

# swmvp.ini File Variables

The following topics provide details on the available variables for the [swmvp.ini](#) file.

On this page:

## [SETTINGS]

<i>Use:</i>	Display of the current options permitted for this copy of XP-SWMM/XP-STORM.
<i>Value:</i>	Not to be edited by the user. All items should be 0 or 1.
<i>Description:</i>	These items are either 1 or 0 as yes or no. It is an echo of what is found in the SWMXP.XCF or XPSTORM.XCF file.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

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- [File Names, Extensions and Paths](#)
- [The .ini File](#)
- [swmvp.ini File Variables](#)

## [ENGINE]

<i>Use:</i>	Header for any <a href="#">Configuration Parameters</a> to use for every model run.
<i>Value:</i>	List of Configuration Parameters.
<i>Description:</i>	Place any configuration parameters you wish to always use in this section.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [COMMENTS]

<i>Use:</i>	Header for comments that follow.
<i>Value:</i>	Lines of text.
<i>Description:</i>	This is the block that contains explanations of the variables and values in the SWMXP.INI file.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [FIELD DEFAULTS]

<i>Use:</i>	Header for the user defined defaults for XP-SWMM/XP-STORM variables.
<i>Value:</i>	XPX field names and default values.
<i>Description:</i>	Allows the user to specify the field defaults to use in lieu of the current existing values embedded in the program. Uses the syntax of XPX fieldname=value.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [RECENT FILE LIST]

<i>Use:</i>	Superseded by [STATUS].
<i>Value:</i>	File and Path Names.
<i>Description:</i>	Automatically displays the file and path names of the last 4 .XP files opened. This file list is displayed in the File menu of the program.

<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [MRU\_count]

<i>Use:</i>	Maximum number of files that can be displayed in the Recent Files list.
<i>Value:</i>	Integer.
<i>Description:</i>	Automatically displays the file and path names of the last MRU_COUNT .XP files opened. This file list is also displayed in the opening banner.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [STATUS]

<i>Use:</i>	Header for the last MRU_COUNT files opened.
<i>Value:</i>	File and Path Names.
<i>Description:</i>	Automatically displays the file and path names of the last MRU_COUNT .XP files opened. This file list is displayed in the opening banner.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [FIELD PRECISION]

Used to specify display precision of fields. In the first line NUM\_FIELDS specifies the number of fields specified. Two lines are required for each field. PREC\_FLD\_1 is used to declare the field name. PREC\_VAL\_1 defines the display precision.

Sample for adjusting the Runoff Area to 5 digits after the decimal:

```
[FIELD PRECISION]
NUM_FIELDS=1
PREC_FLD_1=R_WAREA
PREC_VAL_1=5
```

## [MAIN]

### VERSION

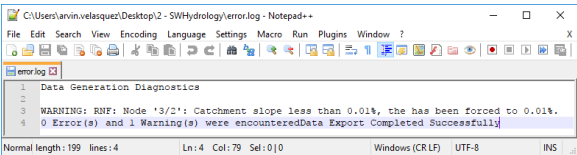
<i>Use:</i>	Display of the current version of the XP interface.
<i>Value:</i>	Current version number.
<i>Description:</i>	Automatically displays version number, do not edit.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### ENGINE\_VER

<i>Use:</i>	Display of the current version of the SWMM analysis engine.
<i>Value:</i>	Current version number.
<i>Description:</i>	Automatically displays version number, do not edit.

<i>Memory:</i>	None.
<i>Comments:</i>	None.

## EDITOR

<i>Use:</i>	Default Editor used by Browse and for reporting errors and warnings.
<i>Value:</i>	NOTEPAD++.EXE (default)
<i>Description:</i>	<p>Notepad++ is the default text editor used when the Browse menu command is prompted for viewing text files and for reporting errors and warnings, as shown in the image below. This text editor includes the Compare plugin. You can download Notepad++ on this <a href="#">website</a>.</p>  <p>You may change the text editor in <a href="#">the INI file</a> (or <a href="#">Application Settings</a>) by modifying the line:</p> <pre>[MAIN] EDITOR=C:\Program Files\Innovyze\xpswmm2019. 1\Utilities\NotepadPlusPlus\Notepad++.exe</pre>
<i>Memory:</i>	Program dependent.
<i>Comments:</i>	None.

