Using the Model Catalog Feature in GT MASTER and THERMOFLEX
Model Catalogs (the 5 W’s)

- **Who**: Users of GT MASTER & THERMOFLEX (with or without PEACE)

- **What**: Method to store model components in a catalog (repository) so they may be reused in other models, and shared with other users.

- **Where**: GT MASTER – off-design simulation partner to GT PRO. THERMOFLEX – fully flexible modeling environment with > 220 standard built-in components handling 7 fluid types

- **When**: GT MASTER v26.1, THERMOFLEX v27

- **Why**?
  - Provides engineers a convenient system to organize work product (time, effort, $) for reuse in other situations.
  - Provides OEMs a simple way to publish reference plants and/or tuned component models for use in Thermoflow programs by thousands of power engineers, customers, and would-be customers.
Catalog Mechanics

• Catalog Files
  – Located by default in the [Catalog] folder under your “MYFILES” folder
  – Files may be stored in shared location for multi-user access

• GT MASTER
  – Store items in a catalog from VIEW OUTPUTS (computed)
  – Retrieve items from catalog from EDIT INPUTS

• THERMOFLEX
  – Store items in a catalog from VIEW OUTPUTS (computed)
  – Retrieve model _items_ from catalog in EDIT DRAWING
  – Retrieve model _data_ from catalog in EDIT INPUTS

• Manage Catalogs
  – from any view since catalogs unconnected from current model
GT MASTER – What can be cataloged?
GT MASTER Import Rules

• Can swap with “compatible” components
  – HRSGs (e.g. Type 2 & Type 6 are “compatible”)
  – STs (same cycle type & shaft arrangement SS-MS)
  – Condensing systems (types interchangeable impact on ST design up to you)
  – Pumps, Fuel Compressors, Economics – flexible
  – Cataloged model version <= Current model’s version

• Can import chilling system into plant without one

• Import messages used to indicate if items seem too dissimilar
  – e.g. ST group nozzle areas +/-35%
  – e.g. Condenser areas +/-50% (same type)
  – e.g. Condenser nominal steam flow +/-25% (dissimilar types)
  – e.g. Chiller compares nominal GT airflow +/-25%

• Ultimately, pay attention to GT MASTER outputs & capacity messages, shown after computation is complete, to help decide if imported items are truly incompatible, or if other modifications are needed
THERMOFLEX – What can be cataloged?

- Individual Icons
- User-defined icon groups
- PowerDraw
- Other Embellishments