flowchart View icon in the active window Tool Bar.

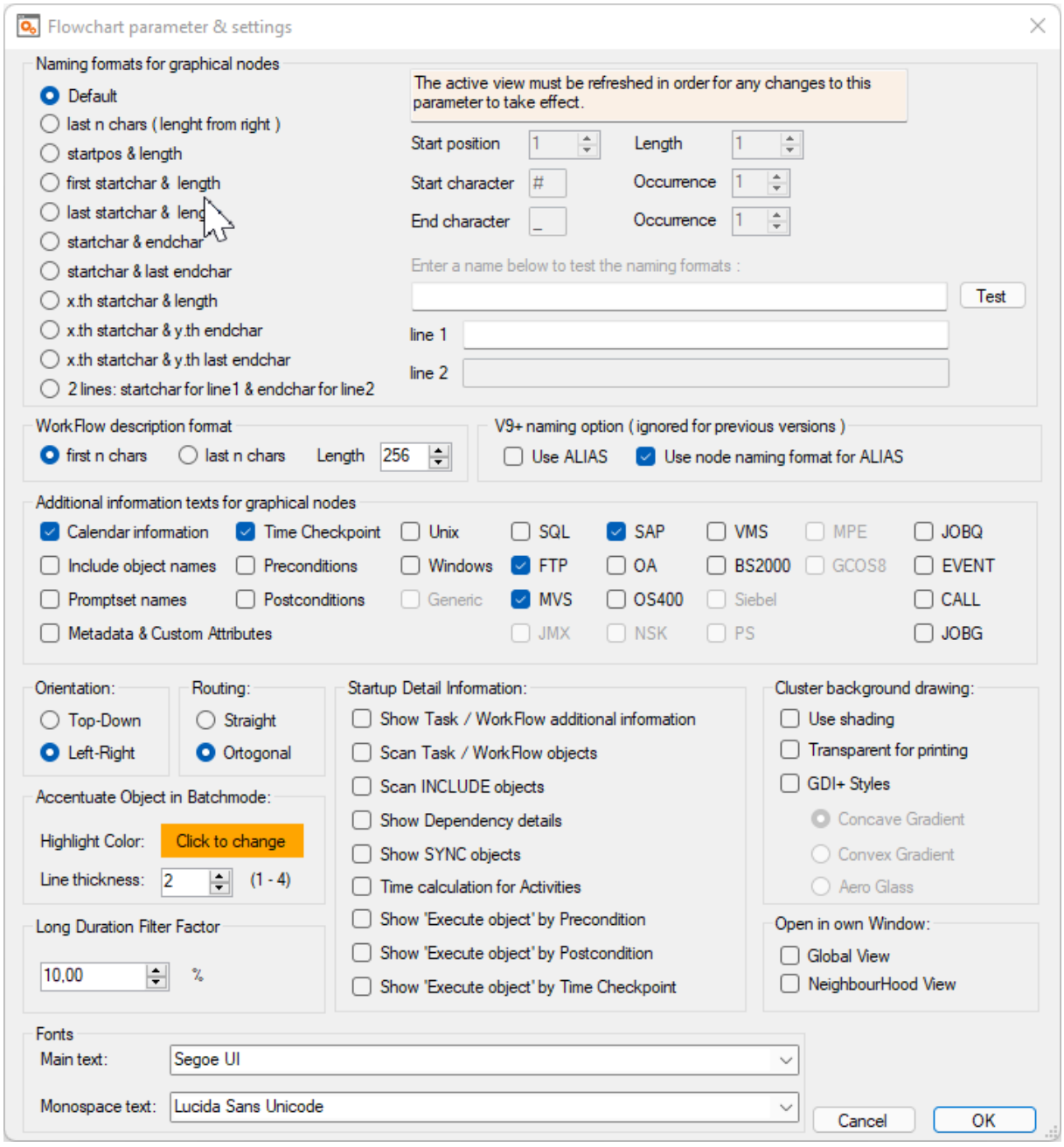


Figure 36 - Additional Flowchart View parameter

Node naming formats will help reduce the length of job and WorkFlow names for better readability of exported graphic files or printouts. There are eleven formats available with different parameters. You can test the result of a sample job name typed in the edit box by clicking the Test button. If a validation error is caused by the wrong or incomplete parameter settings, the complete job name will be displayed.

Starting with Automation Engine version 9, there will be an additional naming concept called 'ALIAS'. By using this option, the defined 'ALIAS' name of an object will be displayed in the Flowchart View. Additionally, these 'ALIAS' names can be formatted with the chosen naming format by marking the appropriate option. In the TreeView the 'ALIAS' will be shown as an additional sub-item of the object.

OmniView supports the display of Job and WorkFlow SYNC objects. With Detail Information of Node/WorkFlow unchecked, the format will be in a compact style, if checked the detailed information (start, end, ABEND, etc.) will be displayed.

Enhancement for cluster background drawing:

There are two modes to draw a cluster background, Shading and Transparency is an option to save ink. Shading substitutes the background colour with a shaded fill pattern, especially useful for printing is an option for transparency to save ink.

GDI+ Styles provides 3 types of colour gradients to customise the background drawing.

Please keep in mind: The Flowchart View must be refreshed/reloaded in order for any changes to the node naming formats and SYNC objects parameter to take effect.

Long Duration Filter factor: The parameter for the Activity Filter 'Long Duration' can be set by the slider or by using the arrow keys for finer granularity. Objects running longer then the entered percent value of Estimated Run Time (ERT) will be highlighted in the Flowchart View.

Enhancement for additional node information:

Additional text information can be displayed above or below the graphical node after the detail scan. This information requires additional space in the flowchart and may impair the clarity. The checkboxes allow you to adjust the granularity of the information density according to the type of object to your own requirements.

5.1.2 Navigating within the Flowchart View

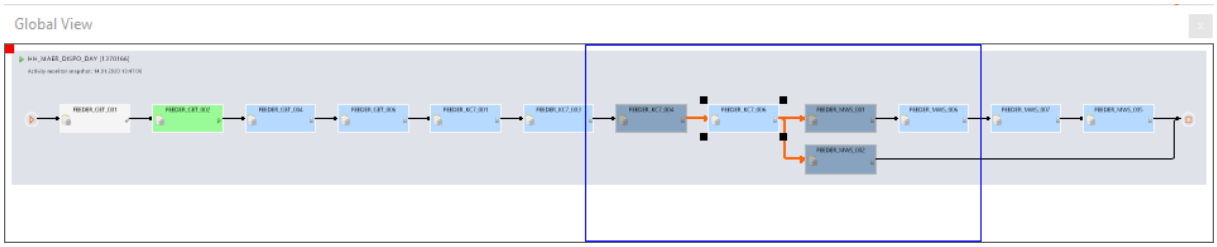


Figure 37 - Global View

The Flowchart View will stay synchronised with the ListView. Clicking on a WorkFlow within the Flowchart View will highlight the corresponding WorkFlow within the ListView.

You can zoom in or out on the generated flowchart by holding down the Ctrl key on your keyboard and using the scroll-wheel on your mouse.
You can also Zoom-into specific areas of the flowchart by holding down the left mouse button, dragging a box around a desired area and right-clicking while still holding the left mouse button down.

When zoomed-in within larger flowcharts, the Global navigation feature can be used to quickly focus on specific areas of the flowchart. To activate the Global navigation feature, right-click anywhere within the Flowchart View , except on a WorkFlow/object node or link line, and select View Global. A separate window will appear within the bottom-right of the Flowchart View . Within this window the purple box can be dragged to position the Flowchart View on a specific area.

When zoomed-in on a specific area, the flowchart can quickly be reset so that the entire flow is displayed within the Flowchart View. To reset the flowchart, right-click anywhere within the Flowchart View , except on a WorkFlow/object node or link line, and select View All.

5.1.3 Identifying Predecessor and Successors

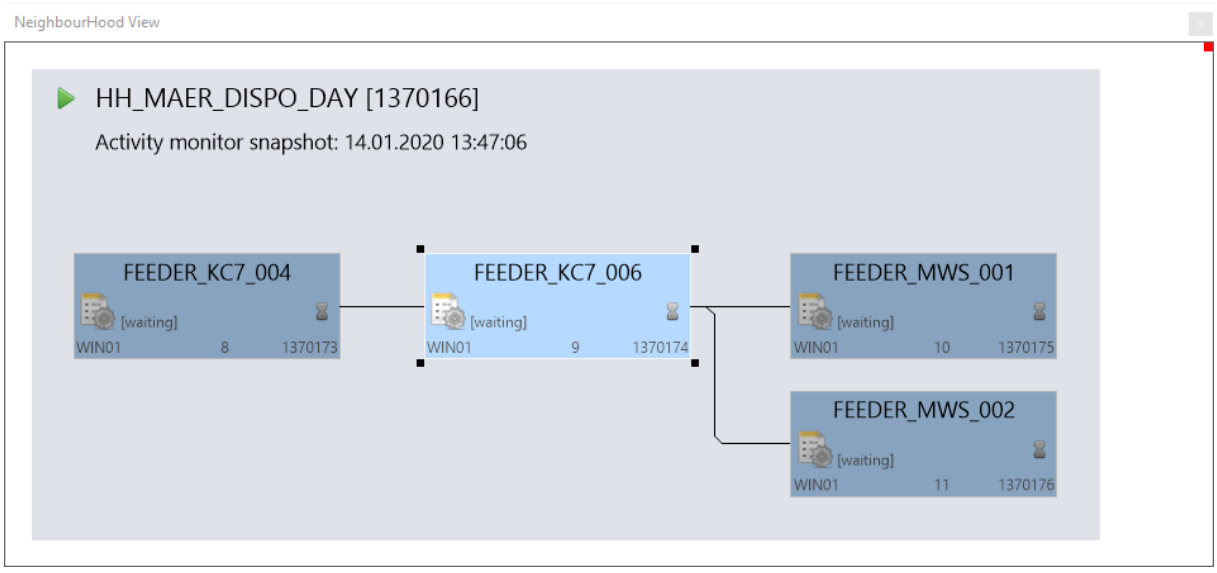


Figure 38 - NeighbourHood View

In larger flowcharts object predecessors and successors may not be readily identifiable by visually following the link lines. You may identify, highlight or jump directly to a predecessor or successor within a flowchart by right-clicking and selecting Predecessors or Successors.

Clicking one of these options will display a drop-down box with the object's predecessors or successors. Select the desired predecessor / successor from the drop-down list and click 'GoTo' to immediately highlight and navigate to that predecessor / successor. Selecting the desired predecessor / successor from the drop-down list and clicking Mark will simply highlight that predecessor / successor without changing focus.

Clicking on a link line will highlight objects the predecessor/successor are connecting.

Right-clicking on a link line will display the names of the predecessor/successor objects it is connecting.

5.1.4 Expanding and Collapsing WorkFlows

Within the hierarchical structure of job-flow there may be layers of WorkFlows within WorkFlows. OmniView can display these layers or “clusters” in a colour coded and meaningful way within one flowchart.

