

## IMSDesign 2017 - Hydranautics New Projection Program

### New Features in IMSDesign-2017

IMSDesign-2017 Version 217.74 RO/NF projection program was released in January 2017 and is an update to the IMSD-2016 versions released in March and September 2016. It includes a number of bug fixes and improvements. This latest version offers enhanced program features and the best flow diagrams in the industry so one can visualize where all streams are going and interact, no matter how complicated the flow diagram.

The program includes CPA7-LD, a new RO element made with 400 sq. ft. of membrane and 34 mil spacer and 99.8% rejection and is the sixth generation CPA brackish water RO membrane which has lower feed pressure and better rejection than CPA5-LD.

The ESPA4-LD, the RO element with the permeate quality of an RO and the low feed pressure of a NF, has improved and more accurate mixed ion feed rejection projection accuracy based on recent field studies.

The program also includes the ESPA1-4040 at 2600 gpd and ESPA3-4040 at 3000 gpd RO elements with lower feed pressures than our standard line of ESPA2 at 1900 gpd elements.

The program new technical features include H and OH ion levels reported, CCPP (Calcium Carbonate Precipitation Potential) calculations were added to replace SDSI and supplement LSI results, projected number of stages was increased from 4 to 6, added a post-treatment carbon dioxide degasser, added variable high pressure alarms for seawater RO systems based on temperature, and increased the number of operator selected parameters in the flow diagram from 2 to 4 for each and every stream.