ENGINEERED EFFICIENCY'S PROPACK HYDRO 2010

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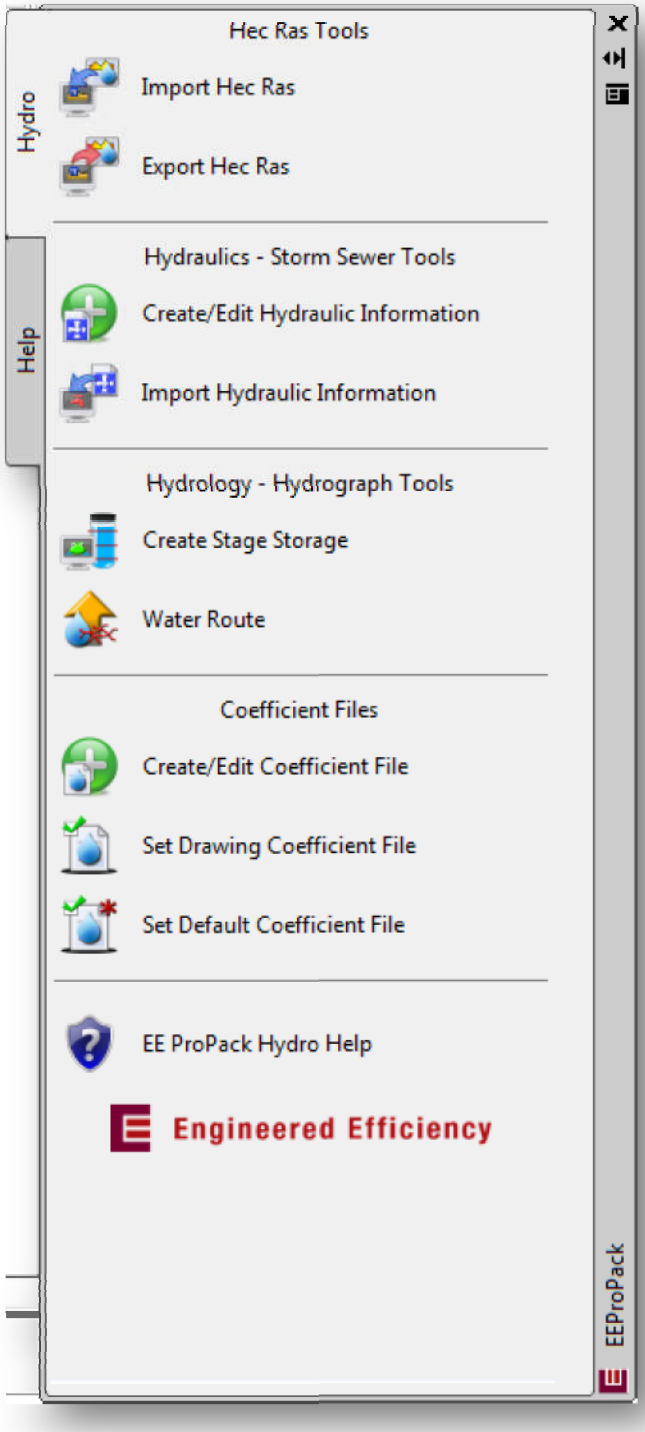
INTRODUCTION

EE ProPack Hydro is an application that provides interoperability and calculation tools for HEC, HydraFlow Storm Sewers, and HydraFlow HydroGraphs.

THE INTERFACE

The user interface of ProPack was designed to provide an integrated look and feel of your native AutoCAD interface. Thus, all the tools for ProPack are built into an easy to use Palette. In addition, most of the tools also have an integrated AutoCAD command associated with the tool. This additional feature provides CAD Managers and others to create scripts and/or lisp routines that can easily use ProPack tools within the automation.