In the example above (see Figure 39 - WorkFlow Flowchart Example 1) the WorkFlow that was originally flow-charted contains one job object with a successor link to another WorkFlow within it. This successor WorkFlow can be expanded by double-clicking on the WorkFlow node. The successor WorkFlow will be expanded within the original WorkFlow in a different colour cluster.

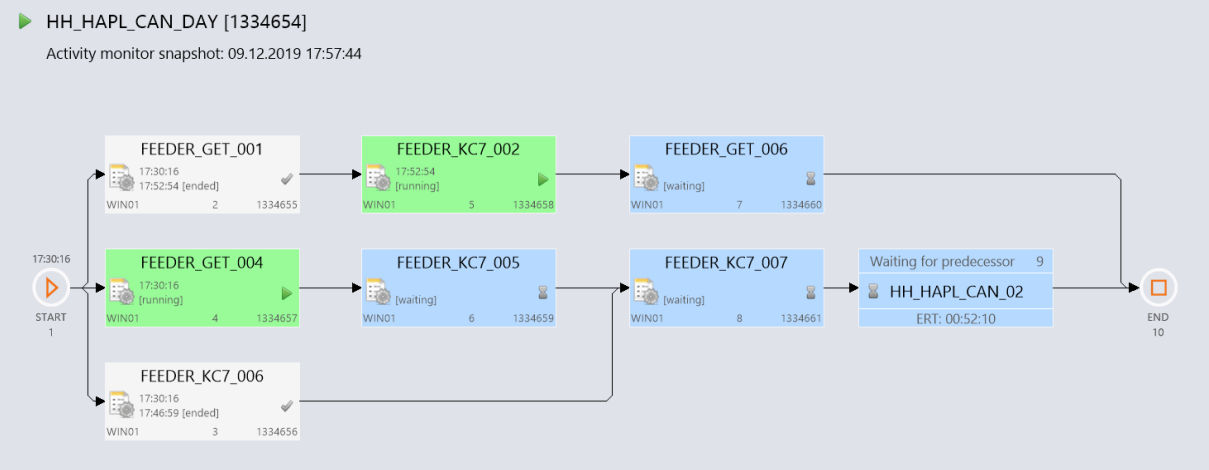


Figure 39 - WorkFlow Flowchart Example 2

There is no limit to the number of WorkFlows that can be expanded. Any expanded WorkFlow can be collapsed by double-clicking on the WorkFlow cluster. Expanding or collapsing individual WorkFlows can also be accomplished by right-clicking on a WorkFlow or WorkFlow cluster and by selecting Cluster or Expand/Collapse.

A Job-flow that contains that contain several WorkFlows can be globally expanded or collapsed by selecting the appropriate icons from the toolbar (see 4.2.2 Toolbar).

Occasionally expanding and collapsing a job-flow may cause the flow to be displayed in a less than optimal format. If this occurs, you may right-click anywhere within the Flowchart View, except on a WorkFlow/object node or link line, and select View -> Optimize.

5.1.5 Filtering and Highlighting

Flowcharts with many objects often lack in identifying special object states. Activity Snapshots could be ‘Running’, 'Long Duration', ‘Blocking’, ‘Waiting’ or ‘Inactive’. For WorkFlow definitions these states could be ‘Inactive’ by design or the indication of a cyclic structure like WorkFlow type ‘ForEach’ or wrongly defined dependency’s causing feedback loops. Identifying these objects is done by using the right-button context menu in the Flowchart View. Objects

matching the filter criteria will be marked with a flashing highlight which makes it easy to recognise them even in large flowcharts.

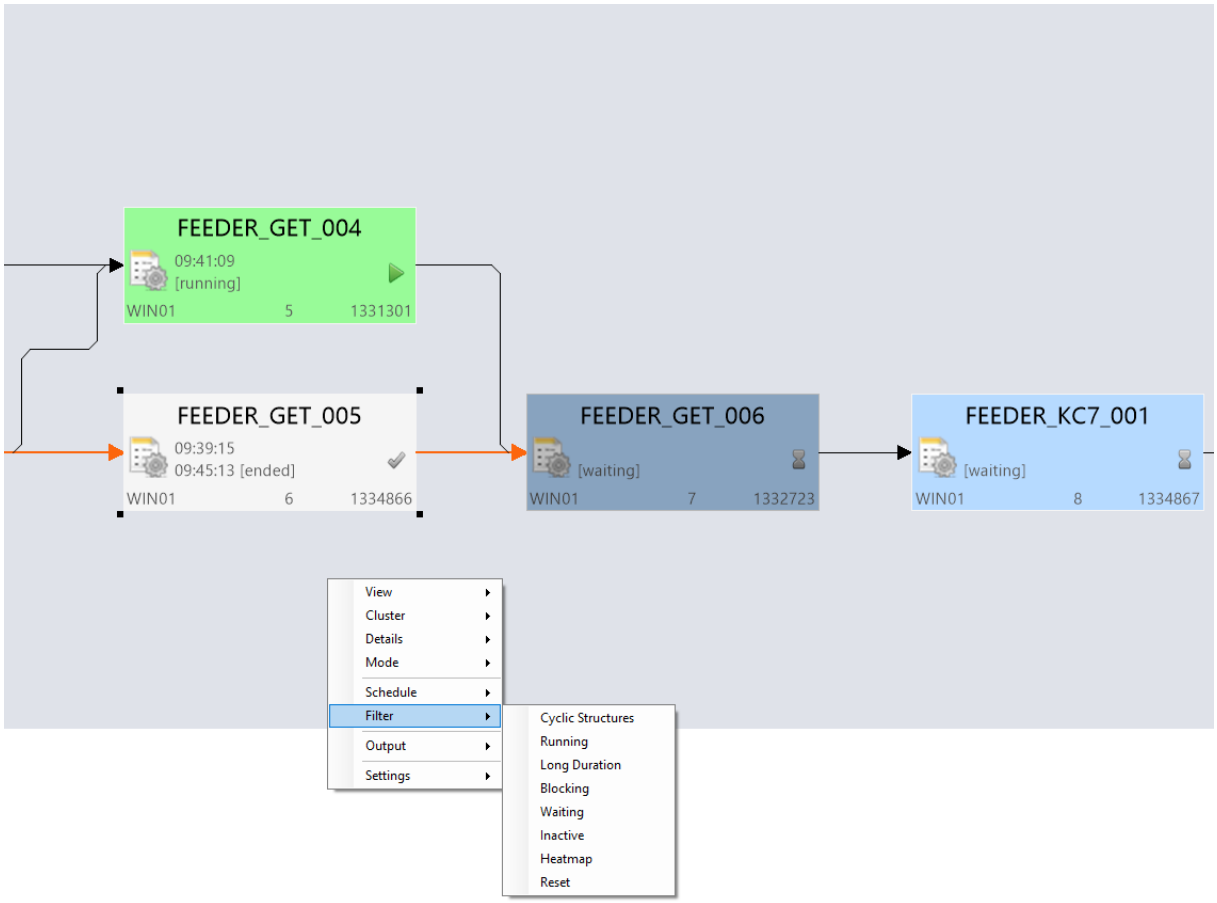


Figure 40 - Context menu for filtering and highlighting options

5.1.6 Adding Additional Information to the Flowchart (hereinafter referred to as TextInfoBox)

Different types of TextInfoBoxes can be added to the flowchart. For user defined ones, right-click anywhere within the Flowchart View, except on a WorkFlow/object node or link line, and select Mode → Create Box.

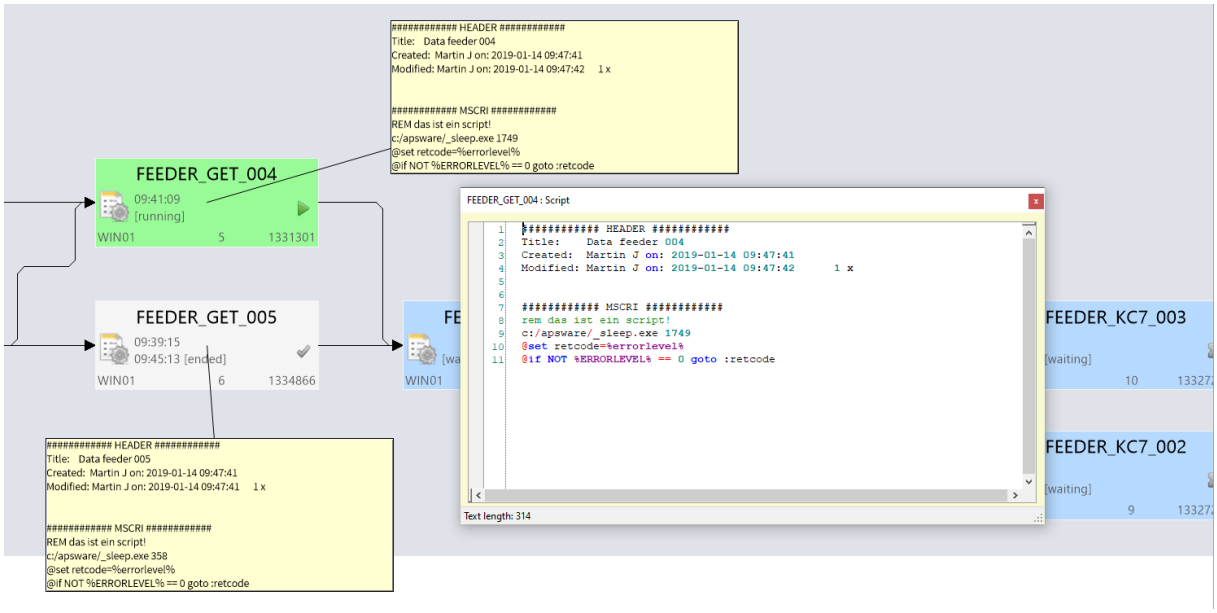


Figure 41 - TextInfoBox input dialog

Enter the text to be displayed in the edit field and end the dialog with OK. The size of the TextInfoBox will be adjusted automatically.
TextInfoBoxes can be placed anywhere within the flowchart by selecting it with the left mouse button and moving it around with the button pressed.

To anchor a TextInfoBox to a node, first select the node (pick-marks will be displayed) and then right-click on the TextInfoBox and select 'Anchor to marked node'. To remove the anchor or delete the TextInfoBox, right-click on the TextInfoBox and select 'Unanchor' or 'Delete'.
All TextInfoBoxes of a WorkFlow can be saved, loaded or deleted by the use of the drop-down menu of the toolbar.

