MatchWare MindView 8  
Technical Specification

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Overview
This document provides a thorough description of the technical details about MatchWare MindView 8.

System requirements
Windows® 8.1, Windows 10 (or higher).
400 MB disk space.

Dependent modules
- Microsoft Visual C++ 2019 Redistributable
  x64: https://aka.ms/vs/16/release/VC_redist.x64.exe
  x86: https://aka.ms/vs/16/release/VC_redist.x86.exe
- .NET Framework 4.5.1 or newer
- Microsoft Edge WebView2 Runtime
  MindView uses an embedded browser for various dialogs throughout the program. To get the best experience install the Chromium-based Microsoft Edge WebView2 Runtime browser: https://link.matchware.com/mswebview2

Import/Export from Microsoft Word
MatchWare MindView 8 uses the Office Open XML file format (.docx) so Microsoft Office Word is not required for import/export.
To view or edit exported documents use:
Microsoft Office 2007 or newer, Microsoft Office Word 2000, XP or 2003 with Compatibility Pack, Microsoft WordPad, OpenOffice or other third party Office Open XML viewer/editor.

Import/Export from Microsoft PowerPoint
MatchWare MindView 8 uses the Office Open XML file format (.pptx) so Microsoft Office PowerPoint is not required for import/export.
To view or edit exported documents use:
Microsoft Office 2007 or newer, Microsoft Office PowerPoint 2000, XP or 2003 with Compatibility Pack, OpenOffice or other third party Office Open XML viewer/editor.

Import/Export from Microsoft Project
Microsoft Project from 2003 onwards for creating/importing native Microsoft Project files (.mpp). If Microsoft Project is not installed you are able to import/export to the Microsoft Project XML format.

Import/Export from Microsoft Excel
MatchWare MindView 8 uses the Office Open XML file format (.xlsx) so Microsoft Office Excel is not required for import/export.
To view or edit exported documents use:
Microsoft Office 2007 or newer, OpenOffice or other third party Office Open XML viewer/editor.

Import/Export from Microsoft Outlook
Microsoft Outlook from 2000 onwards required.
**Installation**

The MatchWare MindView 8 installation is using the standard Microsoft Windows® Installer technology. The installation is a mixed 32/64bit package which will install the bitness matching the Windows OS. The installation may contain multiple languages. The language selected during installation becomes the default user interface language for MindView. Like all Windows® software, the MindView installation requires Administrator privileges.

**Stand-alone installation**

MindView comes as an installation package (*.exe file) that you download to your computer.
- Double-click the installation package.
- Follow the instructions on the screen when the MindView Install program starts.

**Administrative installation (system administrators only)**

The Windows® Installer can perform an administrative installation of an application or product to a network for use by a workgroup. Alternatively, you can extract the contents of the .exe file so that you or the users in your organization can install MindView using the Windows Installer package (.msi file, see "Extracting the .msi file and additional content" on page 5).

After performing an administrative installation or extracting the .msi file, you can push the installation to client computers in a domain using Group Policies or a different installation methodology.

To find out more about Windows® Installer and administrative installations, please refer to the Microsoft web site.

**Creating an administrative installation**

You can create an administrative installation from the command line as follows. The procedure extracts a complete source image of the application.

Choose Start | Run.

Tip: You can hold down the Windows button and press R.

Use the Browse button to locate the downloaded MindView installation package.

Insert the command line option /a // after the path to the installation package as in the example below:

```
C:\downloaded files\mindview8_<build>.exe /a //
```

Click OK to start the Administrative Installation Wizard.

**The administrative installation dialog**

When the administrative installation starts you will see the following dialog (Figure 1):
Specify the following in that dialog:

- The location for the server image of MindView
- The user name and company name to use as default
- (optional) License key
- (optional) Check 'Use simplified interface for younger students' if you want MindView to enable the simplified interface as default.

Note: When using the administration installation make sure to pre-install the dependent modules (see "Dependent modules" on page 3).

Extracting the .msi file and additional content

You can extract the .msi file and .cab files from the installer package using the command line option `/extract`.

Choose Start | Run, and locate the downloaded MindView installation package as described above.

Insert the `/extract` command line option after the path to the installation package. The examples below assume that you have downloaded the package to the Temp folder.

