

MDI Achieve PowerCube System Requirements

Introduction

This document describes the minimum system required to adequately install PowerCube. The operating environment required to implement and use PowerCube relies on components such as the database server, the application server, the user workstations as well as the configuration of peripheral equipment.

Database Server Requirements

| Hardware | Windows Server ¹ |
|------------------------------|--|
| Processing unit | <ul style="list-style-type: none"> ▪ Medium: 2 × Dual Core / 2 GHz (x64) ▪ Extreme: 4 × Dual Core / 3 GHz (x64) <p>Important note: We only support x64 architecture.</p> |
| RAM ² | <ul style="list-style-type: none"> ▪ Medium: 8 to 16 GB (with option to expand) ▪ Large: 16 to 32 GB ▪ Extreme: 32 GB or more |
| Hard disk space ³ | <ul style="list-style-type: none"> ▪ Small: 200 GB on 4 disks. The mirror mode is recommended. ▪ Medium: 350 GB on 8 disks or a SAN. The mirror mode is recommended. ▪ Large: 600 GB on 12 disks or a SAN. The mirror mode is recommended. ▪ Extreme: Large: 1000 GB on 14 disks, 15 000 tr/min or a SAN. The mirror mode is recommended. ▪ Note 1: The number of disks is more important than the capacity per disk. For example, it is preferable to have 5 disks of 40 GB than 1 disk of 200 GB. ▪ Note 2: It is strongly recommended that Logibec carry out an assessment to ensure that you have the optimum configuration. ▪ Example of an average configuration – 4 different aggregates (mirrors): OS: 70 GB (operating system and pagefile) Data: 125 GB Journal: 70 GB Cubes: 70 GB |
| Interchange file | 1.5 times the RAM size |

¹The qualifiers small, medium, large and extreme refer to the amount of data to be processed by the Data Warehouse and the number of subjects in the facility. It is strongly recommended that Logibec carry out an assessment. For example, a facility of 7,000 employees with only one subject requires less capacity than a facility with 3,500 employees that uses 8 or 9 warehouse subjects. Regional Technocentres (RTCs) and very large facilities easily qualify as "extreme".

² RAM represents the memory used by our software and not the total memory configuration of the stations or servers.

³ Hard disk space represents the disk space that will be used by our software and not the total capacity of the hard disk required.

| Hardware | Windows Server |
|----------------|--|
| Network card | Client-server 1 GB / concentrator 1 GB |
| Virtualization | The virtualization software used must belong to Microsoft's <i>Server Virtualization Validation Program</i> . http://windowsservercatalog.com/svvp.aspx?svvppage=svvp.htm |

| Software | Windows Server |
|------------------------|---|
| Operating System | <ul style="list-style-type: none"> ▪ Windows Server 2008 R2 64 bit Enterprise ▪ Windows Server 2008 R2 64 bit Standard |
| Required patches | Latest patches available (SP2 minimum) |
| Required software | <ul style="list-style-type: none"> ▪ IIS 7.0 ▪ Oracle Client 11G (a Logibec installation program will be provided) ▪ Powershell 2.0 with right to start local script |
| Installation directory | C:\lgisia |
| Database | SQL Server 2008 R2, 64 bit Enterprise Edition (full version with all features). Latest patches available (SP1 minimum). |

| Other characteristics | |
|----------------------------------|---|
| Vendor link | Yes |
| Communication software (support) | Terminal server – RDP only |
| Security | The server must not be submitted to group strategies (GPO). You must apply Windows default parameters to the local security strategy. These parameters can be changed following installation to meet your security needs. |
| Active Directory (AD) | Functional level supported: 2000 or higher |

¹ When implementing a virtual environment, the institution must remain fully accountable for ensuring that the virtual server exhibits the same performance and security characteristics as a real server. Any adjustments to the virtual server profile or to the main operating system of the physical server must be carried out by the facility or a specialized company. Any loss of time incurred by Logibec due to problems arising from these environments can be billed to the client at current rates. Virtualization of the business intelligence data server is not recommended. Logibec cannot guarantee performance in this context; the facility will therefore have to determine the cause of and make the necessary adjustments to address potential problems.

Workstation Requirements

Subject User Workstations

| Hardware | |
|-----------------|---|
| Processing unit | Minimum: IBM compatible PC, Pentium IV, clock rate: 1.5 GHz Preferably: Clock rate: 3 GHz or Dual Core A Dual Core is recommended for superusers. |
| RAM | 1 GB 2 GB or more for superusers |
| Network card | Client-server 100 MB / concentrator 100 MB |

| Software | |
|-------------------|---|
| Operating systems | <ul style="list-style-type: none"> ▪ Windows 7 (32 and 64 bit) ▪ Windows XP Pro SP3 ▪ Windows Vista (32 and 64 bit) |
| Required patches | Latest available patches |
| Required software | <ul style="list-style-type: none"> ▪ Internet Explorer 8.0 ▪ Office Web Components 11¹ ▪ OLE DB 10.0 MSXML 6.0 (required by OLE DB 10.0) ▪ Microsoft Windows® Installer 3.1 (required by MSXML 6.0) ▪ .NET 2.05 ▪ Acrobat Reader |
| Optional software | <ul style="list-style-type: none"> ▪ Excel 2002 SP3, 2003 SP3, 2007 SP2 or 2010 (to allow data to be exported)² ▪ Microsoft SQL Server 2008 Data Mining Add-in for Microsoft Excel 2003 SP3 and 2007 SP2 (optional add-in for Excel 2007 SP2 and Visio 2007 SP2) |

¹ Microsoft recommends using Excel 2003 or higher, however Excel 2002 can be used with version 11 of Office Web Components.

