

inVISU PMS Readme File

inVISU PMS Version 5.4

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(May, 2016)

We are pleased that you have decided in favour of our process management system inVISU.

The installation of the software will be started automatically after inserting the CD. You can vote then, which of the components shall be installed. If you want to start the installation manually, choose file SETUP.EXE on the CD.

The CD-ROM on hand includes the following:

- inVISU PMS may be installed either as 'Standard edition' (ASCII character set) or as 'World edition' (unicode character set).
- **Several projects:**
 - DefaultProject Mini project, to be used as sample for a new project.
 - Grafik Shows a graphic possibility.
 - Language Example project for changing the language (German, English and Chinese)
 - TouchPanel Demonstrates the use of the touch panel input, incl. project-specific online help function.
 - User_Log Example of the user administration incl. Activity log functionality.
 - Demo_OperationLog Example project for the operation log.
 - Demo_EJ Example for using events.
- The development version includes an online help function. Part of this online help function are as well the "Step-by-step instructions" which help you getting started with inVISU PMS. Open the book "Step-by-step instructions" in the contents of the help function and select a topic.
- The license agreement is stored in the inVISU root directory, previously defined by you, in subdirectory "Doc" (LICENSE_E.WRI). By all means, you have to return this license agreement printed out and completely filled in (setup will print this form automatically). You can only receive information from our hotline, when your license agreement, filled in and completed by you, is available.
- inVISU PMS requires the operating system Windows 2000, Windows XP, Windows 2003, Windows Vista, Windows 7 or Windows Server 2008.
- For the installation of inVISU PMS it is necessary, that you have Administrator privileges on your PC.

If you should have questions to the program or the installation, we would like to answer them for you.

Address:

epro GmbH
Jöbkesweg 3
D-48599 Gronau
<http://www.invisu.de>
Phone: +49 (0) 2562 709-411 (Technical Support)
Fax: +49 (0) 2562 709-255 (or -401)
E-Mail: invisu.support@epro.de

Changes and news up to version 5.4.0.46

➤ Operation Log Editor

- Bug fix: Fixed issue when opening the week view in calendar week 1.

➤ Floating License Server

- Bug fix: issue with Sentinel dongle.

➤ Network

- Bug fix: possible crash at start eliminated.

Changed files (new file version 5.4.0.46, or 5.4.0.1046):

TBP32.exe
TMPS32.exe
InvFlServer32.exe

Changes and news up to version 5.4.0.45

➤ System

- A new generation of hardware dongle (also in a micro form factor) can be used. The existing dongles can furthermore be used.

Changed files (new file version 5.4.0.45, or 5.4.0.1045):

All program files

Changes and news up to version 5.4.0.44

➤ System

- Fix possible deadlock.

➤ Visualization

- Fix: hang or crash during picture change under rare circumstances.
- Fix: the position of objects with a dynamic visibility was not always correct.

➤ Floating License

- Now it's possible to start as service if the project folder resides on a network drive.

➤ OPC Server

- The OPC Server can now operate in read-only mode.
To enable it, the entry **ReadOnly** (in **InvOpcServer32.ini**) has to be set to 1.

Example:

```
[Options]  
ReadOnly=1
```

➤ Program „Configuration“

- Option **Number of network stations**: the limit is increased from 31 to 32.

➤ Data Storage Runtime

- Fix: automatic creating of archives and export files (from version 5.4.0.40).

➤ Event Editor

- Up to 50,000 alarms can be defined.

Changed files (new file version 5.4.0.44, or 5.4.0.1044):

All program files

Changes and news up to version 5.4.0.43

➔ Trend charts

- VBScript interface of the trend chart extended.
LegendText: Function to read/change the legend text.
UnitText: Function to read/change the unit text.

Example:

```
ThisObj.LegendText(0) = "Tank1"
```

```
ThisObj.UnitText(0) = "m"
```

Use the number of the trend line as parameter. The sample is using 0 for the first trend line.

Changed files (new file version 5.4.0.43, or 5.4.0.1043):

```
InvTrend32.dll  
InvTrendRT32.dll  
BP32.exe  
TBP32.exe  
Basis32.exe  
VI32.exe
```

Changes and news up to version 5.4.0.42

➤ Data Storage Runtime

- Fix: unnecessary error message.

➤ EventViewer

- Reports can be printed automatically.
- A report page without data (0 lines) is always printed.

➤ Floating License

- License counting start with 0. This implies that the Floating License Server can be started on any PC. This PC becomes relevant to license counting when a visualization program is started.

➤ Visualization

- Fix: painting problems after a group object become visible.

➤ Trend chart

- Under specific conditions the tracking dialog stayed visible even though the trend chart was invisible.

➤ Operationlog Editor

- Fix a problem in the dialog **function selection** with the **user function**.

Changed files (new file version 5.4.0.42, or 5.4.0.1042):

BP32.exe
InvDsi32.dll
InvTool32.dll
InvTrendRT32.dll
InvFlServer32.exe
TDS32.exe
TEJ_Viewer32.exe
VI32.exe

Changes and news up to version 5.4.0.41

➤ Visualization

- Bugfix

Changed files (new file version 5.4.0.41, or 5.4.0.1041):

VI32.exe

Changes and news up to version 5.4.0.40

➤ System

- Error fix in the VBScript function **AddLogMessage** (could occur if there was a '%' char in the text).

➤ Visualization

- During a data input via an activated touch panel, the system-element **_InputActive** is updated now.

Changed files (new file version 5.4.0.40, or 5.4.0.1040):

all

Changes and news up to version 5.4.0.39

➤ Trend chart

- Version 38 had a problem which is fixed now.

➤ Data Storage

- For many data storage tables (> 200), the processing time was too long. The performance and memory consumption have been optimized.

➤ Graphic Editor

- Problem in Autofill function in link symbol object fixed.

➤ System

- The current login information at startup of the runtime was not stored to the system elements **_UserPassword** and **_UserName**.
- Fix: under rare circumstances applications may stop responding.

