



Automation Engine 11

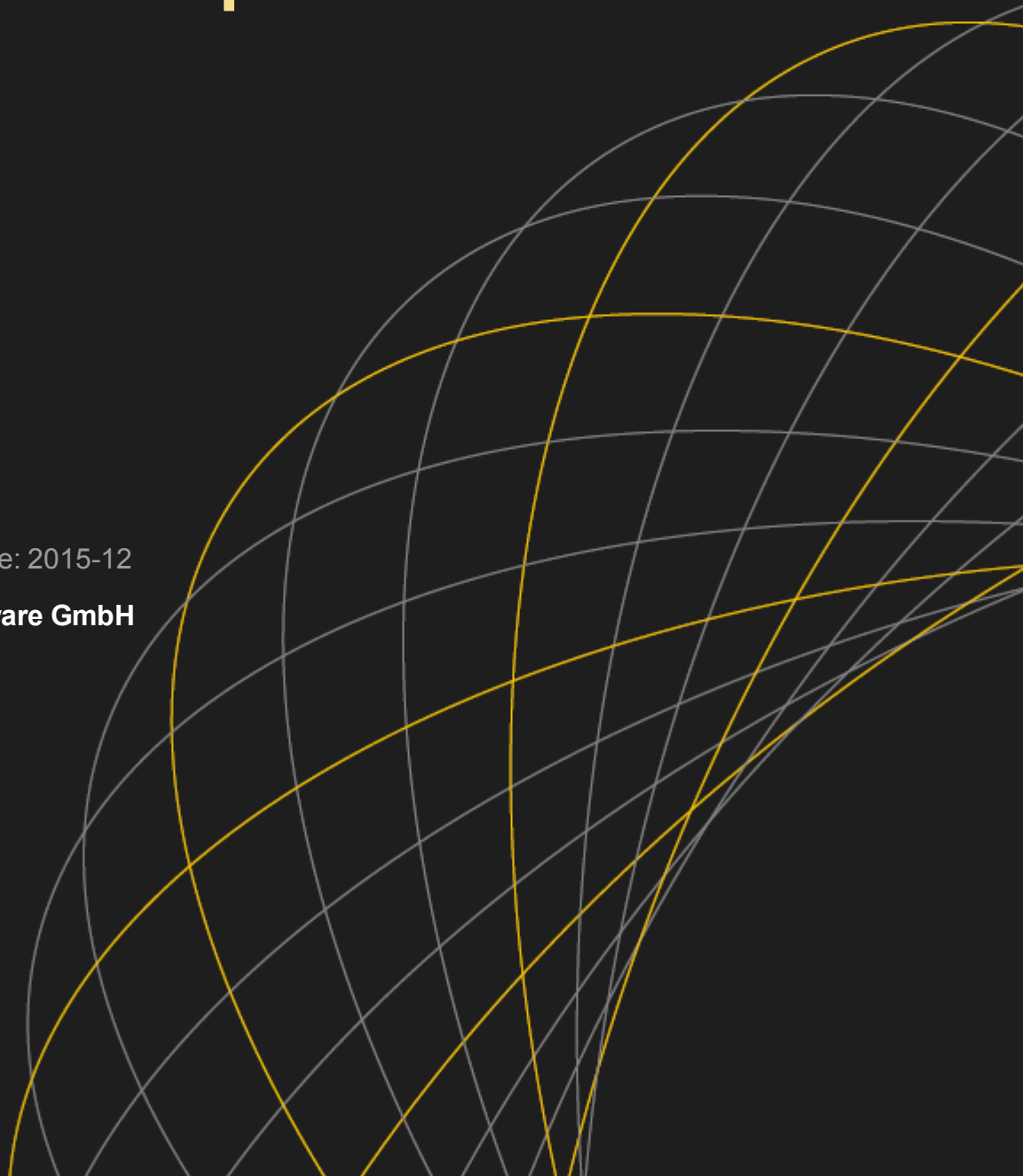
ONE Automation Platform

System Requirements

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Automatic Software GmbH



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1 Supported Platforms

The first step in preparing to install or upgrade the Automation Engine is making sure that you have the necessary infrastructure ready and required components and versions installed.

Make sure that you review the infrastructure and product requirements, and the recommendations and considerations that are covered below in the following sections:

- [Automatic Compatibility Checker](#)
- [General Information](#)
- [Java](#)
- [Network](#)
- [Database](#)
- [Automation Engine](#)
- [UserInterface](#)
- [Utilities](#)
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- [ServiceManager and ServiceManager Dialog](#)
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Automatic Compatibility Checker

First check the latest requirements for the Automation Engine in the [Automatic Compatibility Checker](#).

Go to the web page and choose "Automation.Engine", the version you want to install, and the relevant sub-component. In the three columns of information you will find the versions that you need for your installation. This document provides additional background information.

General Information

The Automation Engine, SNMP Subagent and utilities are only available for 64 bits.

All other components are supplied for 32 bits and some of them for 64 bits.

