

**Quick Guide
for
MicroStation**

MDL applications

LICAD4MS & LICAD4PDS

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Installation

Start the installation program "licad4_ms_pds_v9400_en.msi".

The MDL applications are included for the following MicroStation versions in the installer:

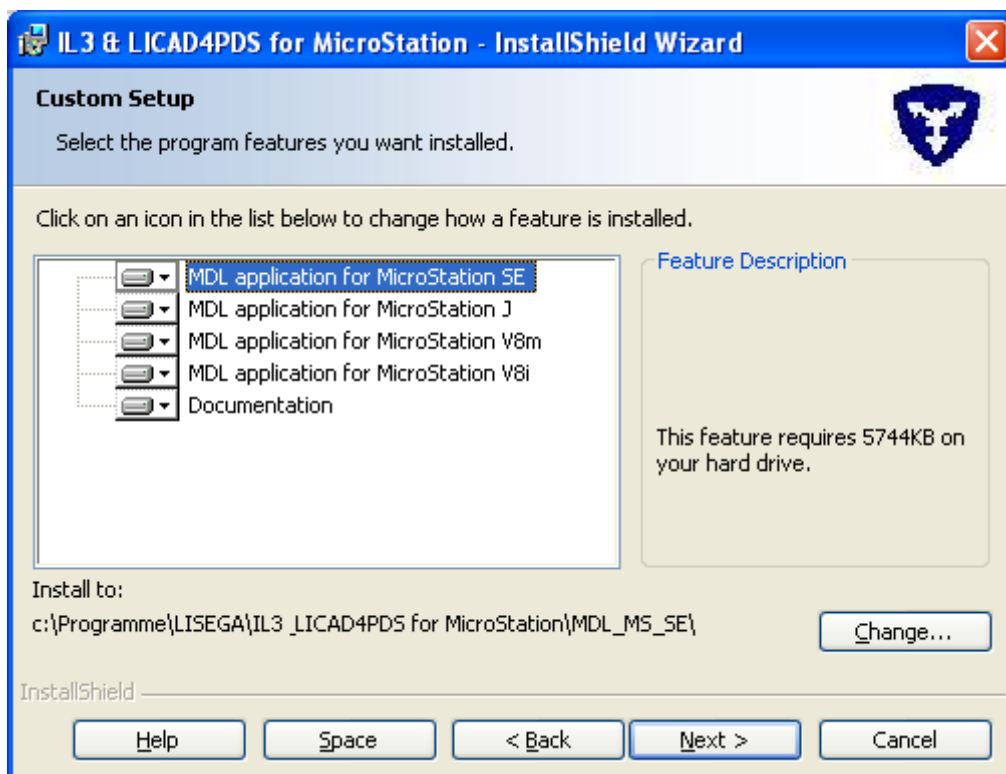
- MicroStation 95 / SE
- MicroStation / J (V7)
- MicroStation V8m
- MicroStation V8i

You can choose in the dialog box for which version/version(s) of MicroStation you want to install the program(s). By default, the programs for all supported versions of MicroStation are installed. The MDL applications are installed by default in the installation directory "C:\Program Files\LISEGA\LICAD4MS & LICAD4PDS for MicroStation". A subdirectory is created for each MicroStation version. It contains the appropriate files. The directories can be changed via the Change button. Only the directory for the currently selected version of the program is changed. If you want to change the directory for all versions, you have to repeat according to the other versions.