Changed files (new file version 5.4.0.39, or 5.4.0.1039):

Basis32.exe
BP32.exe
InvDSI32.dll
InvGrid32.dll
InvTool32.dll
InvTrend32.dll
InvTrendRT32.dll
LZ32.exe
OPC32.exe
TBP32.exe
TBP_DM32.exe
TDDE32.exe
TDS32.exe
TEJ32.exe
TOPC32.exe
VI32.exe

Changes and news up to version 5.4.0.38

➤ System

- Fix: possible problem using drag & drop in tables.

➤ Redundancy mode

- Fix: after an online master switch, stations had problems to access the correct user configuration.

➤ Operationlog runtime

- A manually entered expression - - - was printed in reports as **0**.

➤ Trend chart

- The VBScript property **DrawMode** has been expanded. If the second bit (2¹) is set to 1, all data points will be drawn. Without this option data points can be skipped for performance reasons.

➤ Data Storage

- Fix: error code 230 (DAO export) was never reported.

➤ DDE Runtime

- Fix: problem with empty definition lines.

➤ OPC Editor/Client

- A remote OPC Server can be accessed without registering the server on the local machine (the service **Remote Registry** has to be active on the remote PC).

In the OPC Editor the server name can be entered manually,
e.g. **inVISU_PMS.OPCServer** or **Kepware.KEPServerEX.V5**.

Changed files (new file version 5.4.0.38, or 5.4.0.1038):

Basis32.exe
BP32.exe
InvGrid32.dll
InvTrend32.dll
InvTrendRT32.dll
LZ32.exe
OPC32.exe
TBP32.exe
TBP_DM32.exe
TDDE32.exe
TDS32.exe
TEJ32.exe
TOPC32.exe
VI32.exe

Changes and news up to version 5.4.0.37

➤ Setup

- The SQL Server installation failed if a system language was configured, which was not supported by the SQL Server (sample: **English (India)**).
- **InvService** is copied in the Windows Program folder (e.g. "C:\Program files (x86)\epro\inVISU_PMS") and started as a service.
This enables an installation on a network drive.

➤ System

- Fixed: Tooltip texts under Windows 7 are now displayed correctly.
- The bit function returned wrong results in the case of negative element values.
- Fixed: In the redundancy mode the system element **_MPStation** was not always set correctly.

➤ Visualization

- Some fixes especially for the **OnStart** function in the project script:
 - Dialog objects can be launched.
 - VBScript error messages are displayed.
 - Self-reference via **GetMainScript** is possible.
- The visibility of window objects with changing content (more than one picture) was not always correct.

➤ Trend Chart

- Bugfixes for the **minimum** and **maximum** lines.

➤ Driver ModbusTCP

- New error message in the case of an incorrectly addressed Modbus unit number.

➤ OPC Client

- Possible memory leak when writing values is fixed.

➤ Eventjournal Runtime

- Fix: Alarm texts containing a ' (apostrophe) are now written into the history database.
- The warning dialog "Error initializing printer:xyz" appears now only if the printer is really configured.
- Fix: Printing in files with insufficient file permissions.
- Fix: Under certain conditions alarms with dynamically changing limits for minimum and maximum had the wrong alarm status.

➤ EventViewer

- Searching for texts is possible.

➤ Process Assignment Runtime

- Problem when using many profiles is fixed.

Changed files (new file version 5.4.0.37, or 5.4.0.1037):

Basis32.exe
BP32.exe
InvDbUser32.dll
InvGrid32.dll
InvTool32.dll
InvTrend32.dll
InvTrendRT32.dll
LZ32.exe
PM32.exe
TBP32.exe
TEJ32.exe
TEJ_DM32.exe
TEJ_Viewer32.exe
TOPC32.exe
TPZ32.exe
VI32.exe
All driver
English.lng

Changes and news up to version 5.4.0.35

➔ System

- The maximum number of num-elements was increased up to 60000.

➔ Visualization

- New VBScript function **GetMainScript**.
Within the visualization scripts can address the project script with the function **GetMainScript**. This applies for constants, functions and classes.
It enables a global data management within the visualization. Furthermore an information exchange between objects can be constructed without the need of data-elements.
For more information, see help.

➔ Trend Chart

- The maximum time span is now limited to 100 years.
- For every pen the drawing of gaps (caused by a discontinuous data storage) can be controlled with the VBScript function **DrawMode**.

➔ Data Storage

- New VBScript function **OnDataStoring**.
Configuration information can be retrieved with **ThisDoc**, **DefRow** and **DefRows**.
For more information, see help.

➔ Program „Configuration“

- The format of the IP address (dialog **Floating license**) is no longer checked.

➔ Eventjournal Runtime

- Minor error for the **Quit.Info**-element corrected (element was increased for alarms without acknowledgement).

➔ Password protection

- Case sensitivity for user names can be disabled (new option in the user table).

Changed files (new file version 5.4.0.35, or 5.4.0.1035):

All program files.

Changes and news up to version 5.4.0.33

➤ Graphic Editor

- Resource problem solved.
- Fix: Sometimes the position of toolbars was set to default.

➤ Eventjournal Runtime / Eventjournal Editor

- Beginning with version 5.4.0.25 a mismatch in the group colors could occur.

Changed files (new file version 5.4.0.33, or 5.4.0.1033):

Basis32.exe
EJ32.exe
InvTool32.dll
TEJ32.exe
TEJ_DM32.exe
English.lng

Changes and news up to version 5.4.0.32

➔ Visualization

- A picture change is blocked as long as a modal dialog is opened, e.g. the property dialog for a trend chart.

➔ Trend Chart

- Reduced resource consumption while displaying a tracking dialog. In rare conditions a deadlock could occur.

Changed files (new file version 5.4.0.32, or 5.4.0.1032):

Basis32.exe
BP32.exe
InvTrend32.dll
InvTrendRT32.dll
TBP32.exe
VI32.exe

Changes and news up to version 5.4.0.31

➤ Graphic Editor

- Inserting new points in polygon objects was improved.

➤ Visualization

- Fix for 5.4.0.30: When the mouse was moved over a button, the script **OnRun** was launched too often.