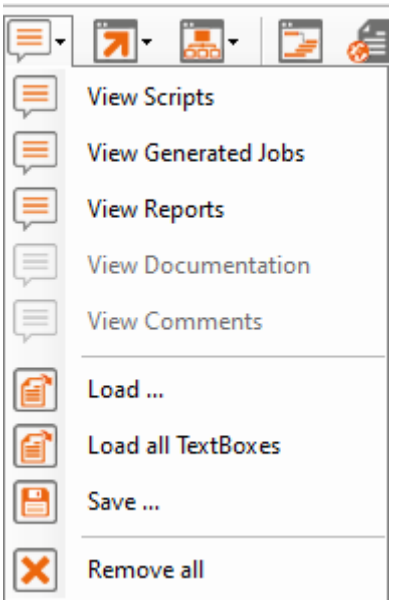


Figure 42 - Toolbar Drop-down menu for TextInfoBox

Other types of Text Boxes are:

- Scripts: Additional information like Header and Scripts. This option is available in definitions and activities mode.

- Generated Job: Generated Job information of the object. This option is available in activity mode only.
- Reports: Report information of the object. This option is available in activities mode only.
- Documentation: Documentation (Docu Tab) information of the object. This option is available in definition mode only.
- Comments: Comment information of the active object. This option is available in activity mode only.

These optionally load, scan and display additional information for every object of the Flowchart View.
To obtain information for a single object, please select the object and use the right-button context menu.

5.1.7 Display of Additional Detail Information of Flowchart objects

Additional detailed information can be displayed in the flowchart. Right-click anywhere within the Flowchart View, except on a WorkFlow/object node or link line, and select Details. The following options are available:

OPTION	DESCRIPTION
Node	Displays additional information for the application and SYNC nodes by scan of the objects.
Link	Textually displays the link text on the link line.

Depending on the object type there will be additional lines of information below or above the object node. These lines can be filled with Calendar name, SAP Variant, Include name, MVS File name or FTP Source and Destination information (see Figure 43).

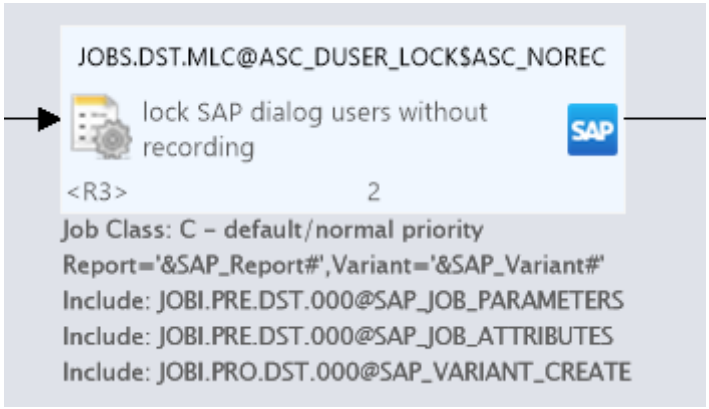


Figure 43 - Example of object node

In case a 'ACTIVATE_UC_OBJECT' is found in the script, a new node is made in the Flowchart View using the external node (object is of type XTRNL) format with a description referencing its activating predecessor (see Figure 44).

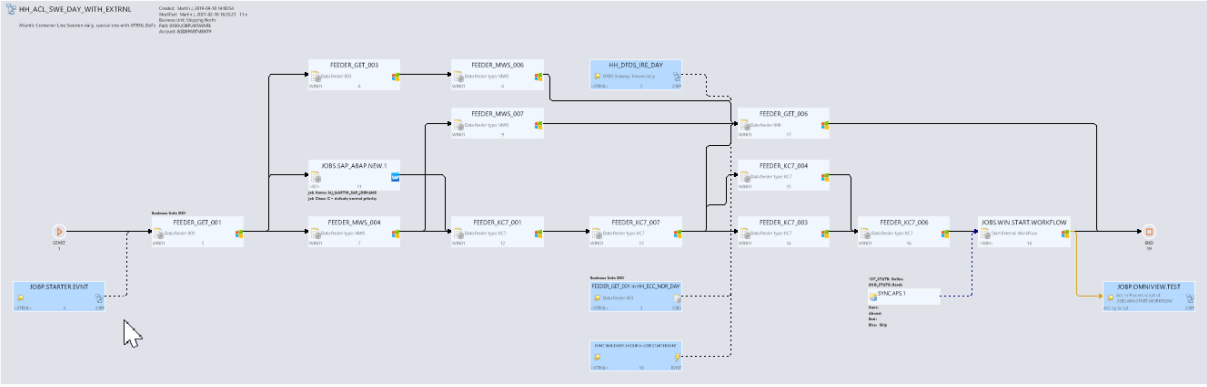


Figure 44 - WorkFlow Example with 'Show Node details' and "XTRNL / activated objects"

WorkFlow objects of type XTRNL , can be resolved and put into the Flowchart View by clicking on the Toolbar item: 

Figure 45 illustrates this for a defined XTRNL WorkFlow named 'JOBP.STARTER.EVENT'.

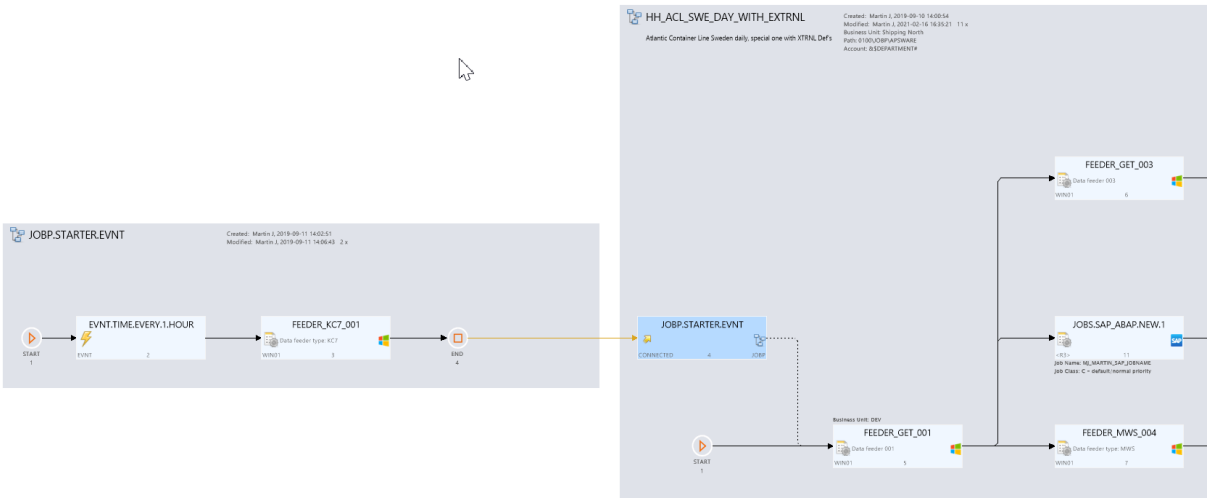


Figure 45 - WorkFlow Example with 'Resolved XTRNL objects'

Hint:

Showing detailed information needed to request, transfer, load and scan objects, may have negative effects on performance.

5.1.8 Exporting Job-flows to an Image

Any flowchart generated within OmniView can be easily exported to one of many supported graphical formats. This does not require any additional third-party software. The following graphical file formats are supported by OmniView:

FILE EXTENSION	FILE TYPE	FILE CATEGORY
.png	Portable Network Graphic	Raster Image
.emf / .emf+	Extended Windows Metafile	Vector Image
.wmf	Windows Metafile	Vector Image
.gif	Graphical Interchange Format	Raster Image

.jpg	JPEG Image	Raster Image
.tif	Tagged Image	Raster Image
.bmp	Windows Bitmap Image	Raster Image
.vmf	Viewer Metafile	Vector Image

Note: Using '.bmp' file format can result in a large file size and is therefore is not recommended.

Tip: Use the '.emf' file format for larger graphics. EMF is a vector image file type and scales well when zooming in and out is required. EMF is compatible with Microsoft Office Word, PowerPoint and Visio.

To export a generated flowchart to a graphical file right-click anywhere within the Flowchart View, except on a WorkFlow/object node or link line, and select Output -> Export. You can also select the Export Flowchart View icon from the toolbar (see details in section 4.2.4). A window dialog "Save as" will be displayed:

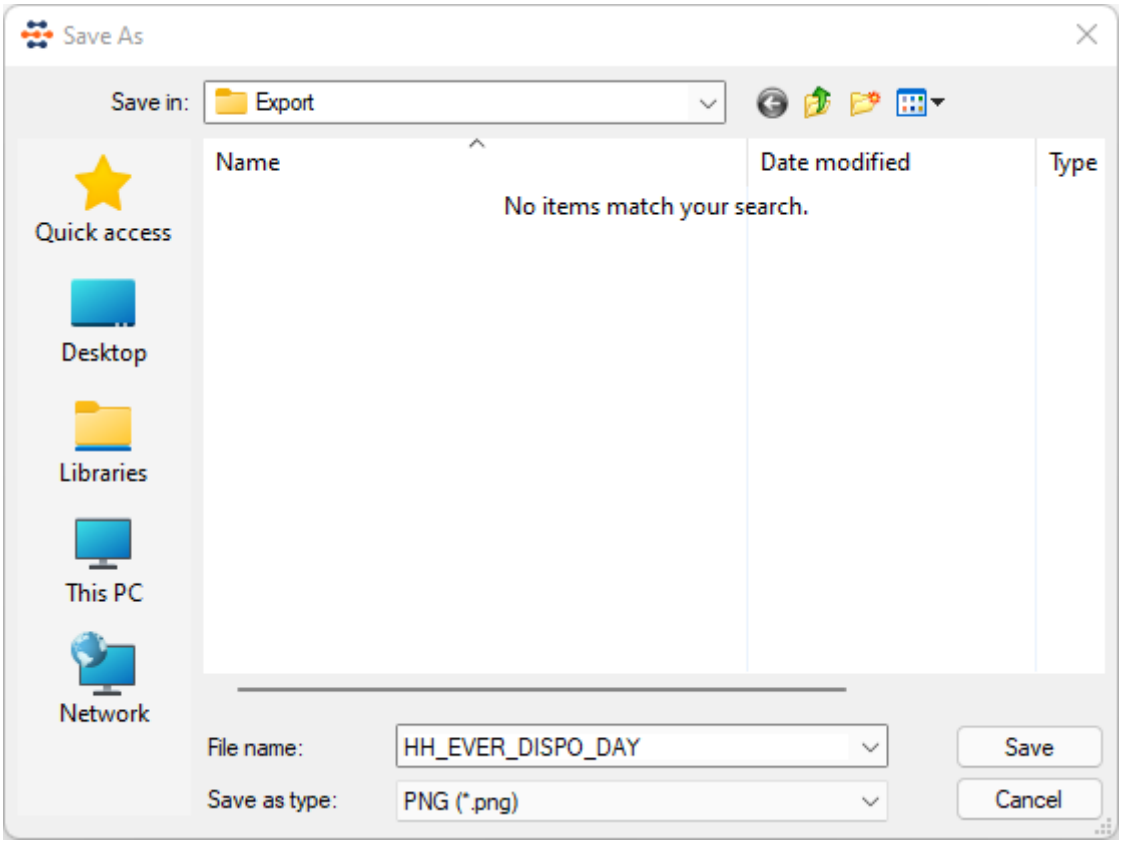


Figure 46 – Save file dialog

Specify an output directory, file name and desired file format, then click "Save" to generate the graphic.