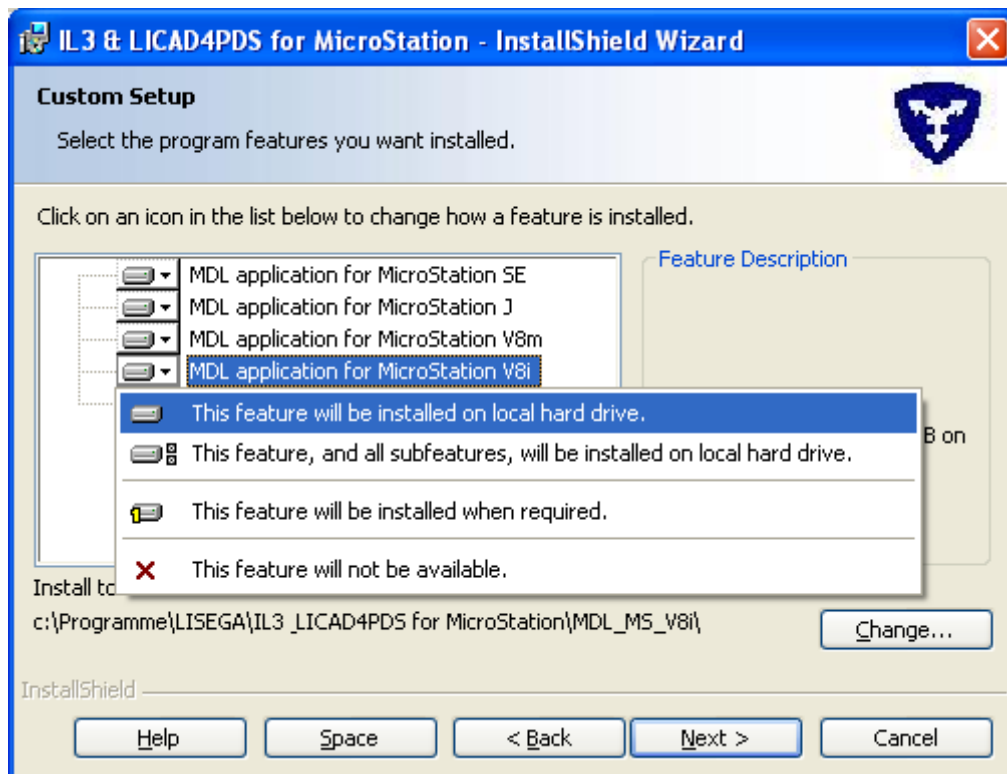
Note: A separate target directory for each version should be specified.

If not, the files will be overwritten and only the last copied version is available, whether that is then fit into your MicroStation version is not guaranteed!

The installer does not check this!



The setting, whether a version will be installed, can be set over the button , as usual.



Configuration of MicroStation

MicroStation search paths must be expanded, so that MicroStation searches for MDL applications also in the installation directories.

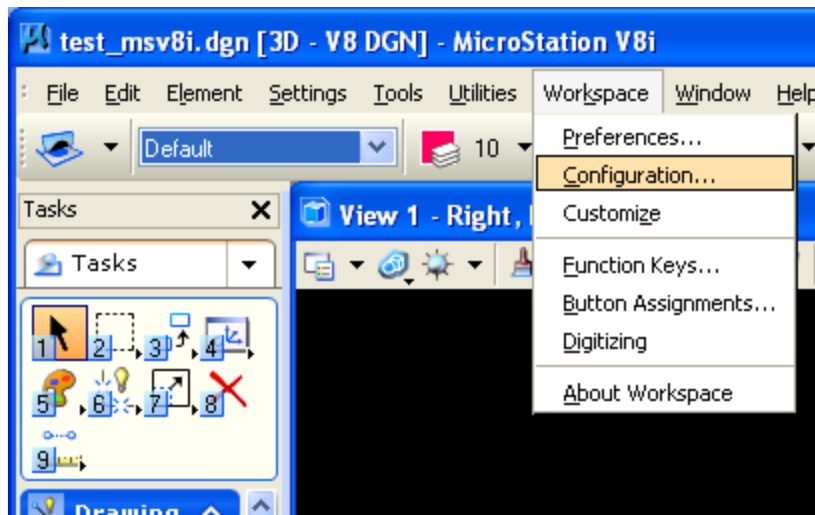
The two search paths in MicroStation

- Visible MDL applications
- MDL applications

must be configured.

