

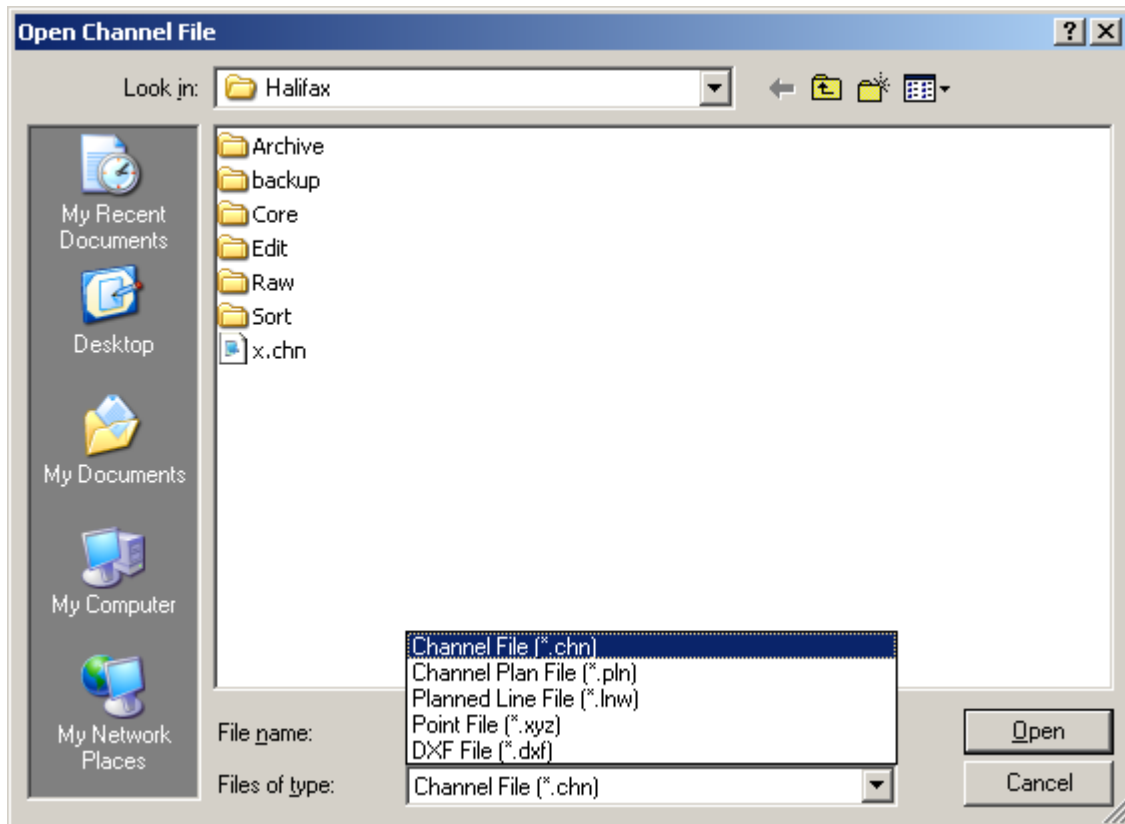


# Advanced Channel Design: HYPACK® 2012 Release - Part I

by Lazar Pevac

The ADVANCED CHANNEL DESIGN (ACD) 2012 release is a result of merging the ACD 2011 release and the CHANNEL DESIGN program. I will devote the first article in the series to describe the wide variety of input files the program supports.

*FIGURE 1. ADVANCED CHANNEL DESIGN 2012 File Open Dialog*



The **CHN** is the standard format for a channel file. ACD 2012 uses an extended CHN format, but it will still read the old one.

The **PLN** is the CHANNEL DESIGN format. ACD 2012 will read it and open the PLN tab displaying the center line, left/right toe and possible basins. At this point, it is enough to click [Generate CHN] and the program will create the channel in the same way CHANNEL DESIGN would in its Export to CHN operation. Before you generate the channel, you have a chance to edit the data, but that will be the subject of the next article in the series.