➤ OPC Client

- Fix for 5.4.0.30: Logging of OPC arrays with floating data types is now working.

➤ Eventjournal Runtime

- After activation of the Eventjournal the table gets the input focus. So you can immediately select alarms with the cursor keys.
Pressing the **F11** key sends the input focus to the table.

Changed files (new file version 5.4.0.31, or 5.4.0.1031):

Basis32.exe
TEJ32.exe
TOPC32.exe
Vi32.exe

Changes and news up to version 5.4.0.30

➤ Operation Log Runtime

- The file size of the SQL server database is now checked at program start and at every day change. If the file size exceeds the default limit of 85 % of the maximum size a warning message is displayed. The maximum size depends on the database (MSDE 2000 2 GB, SQL Server Express 2005/2008 4 GB and SQL Server Express 2008 R2 10 GB).

Up to 20 warning limits can be configured in the **Project.ini**.

The syntax for a line is:

```
WarningX=SQL_SERVER_NAME.DATABASE_NAME;SIZE
```

X: Number of the entry
SQL_SERVER_NAME: Server and instance name of the SQL server
SIZE: Warning limit in MByte

Sample:

```
[DataBase]  
Warning1=.\inVISU_PMS.OperationLog;1300  
Warning2=COMPUTER01\inVISU_PMS.OperationLog;900  
Warning3=172.16.201.22\inVISU_PMS.OperationLog;1300
```

➤ Visualization

- Dialog objects, **InvControls32.dll**
Fix for a painting problem after closing a dialog.
- Fix: Access violation relating to a picture change in a sub window (projected in a button object).
- When a direct input is started (started with the mouse), the life time of a user will be retriggered.

➤ Network Editor

- The clipboard functionality can now be used in the table for exclude elements.

➤ Project Manager / OPC Editor

- The error message „**An invalid argument was encountered**“ could occur:
In the Project Manager when you start a global renaming of elements.
In the OPC Editor when you open the dialog **Append item** (in this case you could not select any tag).

➤ Project Manager

- Error correction when editing the **Life time** for a user.

➤ OPC Editor

- From now on long names can be used in the fields **Name** and **Server** (dialog tab **OPC**).

➤ Data Storage

- Potential problem solved, when datasets were exported.

➤ Driver S7_Connection

- To address Siemens S7-1200 PLCs the lower limit of the field **Slot number** is changed from 2 to 0.

➤ Redundancy mode

- Stations didn't always change to the data directory of a secondary master.

➤ OPC Client

- The OPC client can now read and write numeric OPC array tags. With the following Project.ini entry, this feature can be enabled:

```
[OPC-Client]
EnableNumArraySupport=1
```

The configuration of the OPC array in our OPC Editor is the same as for 'normal' numerical OPC tags. At runtime a num-element is created for each array item. The array index is appended to the element name configured in the OPC Editor.

Example:

In the OPC Editor *Position* is entered in the element column. The following elements are created at runtime: *Position_0, Position_1, Position_2 ... Position_N*.

If the OPC server sends an array to the client, the value of each item is set to the corresponding num-elements. If one of the num-elements has changed, the entire array is written back.

Note:

This function is more suitable for small arrays because large arrays waste many num-elements.

➤ Trend Chart

- The VBScript functions **SetVariable** and **SetVariableEx** had a problem with deleting a line (via empty string) from a trend with multiple data storage files.

➤ System

- Fix for a possible crash when using Activity Logging.

Changed files (new file version 5.4.0.30, or 5.4.0.1030):

```
InvControls32.dll
InvTool32.dll
InvTrendRT32.dll
TOPC32.exe
Vi32.exe
```

Changed files (new file version 5.4.0.29, or 5.4.0.1029):

```
InvTool32.dll
OPC32.exe
PM32.exe
Driver32_S7_Connection.dll
English.lng
```

Changed files (new file version 5.4.0.28, or 5.4.0.1028):

```
InvTool32.dll
MP32.exe
TBP32.exe
TDS32.exe
```

Changes and news with version 5.4.0.27

➔ Graphic Editor / Visualization

- Title bar of child windows: the buttons **Close**, **Minimize** and **Maximize** were not painted, when the Windows Style "Windows Classic" was configured.
- Dialog objects, **InvControls32.dll**
The properties **Left**, **Top**, **Height** and **Width** can now be used to place the dialog on a additional screen.

➔ Operation Log Runtime

- Week Report and Windows 7: after changing a calendar week the displayed week in the calendar control was not updated.

➔ Trend Chart

- Under certain conditions a project named **TK** was mistakenly generated.

Changed files (new file version 5.4.0.27, or 5.4.0.1027):

Basis32.exe
BP32.exe
InvControls32.dll
InvTool32.dll
InvTrend32.dll
InvTrendRT32.dll
LOG32.exe
TBP32.exe
TEJ_Viewer32.exe
VI32.exe

Changes and news with version 5.4.0.26

➔ System

- The touch panel for texts can now display a Cyrillic keyboard.

➔ Activity Log Viewer

- Printing functionality added. The design of the report can be configured.

➔ Visualization

- Dynamic positioning and sizing was disabled if a window object was part of a group and had no VBScript.

➔ Operation Log

- Fix for the **Average value** function: when dealing with invalid double values a division by zero error occurred.
- Fix when using the method **.Value("Val_C")** in a **OnColChanged** function: now the values are written into the database.

➔ Eventjournal Runtime

- Fix for 5.4.0.25: Under certain conditions new alarms were mistakenly generated.

Changed files (new file version 5.4.0.26, or 5.4.0.1026):

InvTool32.dll
LOG32.exe
MPStart32.exe
TBP_DM32.exe
TEJ32.exe
TMPM32.exe
TMPS32.exe
VI32.exe

English.lng

Changes and news with version 5.4.0.25

➤ System

- Approval for the operating systems Windows Vista, Windows 7 and Windows Server 2008.
- The setup installs a new service called **InvService**.
This service can be called manually with one of the following parameters:
 /**Install** installs and starts the service,
 /**Remove** stops and removes the service.

