Release note EUPHEMIA 10.1
PCR Market Coupling Algorithm

2017/06/06 Bucharest / Madrid / Oslo / Paris / Prague / Rome / Warsaw

A new release of Euphemia is scheduled to go-live for delivery day 8 June 2017.
Changes:

- **Functionally no changes were made**
- **The emphasis of E10.1 was in its implementation of multi-threading architecture**
    - Euphemia will work in parallel on:
        - Identifying incumbent solutions, to populate a pool of promising candidate solutions;
        - While looking for a first solution and exploiting different parallel search strategies;
        - Enforcing the non-convex requirements (e.g. fill-or-kill requirements / intuitive cuts);
        - PRB reinsertion on feasible solutions;
    - Parallelization will contribute to the robustness of Euphemia.
- **Pseudo-random branching strategy**
    - Euphemia will now randomly choose between the different branch selection methods it supports. This perturbs the search strategy, helping to explore more of the branch and bound tree;
- **Auditability mode**
    - To maintain auditability in a multi-threaded environment, E10.1 implements an audit trail by recording states prior to starting a new job on a thread. The state includes fill or kill status of already branched blocks, as well as the seeds of the pseudo-random number generator to make branching decisions. This allows for a (single threaded) playback of the calculations resulting in the published solution.
- **Miscellaneous**
    - Various small improvements;
- **More information on the new architecture**
    - The public Euphemia documentation that is available from the websites of all PCR exchanges, has been updated to reflect the architectural changes made to Euphemia