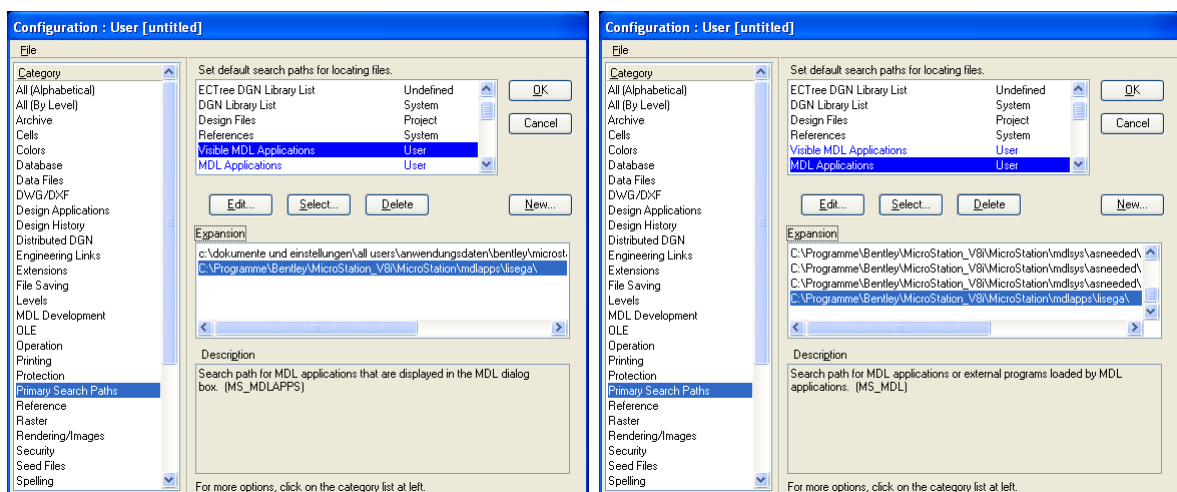
The path for the corresponding MicroStation version must be added „C:\Program files\LISEGA\ LICAD4MS & LICAD4PDS for MicroStation “. (In this example MicroStation V8i)

Open the configuration dialog (Menu Workspace->Configuration ...)



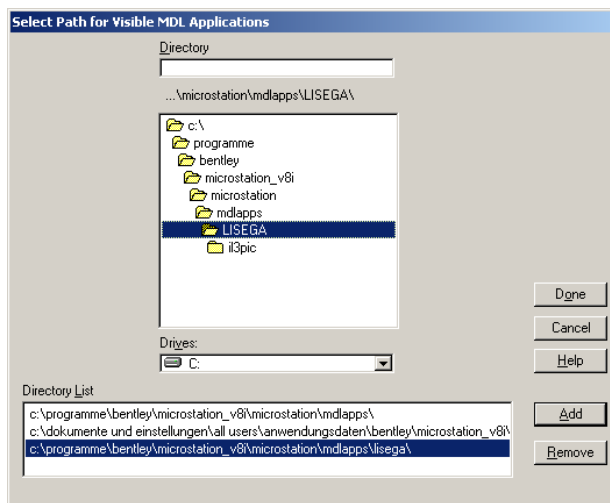
Select the category “Primary Search Paths” on the left side.

Select “Visible MDL Applications” on the right side and press the button “Select”.

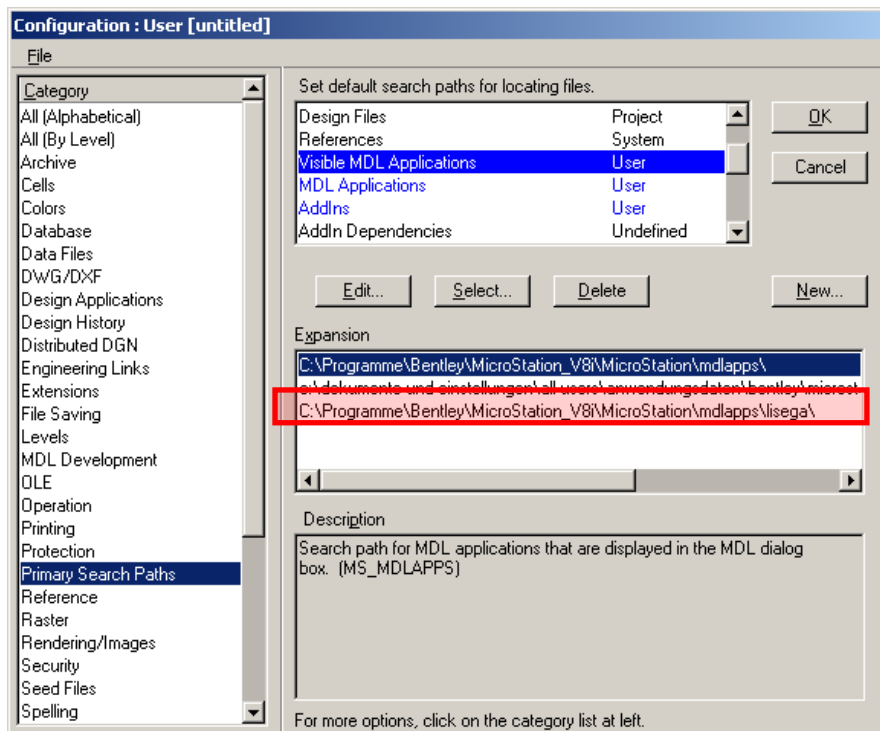


The following dialog is displayed. Select the sub directory for the MDL application for the corresponding MicroStation version (in this example: MicroStation V8i)
=> „C:\Program files\LISEGA\LICAD4MS & LICAD4PDS for MicroStation\mdl_ms_V8i“

and press the buttons “Add” and after that “Done”.



