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CHAPTER 8 – LEVELS AND SYMBOLOGY

8.1 – Introduction to Levels and Symbology

Symbology includes which level, color, line style, and weight is associated with each element to be drawn. Following the symbology outlined in this chapter is essential for several reasons, but perhaps the most important reason is the standardization of the final output. Following the standard symbology will ensure that each element, line work, text, etc., will appear and plot the same from drawing to drawing.

This chapter will detail the levels in use at EFLHD, the associated level symbology, and the use of the EFLHD DGN library.

8.2 – Levels

Within MicroStation V8i Edition, a design file may contain an unlimited number of levels in which data may be displayed. There are two primary ways in which to assign symbology to each element: First, the independently set color, weight, and line style of the graphic elements. Second, an addition first introduced in MicroStation V8, **ByLevel** symbology. With **ByLevel** symbology each level may have a pre-assigned color, line style, and weight. By selecting the desired level, these attributes are automatically set.

As discussed above, the level symbology for any level may be set individually. This includes the ability to set some attributes of elements to ByLevel and other attributes independently.

While some manual drafting is necessary and expected, most design elements should be placed with the GEOPAK D&C Manager, the **.ddb** file. This is the best way to insure that elements are placed with the proper symbology, for final output and for use at later stages for GEOPAK criteria files and for computing quantities.

8.2.1 - DGN Libraries

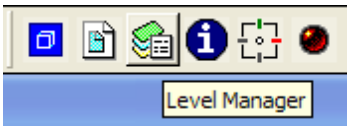
In MicroStation V8i, levels and the associated ByLevel symbology are stored in a DGN library (.dgnlib), which may be attached to any MicroStation file. In order to maintain the current and future versions of X30 criterion, the **FLH_Combined.dgnllib** is controlled FLH wide. EFLHD designers and Consultants will not be able to add new levels to the *FLH_Combined.dgnllib* file.

DGN libraries may also contain information for text, dimension, level filters, and print styles. See the appropriate chapter for these tools. The outline below shows how to attach levels contained in the DGN library to the current file.

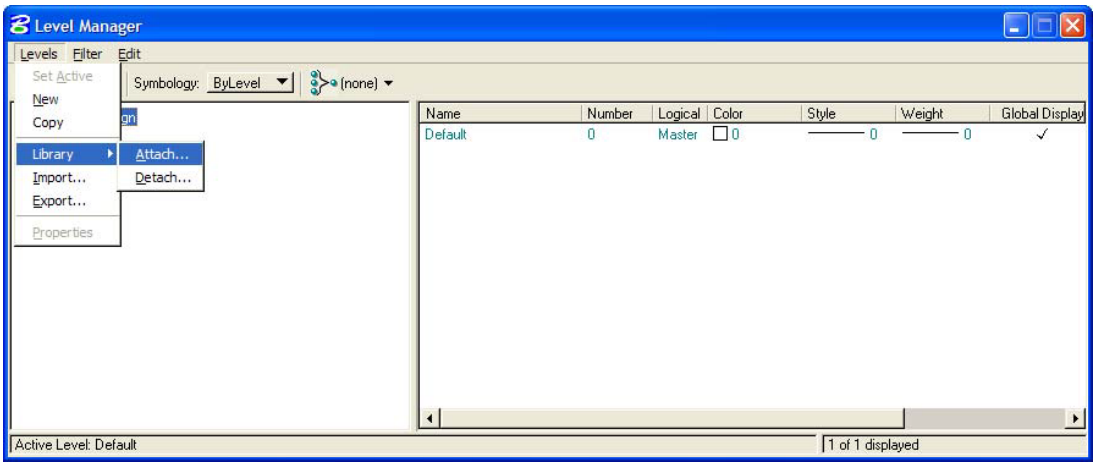
For EFLHD employees, the standard DGN Library will be automatically attached while opening a design file using the Project Configuration (*.pcf).

