



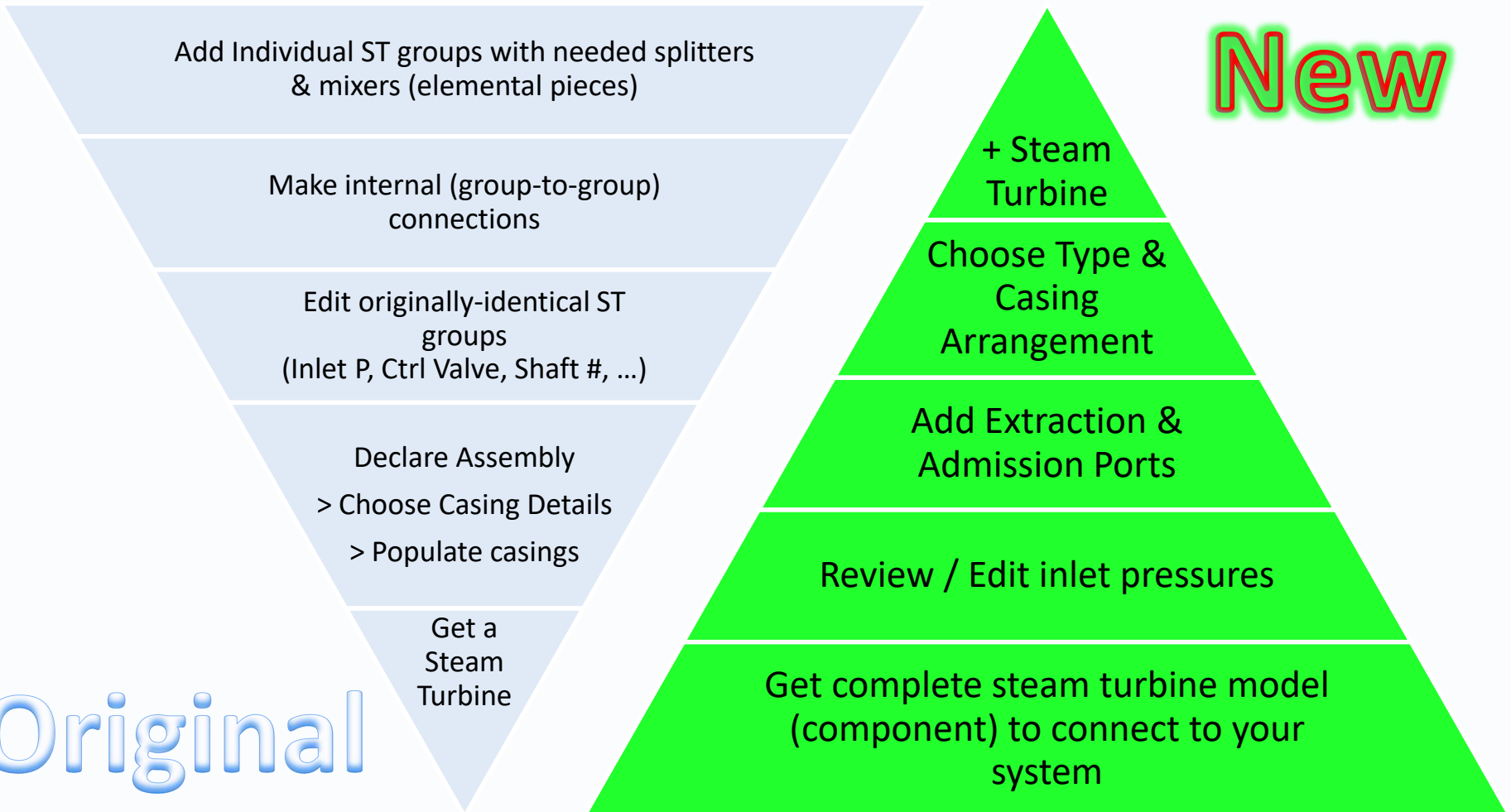
Steam Turbine Series Part 1: Creating Steam Turbine Models in THERMOFLEX – the quick-and-easy way

Using Steam Turbine Assembly Wizard to
create new steam turbine models

ST Assembly Wizard (the 5 W's)

