

KNOWLEDGE BASED SOLUTIONS 6.x

KNOWLEDGE MANAGER EXPERT OPTIMIZER

HARDWARE SPECIFICATION



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1. Knowledge Manager Hardware Specifications

1.1 Knowledge Manager Server

The **HP / Compaq Proliant** is selected as the preferred hardware platform for Knowledge Manager server.

Item	Specification
Computer unit	Intel Xeon Dual Core
Clock rate	1.8 GHz see Note 1
Installed RAM	2 GB RAM see Note 2
Installed hard disk capacity	4 * 72 GB SAS/SCSi see Note 3
Raid system	Smart Array Raid 1 / 10
Backup system	DAT Tape 72 GB
CDROM	DVD-ROM drive
Monitor	17" Color
No. of interaction devices	<ul style="list-style-type: none"> • 1 standard QWERTY keyboard • 1 mouse
Operating system	Windows 2003 Server Standard Edition, English
Database system	Oracle 10g
Communication hardware (actual specification depending on plant specific configuration)	<ul style="list-style-type: none"> • 1 IEEE 802.3 Ethernet LAN interface • 2 (redundant) IEEE 802.3 Ethernet LAN, interfaces for control system communication
Communication software	<ul style="list-style-type: none"> • OPC DA-client • Communication link to plant network (TCP/IP)

Table 1: Knowledge Manager Server Specification

In order to offer the latest technology, *ABB Switzerland Ltd* reserves the right to substitute alternative hardware of equal or better performance.

Note 1: The minimum HW requirements if using data acquisition at 1s:

- 1000 Logs: 1.8 GHz CPU
- 3000 Logs: 1.8 GHz CPU
- 10000 Logs: 2.2 GHz Dual CPU
- 20000 Logs: 3.0 GHz Dual CPU

Note 2: The minimum HW requirements if using data acquisition at 1s:

- 1000 Logs: 2 GB RAM
- 3000 Logs: 3 GB RAM
- 10000 Logs: 4 GB RAM
- 20000 Logs: 4 GB RAM

Note 3: Please consult storage calculations worksheet for Hard Disk sizing if using data acquisition at 1s.

1.2 Knowledge Manager Data Collector Node

Item	Specification
Computer unit	Intel Xeon or Intel Dual Core
Clock rate	1.8 GHz see Note 1
Installed RAM	2 GB RAM
Installed hard disk capacity	2 * 72 GB SAS/SCSi
Raid system	Smart Array Raid 1 / 10
CDROM	DVD-ROM drive
Monitor	17" Color
No. of interaction devices	<ul style="list-style-type: none"> • 1 standard QWERTY keyboard • 1 mouse
Operating system	Windows 2003 Server Standard Edition, English, or Windows XP SP2, English
Database system	Oracle 10g
Communication hardware (actual specification depending on plant specific configuration)	<ul style="list-style-type: none"> • 1 IEEE 802.3 Ethernet LAN interface • 2 (redundant) IEEE 802.3 Ethernet LAN, interfaces for control system communication
Communication software	<ul style="list-style-type: none"> • OPC DA-client • Communication link to plant network (TCP/IP)

Table 2: Data Collector Node

Note 1:

These are the minimum HW requirements if using data acquisition at 1s:

10000 Logs: 1.8 GHz CPU

20000 Logs: 1.8 GHz Dual Core

In order to offer the latest technology, *ABB Switzerland Ltd* reserves the right to substitute alternative hardware of equal or better performance.

1.3 Modem for the Knowledge Manager Server

Item	Specification
Unit	ZyXEL U-90E Faxmodem
Speed	57,6 kbps
Communication	<ul style="list-style-type: none"> • 1 RS-232 interfaces

Table 3: Telephone Modem for Remote Diagnosis

In order to offer the latest technology, *ABB Switzerland Ltd* reserves the right to substitute alternative hardware of equal or better performance.

1.4 Knowledge Manager Engineering Client

Item	Specification
Computer unit	Intel Pentium 4
Clock rate	2.8 GHz
Operating system	Windows XP
Open system standards	<ul style="list-style-type: none"> Windows (presentation and dialog) SQL (interface to other computers)
DVD/CD Drive	1
Installed primary memory RAM	1024 MByte
Installed hard disk capacity	80 GB SATA
No. of monitors	1
Monitor size	19" TFT Color
No. of interaction devices	<ul style="list-style-type: none"> 1 standard QWERTY keyboard 1 mouse
Communication software	<ul style="list-style-type: none"> Communication link to plant network (TCP/IP)

Table 4: Knowledge Manager Engineering Client

In order to offer the latest technology, *ABB Switzerland Ltd* reserves the right to substitute alternative hardware of equal or better performance.