FIGURE 2. PLN Tab of ADVANCED CHANNEL DESIGN 2012

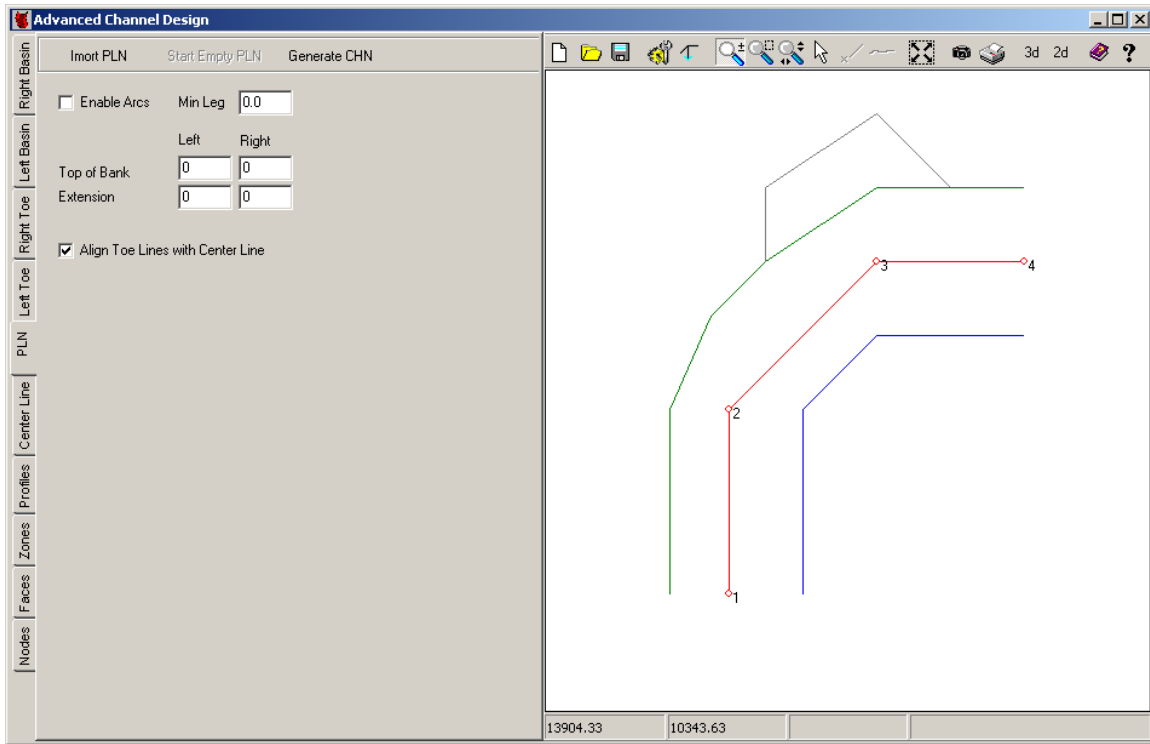
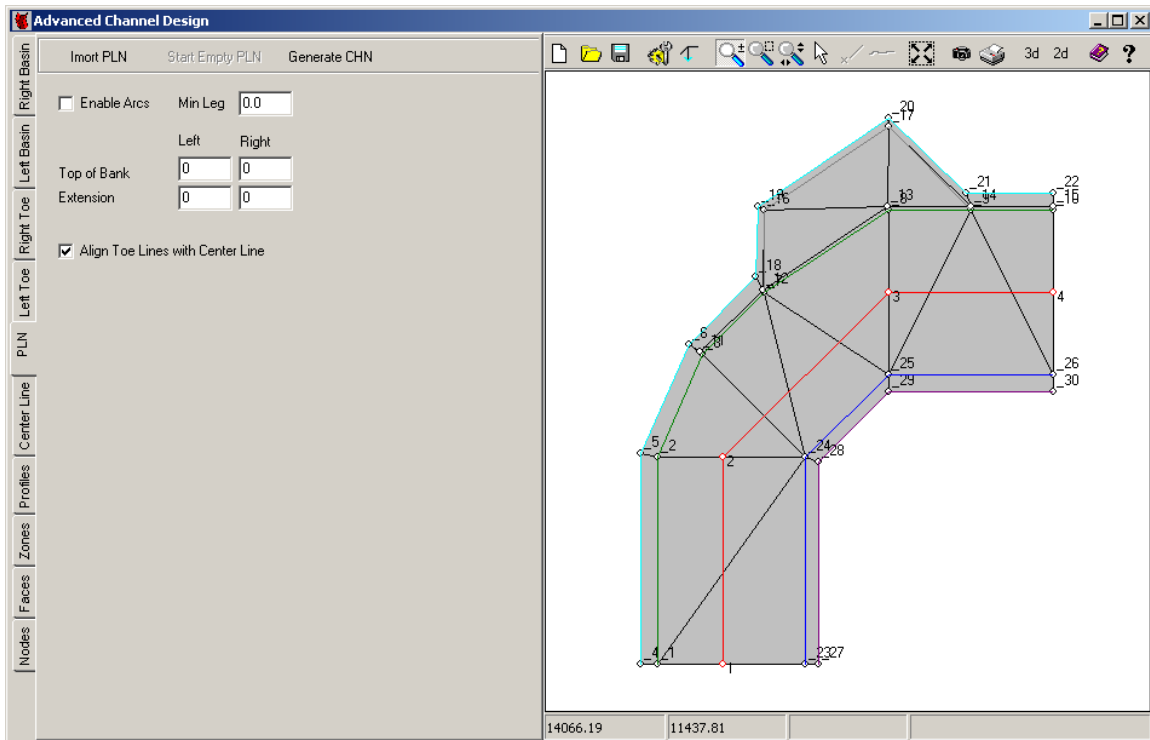