Further information is provided in the documents describing the requirements for the individual components. No further information means that the particular component is only available for 32 bits.

Java

Java Software

Some components need a Java JRE/SDK environment. For detailed information, which components are affected and what Java version you should use, call the [Automatic Compatibility Checker](#).

Network

TCP/IP

All involved computers must be connected via TCP/IP and communicate with each other (check with PING). TCP/IP addresses must be known and the computers on which Automation Engine processes are installed must have a fixed TCP/IP address (no dynamic allocation).

Database

Details on requirements for the supported databases DB2, MS SQL and Oracle find online using the [Automatic Compatibility Checker](#).

Distance Between the Database and Automation Engine

We recommend that the database is in the same data center as the Automation Engine. The maximum distance between the two should not exceed 20 kilometers/12 miles. Otherwise we cannot guarantee timely responses and you may experience delays such as user interface lagging.

Requirements for the DB Computer

The size of the Automation Engine Database highly depends on the size of the system and its capacity. It may range from 20 GB to several hundred GBs.

For details see the section "[Sizing](#)" below.

Automation Engine

Supported Platforms

For the latest information on supported platforms please refer to the [Automatic Compatibility Checker](#).

Hardware Requirements for the AE Computer

For details refer to the [Automatic Compatibility Checker](#).

Virtual environment

Automatic offers support for the Automation Platform in a virtual environment.

For the latest information on the virtual systems the Automation Platform was tested against refer to the online available [Automatic Compatibility Checker](#).

SNMP Subagent


For the SNMP subagent, the same requirements apply as for the Automation Engine.

- Windows: SNMP service
- UNIX: The particulars UNIX environments require also can be found online, using the [Automatic Compatibility Checker](#).

UserInterface

The UserInterface is a Java application program and may run on all platforms for which a Java Runtime Environment (Virtual Machine, VM) is available.

Details you find online using our [Automatic Compatibility Checker](#).

 If you are running the PeopleSoft agent with 8.53 or higher, the UserInterface requires Java 1.7 (the same Java version which is also required on the agent side).

Details on the following subjects concerning the UserInterface you find online as well using our [Automatic Compatibility Checker](#):

- Recommended Screen Resolution
- Hardware Requirements for the UserInterface Computer

Utilities

Utilities based on Java application platforms may run on all platforms for which a Java Runtime Environment (Virtual Machine, VM) is available.

The particular supported Java versions you find online in the [Automatic Compatibility Checker](#).

Agents

Platform Agent

The Linux agent is supplied for 32-bit and for 64-bit and was tested against the following systems:

- SuSE Linux Enterprise Server
- Red Hat Enterprise Linux
- Oracle Enterprise Linux

Details on operating system versions and architecture you find online in the [Automatic Compatibility Checker](#).

Agent for Enterprise Business Solutions

All information concerning the agent for Enterprise Business Solutions can also be found online, in the [Automatic Compatibility Checker](#).

Agent for Databases

To connect to a database system, the appropriate JDBC driver classes are needed. The JDBC driver classes are not part of the product and must be purchased separately by the database vendor.

The JDBC driver classes must be compatible with Java.

Particulars about the Java version the JDBC driver classes must be compatible with you can find online in the [Automatic Compatibility Checker](#).

Agent for EE/JMX

The agent must be running on a Java supported environment. Details on supported versions you find online in the [Automatic Compatibility Checker](#).

ServiceManager and ServiceManager Dialog

The ServiceManager and the Dialog are used to monitor and start and end the main processes of the Automation Engine.

Both are available for 32-bit and 64-bit.

Details about supported platforms you find online in the [Automic Compatibility Checker](#).

External Integration

ApplicationInterface, Internal Webservice, ResourceAdapter and Connect for WebSphere MQ

Details on the supported platforms and versions find online in the [Automic Compatibility Checker](#).


Knowledge Module for BMC Patrol, Connect for HP OpenView NNM, Smart Plug-In for HP OpenView Operations, PlusModule for Tivoli

Details on the supported platforms and versions find online in the [Automic Compatibility Checker](#).

Sizing of AWA Systems

Sizing an AWA system is no easy task, as a number of aspects have to be considered. To help you make your decisions, below you find a table for different workload options and a second table containing the most important considerations as Q&A.

The first table is meant to help you to make a quick rough estimate for your system setup. It shows conservative results to be on the safe side.

 Database systems and database storage have always to be fail safe and redundant. This section does not deal with that question.