8.2.2 – Attaching a Level Library

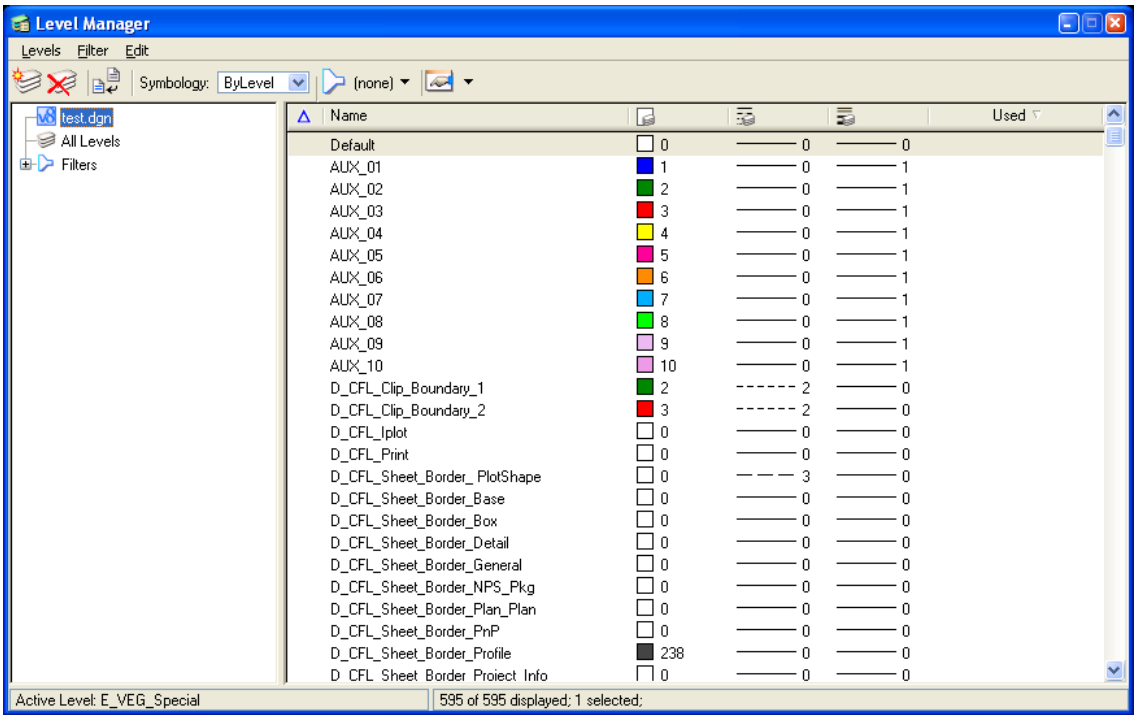
1. Open the Level Manager by selecting the icon in the Primary Tools tool bar, or by selecting **Settings > Level > Manager**.



2. Select **Levels > Library > Attach**.



3. Browse to the file *FLH_Combined.dgnlib*, select **OK**.
   The Library Files are located in the:
   M:\Engineering_Software\Cadd_resource_v8i\X_30\Standards\Library_Files directory.


Level Manager
Levels Filter Edit
Symbology: ByLevel
(none)
test.dgn
All Levels
Filters
Name
Used
Default 0 0 0
AUX_01 1 0 1
AUX_02 2 0 1
AUX_03 3 0 1
AUX_04 4 0 1
AUX_05 5 0 1
AUX_06 6 0 1
AUX_07 7 0 1
AUX_08 8 0 1
AUX_09 9 0 1
AUX_10 10 0 1
D_CFL_Clip_Boundary_1 2 2 0
D_CFL_Clip_Boundary_2 3 2 0
D_CFL_Iplot 0 0 0
D_CFL_Print 0 0 0
D_CFL_Sheet_Border_ PlotShape 0 3 0
D_CFL_Sheet_Border_Base 0 0 0
D_CFL_Sheet_Border_Box 0 0 0
D_CFL_Sheet_Border_Detail 0 0 0
D_CFL_Sheet_Border_General 0 0 0
D_CFL_Sheet_Border_NPS_Pkg 0 0 0
D_CFL_Sheet_Border_Plan_Plan 0 0 0
D_CFL_Sheet_Border_PnP 0 0 0
D_CFL_Sheet_Border_Profile 238 0 0
D_CFL_Sheet_Border_Project_Info 0 0 0
Active Level: E_VEG_Special
595 of 595 displayed; 1 selected;