FIGURE 3. CHN File Generated from the PLN in ADVANCED CHANNEL DESIGN 2012



The LNW (planned line) file must be generated with the LINE EDITOR. Each line must have two points and a template associated with it.

FIGURE 4. Sample LNW in the HYPACK® Interface

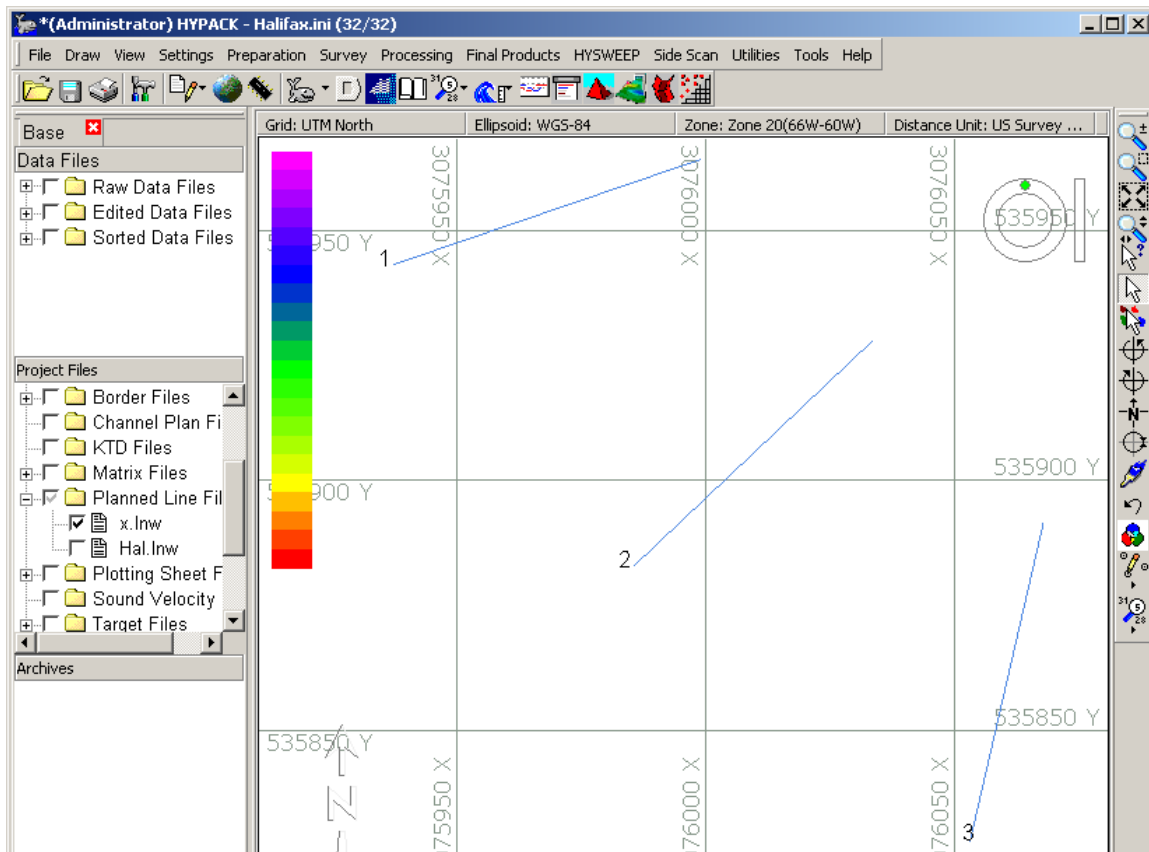
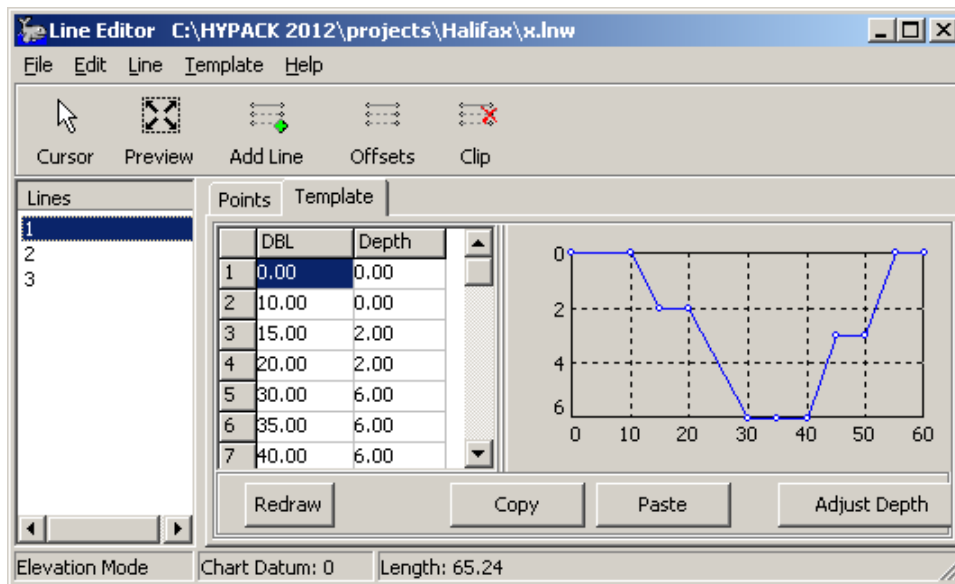
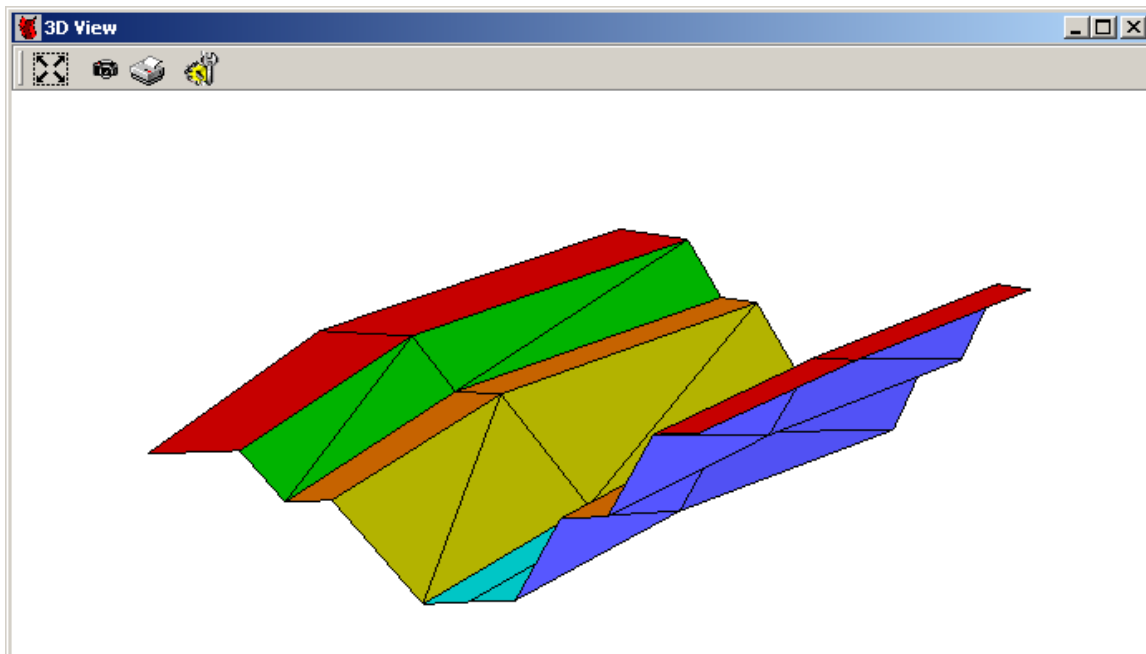