## TEMPDIR

<i>Use:</i>	Location of temporary files.
<i>Value:</i>	The name of any directory.
<i>Description:</i>	Used to locate the temporary files such as the DB, XP, ZZ etc. files.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## DIRECTORY

<i>Use:</i>	Location of home directory or installation directory.
<i>Value:</i>	The name of any directory.
<i>Description:</i>	Used for files such as the XP, BAK, SYF, SYT, SYR OUT etc. files used by the model.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## SWMXP

<i>Use:</i>	Location of resource files used by the main executable.
<i>Value:</i>	The name of any directory.
<i>Description:</i>	Used for files such as the BIN, RSC, HLP etc. files used by the main executable.

<i>Memory:</i>	None.
<i>Comments:</i>	Setup during the installation process and should not normally be changed.

## ENGINE

<i>Use:</i>	Change the engine used by the program.
<i>Value:</i>	<i>null</i> (default), or SOLVE.BAT (including the full path to this file.
<i>Description:</i>	Inversions prior to 6.0 the interface used SWMENG.DLL as its engine (invoked when solve is selected). If speed of execution is critical or the automatic calibration option is being used the DOS engine can be invoked by enabling the Solve=DOS command.
<i>Memory:</i>	None.
<i>Comments:</i>	Important to use the UNLOCK program contained in SOLVE.BAT to delete the LOCK file when execution terminates or the interface will not know the DOS engine has finished running.

## MSGBOX

<i>Use:</i>	Display of the current version of the SWMM analysis engine.
<i>Value:</i>	Current version number.
<i>Description:</i>	Automatically displays version number, do not edit.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## CNF

<i>Use:</i>	Display of the current version of the XPSWMM analysis engine.
<i>Value:</i>	Current version number.
<i>Description:</i>	Automatically displays version number, do not edit.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## CVTHPGL

<i>Use:</i>	Obsolete item as of version 8.0. Contains the file and pathname assigned to the HPGL conversion program.
<i>Value:</i>	c:\xps\xp-swmm\cvthpgl.exe or wherever the program has been installed.
<i>Description:</i>	Contains file and path of the HPGL conversion utility.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## HELP

<i>Use:</i>	Contains the file and pathname assigned to this help file.
<i>Value:</i>	c:\xps\xp-swmm\xpswmm.hlp or wherever the help file has been installed.
<i>Description:</i>	File and Pathname of the Help file.

<i>Memory:</i>	None.
<i>Comments:</i>	None.

#### PLOT\_EXE

<i>Use:</i>	Contains the file and pathname assigned to the profile plotting routine.
<i>Value:</i>	c:\xps\xpprofileplot.exe or wherever it is installed.
<i>Description:</i>	Launches the program contained in the value as the profile-plotting program.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

#### WORKDIRECTORY

<i>Use:</i>	Display the last directory used for XP models.
<i>Value:</i>	File and path name.
<i>Description:</i>	Automatically displays the last directory and makes it the current directory.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

#### GIS\_EXE

<i>Use:</i>	Contains the file and pathname assigned to the GIS Link item in the Tools menu.
<i>Value:</i>	c:\xps\xp-swmm\gis.exe or wherever the module was installed.
<i>Description:</i>	Launches the PCSWMM GIS for XPSWMM module.
<i>Memory:</i>	None.
<i>Comments:</i>	Other application could be substituted.

### [Config]

#### OPT\_DB\_KEY

<i>U s e:</i>	Used for optimizing database searches.
<i>V a l u e:</i>	ON (default), OFF - ON enables access optimizations.
<i>D e s c r i p t i o n:</i>	This optimization creates a binary tree index of database keys, which significantly decreases the time in searching for database records. The index requires extra memory to operate. If insufficient memory is available, a message will appear whenever a database is created or opened, and the index will not be created.
<i>M e m o r y:</i>	About 4k per 1000 database records, or 50k per 1000 nodes.
<i>C o m m e n t s:</i>	Use this option, as memory requirement is small.