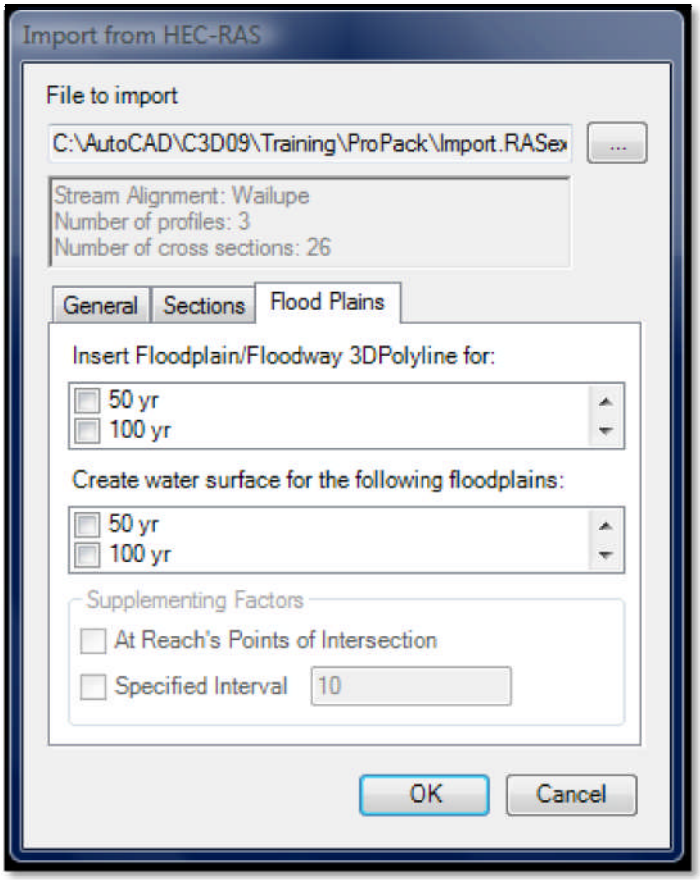
WORKING WITH THE PALETTE

ProPack's palette is automatically displayed upon installation. However, if you close the palette you can open it again using the command `EEProPack`. The command `EEProPackClose` closes the palette.
Just in case you are not good at memorizing long command names or if you prefer a more visual interface, you can click on the small EE icon along the status bar to close/open the ProPack palette.

TOOL ORGANIZATION

The tools provided in EE ProPack are organized in a similar pattern as are the tools found in Civil3D and are separated into different packages (Base, Hydro, etc.).
Let's look at the tools provided in the EE ProPack Hydro package.

HEC RAS Tools



The HEC RAS tools are designed to provide interoperability between your Civil3D design model and HEC RAS modeling software.

Import HEC RAS

ImportFromHEC

The import HEC RAS tool imports a standard HEC RAS *.SDF data file. It first reads the selected file and allows you to set certain import options. These options are split into three sections: General, Sections, Flood Plains.

General

The General section allows you to set Civil3D Site and styles to the reach alignment and profiles being imported.

Sections

The sections tab allows you to set how you want to import the sections found in the data file. You can choose not to import, import as 2DPolylines, import as 3DPolylines, or if a surface exists in the drawing, you can import them in as sample lines.

Flood Plains

The Flood Plains tab allows you to set which flood plains you want to import and how do you want to import them. You can import the flood plains as a 3DPolyline or you can actually create a surface from the flood plain data.