➤ Runtime

- The system-element **_MPStation** is now set when the Runtime starts.

➤ Visualization

- Correction for the objects Checkbox and Radio button:
A click on the object did not properly set the status, when the VBScript function **OnLButtonClicked** was defined.
- A deactivated scrollbar was incorrectly activated by a change of the minimum or maximum limit.
- In certain circumstances link-symbols were not displayed after the start of the visualization.

➤ Trend Chart

- Enhancement of the printout quality.
- Dynamically created lines (via VBScript) were not saved when using the **AutoLoad** and **AutoSave** options for profiles.
- The VBScript interface to the trend charts has been extended with the function **SetRedraw**.
For more information, see help.

➤ Data Storage

- Potential problem solved, when datasets were deleted.
- Large numbers were exported in the scientific notation, e.g. 3400000 was exported as 3.4E06.
Now numbers up to 15 digits are written in the standard decimal notation.
- The date and time format for the CSV export can be configured.

➤ Operation Log

- The visibility of rows can modified with the new function **OnInitRow**.
For more information, see help.

➤ VBScript

- Error correction of the **Bit**-function with bit number 31.

➤ Program „Configuration“

- The name of the execution file was changed from **SetupPC.exe** to **ConfigPC.exe**.

➤ Recipe

- In description texts language-elements can be entered, i.e. the description can be configured for multiple languages.

➤ Events

- Going alarms can now be configured for alarm forwarding (PageControl).
- Now prefix texts can be configured to use with alarm forwarding, e.g. „Alarm group 1 is active:“, „Alarm went out:“).

➤ Eventjournal Runtime

- Problem when deleting several hundred thousand historical event recordsets solved.
- Error correction when using invalid variable definition in alarm texts, e.g. the text „\$“ caused a crash in the application.

All program files have the file version number 5.4.0.25, or 5.4.0.1025.

Changes and news with version 5.4.0.23

➔ Password protection

- When a command was performed with insufficient permission a user was automatically logged off before the log-in dialog appeared. Now the user stays logged in.

➔ Trend Chart

- Potential problem solved, when data from multiple data storages were displayed in one chart.

➔ Floating License

- Sometimes the number of active stations was not computed correctly.

➔ Eventjournal Runtime

- A range for an active alarm can be defined by a maximum less than the minimum.

Example:

An alarm shall be active, when an element has the value 38.

Define and 38.1 for the minimum and 37.9 for the maximum.

(38.0 for the minimum and maximum is not possible, because the condition are larger/less.)

➔ Operation Log

- A special problem with external database entries and the wintertime changeover solved.

➔ Driver S7_Connection

- New configuration options for communication to a CP 243 (S7-200).

➔ Treiber S7PG

- Solved a rare problem when writing data to the PLC.

Changed files (new file version 5.4.0.23, or 5.4.0.1023):

Basis32.exe
BP32.exe
InvFLServer32.exe
InvTool32.dll
InvTrend32.dll
InvTrendRT32.dll
TBP32.exe
TBP_DM32.exe
TEJ32.exe
TEJ_DM32.exe
VI32.exe
Driver32_S7_Connection.dll
Driver32_S7PG.dll

English.lng
Pms.chm
Pms1.chm
Manual_inVISU_PMS_5.4.pdf
Handbuch_inVISU_PMS_5.4.pdf

Changes and news with version 5.4.0.22

➔ Visualization

- Painting problem with invisible buttons in groups solved.

➔ Trend Chart

- The labeling of the x- and y-axis can be changed with the new function **ChangeLabelStr**. For more information, see help.

➔ Maintenance Editor

- Sometimes a document was loaded twice (e.g. with a double-click in the Project Manager).

➔ Network

- Revision of the network communication.

➔ OPC Client

- The requirements for the DCOM security configuration are reduced. It is no longer necessary that server and client are running under the same user account.

Changed files (new file version 5.4.0.22, or 5.4.0.1022):

IH32.exe
InvFlServer32.exe
InvTool32.dll
InvTrend32.dll
InvTrendRT32.dll
LZ32.exe
MpStart32.exe
TEJ32.exe
TEJ_DM32.exe
TMPM32.exe
TMPS32.exe
TOPC32.exe
VI32.exe

Pms.chm
Pms1.chm
Manual_inVISU_PMS_5.4.pdf
Handbuch_inVISU_PMS_5.4.pdf

Changes and news with version 5.4.0.21

➔ Operation Log

- Problem with printing to an Excel file solved (using a comma as a decimal char).

➔ Data Storage

- With the function **TimeStampEleName** an alternative num-element can be set, which defines the time stamp for the record set.

➔ Driver ModbusTCP

- A port address different from 502 can be used now.

➔ InvDBServer32.exe

- Failure correction in the functions **GetNameNUM** and **GetNameTXT**.

Changed files (new file version 5.4.0.21, or 5.4.0.1021):

InvDBServer32.exe
InvTool32.dll
TBP32.exe
TBP_DM32.exe
TDS32.exe
Driver32_ModbusTCP.dll

Pms.chm
Pms1.Chm
Manual_inVISU_PMS_5.4.pdf
Handbuch_inVISU_PMS_5.4.pdf

Changes and news with version 5.4.0.20

➔ Graphic Editor

- Link symbols: under special circumstances the command **Autofill** didn't work correctly.

➔ Visualization

- A resource leak could occur, if the windows color resolution was set to 256 colors.

➔ Trend Charts

- The VBScript interface to the trend charts and the XY-trend charts has been extended: **EnablePopupMenu**, **EnableZoom** und **LineColor**.
For more information, see help.

➔ Network

- The connectivity between the master and the station has been improved.

Changed files (new file version 5.4.0.20, or 5.4.0.1020):

Basis32.exe

BP32.exe

InvTool32.dll

InvTrend32.dll

InvTrendRT32.dll

TMPM32.exe

TMPS32.exe

VI32.exe

Pms.chm

Pms1.chm

Manual_inVISU_PMS_5.4.pdf

Handbuch_inVISU_PMS_5.4.pdf

Changes and news with version 5.4.0.17

➔ Visualization

- The update of polygons / polylines was sometimes not correct, if the line width was more than 2 pixels.
- In special circumstances a flickering occurred while drawing the standard buttons.