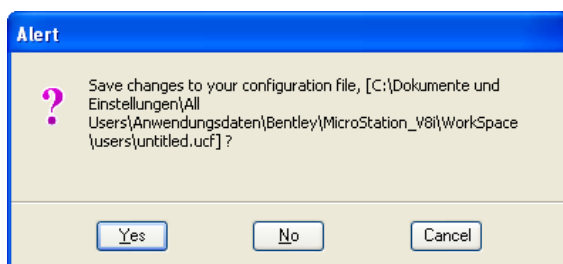
The added path is now shown in the previous dialog.



IMPORTANT: The same directory must also be added to the entry “MDL applications”.

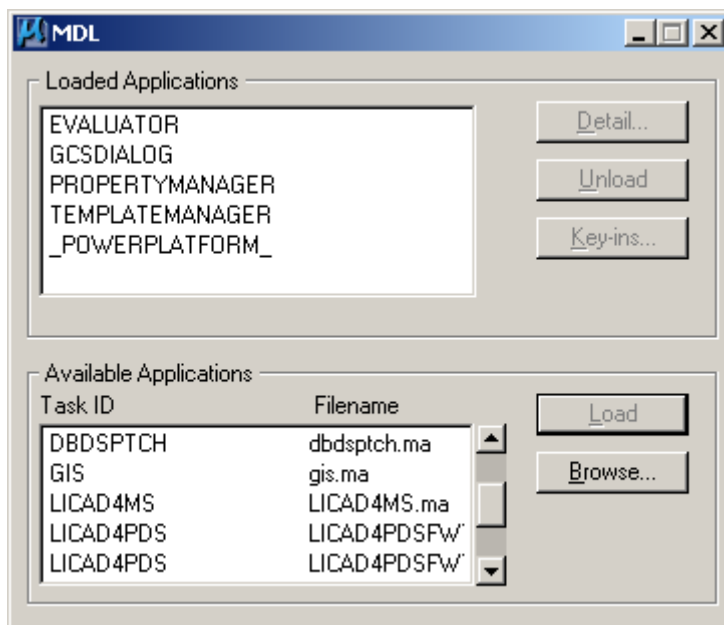
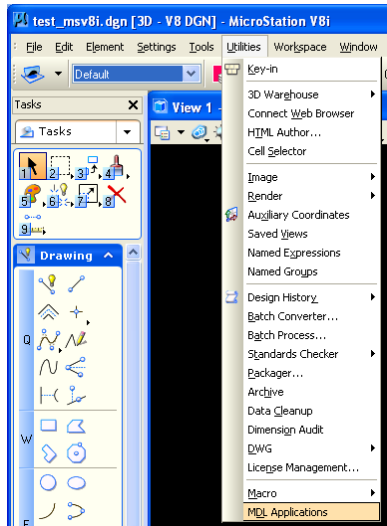
Click the button “Ok” after you’ve changed both search paths.

Press the button “Yes” in the confirmation dialog to save the changes.



Start the MDL applications

The MDL applications licad4ms & licad4pds can be found in the MDL applications dialog after the change of the search paths.



The application LICAD4PDS exist perhaps more than once (see above), if one or more FrameWorks version exist for that MicroStation version.

The MDL applications LICAD4MS and LICAD4PDS

The applications are now command based. A toolbar is included to start the commands directly with a simple mouse click, but you can use also the following keyins:

- LITOLS : Show the toolbar, if it was closed
- L3D_IMPORT : Start the L3D file import
- LICAD : Choose support design Interactively and start LICAD
- SETTINGS : Open the configuration dialog for level and color settings
- LIPART : Insert a LISEGA part manually

The following two commands are only available in LICAD4PDS!

- LIDRV : Create a DRV file for DR/SR
- LILOGSUP : Open the logical support dialog (known from previous versions)

The following dialogs may be shown during startup of LICAD4PDS, if these settings aren't done in the configuration file „licad4pds.ini“.