5.1.9 Printing the WorkFlow

The generated Flowchart View flowchart can be printed to any Windows compatible printer or plotter that is accessible from your PC. The Flowchart View flowchart will be printed with the

display options specified (e.g. link details). To print a generated flowchart right-click anywhere within the Flowchart View, except on a WorkFlow/object node or link line, and select Output -> Print. You can also select Print-icon from the toolbar. The following dialog screen is displayed:

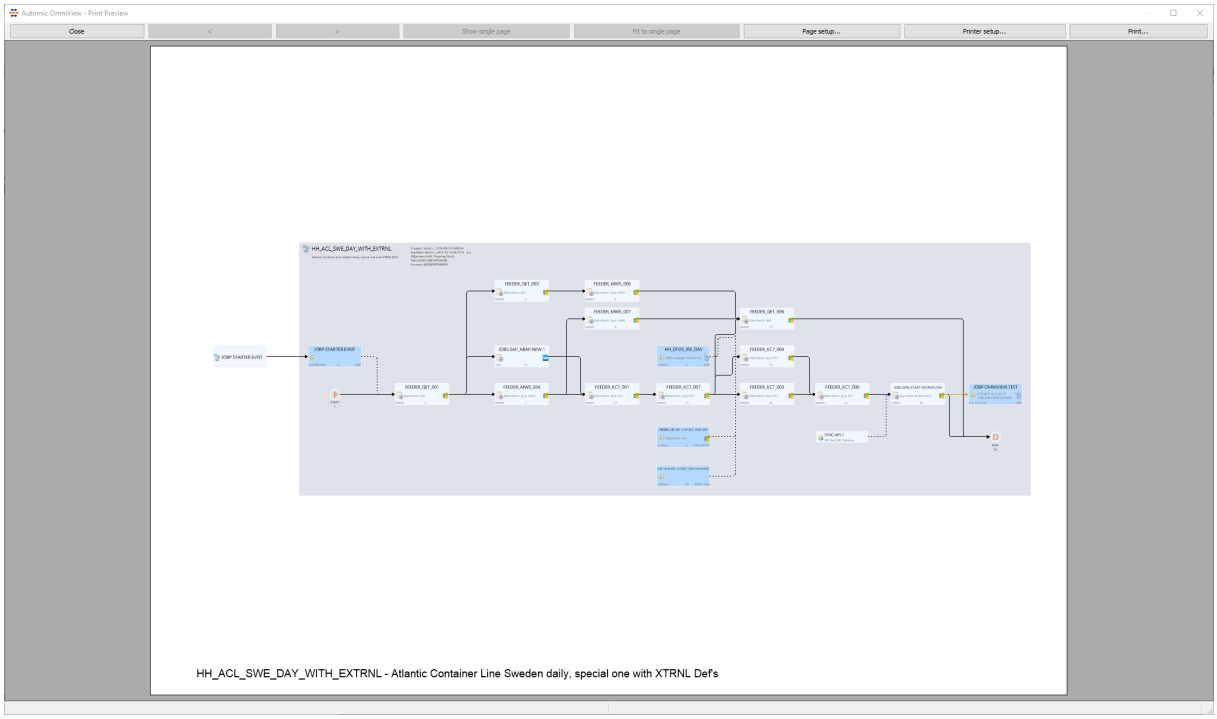


Figure 47 - Flowchart View Print Preview

The following buttons appear at the top of the screen:

NAME:	DESCRIPTION:
Close	Closes the Print Preview dialog screen.
Previous (<)	Navigates to previous page. This button is only enabled when there are multiple pages, Overview/Single is set to single and there are previous pages to the one being viewed.
Next (>)	Navigates to next page. This button is only enabled when there are multiple pages, Overview/Single is set to single and there are pages after the one being viewed.
Show Single Page / Overview	Switches between Overview and Single views. Overview will scale and display all pages within one screen. Single will display one page at a time within one screen. This button is only enabled when there are multiple pages.
Fit To Single Page	Scales entire view to fit on our page
Page Setup	Invokes the OmniView Page Setup Dialog screen
Printer Setup	Invokes the Windows Printer Setup Dialog screen.
Print	Invokes the Windows Print Dialog Screen to send to a specified printer or plotter.

Clicking “Page Setup” displays several options for page printing:

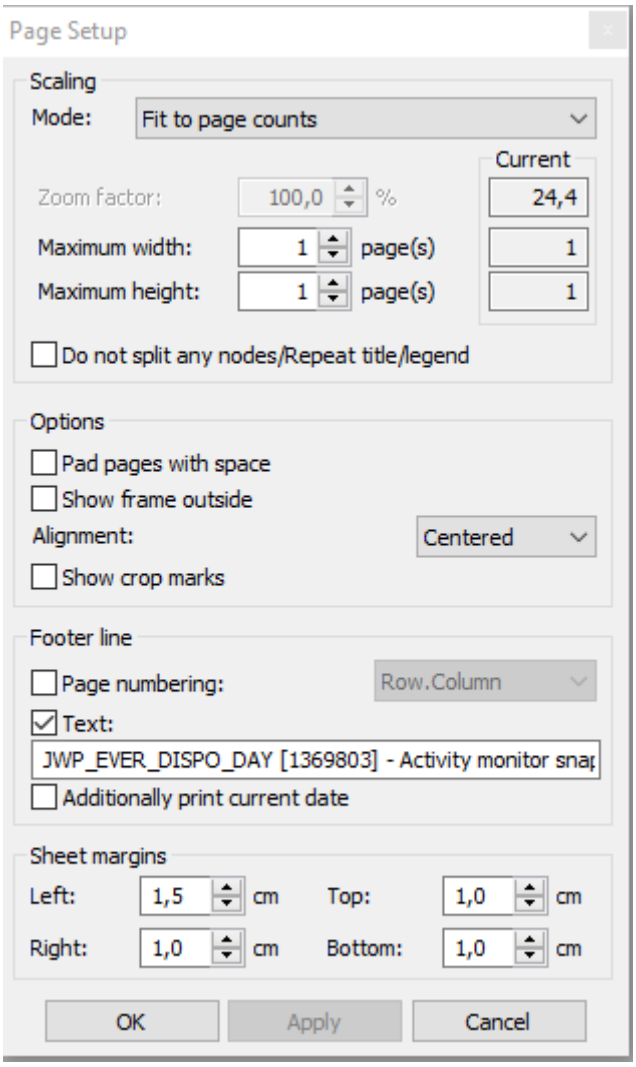


Figure 48 - Page Setup Dialog Screen

HINT:
If you select 'print area' of output in the context menu please be aware, that the displayed area is preselected. Use cross-hairs to define the exact print area you need. To enlarge the required area you can repeat this process.

5.2 Creating HTML Reports of Flowcharts

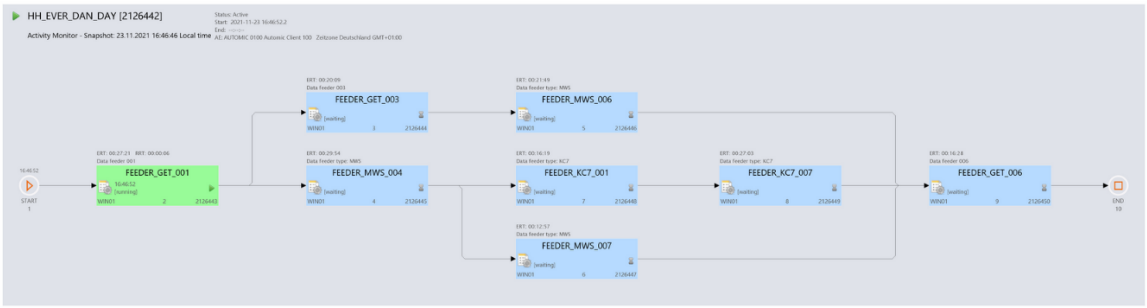
A HTML Report of a generated Schedule / WorkFlow flowchart, activity snapshot or definition view, can be created by clicking the HTML Report Icon in the main Toolbar. The report includes a workflow graph, workflow and job details and will be located in different files in the Export folder defined. Due to the plain HTML structure, a report can be easily integrated in Wiki's or consumed by Dashboards by copying the report files to the specific locations. The styling is done by a separate CSS files: 'styles.css' for report sites and 'styles_index.css' for the index site.

A report has several parts, like flowchart graph, list of objects, documentation and detailed property tree, as shown in the following figures:

OmniView Detail Report for HH_EVER_DAN_DAY [RunID: 2126442]

Dienstag, 23. November 2021 16:47 Local time

Workflow graph



All objects

Schedules, Workflows & Event cluster

Level - Type	Object Name	Title
0 - JOBP	HH_EVER_DAN_DAY [2126442]	n/a

Objects of type: JOBS, SCRI, JOBG, JOBF, EVNT, CALL

Level - Type	Object Name	Title
1 - JOBS	FEEDER_GET_001 [2126443]	Data feeder 001
1 - JOBS	FEEDER_GET_003 [2126444]	Data feeder 003
1 - JOBS	FEEDER_MWS_004 [2126445]	Data feeder type: MWS
1 - JOBS	FEEDER_MWS_006 [2126446]	Data feeder type: MWS
1 - JOBS	FEEDER_MWS_007 [2126447]	Data feeder type: MWS
1 - JOBS	FEEDER_KC7_001 [2126448]	Data feeder type: KC7
1 - JOBS	FEEDER_KC7_007 [2126449]	Data feeder type: KC7
1 - JOBS	FEEDER_GET_006 [2126450]	Data feeder 006

Figure 49 - Report part 1: Flowchart graph and object list

Documentation & Scripts

Report
ACT - Activation
2021-11-23 16:46:52 - U00007000 'FEEDER_GET_001' activated with RunID '0002126443'.
2021-11-23 16:46:52 - U00007000 'FEEDER_GET_003' activated with RunID '0002126444'.
2021-11-23 16:46:52 - U00007000 'FEEDER_MWS_004' activated with RunID '0002126445'.
2021-11-23 16:46:52 - U00007000 'FEEDER_MWS_006' activated with RunID '0002126446'.
2021-11-23 16:46:52 - U00007000 'FEEDER_MWS_007' activated with RunID '0002126447'.
2021-11-23 16:46:52 - U00007000 'FEEDER_KC7_001' activated with RunID '0002126448'.
2021-11-23 16:46:52 - U00007000 'FEEDER_KC7_007' activated with RunID '0002126449'.
2021-11-23 16:46:52 - U00007000 'FEEDER_GET_006' activated with RunID '0002126450'.

