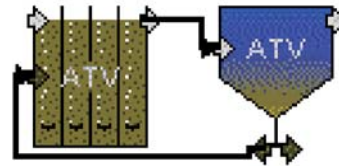# Version 2.1 – New Features

Hydromantis is committed to the continued growth of CapdetWorks, incorporating the latest developments in wastewater process technology and model development. We are pleased to announce the following enhancements and additions to CapdetWorks version 2.1!

• New Unit Process Design Algorithms

In addition to the 66 unit processes already in CapdetWorks, Version 2.1 includes many new unit processes.

- Pre- and Post-denitrification,
- ATV-based Activated Sludge,
- Upflow Anaerobic Sludge Blanket,
- Chemical Phosphorus Removal (for liquid and sludge lines),
- Additional Flow Splitters

ATV-based
Activated Sludge

• New Plant Upgrade Costing Capability

CapdetWorks now has the capability to cost all or part of the designed plant. Upgrading of plants doesn't necessarily mean that more land, new laboratory or administration facilities will be needed, so it is now possible with CapdetWorks 2.1 to simply omit those costs from the reported costs. Similarly, unit processes that are not to be changed or upgraded need not be costed.
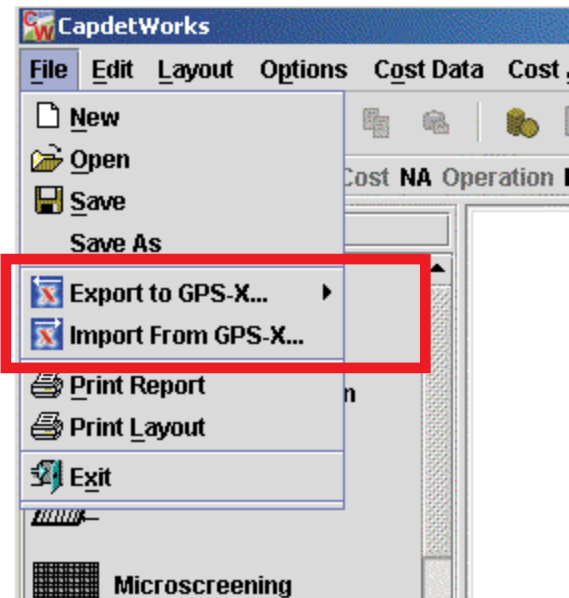
Simply de-select the unit process and it will not be costed.

• New Algorithms and Design Override Functionality

Version 2.1 includes many enhancements to many of the activated sludge design algorithms. In most cases, these new algorithms are based on the concepts of solids retention time and influent fractionation, and are consistent with published activated sludge dynamic models such as ASM1 and the algorithms published in Metcalf and Eddy (Wastewater Engineering: Treatment and Reuse, 4th Edition). The design override code has been rewritten to complement the new activated sludge design algorithms and simplify the communication with GPS-X. Initially included in the original 1.0 release, the design override feature has undergone a significant rewrite to make the input and output more intuitive and more user-friendly.

• Enhanced communication with GPS-X!

It is now possible to export a CapdetWorks design to GPS-X (Hydromantis' dynamic wastewater treatment process simulator), to test the design using dynamic simulations. This will allow the user to fine-tune the preliminary design. New for version 2.1 is the ability to import a GPS-X layout for costing purposes. It is now possible to use CapdetWorks to determine a preliminary cost estimate to construct a GPS-X designed treatment system. This functionality provides a direct link between Hydromantis' primary software products and will be extremely useful to those using both products.

*For more information about Hydromantis' preliminary design and costing software, CapdetWorks, please contact us at **info@hydromantis.com** or visit our website at **www.hydromantis.com***