➔ Touch Panel

- The keyboard can be used to enter a number in the touch panel for numbers.

➔ Trend Charts

- The trend chart can now use data from a variety of data storage files.
- The VBScript interface to the trend charts and the XY-trend charts has been extended. The expansion includes e.g. auto scaling and setting the display area. For more information, see help.

➔ Data Storage

- New interface **PMS.DataStoringFile** to read data storage files. For more information, see Help.

➔ Multi Station

- The connection between the master and the station has been optimized.

➔ OPC Client

- New VBScript function **OnDataChanged**. For more information, see Help.

Changed files (new file version 5.4.0.17, or 5.4.0.1017):

Basis32.exe
InvDsi32.dll
InvDsiUser32.dll
InvFlServer32.exe
InvTool32.dll
InvTrend32.dll
InvTrendRT32.dll
LOG32.exe
LZ32.exe
ML32.exe
OPC32.exe
RZ32.exe
TMPM32.exe
TMPS32.exe
TOPC32.exe
VI32.exe

English.lng
Pms.chm
Pms1.chm
Manual_inVISU_PMS_5.4.pdf
Handbuch_inVISU_PMS_5.4.pdf

Changes and news with version 5.4.0.14

➤ Trend Charts / Data Storage

- Data Storage Runtime writes now gap information in a data storage file. Gaps are now visible in a trend chart.

➤ Visualization

- Graphic Button object: sometimes graphic buttons weren't updated correctly.
- Graphic object: the filename can be set by the VBScript function **GraphFilename**. When this function is defined the standard behavior with the selection of graphic files by value and the table of filenames is deactivated. The filename must be defined with the full path name.

Example:

```
' Local project path
Set ProjectPathLocal = CreateObject("PMS.TxtEle")
ProjectPathLocal.SetName("_ProjectPathLocal")

' Element for selection
Set Filename = CreateObject("PMS.TxtEle")
Filename.SetName("Filename")

' Set the filename
Function GraphFilename()
    GraphFilename = ProjectPathLocal.Value & "\Graphics\" & Filename.Value
End Function
```

➤ Process Assignment

- Driver profiles which are not used could cause error messages or program stops (e.g. a profile is only used at a network station).

Changed files (new file version 5.4.0.14, or 5.4.0.1014):

BP32.exe
InvDSI32.dll
InvDSIUser32.dll
InvTool32.dll
PM32.exe
TBP32.exe
TBP_DM32.exe
TDS32.exe
TPZ32.exe
VI32.exe

English.lng
Pms.chm
Pms1.chm

Changes and news with version 5.4.0.12

➤ Help

The launch of the help via the menu command is corrected.

➤ Trend Chart

- The name of a data storage file can now be used in a profile (see keyword **UseDataSourceInProfile**).
- The column **Variable** (definition of a trend chart) is now editable. Variables, which can not be assigned, are drawn in red.
- Lines can now be invisible.
- At runtime a line can be deleted with the VBScript function **SetVariable**.

➤ XY-trend Chart

- The maximum number of lines is increased to 28.
- XY-trends charts are now printed as a report, which can be designed with the report designer.
- XY-trend charts can be configured with VBScript functions (see „Functions and properties with VBScript“). Thus arbitrary data sources can be used.
- Problems with importing data from a CSV file are corrected.

➤ Touch Panel

The touch panel configuration can locally be defined for a station (in PROJECT.INI).

Example

```
[NumTouchPanel_02]      (section for station 02, input numbers)
Active=1
PositionX=0
PositionY=0
SizeX=200
SizeY=300
Timeout=6
```

```
[TxtTouchPanel_01]      (section for station 01, text input window)
Active=1
```

.

➤ Floating License

In terminal server mode the number of active stations was not always computed correctly.

➤ Driver S7_Connection

Problem with large packages (> 370 bytes) with a S7-400 PLC corrected.

Changed files (new file version 5.4.0.12 or 5.4.0.1012):

All program files

```
English.lng
Pms.chm
Pms1.chm
Manual_inVISU_PMS_5.4.pdf
Handbuch_inVISU_PMS_5.4.pdf
```


Changes and news with version 5.4.0.8 – 5.4.0.11

➔ Operation Log

- For each definition line a validity period can be configured. To do this the Operation Log Editor has two new fields for the start and end date.
- The speed of the report designer and of the printing has been improved. To achieve the optimal speed of the printing, store all the report definitions with the new version.
- New variables and new fields in the report designer (**Function, Group.Name, Group.Number**)
- The columns **Max value, Max time, Min value** und **Min time** can be hidden via a project.ini entry. Also, the time format of the columns **Max time** and **Min time** can be changed.

```
[OperationLog]
ShowMinMaxColumn=0

; Day View
DateFormat_2=%H:%M
; Week View
DateFormat_3=%A
; Month View
DateFormat_4=%d
; Year View
DateFormat_5=%m
```

- The first column of the runtime views is always visible (also when scrolling the view).
 - The cells of the title lines are joined.
The text color and the background color of title lines can be set via a project.ini entry.
- ```
[OperationLog]
TitleTextColor=16711680
TitleBackColor=11206655
```
- New function **Copy**.
  - The VBScript object **Cells** has a new property **Value**.
  - Manual input on Min and Max values is possible - also in the dialog **Single values**.
  - The performance of calculation is improved.

### ➔ Maintenance

- Possibility of displaying title lines in maintenance view. The text color and the background color of title lines can be set via a project.ini entry.
- ```
[Maintenance]
TitleTextColor=16711680
TitleBackColor=11206655
```
- The column Def ID is editable. Thus coping and re-sorting of the definition is possible.
 - The first 2 columns of the maintenance view are always visible (also when scrolling the view).
 - New fields in the report designer: **UnitType, ActualValue_Str, NominalValue_Str, TotalValue_Str, Function** and **MaintenanceNotes**.
 - The column **Unit** can be hidden via a project.ini entry (default value 0). If the column is hidden, the unit is added to the values.
Also the column **Group** can be hidden (default value 1).
- ```
[Maintenance]
ShowUnitColumn=0
ShowGroupColumn=0
```
- At runtime the unit of time-dependent maintenance tasks can be switched from hours to days.