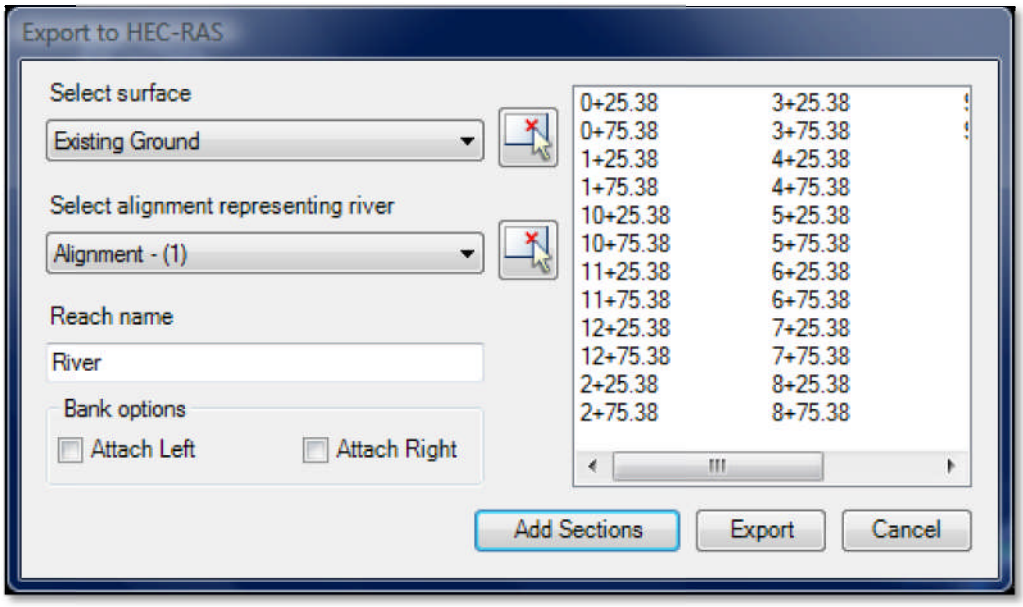
Export HEC RAS

ExportToHec

The export to HEC RAS tool takes Civil3D model data out to HEC RAS by writing the data to a common GEO file format.

To export the data you must first define the alignment representing the river reach, the reach name, the sections being sampled, and the surface used for sampling.

You can add sections by entering a station range and swath widths, by picking a point representing the station you want to sample along with swath width, by selecting a polyline, or by selecting an existing sample line.



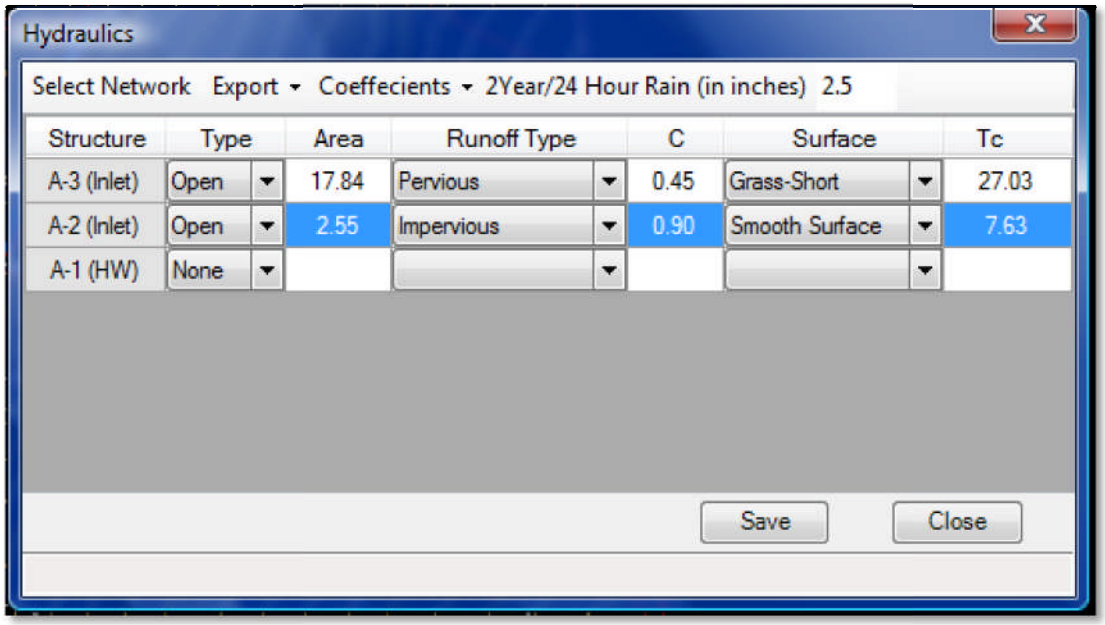
Optionally you can assign polylines representing the banks for exporting to HEC RAS.