1.5 Knowledge Manager Personal Assistant (User's PC)

PC Software Module	Minimum PC Requirements
Knowledge Manager Personal Assistant	<ul style="list-style-type: none"> Operating system Windows XP or 2000 Microsoft Internet Explorer 6.0 Any PC that runs the above Microsoft software
Knowledge Manager EXCEL ADD-IN Module	<ul style="list-style-type: none"> as above plus MS EXCEL 2000, XP or 2003

Table 5: Knowledge Manager Personal Assistant

In order to offer the latest technology, *ABB Switzerland Ltd* reserves the right to substitute alternative hardware of equal or better performance.

2. Expert Optimizer Hardware Specifications

2.1 Expert Optimizer Server

The **HP / Compaq Proliant** is selected as the preferred hardware platform for Expert Optimizer server.

Item	Specification
Computer unit	Intel Xeon or DualCore
Clock rate	2.8 GHz
Installed RAM	3 GB RAM
Installed hard disk capacity	Minimum 2 * 72 GB SAS/SCSi
Raid system	Smart Array Raid 1 / 10
Backup system	DAT Tape 72 GB
CD Drive	DVD-ROM drive
Modem or ISDN	<ul style="list-style-type: none"> V90 analogue modem or ISDN Terminal Adapter as appropriate ISDN Terminal Adapter must be able to function with analogue modem e.g. Eicon Diva Pro
Monitor	17" TFT Color Must be able to display 1280 x 1024
No. of interaction devices	<ul style="list-style-type: none"> 1 standard QWERTY keyboard 1 mouse
Operating system	Windows 2003 Server Standard Edition, English
Database system	Oracle 10g
Communication hardware (actual specification depending on plant specific configuration)	10/100/1000 Base T network card or network card to fit Plant network setup (e.g. fiber, Token Ring) <ul style="list-style-type: none"> 1 IEEE 802.3 Ethernet LAN interface 2 (redundant) IEEE 802.3 Ethernet LAN, interfaces for control system communication
Communication software	<ul style="list-style-type: none"> OPC DA-client Communication link to plant network (TCP/IP)

Table 6: Expert Optimizer Server Specification

In order to offer the latest technology, *ABB Switzerland Ltd* reserves the right to substitute alternative hardware of equal or better performance.

2.2 Modem for the Expert Optimizer Server

Item	Specification
Unit	ZyXEL U-90E Faxmodem
Speed	57,6 kbps
Communication	<ul style="list-style-type: none"> 1 RS-232 interfaces

Table 7: Telephone Modem for Remote Diagnosis

Note: In areas with poor quality telephone connections we recommend an industrial modem such as Zyxel U-90 external.

2.3 Expert Optimizer Engineering Client

Item	Specification
Computer unit	Intel Pentium 4
Clock rate	2.8 GHz
Operating system	Windows XP Professional SP2
Display	Video adapter capable of 1280 x 1024 @ 85 Hz (min 32 Mb memory)
Open system standards	<ul style="list-style-type: none"> Windows (presentation and dialog) SQL (interface to other computers)
DVD/CD Drive	DVD-RW CD-RW drive and software
Installed primary memory RAM	1024 MByte
Installed hard disk capacity	80 GB SATA
No. of monitors	1
Monitor size	19" TFT Color
No. of interaction devices	<ul style="list-style-type: none"> 1 standard QWERTY keyboard 1 mouse
Communication software	<ul style="list-style-type: none"> Communication link to plant network (TCP/IP)

Table 8: Expert Optimizer Engineering Client

2.4 Expert Optimizer Personal Assistant (User's PC)

PC Software Module	Minimum PC Requirements
Knowledge Manager Personal Assistant	<ul style="list-style-type: none"> Operating system Windows XP or 2000 Microsoft Internet Explorer 6.0 Any PC that runs the above Microsoft software

Table 9: Expert Optimizer Personal Assistant



3. Revision Table

Rev. ind.	Page (P) Chapt.(C)	Description	Date Dept./Init.
00		First Issue – Knowledge Manager 5.0 and Expert Optimizer 5.0 HW specifications 3BHS217630	01.11.2005 ATBA / GPC, SZ ATBA / EG, RH
01	P3	Note on hard disk capacity for 1s data acquisition	09.05.2006 ATBA / GPC
02	P3	Minimum CPU and memory requirements for data 1s data acquisition	20.06.2006 ATBA / GPC
03	P3-5	Modem spec, disk sizes, DVD/CD specs, PA PC requirements	27.06.2006 ATBA / GPC
04	P3-7	Server and Client HW spec. HD, Ram, CPU, Optical Drives (DVD/CD)	07.05.2007 ATBA / DS
05	P1-4	Refer to KM5.x and EO5.x to cover 5.0 and 5.1 releases Additional recommendations for 20 000 tags	06.06.2007 ATBA / GPC, SZ
06	All	Update for KM6.x and EO6.x	ATBA / GPC