FIGURE 5. Verifying the Planned Line File Includes Template Information in the LINE EDITOR



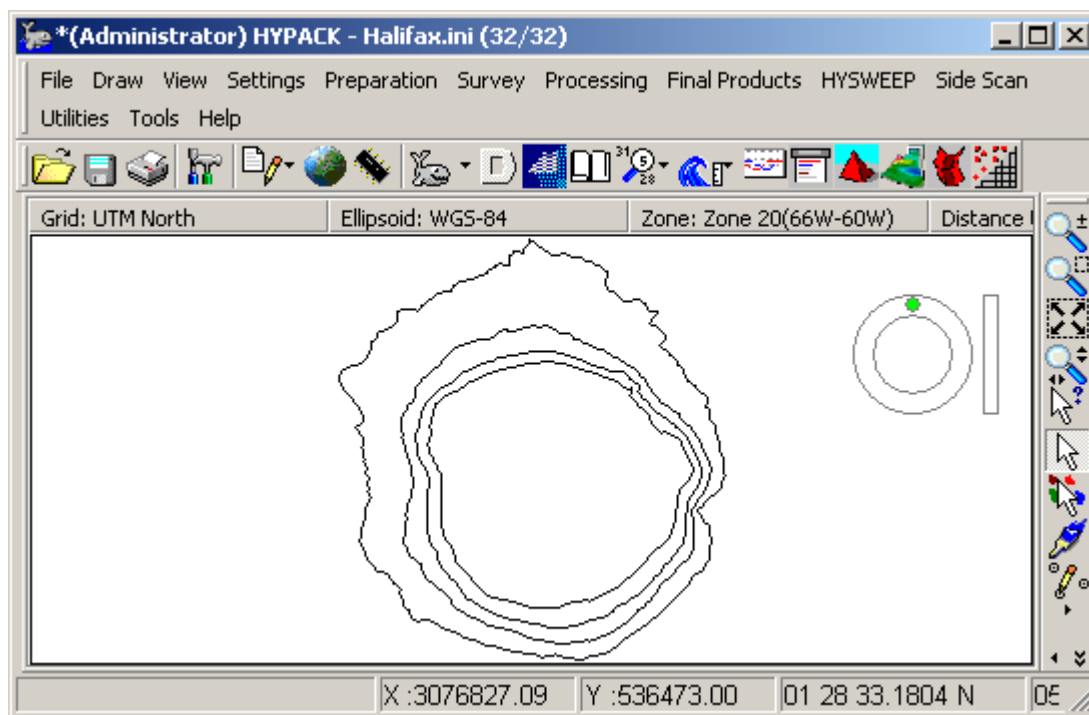
**FIGURE 6.** The Resulting Channel Displayed in the 3D Window Using Zone Colors



An **XYZ** file is not going to do much. It will bring points into the nodes list, but a lot of work remains to create faces and finalize the channel.

**DXF** files will help you to create a channel from a corresponding contour file.

**FIGURE 7.** Sample DXF Contour File



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There are a few limitations:

- The contours must use the LWPOLYLINE DXF format
- The contours must be nested. (For each pair of contours one of them must be inside of the other)

**FIGURE 8.** *The Channel File (\*.CHN) Generated from the DXF Contours in Figure 7*