HYDRAULIC TOOLS AND HYDRAFLOW STORM SEWERS

CREATE/EDIT HYDRAULIC INFORMATION

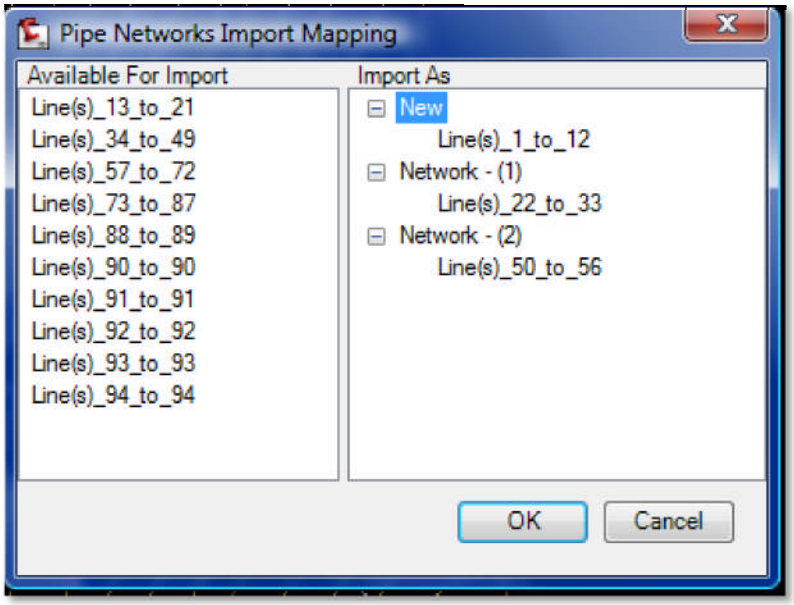
CreateHydraulicData

The create/edit hydraulic information tool allows you to take data already created in your Civil3D model to attain a structure's drainage area and time of concentration automatically. Assign a coefficient value (or a composite C value) from a pre-created list of coefficient values for the jurisdiction that the project is located in. Store the data to the pipe network or export it out to LandXML for use in HydraFlow Storm Sewers or another hydraulic calculation application.
The polylines created to represent the drainage area and time of concentration are dynamic so that you can adjust their



size and location to automatically adjust the drainage area and the time of concentration.