After the initialization the toolbar is shown.




Commands & toolbar buttons

LITOLS


Show the toolbar, if it was closed. There's no corresponding button on the toolbar, because that's unnecessary.

L3D_IMPORT

The button  on the toolbar will also start this command.

You can import L3D support data files generated by LICAD. A file open dialog is displayed where one or more L3D files can be selected. The data from the L3D file is taken to create a 3D model of the defined support in MicroStation. LICAD4PDS will also store some technical data (Load, movement, ...)

LICAD

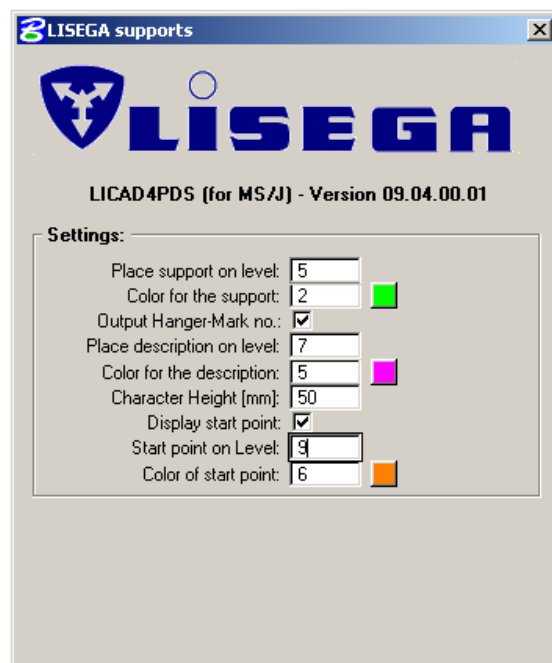
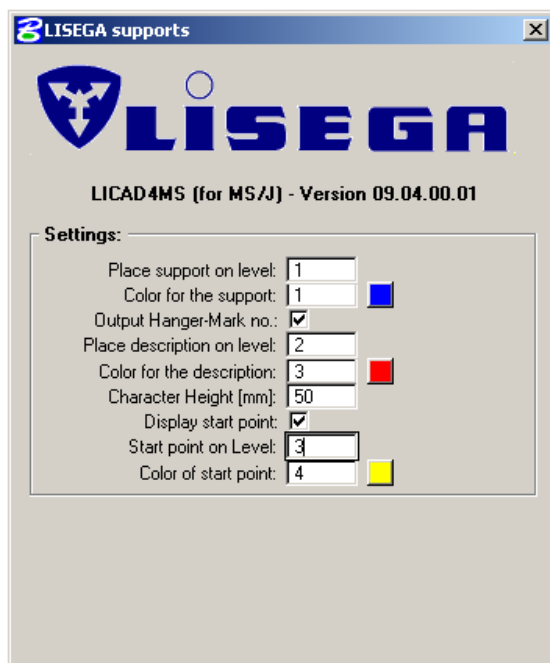
The button  on the toolbar will also start this command.

You can design the support (define the support type and its geometry) dynamically in MicroStation. LICAD will be called automatically after all necessary data were entered. The data of support type and the geometry is directly transferred from MicroStation to LICAD. So, it's only needed to enter the technical data in LICAD after that.

SETTINGS


Open the configuration dialog for level and color settings for the supports to be placed in the 3D model. The options are used to place the 3D objects that will build up the support with the defined

color on the defined level. The button  will start also this command.




LIPART


Insert a LISEGA part manually. The part can be selected in a dialog. Variable dimensions can be changed in the dialog before the part is placed. The placement is done interactively. Use the toolbar