- New column **Info** in the maintenance view. In this column the comment of the last maintenance is displayed.
- New filter function (all, 80 %, 100 %, 120 %).
- New system tag **\_SetTopH\_OpenView** to activate the maintenance runtime and immediately open a view.

## ➔ System

- The report component List&Label is now used in the version 12.
- The font for tables can be configured now separately for every program. The settings are made in the corresponding configuration file (samples: DS32.INI for the Data Storage Editor, or TEJ32\_01.INI for the Eventjournal Runtime at the station 1).  
In the section **GridDesign** you can configure:  
The **height** (6..36), if the font is **bold** (0/1) and the **font name**.  
With **ExtraRowHeight** (specified as pixel) the height can be adjusted additionally.

### Example:

```
[GridDesign]
FontName=Courier New
FontHeight=12
FontBold=1
ExtraRowHeight=0
```

## ➔ OPC Editor

- Browsing in a server tree was accelerated.

## ➔ Driver H1TCP

- The start and stop behavior was optimized.

## ➔ Driver Modbus

- The driver was assigned to the driver class B. Corrected to driver class **A**.
- New option **Data model starts with address 1** is configurable in a profile (otherwise addressing starts with 0).

## ➔ Driver ModbusTCP

- The driver was assigned to the driver class B. Corrected to driver class **A**.
- New option **Data model starts with address 1** is configurable in a profile (otherwise addressing starts with 0).
- The start and stop behavior was optimized.

## ➔ S7\_Softnet

- The driver was assigned to the driver class B. Corrected to driver class **A**.

## ➔ Driver S7\_Ethernet

- The driver can communicate now with a IBHsoftec S7 soft PLC.
- The start and stop behavior was optimized.

## ➔ Driver S7\_Connection

- Possible protection fault with a S7-400 PLC solved.
- The start and stop behavior was optimized.

### ➤ Graphics-Editor

- The menu command **Save all** did not work.

### ➤ Visualization

- When changing the picture in a sub window with a button, a protection fault occurred sometimes.
- If the project directory contained the letter \$, sub pictures weren't loaded.
- Shortcuts and the TIP function: after the key was released, it could happen that the default value wasn't set correctly.

### ➤ Eventjournal Runtime

- Unnecessary message "...Unable to process the print file with..." removed (occurred on a network station when the option **Print to file** was activated).
- New system tag **\_SetTopEJViewer\_OpenView** to activate the event viewer and immediately open a view.

**Changed files (new file version 5.4.0.11 or 5.4.0.1011):**

Drc32.exe  
InvTool32.dll  
PZ32.exe  
TIH32.exe  
TPZ32.exe  
Driver\Driver32\_AEGPG.dll  
Driver\Driver32\_APEX.dll  
Driver\Driver32\_H1TCP.dll  
Driver\Driver32\_IBSNT.dll  
Driver\Driver32\_KARA.dll  
Driver\Driver32\_MIFX.dll  
Driver\Driver32\_Modbus.dll  
Driver\Driver32\_ModbusTCP.dll  
Driver\Driver32\_S7PG.dll  
Driver\Driver32\_S7\_200\_PG.dll  
Driver\Driver32\_S7\_Connection.dll  
Driver\Driver32\_S7\_Ethernet.dll  
Driver\Driver32\_S7\_MPI.dll  
Driver\Driver32\_S7\_PPI.dll  
Driver\Driver32\_S7\_Softnet.dll  
Driver\Driver32\_SICP.dll  
Driver\Driver32\_SIPG.dll

English.lng  
Pms.chm  
Pms1.chm  
Manual\_inVISU\_PMS\_5.4.pdf  
Handbuch\_inVISU\_PMS\_5.4.pdf

**Changed files (new file version 5.4.0.10 or 5.4.0.1010):**

PM32.exe  
OD32.exe  
TBP32.exe  
TBP\_DM32.exe  
TEJ\_Viewer32.exe  
TOD32.exe

**Changed files (new file version 5.4.0.9 or 5.4.0.1009):**

TEJ32.exe

**Changed files (new file version 5.4.0.8 or 5.4.0.1008):**

BASIS32.exe  
BP32.exe  
InvDB32.dll  
InvGrid32.dll  
InvTool32.dll  
InvTrend32.dll  
InvTrendRT32.dll  
LOG32.exe  
LZ32.exe  
OPC32.exe  
PM32.exe  
PZ32.exe  
SetupPC.exe  
TBP32.exe  
TBP\_DM32.exe  
TDS32.exe  
TEJ32.exe  
TEJ\_DM32.exe  
TEJ\_Viewer32.exe  
TIH32.exe  
TPZ32.exe  
VI32.exe  
Driver\Driver32\_Modbus.dll  
Driver\Driver32\_ModbusTCP.dll  
Driver\Driver32\_S7\_Ethernet.dll  
Driver\Driver32\_S7\_MPI.dll

Driver\Driver32\_S7\_Softnet.dll

English.lng

MpExclude.ini

Pms.chm

Pms1.chm

Manual\_inVISU\_PMS\_5.4.pdf

Handbuch\_inVISU\_PMS\_5.4.pdf

## Changes and news with version 5.4.0.4 / 5.4.0.6

### ➔ Visualization

- The loading of a picture is accelerated.
- Sometimes a data input couldn't be started by mouse, when objects were placed one upon the other and one object was invisible
- Painting problems with invisible line objects with the border size 2.

### **Changed files (new file version 5.4.0.6 or 5.4.0.1006):**

VI32.exe

### **Changed files (new file version 5.4.0.4 or 5.4.0.1004):**

InvTool32.dll

LZ32.exe

## Changes and news with version 5.4.0.3

### ➔ Driver S7\_Connection (new)

The driver communicates over ethernet with Siemens PLCs with the protocol **S7 Connection**. Normally a special configuration of the communication in the S7 PLC isn't required.