## OPT\_DB\_MEM

<i>Use:</i>	Used for optimizing database I/O.
<i>Value:</i>	ON (default), OFF - ON enables a memory load.
<i>Description:</i>	The entire database is maintained in memory, generally in expanded or extended memory where available. This option will improve any database access substantially, but requires a large amount of memory. However, the option removes the need for a ram drive to store the database work file, as it is now directly in memory. If insufficient memory is available, a message will appear whenever a database is created or opened, and a work file will be used instead.
<i>Memory:</i>	About 130k per 1000 database records, or about 1.5Mb per 1000 nodes.
<i>Comments:</i>	Use this option if extended/expanded memory is available.

## OPT\_DIRTYOBJ

<i>Use:</i>	Optimize saving of network objects.
<i>Value:</i>	ON (default), OFF - ON enables saving of dirty objects only.
<i>Description:</i>	Only saves the nodes & links that have been altered - this optimizes saving the network. An internal flag is maintained for each object which indicates if the object's graphical attributes have altered from the time the database was opened.
<i>Memory:</i>	None.
<i>Comments:</i>	Always use this option.

## OPT\_DRAW\_LINK\_LABELS

<i>Use:</i>	Allows the user to show or hide link labels
<i>Value:</i>	ON (default) or OFF.
<i>Description:</i>	Object labels are normally showing. A button on the toolbar allows an interface to this value.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## OPT\_DRAW\_NO\_LABELS

<i>Use:</i>	Allows the user to show or hide object labels
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<i>Value:</i>	ON or OFF (default).
<i>Description:</i>	Object labels are normally showing. Other options exist to individually show/hide object names.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### OPT\_DRAW\_NO\_LABELS

<i>Use:</i>	Allows the user to show or hide object labels
<i>Value:</i>	ON or OFF (default).
<i>Description:</i>	Object labels are normally showing. Other options exist to individually show/hide object names.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### OPT\_DRAW\_NODE\_LABELS

<i>Use:</i>	Allows the user to show or hide node labels
<i>Value:</i>	ON (default) or OFF.
<i>Description:</i>	Object labels are normally showing. A button on the toolbar allows an interface to this value.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### OPT\_FAST\_DRAW

<i>Use:</i>	Speeds up recalculation of object boundaries.
<i>Value:</i>	ON (default) or OFF.
<i>Description:</i>	Allows faster redrawing by retrieving object boundaries.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### OPT\_IDX\_ACCESS

<i>Use:</i>	Optimize internal access to network objects.
<i>Value:</i>	ON (default), OFF - ON enables faster access.
<i>Description:</i>	This options uses a binary index to access objects internally, speeding access times significantly. No significant additional memory is required.
<i>Memory:</i>	None.
<i>Comments:</i>	Always use this option.

### OPT\_OBJ\_NAME\_ACCESS

<i>Use:</i>	Speeds up idx access from xpx.
<i>Value:</i>	ON (default), OFF.
<i>Description:</i>	ON enables faster import of XPX files
<i>Memory:</i>	None.

<i>Comments:</i>	None.
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## OPT\_PART\_REC

<i>Use:</i>	Optimize database record I/O by accessing partial records.
<i>Value:</i>	ON (default), OFF - ON enables accessing partial records.
<i>Description:</i>	Internally, accessing a database field always required accessing the whole record first. This optimization allows accessing any field within the database record directly, saving the amount of data transfer required.
<i>Memory:</i>	None.
<i>Comments:</i>	Always use this option.