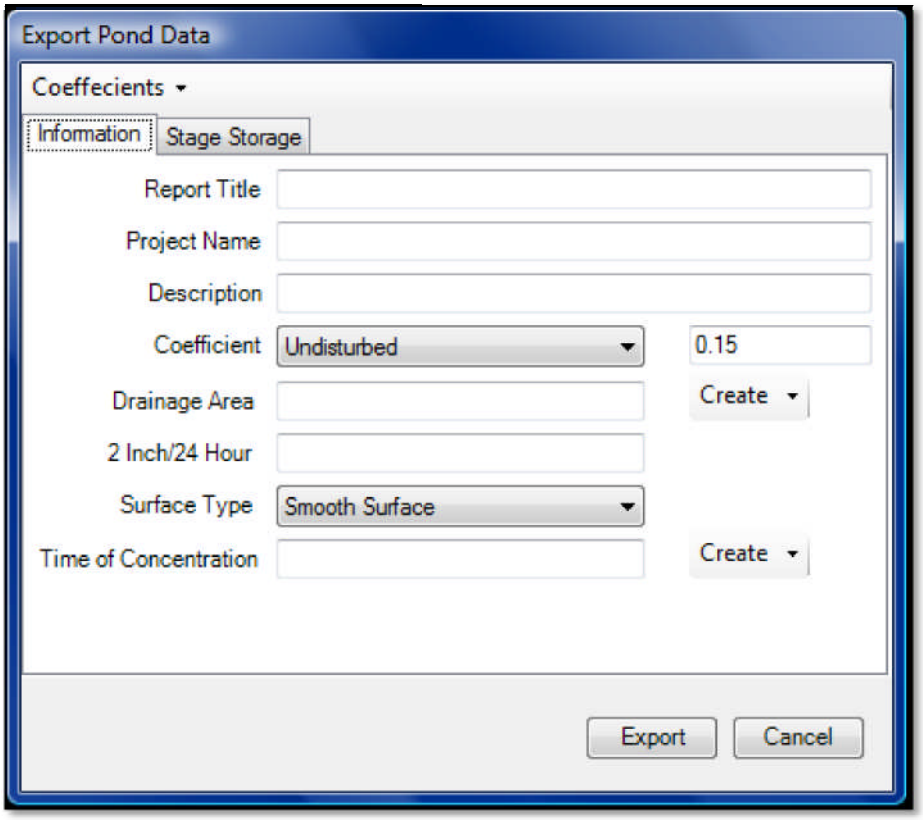
IMPORT HYDRAULIC INFORMATION



ImportHydraulicData

The import hydraulic data tool allows you to Import a LandXML file containing not only Pipe Networks but also the hydraulic data contained in the LandXML. This allows you to round-trip your design between H&H applications and Civil3D easily. Simply drag-and-drop the pipe network that you want to import from the LandXML to which pipe network you want to edit based upon the imported pipe network. You can also create a new pipe network.

Detention Basin Tools and Working with HydraFlow Hydrographs



Export To HydroGraphs

ExportToHydro

This tool allows you to calculate your stage storage, drainage area to pond, and time of concentration for export to a HydraFlow HydroGraphs .gpw file format.

Water Route

GetWaterRoute

Gets the route the water TOOK to get to the picked point based upon the surface's definition. Also, known as a reverse water drop tool.

Coefficient Files Editor and Customization

For ease of use of many of the ProPack Hydro tools, coefficient files allows you to define standard coefficients used within the jurisdictions your work is located in. This way, you do not have to memorize the C values but rather select them from a simple drop-down. There are support functions for manipulation and working with these files.

Create/Edit Coefficient File

`CreateROCFile`

Create a new or edit an existing coefficient file using the dialog box to define a new coefficient name, description, and value.

Set Drawing's Coefficient File

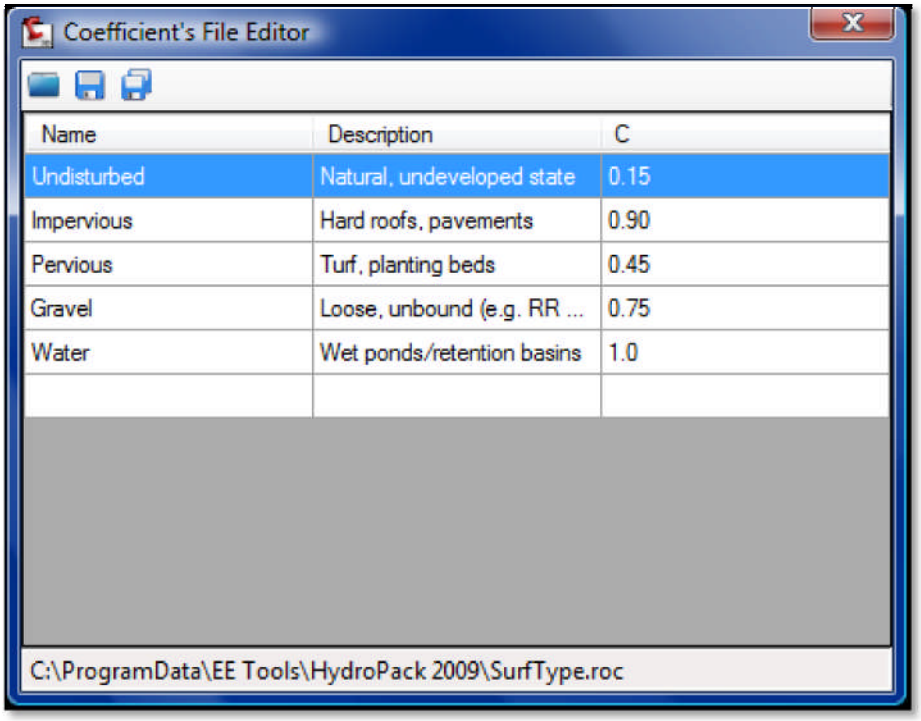
`SetDwgRocFile`

Sets the coefficient file to be used for all work within the current drawing.

Set Default Coefficient File

`SetDefaultRocFile`

Sets the default coefficient file to be used for all drawings that don't have a coefficient file set already.



EE ProPack Help

EE ProPack Hydro comes with an in-depth help file, information about the current version of EE ProPack Hydro that you are running, and an easy link to Engineered Efficiency's website so as to give you online support as well.

Conclusion

Now is the time to get your copy of ProPack Hydro!

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