Property tree

- HH_EVER_DAN_DAY [2126442]
  - Activity Monitor - Snapshot: 23.11.2021 16:46:46 Local time
  - Object Type: JOBP
  - RunID: 2126442
  - Alias: HH_EVER_DAN_DAY
  - Status: Active
  - Start Time: 2021-11-23 16:46:52.2
  - End Time: --:--:--
  - Estimated Runtime: 01:53:46
  - <START>
    - Start Time: 16:46:52
    - Properties
      - General
        - Settings
          - Active: Yes
          - Set Breakpoint: No
          - Enable Rollback: No
          - Number: 1
      - Time
        - Earliest Start Time
          - Define Earliest Start Time: No
      - Dependencies
        - Execute this task if all statuses match
        - ELSE (on status mismatch or latest time failure)
          - Skip task
        - Successors
          - FEEDER_GET_001 [2126443] (2) JOBS WIN01
  - FEEDER_GET_001
    - Object Type: JOBS
    - Title: Data feeder 001
    - RunID: 2126443
    - Status: running
    - Start Time: 16:46:52
    - End Time: --:--:--
    - Estimated Runtime: 00:27:21
    - Runtime: 00:00:06
    - Properties
      - General
        - Settings
          - Active: Yes
          - Set Breakpoint: No
          - Enable Rollback: Yes
          - Number: 2
          - ID: 2126443
        - Task Prompt/Evaluation
          - Request User Input: No
      - Time
        - Earliest Start Time
          - Define Earliest Start Time: No
        - Time Checkpoint
          - Evaluate Checkpoint: No
      - Dependencies
        - Execute this task if all statuses match
        - ELSE (on status mismatch or latest time failure)
          - Block task
        - Predecessors
          - <START> (1) START
        - Successors
          - FEEDER_GET_003 [2126444] (3) JOBS WIN01
          - FEEDER_MWS_004 [2126445] (4) JOBS WIN01
      - Runtime
        - Max & Min Runtime
          - Override Runtime Settings: No

Figure 50 - Report part 2: Documentation, script and property tree

Hint:

Using the function 'HTML-Report' on a top level with parameter (see 4.1, 2 Section: Reporting) 'Recursive generation of Sub Workflows" (see chapter 4.1 Parameter & Settings, Section Reporting) set to 'True' means, that OmniView generates reports of all embedded sub WorkFlows and jobs in a time and source consuming way.

Sub sites like job details, includes and calendars can be navigated to via object hyperlinks, see figure 50.

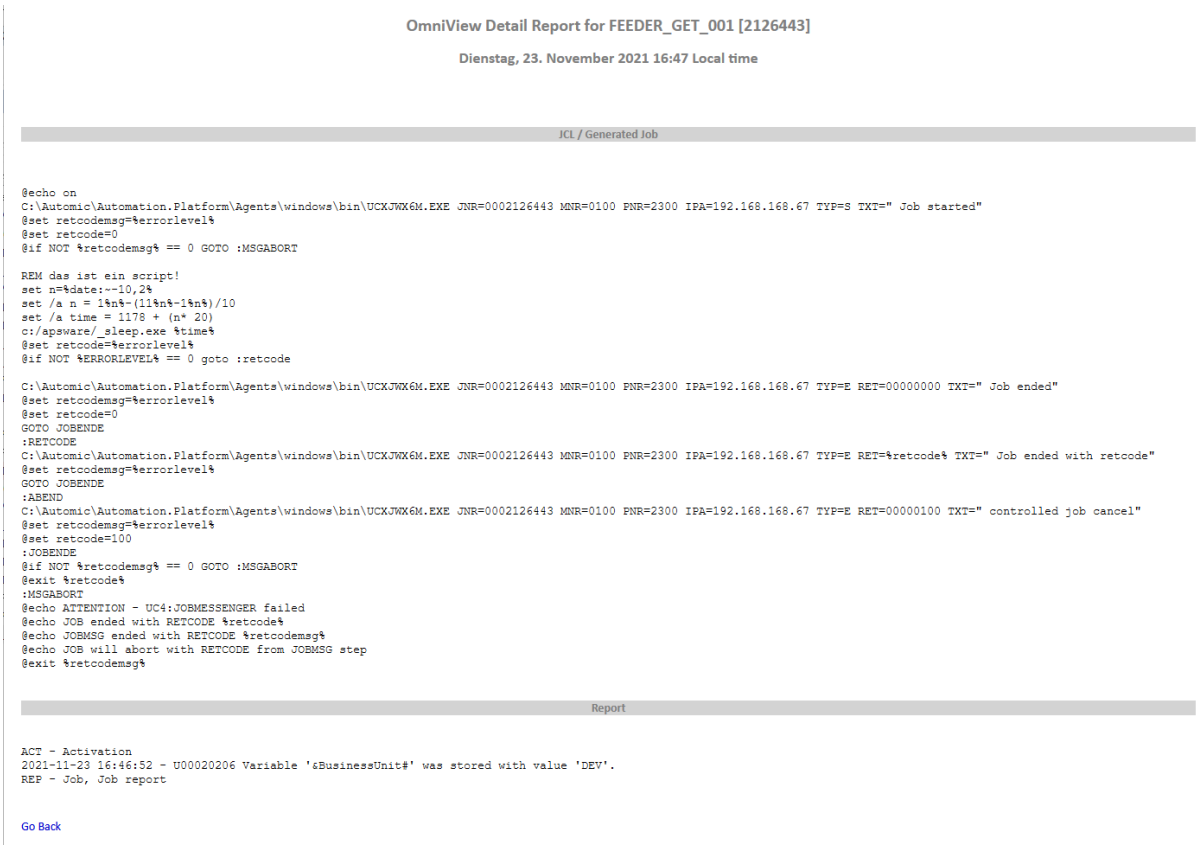


Figure 51 - Job detail report

A basic index site (“index.html”) located in the report folder is generated and can be used as a starting point for activity and definition reports generated.

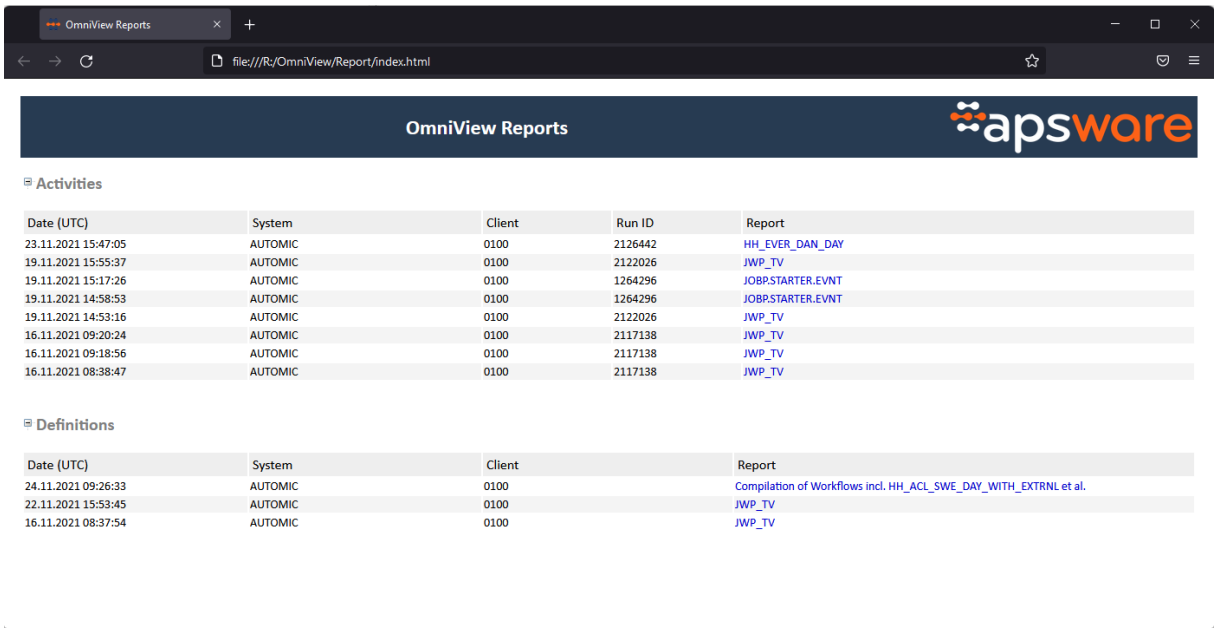


Figure 52 - Index site

6 Workflow Activities module

This module enables the handling of activities in OmniView the same way as WorkFlow definitions. The Key identifier of such a WorkFlow is the Run ID.

6.1 ListView / WorkFlow activities overview

The ListView contains the Schedule / WorkFlows information as known in the Automation Engine User Interface activity window at a given point in time. To refresh the ListView please use the 'RELOAD LISTVIEW' button from the Toolbar (see chapter 4.2.3 - ListView - Schedule/ Workflow overview).

For this active environment the columns of the ListView will show the Type of the Objects (Schedule or WorkFlow), the Run ID, the Object name and the current status at the time the list was requested.

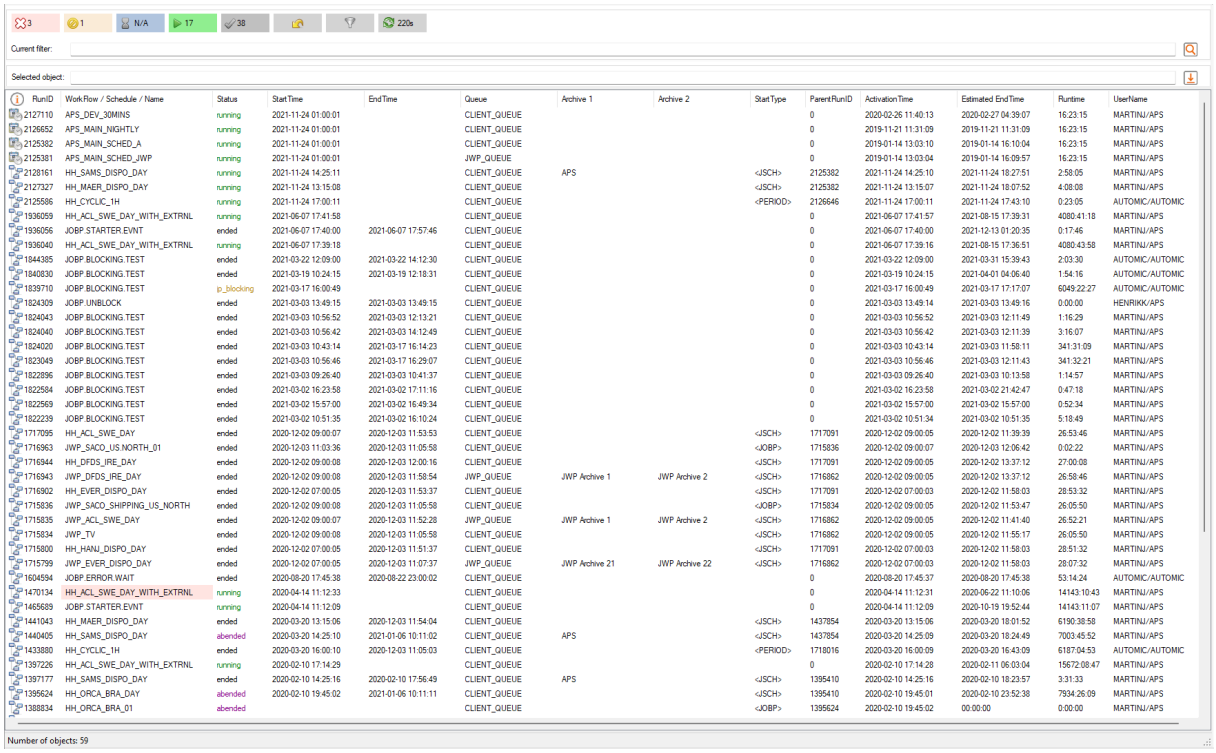


Figure 53 - Example of a WorkFlow activities overview

Status information is colour coded for better comprehension and easy retrieval of information. Each column can be sorted by clicking on the column header, click again to change the sorting behaviour from ascending to descending and vice-versa.