## OPT\_REDRAW

<i>Use:</i>	Optimizing network redraw by restoring screen image.
<i>Value:</i>	ON (default), OFF - ON enables image restores.
<i>Description:</i>	Network display can now occur in two ways: regeneration or restore. Regeneration is the mode used up to now, which causes every network object's display to be regenerated when the network window is redrawn. Restore mode restores a saved bit-mapped image of the network window, which takes a constant amount of time and is much quicker than a regenerate, but requires more memory. Restore is used as much as possible when the network window needs to be updated. The Redraw menu command now forces a regeneration to occur. If insufficient memory is available, a message will appear the first time a database is opened or created, and the option will be disabled.
<i>Memory:</i>	1 byte per screen pixel; for VGA(640x480), 300k.
<i>Comments:</i>	Use this option if extended/expanded memory is available.

## IO\_BUF\_SIZE

<i>Use:</i>	Optimize database temporary buffer transfer times.
<i>Value:</i>	0 - 32767 (4096 by default).
<i>Description:</i>	The size of the temporary database file buffer (in bytes). This option allows the user to speed up database loads and saves by setting the size of the temporary file buffer. There is an optimum size which depends on the local file system. If insufficient memory is available, a smaller buffer size will be used.



<i>Memory:</i>	The buffer size, but allocated dynamically during the Load or Save operation.
<i>Comments:</i>	Always use this option, as the memory requirements are transient. The default buffer size should provide reasonable performance for most file systems.

## MAX\_DBCARDS

<i>Use:</i>	Set the maximum number of database records.
<i>Value:</i>	0 - 200000 (10 times MAX_LINKS by default).
<i>Description:</i>	Sets the maximum number of database records that XP may contain at any time.
<i>Memory:</i>	6k per 1000 database records, or about 10k per 1000 nodes. There is an additional work file requirement of 130k per 1000 database records, or about 1.8Mb per 1000 nodes, which is a disk file requirement normally, but may be a direct memory requirement if OPT_DB_MEM is ON.
<i>Comments:</i>	None

## MAX\_LINKS

<i>Use:</i>	Set the maximum number of links for the network.
<i>Value:</i>	0 - 32767 (10 by default).
<i>Description:</i>	Sets the maximum number of links that the XP network can contain.
<i>Memory:</i>	Approx. 250k per 1000 links for the extended version.
<i>Comments:</i>	This value if set beyond the licensed value will be reset automatically.

## MAX\_NODES

<i>Use:</i>	Set the maximum number of nodes for the network.
<i>Value:</i>	0 - 32767 (10 by default).
<i>Description:</i>	Sets the maximum number of nodes that the XP network can contain.
<i>Memory:</i>	Approx. 250k per 1000 nodes.
<i>Comments:</i>	This value if set beyond the licensed value will be reset automatically.

## MAX\_PICTS

<i>Use:</i>	Set the maximum number of background pictures for the network.
<i>Value:</i>	0 - 32767 (20 by default).

<i>Description:</i>	Sets the maximum number of background picture objects that the XP network can contain.
<i>Memory:</i>	130k per 1000 pictures for the extended version.
	110k per 1000 pictures for the standard version.
<i>Comments:</i>	None

## MAX\_TEXTS

<i>Use:</i>	Set the maximum number of text strings for the network.
<i>Value:</i>	0 - 32767 (20 by default).
<i>Description:</i>	Sets the maximum number of text annotation objects that the XP network can contain.
<i>Memory:</i>	250k per 1000 texts for the extended version.
	150k per 1000 texts for the standard version.
<i>Comments:</i>	None

## CACHE\_SIZE

<i>Use:</i>	Set the size of a special database cache.
<i>Value:</i>	0 - 32767 (16 by default).
<i>Description:</i>	Sets the maximum number of database records in a special cache that XP may use. The special cache optimizes database record access by reducing the number of file transfers required to the database work file.
<i>Memory:</i>	130 bytes per cache record.
<i>Comments:</i>	None

## CALIBRATE

<i>Use:</i>	Turns on or Off the Automatic Calibration Module.
<i>Value:</i>	ON or OFF (default).
<i>Description:</i>	Module requires purchase from Innovyze.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## PROJECTS

<i>Use:</i>	Allow grouping of XP files into projects of up to 100 files.
<i>Value:</i>	ON, OFF (default)
<i>Description:</i>	See <a href="#">Project Menu</a> .
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## SOLVE

<i>Use:</i>	Directs the software to the selection of available compiled analysis engines.
<i>Value:</i>	WIN (default), DLL, or DOS.