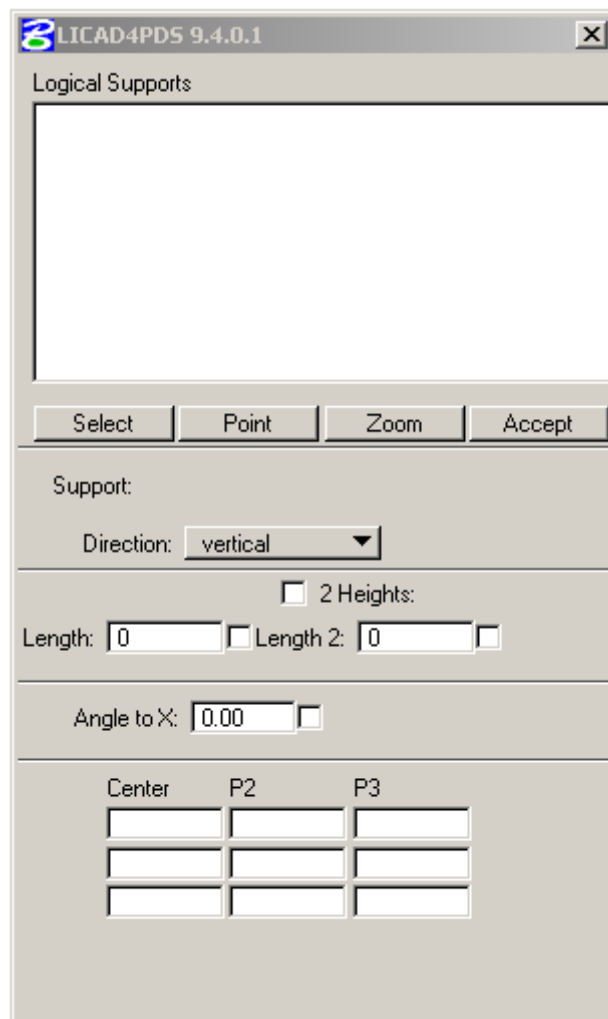
button  to start the command.

LIDRV

This command is only available in LICAD4PDS. It will create a DRV file of all LISEGA supports in the current dgn file for interference checking with DR/SR. The button  can be used to start the command.

LILOGSUP

This command is only available in LICAD4PDS. It will show the dialog for logical supports that was main program of previous versions of LICAD4PDS. The button  on the toolbar will also start this command.



Configuration file licad4pds.ini

The application licad4pds will use this configuration file.

```

/*
    LICAD4PDS.ini

    LICAD4PDS configuration file.

    This example configuration file contains all available parameters
    with their defaults.

    2014/06/26
*/

/*
    language: of the User interface
*/
language      = "en";

/*
    dbavailable: PDS Database available?
*/
dbavailable   = 1;  // 0 - no PDS Database, 1 - access to Database

/*
    dbproject PDS Projectname
    when specifying an empty string, the user will be asked for the project name
*/
dbproject     = "";

/* menuallparameters
    0 - show parameter menu, if values are missing
    1 - show parameter menu always,
    2 - show menu of all LICAD4PDS paramters
*/
menuallparameters = 0;

/*
    verbose - additional debug output
    verbose = 0xFFFF - all debug flags on
*/
verbose       = 0x0;

/*
    StartLicadWithMdlApp: LICAD OLE-server should be started while MDL app is started
*/
startlicadwithmdlapp = 1;

/*
    Default folder to show in file open dialog for L3D files
*/
l3ddefimpfolder = "c:\\\\";

/*
    configuration values for lisegalib

    Level and color settings for generated elements
*/
supportdrwlevel = 3;
supportdrwcolor = 1;
supportdesclevel = 5;
supportdescrcolor = 2;
supportdrwtextrsize = 63;
supportdrwdescronoff = 1;
supportdrwcplevel = 7;
supportdrwcpcolor = 3;
supportdrwcponoff = 1;

/*
    config - path of the configuratio file

```

```

The configuration path file can be set on the call to LICAD4PDS by calling
mdl load LICAD4PDS config='d:\temp\myconfig.ini'
*/

/*
defaultsfile - configuration file, which will be updated with
actual values when LICAD4PDS ends.
defaultsfile = "=" - the actual configuration file will be updated
defaultsfile = "" - no update will take place
Using this feature, the dbproject will be updated for the next run.
*/
defaultsfile = "";

/*
protocol - message file
The default is
protocol      = 'C:\TEMP\LICAD4PDS.log';
*/

/* zoomview
zoomfactor

Determines, how the zoom function works.
zoomview is the list of views, where the zoom function should redraw a zoomed view
zoomfactor is the factor for the zoom
*/
zoomfactor    = 0.800000;
zoomview      = ( 1 );

// DATABASE Information

/*
dbpartition - partition number in database.
-1: LICAD4PDS will look up the partition number in the database
*/
dbpartition   = -1;

/*
dbrealformat - format for reals, which will be used to read/write real
values from/into the database
*/
dbrealformat  = "%f";

/* Default Values for Licad.
These values will be used, if no database value is available.
*/
dfcoldload    = 0.000000;
dfcustomerdrawingnumber = "";
dfhotload     = 0.000000;
dfhydroload   = 0.000000;
dfinsulation  = 0.000000;
dflicadconfigurationnumber = 0;
dflicaddrawingnumber = "";
dfload_h      = 0.000000;
dfload_hs     = 0.000000;
dfload_hz     = 0.000000;
dfmovement3d  = 0.000000;
dfmovementhorizontal = 0.000000;
dfmovementlateral = 0.000000;
dfmovementnegative = 0.000000;
dfmovementvertical = 0.000000;
dfpipeconnectiontype = -1;
dfpipediameter = 0.000000;
dfpipeorientationr = 0.000000;
dfrevisionnumber = 0;
dfsupportnumber = "";
dftemperature = 0.000000;
dftopconnectiontype = -1;
dfwidth       = 0.000000;

/* Table names for database access
The names consist of:

```

```

<schema>,<table>,<readwrite>
<schema>      can be dd or pd (dd- or pd-schema)
<table>       indicates the table number, eg. 80 for pdtable_80_130,
               where 130 is the partition number
<readwrite>   empty or "r", attribute will only be read from database
               "w" attribute will only be written into database
               "wr" attribute will be read and written
An empty string for tbXXX and a value for pnXXX indicates
a search in pdtable_80 of the dd-schema,
an empty string for tbXXX and pnXX indicates,
this attribute will neither be read nor written from/to the database
*/
tbcoldload    = "";
tbcustomerdrawingnumber = "dd,80,wr";
tbhotload     = "";
tbhydroload   = "";
tbinsulation  = "dd,12";
tblicadconfigurationnumber = "";
tblicaddrawingnumber = "";
tblicadprojectdirectory = "";
tblog_h       = "";
tblog_hs      = "";
tblog_hz      = "";
tbmovement3d  = "";
tbmovementhorizontal = "";
tbmovementlateral = "";
tbmovementnegative = "";
tbmovementpositive = "";
tbmovementvertical = "";
tbpipeconnectiontype = "";
tbpipediameter = "dd,12";
tbpipeorientation = "";
tbrevisionnumber = "";
tbsupportnumber = "dd,80";
tbtemperature = "dd,12";
tbtopconnectiontype = "";
tbwidth       = "";

/* Parameter names to search for in the PDS database */
pncoldload    = "";
pncustomerdrawingnumber = "details_for_shop";
pnhotload     = "";
pnhydroload   = "";
pninsulation  = "insulation_thick";
pnlicadconfigurationnumber = "";
pnlicaddrawingnumber = "";
pnlicadprojectdirectory = "";
pnload_h      = "";
pnload_hs     = "";
pnload_hz     = "";
pnmovement3d  = "";
pnmovementhorizontal = "";
pnmovementlateral = "";
pnmovementnegative = "";
pnmovementpositive = "";
pnmovementvertical = "";
pnpipeconnectiontype = "";
pnpipediameter = "nominal_piping_dia";
pnpipeorientation = "";
pnrevisionnumber = "";
pnsupportnumber = "pipe_support_no";
pntemperature = "nor_oper_temp";
pntopconnectiontype = "";
pnwidth       = "";

/* Factors, which will be used to multiply database values
   (for database values, which are real or integer) */
fccustomerdrawingnumber = 1.0;
fchotload    = 1.0;
fchydroload  = 1.0;
fcinsulation = 1.0;
fclicadconfigurationnumber = 1.0;
fclicaddrawingnumber = 1.0;
fclicadprojectdirectory = 1.0;
fcload_h     = 1.0;
fcload_hs    = 1.0;

```

```
fcload_hz      = 1.0;
fcmovement3d   = 1.0;
fcmovementhorizontal = 1.0;
fcmovementlateral = 1.0;
fcmovementnegative = 1.0;
fcmovementpositive = 1.0;
fcmovementvertical = 1.0;
fcpipeconnectiontype = 1.0;
fcpipeiameter = 1.0;
fcpipeorientation = 1.0;
fcrevisionnumber = 1.0;
fcsupportnumber = 1.0;
fctemperature = 1.0;
fctopconnectiontype = 1.0;
fcwidth        = 1.0;

/*
  editor - editor will be used to show errors in configuration file
*/
editor          = "c:\\winnt\\notepad.exe";

/*
  epsilon, streuwert - value to compare for 0
*/
epsilon         = 0.000010;
streuwert       = 0.001000;

/*
  fileunits - units used in the file
  If fileunits = 0 LICAD4PDS will try to determine the file units
  from FWP or the MSTN file.
  If this is not possible, the user has to set the fileunits.
  Available are the following constants:
  fileunits = unit_cm;
  fileunits = unit_feet;
  fileunits = unit_inch;
  fileunits = unit_m;
  fileunits = unit_mm;
  fileunits = unit_yard;
*/
fileunits       = 0;

/*
  globalsnapradius - radius to find elements
*/
globalsnapradius = 0.100000;
snapradius      = 0.100000;
```