As pointed out in Chapter 5.1 (Creating Flowcharts and Documentation Overview), selecting and double clicking a row will load the WorkFlow identified by the Run ID into the Flowchart View.

6.2 Flowchart View / WorkFlow activities chart

There is additional detailed information available for WorkFlow activities in the Flowchart View:

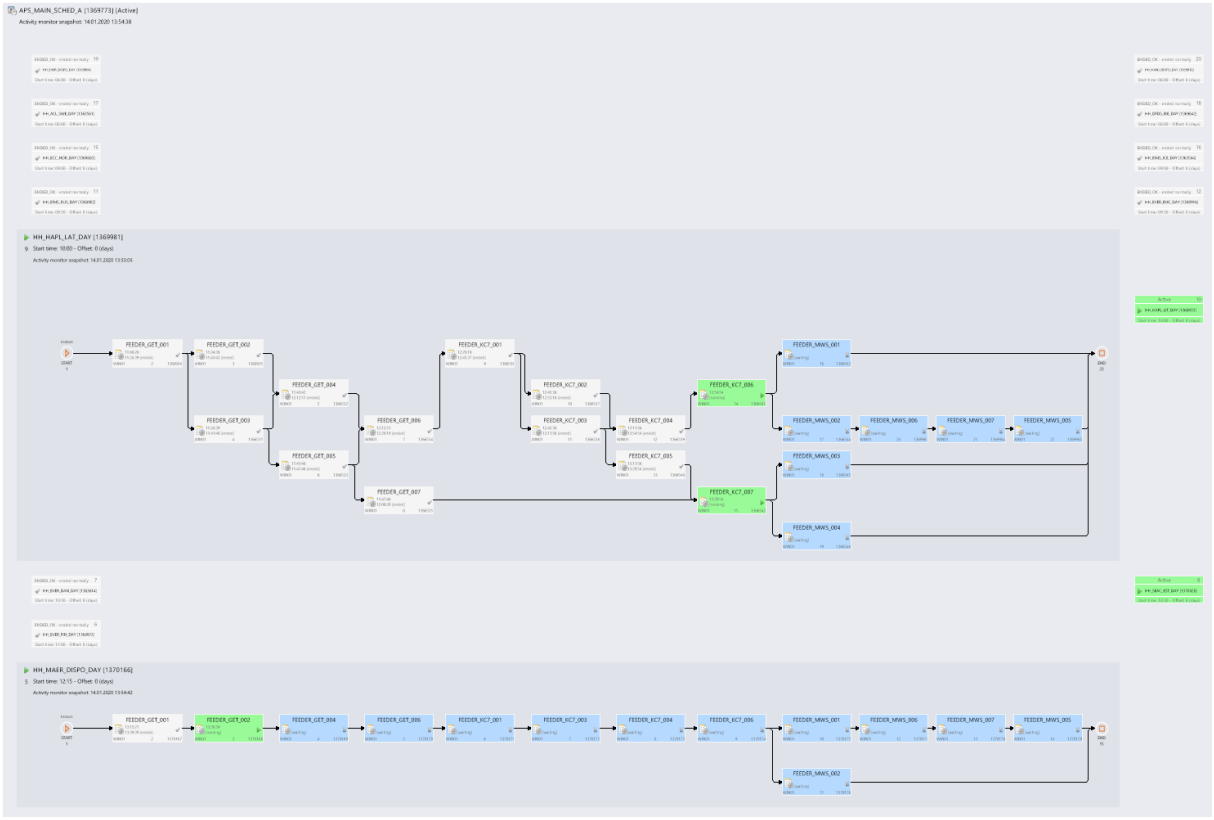


Figure 54 - Example of a Flowchart View of an active Schedule including two WorkFlows

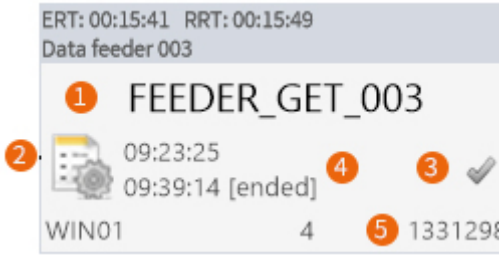


Figure 55 - Activity Object Node

The table below describes the segments of the object activity node:

SEGMENT	DESCRIPTION
1	Object name (e.g. Job Name).
2	Object type icon.
3	Object status icon (running, ended, waiting ...).
4	Start Time in the format 'HH:MM:SS' End Time in the format 'HH:MM:SS' Status text (running, ended, waiting, ...)
5	Run ID of the object.

Quickfilter can be used for identifying and highlighting objects based on their status. By clicking on a filter-icon matching objects will blink for 3 seconds.

Figure 56 - Activity Flowchart status quickfilter

ICON	DESCRIPTION
	Abend, Not OK
	Blocking, Halt
	Inactive
	Waiting
	Running
	Ended

The flowchart can be updated automatically in a selected time interval. The function is started and stopped by clicking on the icon .

ICON	DESCRIPTION
	Switch automatic updating on or off. The remaining time until refresh is displayed.

6.3 TreeView for WorkFlow activities

The TreeView lists additional information of loaded active WorkFlows. The type of information provided for activities is different to the details for definition. Object properties will be shown by default, details will be present after object scan. An example of type Schedule with it's containing Workflows and Task objects is shown below:

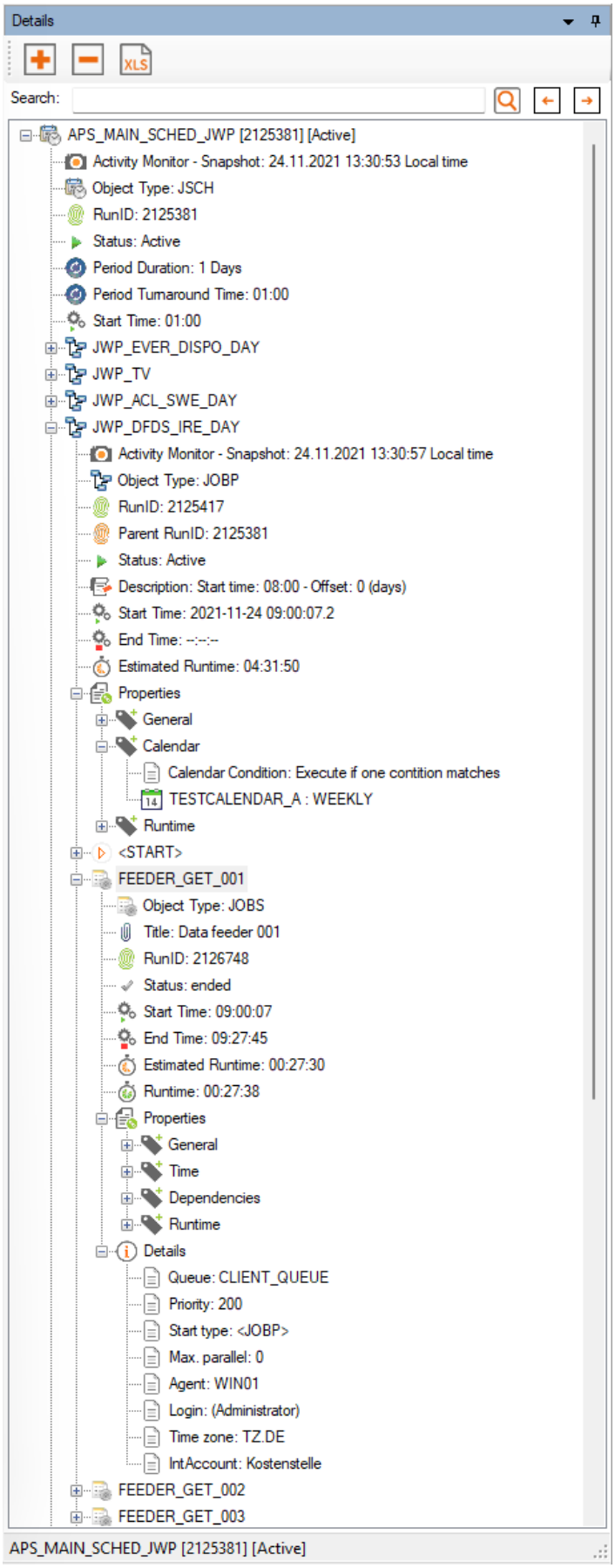


Figure 57 - Example of anTreeView for WorkFlow Activities

7 Invoking OmniView

7.1 Invoking OmniView from Automation Engine JAVA User Interface

If OmniView installation files were created within a sub-directory of the Automation Engine User Interface directory, you may invoke one of three OmniView options directly from the Automation Engine User Interface.

Note: Prior to invoking OmniView from the Automation Engine User Interface, you must first set the variable “UC_SENDTO” within DIV_VARIABLES via Client 0. The following keywords must be added with the appropriate values including the OmniView installation path:

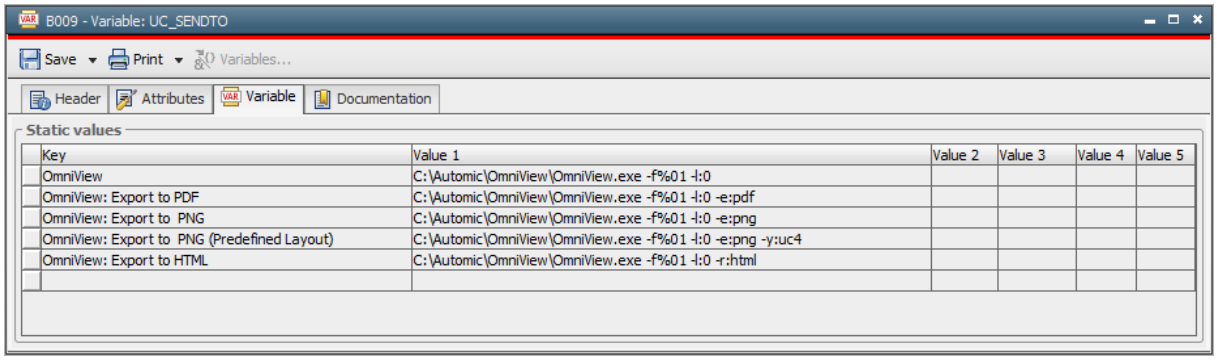


Figure 58 - Variable UC_SENDTO Dialog Screen

For the keyword “OmniView: Print to PDF”, you must first have a PDF writer installed on your PC and specified in the Value.
Within the Explorer window of the Automation Engine User Interface right-click on any WorkFlow and select Send to. The following options are available:

NAME:	DESCRIPTION:
OmniView Online	Flowcharts the selected WorkFlow within OmniView.
OmniView: Export to PDF	Flowcharts the selected WorkFlow and generates a PDF document file. The file will automatically be saved in the output directory specified during installation.
OmniView: Export to PNG	Flowcharts the selected WorkFlow and generates a '.png' graphic file. The file will automatically be saved in the output directory specified during installation.
OmniView: Export to PNG (Predefined Layout)	Flowcharts the selected WorkFlow using the Automic style positioning of objects (Only available for the top level WorkFlow).