<i>Description:</i>	Selects the type of compiled SWMM analysis engine. Latest engine is of type WIN and is a true Windows executable.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## DATE\_FORMAT

<i>Use:</i>	Used for defining a country-specific format for date.
<i>Value:</i>	mm-dd-yy month-day-year format
	dd-mm-yy day-month-year format
	yy-mm-dd year-month-day format
	Two digit numbers must be supplied for days and months. Years may be two or four digit. If years are two digits, the 20th century is assumed. The separator between digits may be any non-digit character, so that the first format could be entered as mm/dd/yy which requires a forward slash character to be used as the separator in the actual date.
<i>Description:</i>	The definition is used to configure the program for various countries. Any date entered in a dialog must conform to the format defined by this variable.
<i>Memory:</i>	None.
<i>Comments:</i>	Year 2000 compliance requires 4-digit year entry. This variable is not usually modified.

## COLOR

<i>Use:</i>	Allows the background color of to be set by the user.
<i>Value:</i>	=XP (default) or =SYSTEM.
<i>Description:</i>	Selecting system allows the user to pick a background color by changing the item in the Appearance Tab in the Display Properties in the Windows operating system.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## APP\_FLAGS

<i>Use:</i>	Change the configuration.
<i>Value:</i>	"" (default), "E" - EXTRAN Mode only, "M" - Malaysian Mode (Int'l only), "U" – UDD Only.
<i>Description:</i>	Restrict XP-SWMM to EXTRAN, UDD or enable the Malaysian Hydrology.

<i>Memory:</i>	None.
<i>Comments:</i>	None.

## YEAR\_XX

<i>Use:</i>	Forces 2 digit years to be in the 21 <sup>st</sup> century.
<i>Value:</i>	2000 or 1900.
<i>Description:</i>	Default is off or 1900, allowing 2 digit years to be assumed to be in the 20 <sup>th</sup> century.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [Web]

### main

<i>Use:</i>	Contains the http address of the website assigned to the Innovzye Home Page item in the help menu.
<i>Value:</i>	<a href="http://www.innovzye.com">http://www.innovzye.com</a>
<i>Description:</i>	Launches your default browser and directs it to the Innovzye website.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

## [DISPLAY]

### FONTNAME

<i>Use:</i>	Name of the font used in most dialogs.
<i>Value:</i>	System Font Name.
<i>Description:</i>	Changes the weight of text in XPSWMM dialogs. Not recommended to be altered by the user.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### FONTSIZE

<i>Use:</i>	Font size of the font used in most dialogs.
<i>Value:</i>	Positive Integer.
<i>Description:</i>	Changes the size of text in XPSWMM dialogs. Not recommended to be altered by the user.
<i>Memory:</i>	None.
<i>Comments:</i>	None.

### FONTWT

<i>Use:</i>	Weight of the font used in most dialogs.
<i>Value:</i>	Positive Integer.
<i>Description:</i>	Changes the weight of text in XP-SWMM dialogs. Not recommended to be altered by the user.
<i>Memory:</i>	None.

<i>Comments:</i>	None.
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## [FIELD\_DEFINITION\_OVERRIDES]

<i>Use:</i>	Display of the current field definition overrides made by the user.
<i>Value:</i>	As indicated by the user in the <a href="#">Application Settings</a> , or as edited in the swmvp.ini file.
<i>Description:</i>	Overrides the default value of the field definition in the application to a user-defined value.
<i>Memory:</i>	None.
<i>Comments:</i>	<p>Example of this section as it appears in the swmvp.ini file when overrides have been made.</p> <pre>□ [FIELD_DEFINITION_OVERRIDES] F_QINST (LOW_ERROR) =1.5 F_QINST (HIGH_WARN) =2 F_QINST (PRECISION) =2 F_QINST (HIGH_ERROR) =2.5 F_QINST (LOW_WARN) =1.5</pre>