- **Who:** All THERMOFLEX/PEACE users
- **What:** Efficient (top-down) method to create and work with full-featured steam turbine models
- **Where:** THERMOFLEX– fully flexible modeling environment with > 220 standard built-in components handling 7 fluid types
- **When:** THERMOFLEX 1995, ST Assembly 2003, ST Assembly Wizard 2017
- **Why:** Streamline steam turbine creation with minimal inputs and maximum automation in the context of a fully-flexible modeling environment

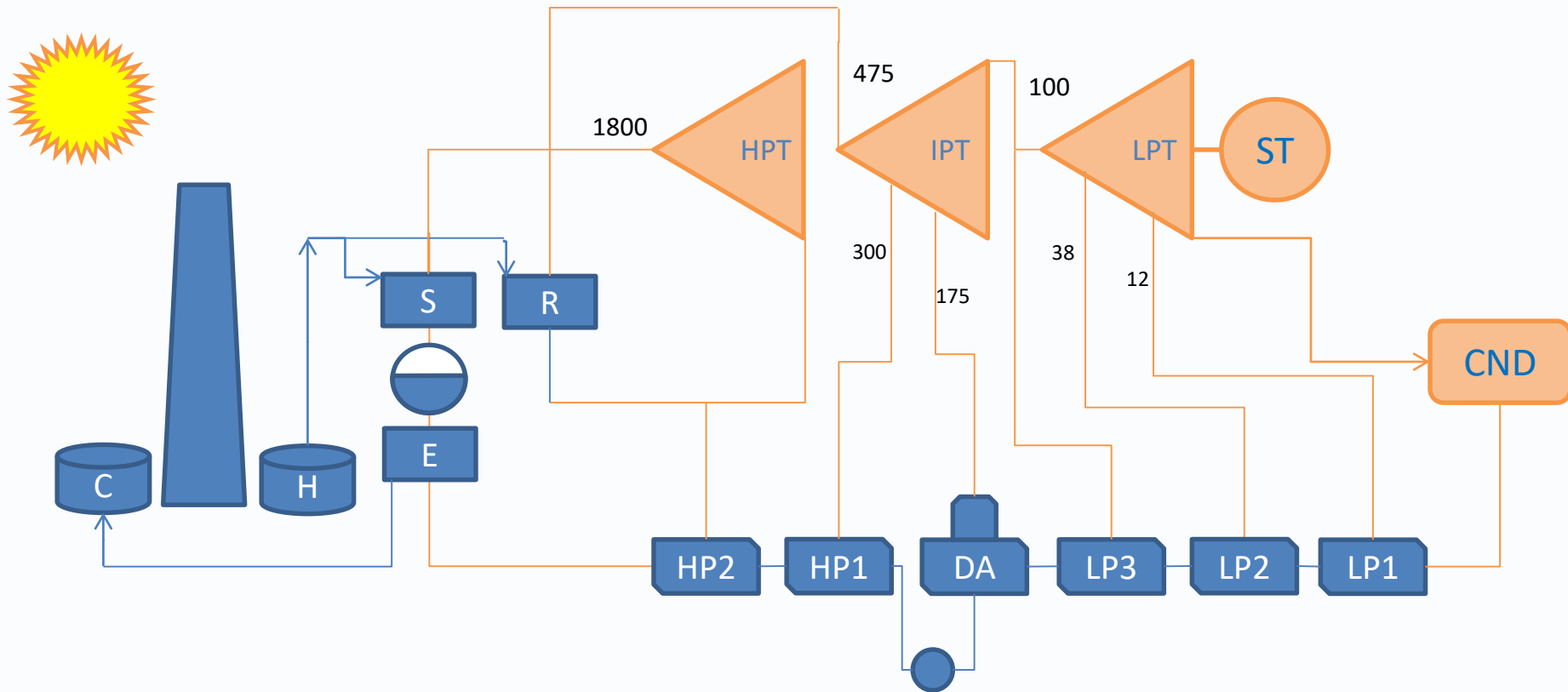
Create a 'Steam Turbine': Then & Now



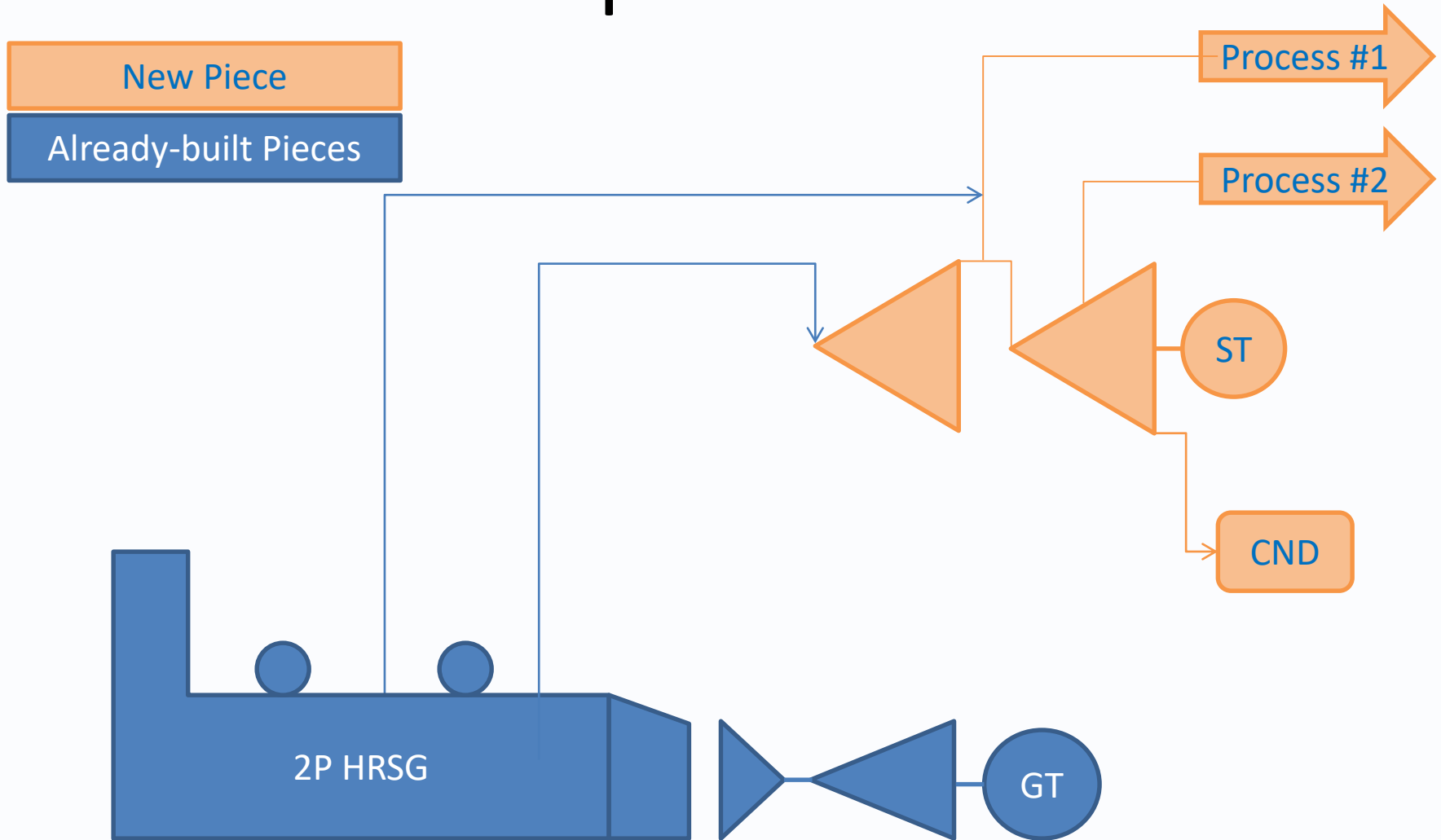
Example #1 – Solar Rankine Cycle

New Piece