Detail information concerning valid parameter:

NAME:	DESCRIPTION:

-l:x	X indicates the level of hierarchy of sub WorkFlows to be displayed. Value '0' indicates the standard WorkFlow hierarchy, valid values are 0 to 9 (lack of performance due to huge amount of WorkFlows to be loaded)
-e:emf	Export to graphic file, valid and most common values are: emf, bmp, png, jpg, gif, wmf and pdf.
-p:printer	Export to every windows printer, plotter or virtual printer for PDF output (see above).
-y:uc4	Automic style positioning of objects
-xls	Exports the detail information in an EXCEL file format.
-offline	Batch mode: No communication to Automation Engine. The WorkFlow objects will be loaded directly from the file system. (see chapter: Invoking OmniView from Batch)
-a:WorkFlowName	Batch mode: Loads the object with 'WorkFlowName' as top level plan. (seechapter: InvokingOmniViewfrom Batch)
-b:CSVFileName	Batch mode: Load, highlight & export objects of list defined in file with csvStructure: <JSCH>;<schedule_name>;<highlight_task_name>;<output_file> <JOBP>;<jobplan_name>;<highlight_task_name>;<output_file> <CALE>;<cale_name>;<cale_key_name>;<cale_year>;<output_file> Sample: -b:JOBP_LIST.csv -e:png
-h:ObjectName	Highlight this Object in Flowchart View by a colored frame. Use together with option -a only.
-m	Indication of WorkFlow activity
-d	Load object detail information
-w	Write logfile (debug session only)
-r:html	Generate HTML Report
-c:name:keyword:year	Generate Calendar export: Name, Keyword and year must be provided, separated by ':'. Nowhitespacecharactersallowed.

Hints:

1. To avoid the Log-on dialog of OmniView the credentials saved are checked against the content of the SEND_TO file.

Sample:

SEND_TO file content:
Automic - 0100 - APS/DEP
1006404

So, parameters for OmniView credentials should look like this:

Connection: Automic
Client: 0100
User: APS
Department: DEP

If one of these parameters does not match, the logon dialog will be shown.
2. To overcome memory limitations by the hosting process (Automation Engine User Interface) the best practice is to start OmniView in a separate thread by using the START command in a batch file. See a sample batch file below (assumed install path is 'C:\Automic\OmniView'):

@echo off

REM Set working path to installation path of OmniView
pushd "C:\Automic\OmniView"
start OmniView.exe %1 popd

The value of the SEND_TO Variable has to reflect this batch file (assumed file name is 'OmniView.bat')

Key: OmniView: Export to EMF
Value: C:\Automic\OmniView\OmniView.bat -f%01 -l:2 -e:emf

7.2 Invoking OmniView from Automic Web Interface

Due to browser security it is not possible to start an external application like OmniView directly. The UC_SENDTO and UC_SENDTO_ACT functionality is designed for calling internal obects and passing data.

By passing the variables &NAME# and &TYPE# for definitions and &RUN# for activities it's still possible to invoke OmniView wrapped by an JOBS object.

Example for using UC_SENDTO to generate a OmniView HTML report:

1) Preparation:

- Install OmniView and setup a working environment
- Define a connection, named for ex. V12.3
- Use valid username and user credentials
- Store the pwd for this user in encrypted file (Logon Dialog)

2) Create a windows job of type JOBS (JOBS.WIN.OMNIVIEW.DEF)
Set Working directory to OmniView installation path (default: 'c:\automic\omniview')

Create a script for handling and passing variable to OmniView

```
@echo on
:READ &NAME#,,
:READ &TYPE#,,
:IF  &TYPE# = "JOBP" OR "JSCH"
:  PRINT "Start OmniView"
   OmniView.exe cx:V12.3 cu:MartinJ cc:100 -a:&NAME# -r:html -writelog
:  PRINT "OmniView ended, Errorlevel:",  %errorlevel%
:ELSE
:  PRINT "Selected Object type is not supported:", &TYPE#
:ENDIF
```

Use the defined connection name with the parameter cx:connectionname, the Username with parameter cu:username and client with parameter cc:client. Please avoid whitespace characters after each ':'.

3) In client 0 set the variable UC_SENDTO with this parameter:

- Key OmniView HTML Report
- Value1 OmniView HTML Report

4) Test the functionality and check the generated logfile
(OmniView.log , located in the OmniView Installation folder). Remove the -writelog option in the script for daily use to avoid a growing logfile.

7.3 Invoking OmniView in Batch Mode

OmniView can be invoked from a batch process using the following syntax and parameter '-a:' (for parameter descriptions '-l' '-e', please refer to chapter 6): OmniView.exe -a:WorkFlowName -l:0 -e:png

As a result of the example mentioned above, there will be a graphic file named 'Prefix_WorkFlowName.png' generated and placed in the defined output folder. As a prefix, a combination of the connection and user name is used, provided by the saved credentials in the Sign-On screen.

Hints:

1 OmniView supports only one Automation Engine connection at a time.
2 You have to log on to the Automation Engine and save these credentials to avoid the log-on dialog (see previous chapter for details).
3 Make sure not to use blanks after the ':' sign.
4 Use the '-offline' switch for direct loading from the file system without requesting the objects from the Automation Engine.

Sample batch file content: Sample batch file content: Sample batch file content:

```
REM ------------------------------------------------------------------------------------------
REM return value from the EXE file :
REM return value = 0 --> run was OK, no ERROR
REM return value = 1 --> ERROR (wrong parameter, ...)
REM return value = 2 --> ERROR (no Items in WorkFlow)
REM return value = 3 --> General Exception
REM ------------------------------------------------------------
echo StartingOmniView ...

OmniView.exe -a:JOBP.APS@PROCESS_AUTOMATED_SYSTEM_COPY -e:emf
IF ERRORLEVEL 3 GOTO Label3
IF ERRORLEVEL 2 GOTO Label2
IF ERRORLEVEL 1 GOTO Label1
GOTO Label0

:Label3
```

::(commands to be executed at ERRORLEVEL 3)
echo WARNING :Exceptionoccurred
GOTO End

:Label2

::(commands to be executed at ERRORLEVEL 2)
echo WARNING : No Items in WorkFlow
GOTO End

:Label1

::(commands to be executed at ERRORLEVEL 1)
echo ERROR: wrong application name, communication/user parameter or file dos not exists
GOTO End

:Label0

::(commands to be executed at ERRORLEVEL 0, or no ERRORLEVEL)
echo MESSAGE: finished ...

:End
PAUSE

For passing a list of objects, including object highlighting, OmniView can be invoked using the following syntax and parameter '-b:':
OmniView.exe -b:csvFileName -l:0 -e:png

Sample csv file content:

<JOBP>;<jobplan_name>;<task_name>;<output_file>
JSCH;APS_MAIN_SCHED_JWP;JWP_TV;OUT_APS_MAIN_SCHED_JWP_TV
JOBP;HH_ORCA_BRA_DAY;FEEDER_GET_001;OUT_ORCA_001
JOBP;HH_ORCA_BRA_DAY;FEEDER_GET_003;OUT_ORCA_002
JOBP;HH_SACO_US.NORTH_DAY;FEEDER_GET_001;OUT_SACO_001
JOBP;HH_SACO_US.NORTH_DAY;FEEDER_GET_002;OUT_SACO_002
<CALE>;<cale_name>;<cale_key_name>;<cale_year>;<output_file>
CALE;APS_KALENDER_T100;MO_DI_DO_FR;2018;OUT_T100_2018_MDDF
CALE;APS_KALENDER_T100;MO_DI_DO_FR;2017;OUT_T100_2017_MDDF
CALE;APS_KALENDER_T100;NO_WEEKDAYS;2017;OUT_T100_2017_NO_WEEKDAYS
CALE;APS_KALENDER_T100;NO_WEEKDAYS;2018;OUT_T100_2018_NO_WEEKDAYS

PARAMETER	DESCRIPTION
<JOBP>	Indicates the type of object to be processed, valid options are: JSCH and JOBP.
<jobplan_name>	Object name to visualize
<task_name>	Object to be highlighted
<output_file>	WorkFlow output file name without extension
<CALE>	Indicates the type of object to be processed, valid option is: CALE

<cale_name>	Calendarnametovisualize.
<cale_key_name>	Calendar key name to be used.
<cale_year>	Year tovisualize.
<output_file>	Calendar output file name without extension

Return values of OmniView greater the '50' may indicate an Error situation.

7.4 Working offline with OmniView

It is possible to work with OmniView while not connected to the Automation Engine. To do so, you must generate an XML export of the WorkFlows of the related Automation Engine. Save these XML export files to a location accessible to OmniView.
To access these WorkFlows via OmniView while offline, select File Open from the OmniView toolbar menu and select the specified WorkFlow XML file. A flowchart of this WorkFlow will be displayed within OmniView. It is recommended that you activate the Offline option as shown in Figure 9 - Sign-On Screen.

Hint:

Not all functions of OmniView may be available in Offline Mode.

To use OmniView in batch mode not connected to the Automation Engine, we recommend using the '-offline' switch to avoid requesting additional objects from the Automation Engine to reduce communication timeouts.

To overcome the limitations of file naming (Prefix with Connection/user name of API transfer files of WorkFlows) in offline batch mode, the combined use of switches -offline and -a:WorkFlowName was introduced.

Example:

OmniView.exe -a:WorkFlowName -l:0 -e:png -offline

This will open a file named 'WorkFlowName.log' and export a .png graphic file named 'WorkFlowName.png' of that WorkFlow without any expanded hierarchy levels (-l:0). The input WorkFlow file must be located in the API Transfer folder and the export file will be placed in the Graphic output folder as defined in the OmniView settings.

8 Internal Tools

8.1 Extract XML Export File

To simplify the use of offline data, the tool assists you to prepare a use-able data pool out of an AE export file, generated with the AE Export option. First, locate and select the export file from it's destination folder. Unless otherwise indicated, the OmniView Transfer folder should be used. The file Prefix is suggested to be the current connection name in conjunction with the user name, the file extension is 'log' by default so the files are visible by the default open dialog filter.

