



Knowledge Base Topic:

Guidelines for creating a Motif File (Base Plan) with external references

Software: AutoCAD all versions

- Using references as overlays prevents circular references. When AutoCAD reads the file on insert, it ignores all references listed which were overlays. It is preferable to add external references as OVERLAYS.
- Insert External References into Miscellaneous layer(s). This way you can easily turn off any XREF.
- Motif Files are to be inserted into design files as OVERLAYS. This way the design files can be inserted into other files without the Motif dependent files loading. See the last example in this document.

MOTIF FILES >

- Create the motif drawing with references as ATTACHMENTS. This bundles the references together. See image.
- **This will insure that the MOTIF cannot be nested in any other file.** It only goes one level.
- Example shows the reference manager of motife drawing, mtplsg01.dwg

Reference Name	Status	Size	Type	Date	Saved Path
mtplsg01	Opened	872 KB	Current	4/27/2012 8:44:24 AM	
SHARED_DSGNRD02	Loaded	1.36 MB	Attach	3/7/2012 10:37:06 AM	..\roadway\SHARED_DSGNRD02.DWG
TOPORD03	Loaded	9.51 MB	Attach	4/27/2012 10:24:56 AM	..\roadway\TOPORD03.dwg
UTEXRD02	Loaded	2.09 MB	Attach	3/27/2012 2:23:18 PM	..\roadway\UTEXRD02.DWG
UTEXRD03	Loaded	828 KB	Attach	4/26/2012 6:10:33 PM	..\roadway\UTEXRD03.DWG

DESIGN FILES requiring MOTIF >

- Motif drawing, **mtplsg01**, is inserted as an **OVERLAY** into dsgnsg01. This is how motif's should be added to any drawing that requires common underlays.
- AutoCAD loads ALL the drawings in the motif drawing because they were attachments.
- The motif is loaded with all its dependents. This is the motif file at one level. Note the icon differences.

Reference Name	Status	Size	Type	Date	Saved Path
dsgnsg01	Opened	619 KB	Current	4/27/2012 9:00:50 AM	
mtplsg01	Loaded	872 KB	Overlay	4/27/2012 8:44:24 AM	.\mtplsg01.dwg
SHARED_DSGNRD02	Loaded	1.36 MB	Attach	3/7/2012 10:37:06 AM	..\roadway\SHARED_DSGNRD02.DWG
TOPORD03	Loaded	9.51 MB	Attach	4/27/2012 10:24:56 AM	..\roadway\TOPORD03.dwg
UTEXRD02	Loaded	2.09 MB	Attach	3/27/2012 2:23:18 PM	..\roadway\UTEXRD02.DWG
UTEXRD03	Loaded	828 KB	Attach	4/26/2012 6:10:33 PM	..\roadway\UTEXRD03.DWG

DESIGN FILES requiring no other references >

- The **dsgnsg01** is loaded into another design file as an OVERLAY; no other files from the MOTIF are loaded by AutoCAD.

Reference Name	Status	Size	Type	Date	Saved Path
DSGNRD02*	Opened	3.79 MB	Current	4/27/2012 1:25:44 PM	
ALGNRD04	Loaded	2.24 MB	Overlay	4/27/2012 12:05:58 PM	.\ALGNRD04.DWG
DRPRRD01	Loaded	4.76 MB	Overlay	4/25/2012 3:09:36 PM	.\DRPRRD01.DWG
dsgnsg01	Loaded	619 KB	Overlay	4/27/2012 9:00:50 AM	..\signals\dsgnsg01.dwg
DSPFRD01	Loaded	779 KB	Overlay	4/27/2012 1:02:54 PM	.\DSPFRD01.DWG
PDPLRD01	Loaded	3.71 MB	Overlay	4/27/2012 1:13:43 PM	.\PDPLRD01.DWG
r110639_design	Loaded	579 KB	Overlay	3/26/2012 5:52:46 PM	.\r110639_design.DWG
TOPORD01	Loaded	10.9 MB	Overlay	1/31/2012 4:20:30 PM	..\survey\TOPORD01.DWG
TOPORD03	Loaded	9.51 MB	Overlay	4/27/2012 10:24:56 AM	.\TOPORD03.dwg