² Due to pivot table limitations in Excel 2002, it is recommended that version 2003 or higher be used.

System Administrator Workstations

| Hardware | |
|-----------------|---|
| Processing unit | <ul style="list-style-type: none"> ▪ Minimum: IBM compatible PC, Pentium IV, clock rate: 1.5 GHz ▪ Preferably: Clock rate: 3 GHz or Dual Core ▪ A Dual Core is recommended for superusers. |
| RAM | <ul style="list-style-type: none"> ▪ 1 GB ▪ 2 GB or more for superusers |
| Network card | Client-server 100 MB / concentrator 100 MB |

| Software | |
|-------------------|--|
| Operating systems | <ul style="list-style-type: none"> ▪ Windows 7 (32 and 64 bit) ▪ Windows XP Pro SP3 ▪ Windows Vista (32 and 64 bit) |
| Required patches | Latest available patches |
| Required software | <ul style="list-style-type: none"> ▪ Internet Explorer 8.0 ▪ Office Web Components 11¹ ▪ Microsoft Windows® Installer 3.1 (required by MSXML 6.0) ▪ MSXML 6.0 (required by OLE DB 10.0) ▪ OLE DB 10.0 .NET 2.05 ▪ Microsoft Windows® Installer 4.5 (required by Management Studio 2008) ▪ .NET 3.5 (required by Management Studio 2008) ▪ Management Studio 2008 (for security management) ▪ Excel 2002 SP3, 2003 SP3, 2007 SP2 or 2010 (to allow data to be exported)² ▪ Microsoft SQL Server 2008 Data Mining Add-in for Microsoft Excel 2003 SP3 and 2007 SP2 (optional add-in for Excel 2007 SP2 and Visio 2007 SP2) ▪ Acrobat Reader |

¹ Microsoft recommends using Excel 2003 or higher, however Excel 2002 can be used with version 11 of Office Web Components.

² Due to pivot table limitations in Excel 2002, it is recommended that version 2003 or higher be used.

Report Developer Workstations

| Hardware | |
|-----------------|---|
| Processing unit | <ul style="list-style-type: none"> ▪ Minimum: IBM compatible PC, Pentium IV, clock rate: 1.5 GHz Preferably: Clock rate: 3 GHz or Dual Core A Dual Core is recommended for superusers. |
| RAM | <ul style="list-style-type: none"> ▪ 1 GB ▪ 2 GB or more for superusers |
| Network card | Client-server 100 MB / concentrator 100 MB |

| Software | |
|-------------------|---|
| Operating systems | <ul style="list-style-type: none"> ▪ Windows 7 (32 and 64 bit) ▪ Windows XP Pro SP3 ▪ Windows Vista (32 and 64 bit) |
| Required patches | Latest available patches |
| Required software | <ul style="list-style-type: none"> ▪ Internet Explorer 8.0 ▪ Office Web Components 11¹ ▪ Microsoft Windows® Installer 3.1 (required by MSXML 6.0) ▪ MSXML 6.0 (required by OLE DB 10.0) ▪ OLE DB 10.0 .NET 2.05 ▪ Microsoft Windows® Installer 4.5 (required by BI Tools) ▪ .NET 3.5 (required for Report Builder 2.0) ▪ Report Builder 2.0 Business Intelligence Development Studio ▪ Acrobat Reader |
| Optional software | <ul style="list-style-type: none"> ▪ Excel 2002 SP3, 2003 SP3, 2007 SP2 or 2010 (to allow data to be exported)² ▪ Microsoft SQL Server 2008 Data Mining Add-in for Microsoft Excel 2003 SP3 and 2007 SP2 (optional add-in for Excel 2007 SP2 and Visio 2007 SP2) |

¹ Microsoft recommends using Excel 2003 or higher, however Excel 2002 can be used with version 11 of Office Web Components.

² Due to pivot table limitations in Excel 2002, it is recommended that version 2003 or higher be used.

Web Report User Workstations

| Hardware | |
|-----------------|---|
| Processing unit | <ul style="list-style-type: none"> ▪ Minimum: IBM compatible PC, Pentium IV, clock rate: 1.5 GHz ▪ Preferably: Clock rate: 3 GHz or Dual Core ▪ A Dual Core is recommended for superusers. |
| RAM | <ul style="list-style-type: none"> ▪ 1 GB ▪ 2 GB or more for superusers |
| Network card | Client-server 100 MB / concentrator 100 MB |

| Software | |
|-------------------|---|
| Operating systems | <ul style="list-style-type: none"> ▪ Windows 7 (32 and 64 bit) ▪ Windows XP Pro SP3 ▪ Windows Vista (32 and 64 bit) |
| Required patches | Latest available patches |
| Required software | <ul style="list-style-type: none"> ▪ Internet Explorer 8.0 ▪ Excel 2002 SP3, 2003 SP3, 2007 SP2 or 2010¹ ▪ Acrobat Reader |

¹ Due to pivot table limitations in Excel 2002, it is recommended that version 2003 or higher be used.