Extract the package contents to the same folder as the .exe file:

c:\temp\mindview8_<build>.exe /extract
Extract the package content to a different folder:
```
c:\temp\mindview8_<build>.exe /extract:c:\temp\msipackage
```

In the second example, it is important to create the `msipackage` folder before running the command, as it will not be created automatically.

**Installation**
The administrative installation package or the extracted Windows Installer package can be installed directly from the command line or by using group policies to push the installation to client computers.

**Silent install example**
The administrative installation package or the extracted Windows Installer package can be installed silently from the command prompt using the command line option `/qn`
```
msiexec.exe /i setup_X.msi /qn
```

**Install with default language**
If the installation package contains multiple languages it is possible to define the default language by using the following command line option. Here is how to set the default language to German:
```
msiexec.exe /I setup_X.msi /qn TRANSFORMS=:1031
```

1030: Danish
1031: German
1033: English (default)
1036: French

**Installed components**

**MindView Files**

**Per-machine**
The installer places the MindView files in the below folder by default:

32bit Windows:
```
%programfiles(x86)%\MatchWare\MindView 8.0\n```

64bit Windows:
```
%programfiles%\MatchWare\MindView 8.0\n```
you are able to change this folder during installation.

**Per-user**
The user specific data is saved here:
```
%APPDATA%\MatchWare\MindView 8.0
```
The user specific data is created the first time the application is run by the user.

**Common Files**
MatchWare MindView depends on the following Microsoft components:

- Microsoft Visual C++ 16.0 Run-Time Libraries
  For a complete list of files see Microsoft’s documentation
- Microsoft XML Parser
- Microsoft Gdiplus
Windows Registry

The MindView 8 installation only sets up per-machine registry settings in to the HKEY_LOCAL_MACHINE and HKEY_CLASSES_ROOT.

**HKEY_LOCAL_MACHINE**

All per-machine settings are saved in the following registry path:

```
HKEY_LOCAL_MACHINE\Software\MatchWare\MindView 8.0\
```

**HKEY_CLASSES_ROOT**

```
[HKEY_CLASSES_ROOT\.mvdx]
[HKEY_CLASSES_ROOT\.mvdx\OpenWithProgIds]
[HKEY_CLASSES_ROOT\.mvdx\PersistentHandler]
[HKEY_CLASSES_ROOT\.mvdx\ShellEx]
[HKEY_CLASSES_ROOT\.mvdx\ShellEx\{E357FCCD-A995-4576-B01F-234630154E96}\]
[HKEY_CLASSES_ROOT\.mvdx\PersistentHandler]
[HKEY_CLASSES_ROOT\.mvdx\ShellEx\{E357FCCD-A995-4576-B01F-234630154E96}\]
[HKEY_CLASSES_ROOT\CLSID\{7E62B9C0-59E0-3072-B218-B198C91E61C3\}]
[HKEY_CLASSES_ROOT\CLSID\{7E62B9C0-59E0-3072-B218-B198C91E61C3\}\InprocServer32]
[HKEY_CLASSES_ROOT\CLSID\{7E62B9C0-59E0-3072-B218-B198C91E61C3\}\InprocServer32\1.0.0.0]
[HKEY_CLASSES_ROOT\CLSID\{CC1A0E63-534A-3A3B-A5AF-E692AF4FC2C\}]
[HKEY_CLASSES_ROOT\CLSID\{CC1A0E63-534A-3A3B-A5AF-E692AF4FC2C\}\InprocServer32]
[HKEY_CLASSES_ROOT\CLSID\{CC1A0E63-534A-3A3B-A5AF-E692AF4FC2C\}\InprocServer32\1.0.0.0]
[HKEY_CLASSES_ROOT\CLSID\{C39ABD75-6DE5-418a-844B-AAA400B643E3\}]
[HKEY_CLASSES_ROOT\CLSID\{C39ABD75-6DE5-418a-844B-AAA400B643E3\}\PersistentAddinsRegistered]
[HKEY_CLASSES_ROOT\CLSID\{C39ABD75-6DE5-418a-844B-AAA400B643E3\}\PersistentAddinsRegistered\{89CB740-6119-101A-BCB7-00DD010655AF\}]
[HKEY_CLASSES_ROOT\CLSID\{C39ABD75-6DE5-418a-844B-AAA400B643E3\}]
[HKEY_CLASSES_ROOT\CLSID\{C39ABD75-6DE5-418a-844B-AAA400B643E3\}\PersistentAddinsRegistered]
[HKEY_CLASSES_ROOT\CLSID\{C39ABD75-6DE5-418a-844B-AAA400B643E3\}\PersistentAddinsRegistered\{89CB740-6119-101A-BCB7-00DD010655AF\}]
[HKEY_CLASSES_ROOT\CLSID\{7E62B9C0-59E0-3072-B218-B198C91E61C3\}]
[HKEY_CLASSES_ROOT\CLSID\{7E62B9C0-59E0-3072-B218-B198C91E61C3\}\InprocServer32]
[HKEY_CLASSES_ROOT\CLSID\{7E62B9C0-59E0-3072-B218-B198C91E61C3\}\InprocServer32\1.0.0.0]
[HKEY_CLASSES_ROOT\CLSID\{CC1A0E63-534A-3A3B-A5AF-E692AF4FC2C\}]
[HKEY_CLASSES_ROOT\CLSID\{CC1A0E63-534A-3A3B-A5AF-E692AF4FC2C\}\InprocServer32]
[HKEY_CLASSES_ROOT\CLSID\{CC1A0E63-534A-3A3B-A5AF-E692AF4FC2C\}\InprocServer32\1.0.0.0]
[HKEY_CLASSES_ROOT\CLSID\{Mw.NetHelper.ExcelHelper\}]
```
All per-user settings are saved in the following registry path:

HKEY_CURRENT_USER\Software\MatchWare\MindView 8.0\
**Windows Installer uninstall information**

This information is located here:

32bit Windows:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\{A56E103A-CF95-4FBD-841D-7CDD903B4CB5}
```

64bit Windows:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall\{A56E103A-CF95-4FBD-841D-7CDD903B4CB5}
```

**Windows Search**

Windows Search is a desktop search platform that has instant search capabilities for most common file types within Windows. MindView provides a third-party search extension that allow customers to search for content within MindView documents (.mvdx) during desktop search.

The IFilter component is available in both 32 and 64bit versions:

32bit version:

```
%programfiles%\MatchWare\MindView 8.0\MwFilter.dll
```

64bit version:

```
%programfiles%\MatchWare\MindView 8.0\MwFilter_64.dll
```

**MatchWare Activation System**

Mandatory activation is required when using MindView. When activating the Product certain information about the Product and the device will be sent to MatchWare. This information includes version, build number, language, product ID and computer ID which is generated from the hardware configuration. By using the Product you consent to the transmission of this information. The activation can either be done by login or by entering a license key.

The activation/login is using the site: [https://accounts.matchware.com](https://accounts.matchware.com)

**MIME-type**

application/matchware.mindview.document .mvdx .mvt .omp .omt .mvd .omd

Asynchronous Pluggable Protocol: MindViewOpen

**MindView Drive**

MatchWare MindView communicates with the MindView Drive using the Hypertext Transfer Protocol Secure (HTTPS) using the standard port 443.

The MindView 8 MindView Drive is located here: [https://www.sharedworkspace.com](https://www.sharedworkspace.com)

More information about MindView Drive can be found here:

[https://link.matchware.com/mvdrive_technical_spec](https://link.matchware.com/mvdrive_technical_spec)
MatchWare MindView XML Schema
MatchWare MindView has its own defined XML schema for making it easier to interchange project data between MindView and other programs. The schema definition can be found here: http://schema.matchware.com/mindview/

Custom XML Export
It is possible to make a custom XML export by defining a transformation file which transforms the MatchWare MindView XML during save to XML. The following file needs to be changed:
<Installation path>\MindView 8.0\Resources\XML\Export\filters.ini
The file defines the valid XML export formats (in “Save as Type”) when choosing File | Export | XML from within MindView.

Content description:
[CustomSection]
Text=Descriptive text which is shown in the XML Export “Save as type” drop-down list in MindView
Filter=File extension of the export file
xsl=Custom transformation file

Custom XML Import
It is possible to make a custom XML import by defining a transformation file which transforms the custom XML to the MatchWare MindView XML during import from XML. The following file needs to be changed:
File: <Installation path>\MindView 8.0\Resources\XML\Import\filters.ini
The file defines the valid XML import formats when choosing File | Import | XML from within MindView.

Content description:
[CustomSection]
Text=Descriptive text which is shown in the XML Import file type drop-down list in MindView
Filter=File extension of the import file
xsl=Custom transformation file
Converter=Converter which is run during import (optional)
rootelement=Root XML element which is used during auto detection of import (optional)