

That CAD Girl

Frequently Asked Questions

[FAQ304] What features & menus are in Carlson Hydrology? (a running thread)

FAQ: What are the latest improvements in Carlson Software?



Features and Benefits of Hydrology 2017

Carlson Hydrology provides CAD support comparable to the hydrology components of programs such as: DCA®/Softdesk®/Land Desktop, Civil 3d, Eagle Point®, TerraModel®, GeoPak® and InRoads®.

Here are some of the things you can do with **Carlson Hydrology**:

- Use it to perform all of your stormwater modeling and design or use it to compile data that can then be used in

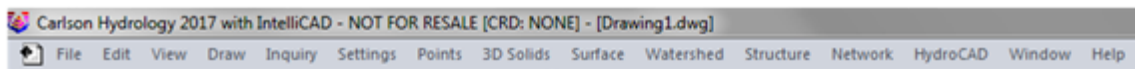
other hydrology programs,

- Link directly to other hydrology programs including HydroCAD®, Pizer HYDRA®, TR-20, SEDCAD, HEC-RAS and HEC-2,
- Analyze and design using either SCS or Rational method,
- Determine runoff volumes with easy-to-use, layer-based tools
- Track runoff and analyze watershed data within the entire watershed or just above a selected point – such as a catch basin,
- Create surface model files with CAD support for existing and proposed conditions
- Design and then report storage volumes for bench and valley ponds that can be designed using various design criteria such as adding multiple interior benches and automatically removing the berm in cut conditions,
- Create custom fields for pipe structures and inlet libraries,
- Tap extensive libraries for rainfall data, inlets, manholes and outlet structures,
- Pick a button to “Process” or have updates automatically occur when changes to road designs surfaces affect storm or sewer structures,
- Design sanitary sewer or storm pipe runs in a dockable palette or in a spreadsheet editor,
- Tie pipe design criteria to surfaces, centerlines and profiles
- Calculate inlet intercepted and bypass flows, gutter spread and depth, pipe flow depth and velocity, and hydraulic and energy grade lines
- Choose to match stormwater pipes at the crown or at the flowline
- Receive warnings for collisions and when pipe length, cover, slope, flow rates or other design criteria do not fall within an acceptable, customizable range

- Design ponds, spillways, orifices, weirs, multiple outlets, channels, culverts, pipes and lift stations
- Draft sewer pipe dynamically in plans, profiles and 3D

