



Prosyn possibilities

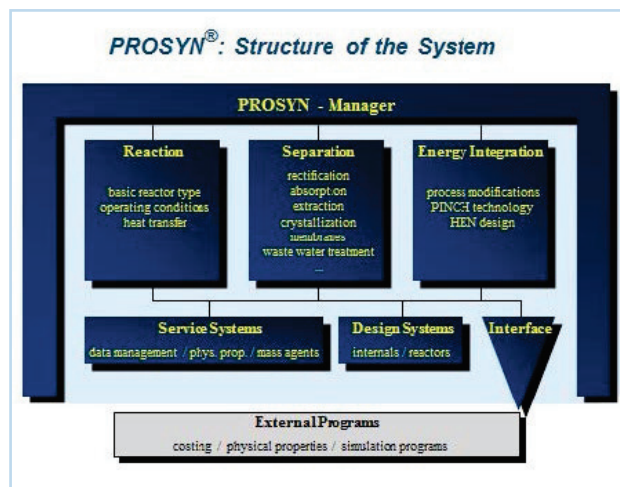
Project: CS-02-06
Project Leader: Kees de Weerd
E-mail: deweerd@process-design-center.com
Partners: PDC (Process Design Center), Frames, Heineken, Huntsman, Royal Cosun, Synthon
Budget: 50K€

Objective:

To evaluate PROSYN with ISPT members who have no prior experience with the software.

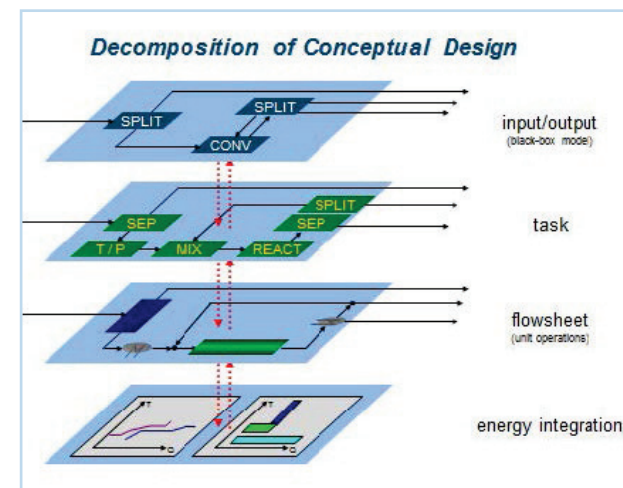
Motivation:

The PROSYN expert system is a large base of generic knowledge rules, developed in a collaborative effort with the chemical industry. PROSYN is used to perform conceptual process design in a structured way by generating process flow sheets that employ the largest driving forces for chemical and physical processes, leading to more efficient processes.



Project scope:

PROSYN requires a serious development effort initially to be able to properly access all existing PROSYN knowledge rules and modules next to the embedding of additional knowledge rules in existing modules or new modules. The PROSYN project will involve chemical engineers (M.Sc.'s & Ph.D.'s) supported by IT specialists and guided by an industrial ISPT user group.



Applicability:

PROSYN contains generic process knowledge rules which could be applied cross sector.

Results:

PROSYN evaluated four case studies:

- Identified four options to separate a two organics and water mixture in three streams
- Developed a list of solvents suitable to recover a compound from water
- Listed suitable biochemical reactor configurations; separation steps were not isolated from lack of input data
- Generated a list of processes and their sequence to recover minerals from a side stream

PROSYN:

- Is valuable for conceptual process design
- is suitable for relatively inexperienced designers
- proposes feasible alternatives in a short time with few efforts
- justifies regular update for full functionality