Configuration file licad4ms.ini

The application licad4ms will use this file.

```

/*
  LICAD4MS.ini

  LICAD4MS configuration file.

  This example configuration file contains all available parameters
  with their defaults.

  2014/06/26
*/

/*
  language: of the User interface
*/
language      = "en";

/* menuallparameters
  0 - show parameter menu, if values are missing
  1 - show parameter menu always,
  2 - show menu of all LICAD4PDS paramters
*/
menuallparameters = 0;

/*
  verbose - additional debug output
  verbose = 0xFFFF - all debug flags on
*/
verbose       = 0xFFFF;

/*
  StartLicadWithMdlApp: LICAD OLE-server should be started while MDL app is started
*/
startlicadwithmdlapp = 1;

/*
  Default folder to show in file open dialog for L3D files
*/
l3ddefimpfolder = "c:\\";

/*
  configuration values for lisegalib

  Level and color settings for generated elements
*/
supportdrwlevel = 3;
supportdrwcolor = 1;
supportdescrlevel = 5;
supportdescrcolor = 2;
supportdrwtextsize = 63;
supportdrwdescronoff = 1;
supportdrwcplevel = 7;
supportdrwcpcolor = 3;
supportdrwcponoff = 1;

/*
  config - path of the configuratio file
  The configuration path file can be set on the call to LICAD4PDS by calling
  mdl load LICAD4PDS config='d:\temp\myconfig.ini'
*/

/*
  defaultsfile - configuration file, which will be updated with
  actual values when LICAD4PDS ends.
  defaultsfile = "" - the actual configuration file will be updated
  defaultsfile = "" - no update will take place
  Using this feature, the dbproject will be updated for the next run.
*/

```

```

defaultsfile = "";

/*
  protocol - message file
  The default is
  protocol    = 'C:\TEMP\LICAD4MS.log';
*/

/* zoomview
  zoomfactor

  Determines, how the zoom function works.
  zoomview is the list of views, where the zoom function should redraw a zoomed view
  zoomfactor is the factor for the zoom
*/
zoomfactor    = 0.800000;
zoomview      = ( 1 );

/* Default Values for Licad.
  These values will be used, if no database value is available.
*/
dfcoldload    = 0.000000;
dfcustomerdrawingnumber = "";
dfhotload     = 0.000000;
dfhydroload   = 0.000000;
dfinsulation  = 0.000000;
dflicadconfigurationnumber = 0;
dflicaddrawingnumber = "";
dfload_h      = 0.000000;
dfload_hs     = 0.000000;
dfload_hz     = 0.000000;
dfmovement3d  = 0.000000;
dfmovementhorizontal = 0.000000;
dfmovementlateral = 0.000000;
dfmovementnegative = 0.000000;
dfmovementvertical = 0.000000;
dfpipeconnectiontype = -1;
dfpipediameter = 0.000000;
dfrevisionnumber = 0;
dfsupportnumber = "";
dftemperature = 0.000000;
dftopconnectiontype = -1;
dfwidth       = 0.000000;

/*
  editor - editor will be used to show errors in configuration file
*/
editor        = "c:\\winnt\\notepad.exe";

/*
  epsilon, streuwert - value to compare for 0
*/
epsilon       = 0.000010;
streuwert     = 0.001000;

/*
  fileunits - units used in the file
  If fileunits = 0 LICAD4MS will try to determine the file units
  from FWP or the MSTN file.
  If this is not possible, the user has to set the fileunits.
  Available are the following constants:
  fileunits = unit_cm;
  fileunits = unit_feet;
  fileunits = unit_inch;
  fileunits = unit_m;
  fileunits = unit_mm;
  fileunits = unit_yard;
*/
fileunits     = 0;

/*
  globalsnapradius - radius to find elements
*/
globalsnapradius = 0.100000;
snapradius    = 0.100000;

```