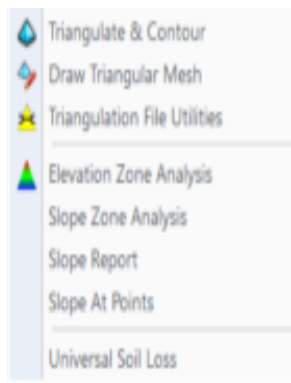
Menus in Hydrology 2017

Menu Bar in Hydrology 2017





The menus below are available in Carlson Hydrology 2017

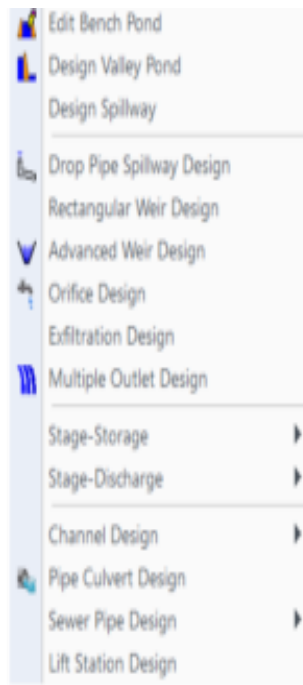
Surface Menu



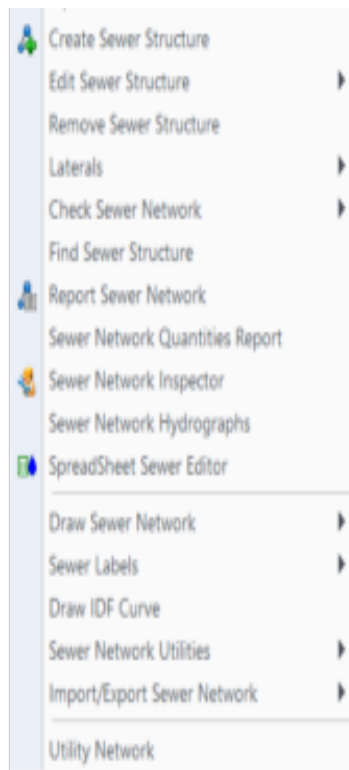
Watershed Menu

| | |
|---|---|
| Report Flow Values | |
| Rainfall Frequency & Amount | ▶ |
| Sub-Watersheds by Land Use | |
|  Curve Numbers (CN) & Runoff | |
|  Calculate C-Factor | |
| Time of Concentration (Tc) | ▶ |
| Peak Flow | ▶ |
| GIS | ▶ |
| Watershed Settings | ▶ |
| <hr/> | |
| Hydrograph Routing | ▶ |
| TR-20 Routing | ▶ |
| Add Hydrographs | |
| Report Hydrograph | |
| Draw Hydrograph | |
| <hr/> | |
| SEDCAD Structure Layout | ▶ |
| HEC-RAS Water Surface Model | ▶ |

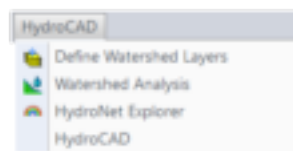
Structure Menu



Network Menu

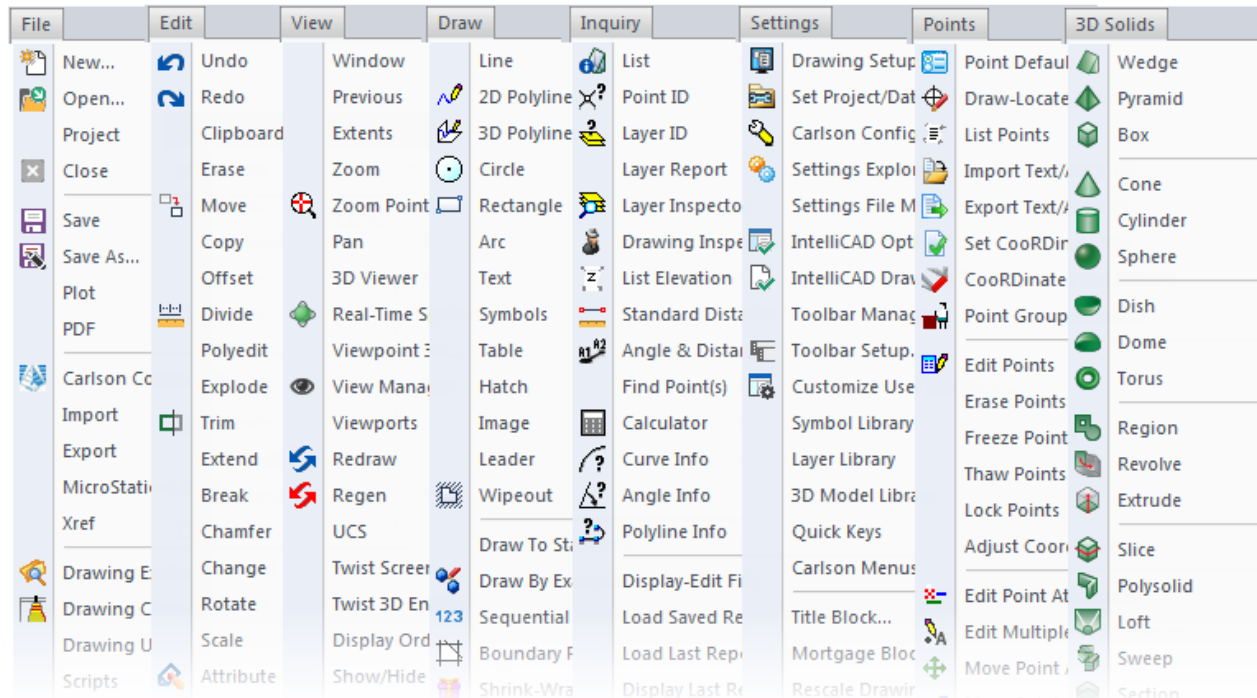


HydroCAD Menu



The menus below are in all non-OEM programs of Carlson 2017 desktop software

(Click image to see more)



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