### ➔ Graphic Editor

(New) Now objects configured with language elements can display the translated texts. In the new toolbar **Language** you can enable the translation mode and select the language.

### ➔ Trend Charts

Sometimes lines were not drawn correctly, when the data storing file wasn't completely filled with data.

### ➔ OPC

- 1) Problems with invalid values solved.
- 2) Problems with long OPC tag names solved.

### ➔ Operation Log

Problems with invalid values solved.

### ➔ Database replication

- 1) Configuration changes are updated online.
- 2) After adding or deleting tables a new snapshot is started.

### ➔ Driver S7\_Ethernet

Writes orders with the protocol **TCP-Connection** are now made within a single TCP packet, since problems occurred with unstable communication links.

### ➔ Runtime

At program start sometimes messages were displayed in German although another language was selected.

### Changed files (new file version 5.4.0.3, or 5.4.0.1003):

BASIS32.exe  
BP32.exe  
InvFlServer32.exe  
InvTool32.dll  
InvTrendRT32.dll  
LOG32.exe  
LZ32.exe  
ML32.exe  
MpStart32.exe  
OPC32.exe  
TBP32.exe  
TBP\_DM32.exe  
TDDE32.exe  
TDS32.exe  
TEJ32.exe  
TEJ\_Helper32.exe  
TMPM32.exe  
TMPS32.exe  
TOD32.exe  
TOPC32.exe  
TPZ32.exe  
TREPL32.exe  
TRZ32.exe  
VI32.exe

## Changes and news with version 5.4.0.2

### ➤ Windows Vista

The opening of a menu was very slow, if transparency was enabled in the Windows AERO theme.

### ➤ Driver

The format of the driver log is revised.

### ➤ Driver S7\_PPI (new)

The driver **S7\_PPI** replaces the driver S7\_200\_PG.

The basic advantages are:

- The data type „special memory“ can be read.
- The driver operates fully byte-oriented, so you can use 16-bit and 32-bit data types without problem.
- The limits of various data types are adjusted.

### ➤ OPC

OPC messages in dialogs are now standardized.

### ➤ Help

Programs could generate a protection fault, when at the same time the English help was opened.

### ➤ Operation log

During a recalculation of data an existing comment was possibly deleted.

### ➤ Various

A few texts are edited in several programs.

### **Changed files (new file version 5.4.0.2, or 5.4.0.1002):**

BP32.exe  
DDE32.exe  
DEB32.exe  
Driver\ ( all drivers )  
IH32.exe  
InvBlink32.exe  
InvHH32.exe  
InvTool32.dll  
LZ32.exe  
OPC32.exe  
PM32.exe  
RZ32.exe  
TBP32.exe  
TBP\_DM32.exe  
TEJ32.exe  
TEJ\_DM32.exe  
TEJ\_Viewer32.exe  
TIH32.exe  
TMPM32.exe  
TMPS32.exe  
TOPC32.exe

## Changes and news with version 5.4.0.1

### General

- **Windows Vista**  
The dongle check was always negative under Windows Vista.
- **Windows Vista**  
The following programs generated a popup message at program start.
  - Event Viewer
  - Eventjournal Runtime
  - Operation Log Runtime
  - Maintenance Runtime

### Visualization

- Trend charts have been painted with a high CPU consumption.  
Result: A picture with a trend chart was updated, but no more operation was possible.

### Trend Charts

- A trend chart didn't paint the curves, when the data storage file was empty at startup.
- Trend charts with many lines have not shown all values for the topmost lable (Y-axis).
- **Printing**  
Design template now also in English.

### OPC Editor/OPC Client

- In the dialog **Add data item** the data in the tree view will no longer be sorted.

### Eventjournal Runtime

- Language translation for column titles corrected.
- **Event Viewer**  
The database access was slow while running under a standard user account.

### Operation Log Runtime

- Cosmetic changes in the dialog **Data range and time period**.
- The database access was slow while running under a standard user account.

### Process Assignment /Driver

- **Driver S7\_MPI and S7PG**  
For the multiple operation of a driver software (e.g. 2 times S7\_MPI) the two driver software disturbed themselves mutually during the communication.
- **Process Assignment Editor**  
Clicking in the title bar of a process assignment grid could result in a protection fault.

### Known problems

- **Windows Vista**  
The inVISU OPC Server doesn't work properly when using the remote access.

**Changed files (new file version 5.4.0.1, or 5.4.0.1001):**

InvGrid32.dll  
InvTool32.dll  
InvTrend32.dll  
InvTrendRT32.dll  
OPC32.exe  
PZUserFunction.dll  
TBP32.exe  
TBP\_DM32.exe  
TEJ32.exe  
TEJ\_Viewer32.exe  
TIH32.exe  
Driver\Driver32\_S7PG.dll  
Driver\Driver32\_S7\_MPI.dll

## Changes and news with version 5.4

### General

#### ➤ **Help function**

The online documentation is available in the English language. If any language, different from German was selected, the English help function will be used.

#### ➤ **Password protection**

The operator passwords are no longer shown in the operator table. Changing passwords is possible via dialog **Change password**. The indication of the passwords can be forced with an entry in file Project.ini:

```
[Configuration]
ShowPasswordInUserGrid=1
```

#### ➤ **Editors**

The font of a tab for the active document is now **blue**.

Document titles are now written as below:

**Document name (Project name)** or **Project name**, e.g.:

```
MAIN (Demo_Project).
```

### Project Manager

#### ➤ **Database replication**

Historical events, operating protocol and maintenance data are saved in a SQL-data base. This data base can now be replicated, i.e. the stored data will be verified with another data base.

The replication is set with menu command **Configuration → Database replication**.

This option is with costs.

#### ➤ **Deleting of files**

As of now, deleted files will be moved into the recycle bin.

Exception: by means of shortcut **Shift+DEL** the files will be deleted immediately.