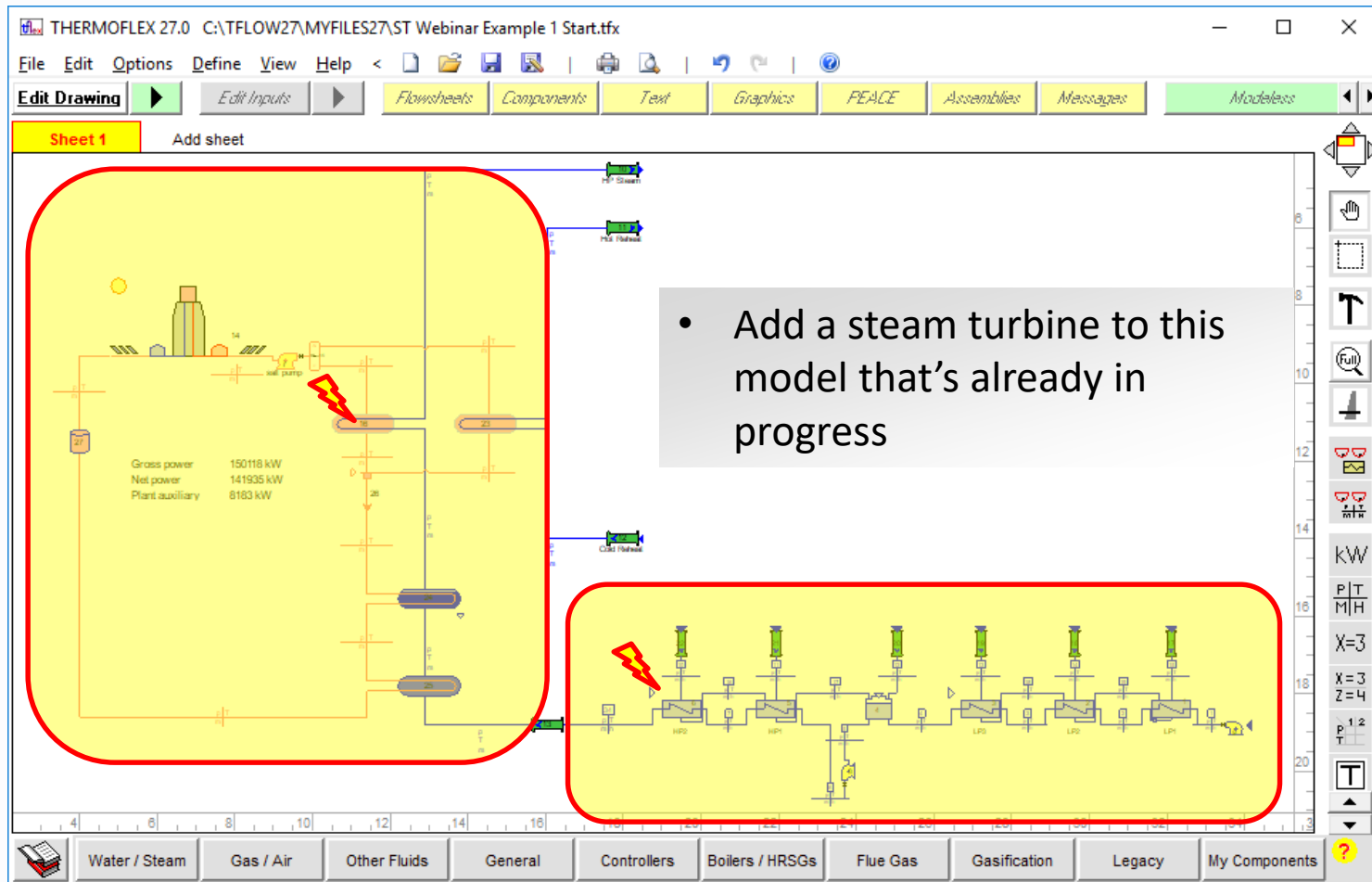
Already-built Pieces



Example #2 - GTCC



Let's go ... Add ST to Starter Model



The screenshot shows the THERMOFLEX 27.0 software interface. The main window displays a process flow diagram (PFD) for a power plant. A red box highlights a section of the PFD, and a callout box with a bullet point indicates the next step: "Add a steam turbine to this model that's already in progress".

Callout Box Content:

- Add a steam turbine to this model that's already in progress

Software Interface Details:

- Title Bar:** THERMOFLEX 27.0 C:\TFLOW27\MYFILES27\ST Webinar Example 1 Start.tfx
- Menu Bar:** File Edit Options Define View Help
- Toolbars:** Edit Drawing, Edit Inputs, Flowsheets, Components, Text, Graphics, FEACE, Assemblies, Messages, Modelless
- Sheet 1:** Add sheet
- Process Flow Diagram (PFD):** Shows a complex system with various components like pumps, valves, and heat exchangers. A red lightning bolt icon is present in the diagram.
- Performance Metrics:**
 - Gross power: 150118 kW
 - Net power: 141935 kW
 - Plant auxiliary: 8183 kW
- Bottom Panel:** Water / Steam, Gas / Air, Other Fluids, General, Controllers, Boilers / HRSGs, Flue Gas, Gasification, Legacy, My Components
- Right Panel:** KW, P/T, M/H, X=3, X=3 Z=4, P/T, T