Modules	Small Config				Medium Config				Big Config				High End Config			
		CP U	Mem ory	Di sk		CP U	Mem ory	Di sk		CP U	Mem ory	Di sk		CP U	Mem ory	Di sk
Automat ion Engine	2 x	4 Cor es	8 GB	51 2 GB	2 x	8 Cor es	32 Gb	1 TB	2 x	16 Cor es	64 GB	1 TB	4 x	16 Cor es	96 GB	1 TB
Databas e		4 Cor es	8 GB	51 2 GB		8 Cor es	32 Gb	1 TB		16 Cor es	64 GB	2 TB		16 Cor es	96 GB	2 TB
Utilities	1 x	1 Cor e	n/a	20 Gb	1 x	1 Cor e	n/a	20 Gb	1 x	1 Cor e	n/a	20 Gb	1 x	1 Cor e	n/a	20 Gb
Agent	n x	1 Cor e	n/a	20 Gb	n x	2 Cor e	n/a	20 Gb	n x	4 Cor e	n/a	20 Gb	n x	4 Cor es	n/a	20 Gb
Service Manager	n x	1 Cor e	n/a	1 Gb	n x	1 Cor e	n/a	1 Gb	n x	1 Cor e	n/a	1 Gb	n x	1 Cor e	n/a	1 Gb

Service Manager Dialog	1 x	1 Core	n/a	1 Gb	1 x	1 Core	n/a	1 Gb	1 x	1 Core	n/a	1 Gb	1 x	1 Core	n/a	1 Gb
User Interface	n x	1 Core	8 GB	20 Gb	n x	1 Core	8 GB	20 Gb	n x	1 Core	8 GB	20 Gb	n x	1 Core	8 GB	20 Gb
Enterprise Control Center	1 x	4 Cores	8 GB	20 Gb	1 x	8 Cores	16 GB	20 Gb	1 x	8 Cores	16 GB	20 Gb	1 x	8 Cores	32 GB	20 Gb
Number of																
Users	< 10					< 50					< 200					> 200
Agents	< 20					< 100					< 1 000					> 1 000
Object definitions	< 1 000					< 50 000					< 100 000					> 100 000
Total Executions per day	< 350 000					< 700 000					< 1 500 000					> 1 500 000

Adjustments - Questions and Answers

After you have got a rough estimation of what to expect, there are some additional aspects to be taken into consideration, which may affect the sizing. Below you find a list of possible questions and the appropriate answers concerning system sizing for different scenarios.

Question	Sizing Adjustment
General	
Is the expected load distributed over the day evenly or do you expect high peaks?	Normal: - Even: Reduce resources High Peaks: Add resources (cores, WP's)
Is excellent performance important even in periods of peak load?	No: - Yes: Add resources (cores, WP's)
Is the expected load constant or do you expect growth?	Constant: - Growth: Consider next sizing level
How long do you need to hold data (statistics, job reports, revision reports) in the database?	> 12 month: Add more database storage < 3 month: Reduce database storage
Do you expect many huge job reports to be stored in the database (e.g. more than 100.000 lines)?	No: - Yes: Add more database storage

Do you plan to use ILM?	Yes: Plan how to deal with switched out data No: Run the UC4.DB Reorg Utility as near as possible to the database and add storage for output data (if generated)
Do you plan to use Oracle as database system?	Yes: Add resources on the database node(s) (faster CPU's, faster network, ...)
What hardware to you plan to use for the AE system?	Linux/Windows on Intel x64: - Others: Add resources
Do you plan to run the AE/database on virtual nodes?	Yes: Make sure that computing power is guarantied for you systems and other Virtual Machines do not detract from the computing power/bandwidth.
Is logging and trace ability over a longer period important for you?	Y: - N: Reduce local disk storage on AE
Fail safe	
Is a fail safe system important for you?	No: - Yes: Make sure your systems are equipped with redundant components (power supply, network, etc.) and that you have an "always-on" database environment.
Performance during a failure situation (e.g. one node fails): Are the remaining node(s) able to handle the load?	Example: A two node system has to be oversized by 100% to be able to handle the load on the remaining node! Consider not only cores and memory, but also the amount of CP's, WP's, DWP's, JWP's, DB-Service agents,... If fail safe is crucial for you, consider to run on more than two nodes!
Agents	
Do you expect high usage of some agents?	No: - Yes: Add resources to those nodes. Take care that resources used by your jobs are available.
Do you plan to run many agents on a single node (e.g. SAP, Webservice,...)	No: - Yes: Add approximately 1 GB per Java based agent to those nodes. (An average used java agent will need between 512-1024 MB, but in some cases this may be more.)
User	
Do you have many users, who are constantly monitoring activities and workflows?	No: - Yes: Add more resources to dialog work processes and ECC (run more DWP's and take care that cores and memory are available for this additional load).
Do you expect huge workflows (> 1000 tasks per workflow)?	No: - Yes: Add memory to AE/UI/ECC (expect 1-2 GB per DWP)
Do you expect huge xml imports/exports?	No: - Yes: Add memory to AE/UI/ECC (expect 1-2 GB per DWP)
Do you expect to have users in different locations (long distance)?	No: - Yes: Run multiple ECC instances at every location (e.g. on every continent, where users are located).

Process Analytics

Process Analytics is the solution that meets your automation management needs. Critical path analysis helps you to find out which processing steps you need to monitor more closely and helps you to reorganize and optimize your processing. Graphical Forecasting supports you in planning future workloads and maintenance windows. Time based Views help you to understand dependencies and to view your processes from end to end.

Detailed information on the platforms and versions Process Analytics works with you find in the online database [Automic Compatibility Checker](#).