#### ➤ **Cross reference**

Creating the crossreference is accelerated considerably and the cross reference view is redesigned.

### Graphic Editor/Visualization

#### ➤ **PNG and TIF**

Graphics of type PNG and TIF can now also be drawn transparently.

#### ➤ **Line style**

Lines with width 1 can be drawn also with patterns. This applies for the following objects: text, number, rectangle, line, polyline, polygon.

#### ➤ **Color gradient**

The objects **rectangle**, **text**, **number** and **group** can draw the background with a color gradient.

#### ➤ **Operating objects**

There are new objects **Checkbox** and **Radio button**.

## Graphic Editor

### ➤ Locking of objects

Objects can be now locked, i.e. locked objects in the picture cannot be selected anymore. A selection via the tree view is further on possible. Locked objects are indicated in color in the tree view (see tree view below). If an object is locked, it will be removed from the selection list (and is thus not selected anymore).

The picture document remembers the states **locked** and **invisible**, i.e. after a new loading in the Graphic Editor, every object will be presented in a state according to the last settings.

There are 2 new commands in menu edit:

- 1) **Lock** (Shortcut **CTRL+L**): activates / deactivates the locking.
- 2) **Lock mode**: activates / deactivates the mode for all locked objects; this command was also inserted in toolbar 'Alignment'.

### ➤ Tree view

Objects are now shown in the tree view in color.

At this, the following allocation applies:

1. Standard = **black**
2. CScript = **brown** (Object with ,old' CScript)
3. Locked = **red**
4. Invisible = **Orange**

At this, higher-order properties have priority.

Keyboard shortcuts are changed:

- With the left and right arrow key an object branch can be opened and closed.
- With the up and down arrow key you can navigate in a branch.
- With the + and - key objects are moved in the Z-order.

### ➤ Windows

At changes in the size of windows (dialog **Picture properties**, tab **Graphic**) the position of objects remain unchanged now.

## Visualization

### ➤ Optimization

At invisible objects, not all scripts will be edited (speed optimization).

The following scripts will always be edited: **OnStart**, **OnEnd** and **ShowVisibleValue**.

The 'old' functionality can be reactivated by the entry **Vi\_NewCalcMode = 0** in section **[RuntimeConfiguration]** in **PROJECT.INI**. The default value is **1**, this means, speed optimization activated.

Example:

```
[RuntimeConfiguration]
VI_NewCalcMode=0
```

### ➤ Decimal point

The indication of numerical values can now be carried out also with a comma. The function can be activated with an entry in the Project.ini:

Example:

```
[RuntimeConfiguration]
DecimalSeparator=", "
```

Default decimal point is the 'point'.

### ➤ VBScript-error message

At faults in VBScripts, the object hierarchy of the graphic object is now included in the description of the message. Individual levels are separated with -->.

Example: **GroupTotal-->Group-->Rectangle**

- New system-elements **\_PicPosX** and **\_PicPosY**. The description can be found in the Help function.
- The font size of special objects can be changed globally with the new system-element **\_ViDynFontFactor**  
See further documentation in the help file.

### Trend charts

- **Optimization**  
The reading of data and the displaying of the curves have been accelerated.
- **VBScript**  
Many properties of a trend chart can be changed dynamically by means of VBScripts.
- **Profiles**  
At runtime the settings of a trend chart can be stored in profiles and loaded again.
- **Tracking Ruler**  
By means of the tracking rulers, values can be read at different mouse positions. At this, a vertical line is drawn at the current mouse position. The current results are displayed directly at the line.  
Via menu command **Tracking ruler** in the context menu of the trend chart, the indication of the tracking rulers can be switched on or off.  
Up to 10 tracking rulers can be defined for each of the trend charts.
- **Printing**  
The layout can be configured now with the inVISU report designer.

### OPC Editor/OPC Client

- **Comfort of user interface**  
The list of the OPC-tags can now also be sorted.  
  
The property dialog was revised, among others, the OPC refresh time can now be configured.
- **Scaling of values**  
For every OPC tag a scaling of values like in the process assignment is possible.
- **VBScript**  
For every OPC table a VBScript is possible.
- **Intelligent nomenclature for variables**  
It is possible to add a VBScript function for the programmable generating of inVISU element names in **dialog Elements**.

### Data storage

- **VBScript**  
A VBScript is possible for every data storage table.
- **Optimization**  
The runtime function was accelerated.
- **Data records**  
The maximal number of data records was increased to 100000.

### ➤ **Changing the definition**

The behavior after changing the definition is as follows:

- 1) An existing data storage file will be renamed and gets in the file name the extension `__YYMMDD_hhmmss`.  
Sample: `Test.iDSF` is renamed to `Test_061208_080912.iDSF`.
- 2) A new data storage file will be created and useful data will be read from the old data storage file.

## Eventjournal

### ➤ **PageControl**

As interface between inVISU and PageControl 'Automation' is used now.

### ➤ **Time hysteresis**

Alarms can be delayed with the **detection** and **resolving time**.

### ➤ **VBScript**

The Eventjournal Runtime can now handle with mouse events in a VBScript.

There is a new object: **Application**.

The function **OnEventStateChanged** is called, when a event changes its status (coming , going , acknowledged). In the function you can change e.g. the alarm text.

## Operation log

### ➤ **New functions**

There are 4 integral functions now (sec, min, hrs, day). The time base for the present function was a second.

### ➤ **Optimization**

The runtime funtion was accelerated.

### ➤ **Tracking ruler**

Diagrams can display a tracking ruler (see description tracking ruler at trend charts).

### ➤ **Remarks**

You can now enter remarks for a report or for data items.

## Recipe

### ➤ **VBScript**

For every recipe table, a VBScript can be edited.

## Process assignment / Driver

### ➤ **Driver S7\_Ethernet**

The highest address at data blocks and flags is now 65535.

## User program

### ➤ **PMS\_Cpp**

Example application program for Visual C. The program has entry points for **start**, **run** and **end**. To be found in directory **Extras** on the Setup-CD.