The 'Default' Button selects the most common objects to be extracted but may be changed by marking the object types. Lastly, hitting the 'Run' Button will start the extraction and a process log will be shown in the log box below.

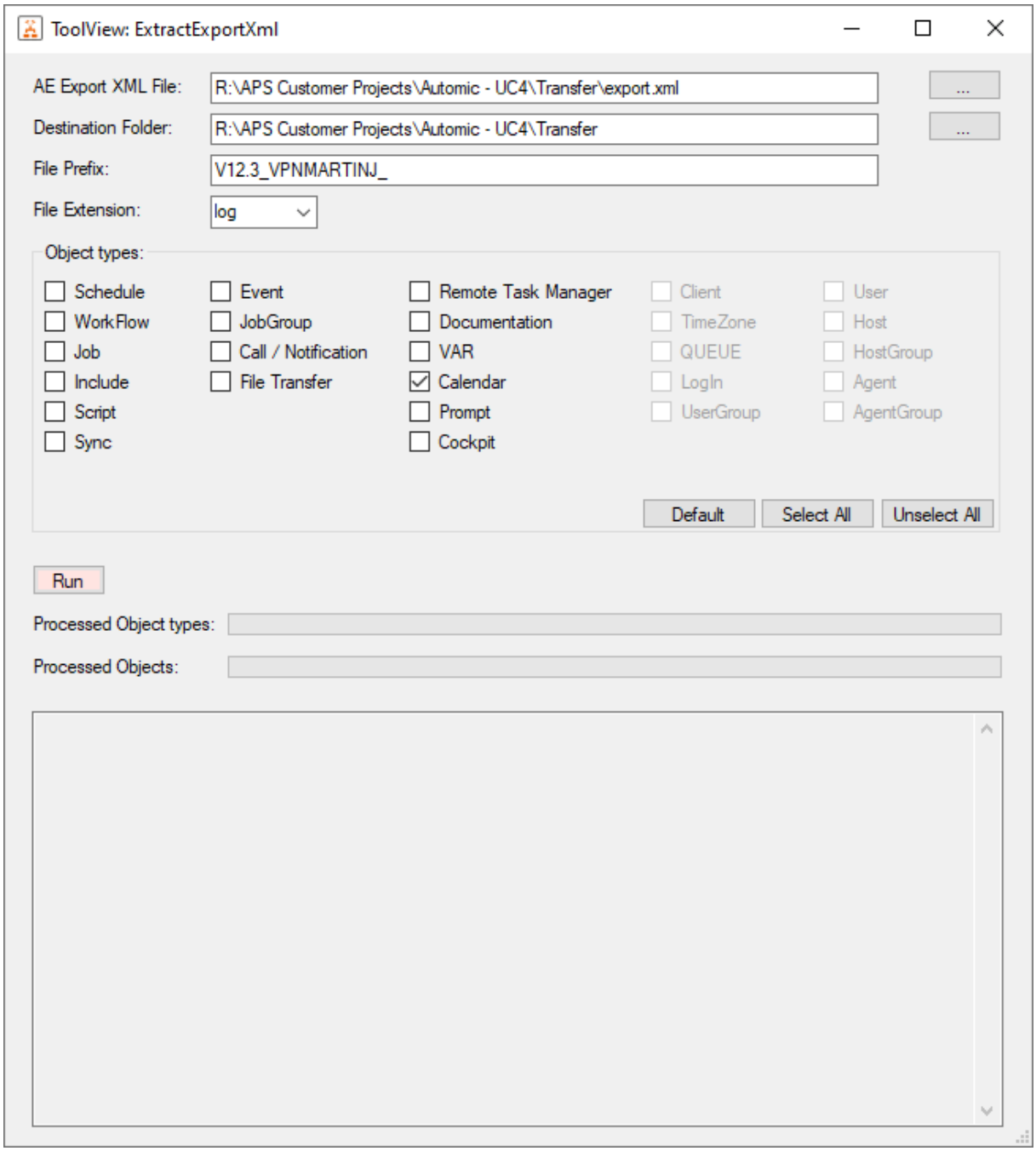


Figure 59 – ToolView: ExtractExportXML

8.2 LogView

When startet with the '-writelog' command parameter, OmniView will write enhanced logging information to a file called 'omniview.log', located in the program installation folder. This file can be viewed with the build in LogView tool (see figure 59)

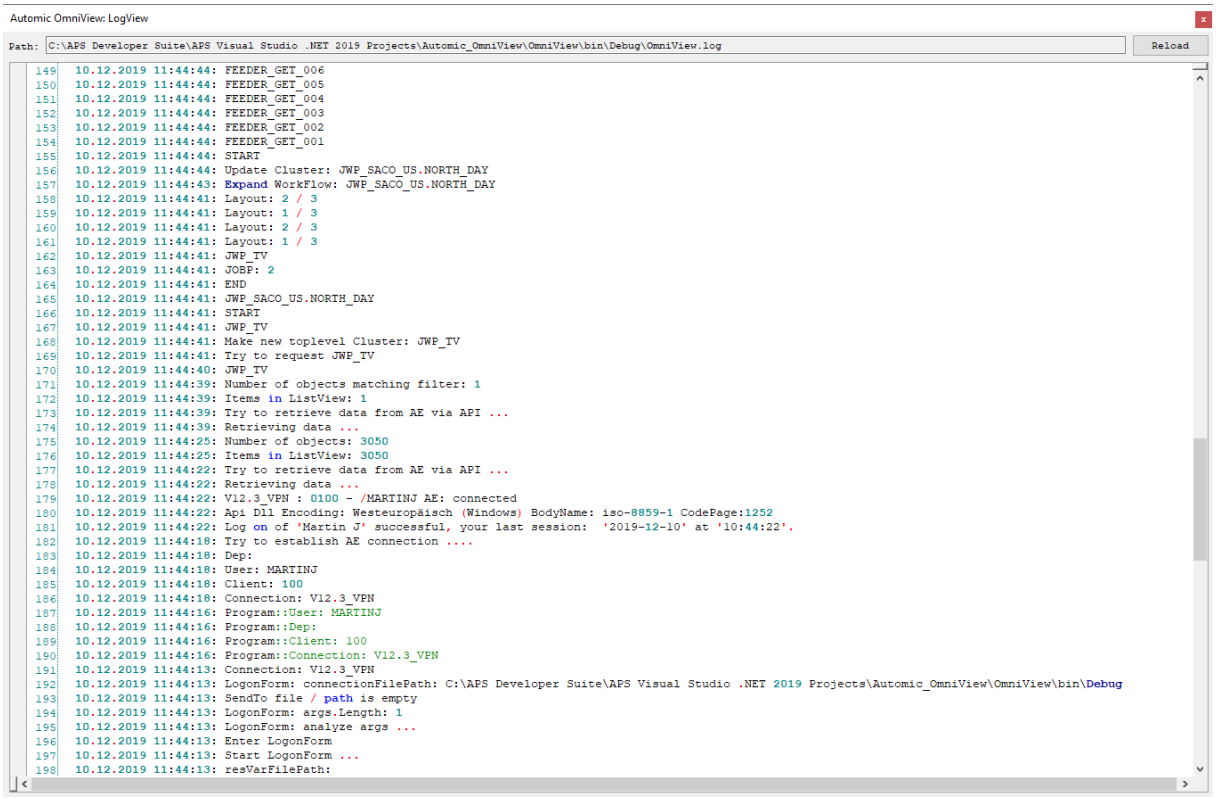


Figure 60– ToolView: LogView

Hint:

Use the '-writelog' option to detect and protocol error situations only. Reset the writelog option to avoid performance degradation.

8.3 Automic OmniView License View

The license view can be invoked by using the sub menu entry 'License Viewer' of the main menu bar, see chapter 4.2.1.

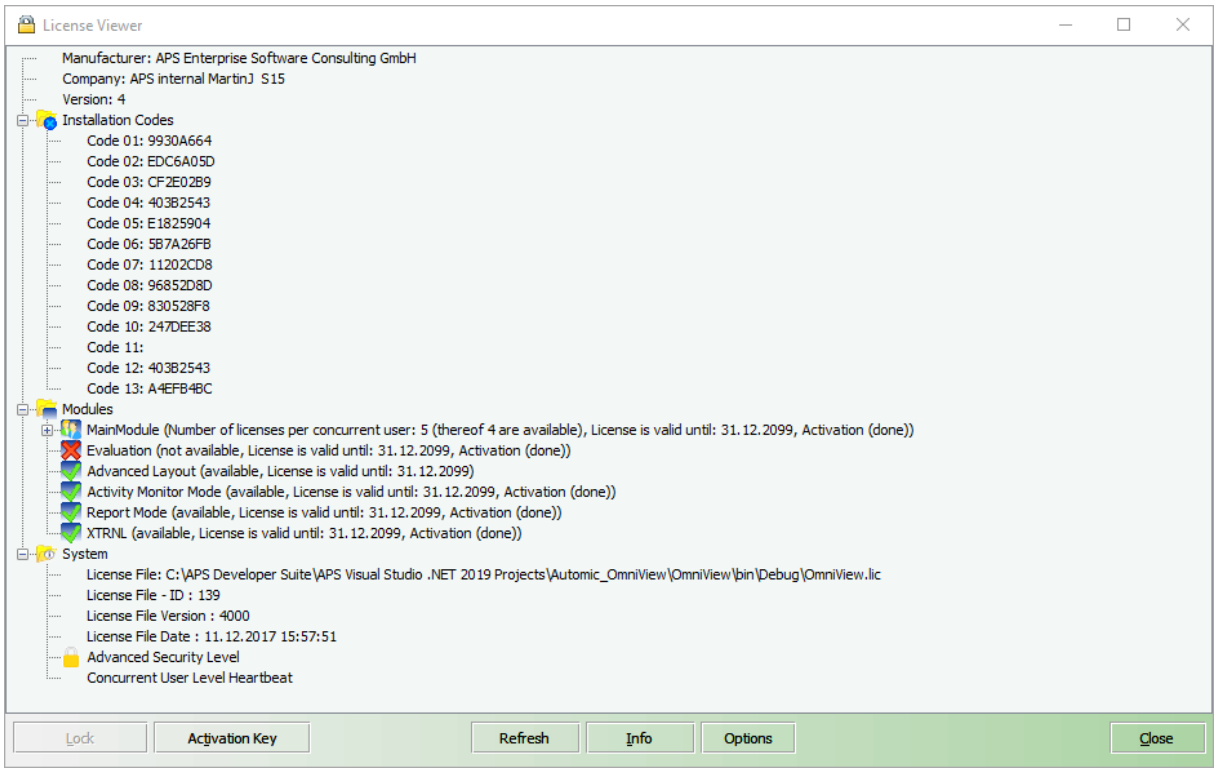


Figure 61 – Licence Viewer

8.4 About View

The About View list company legal and copyright information about apsware and Automic. Links to the product and support websites are provided. The version of OmniView with the Build date are needed when contacting support.

Figure 62– AboutView