

Documentation

Matlab Codes

**Ts\_diagram.mat**

1. **Function name:**

Ts\_diagram.mat

1. **Model description:**

Ts\_diagram.mat is a single matlab code developed to plot T-s diagrams of organic Rankine cycles while controlling the display properties.

1. **Model inputs:**

The code inputs are:

* TS: a structure variable which contains the TS vectors of the different components in the organic Rankine cycle;
* param: a structure variable which contains all the display parameters;

1. **Model parameters:**

The model parameters provided in 'param' must include the following variables

* param.color\_ctf = line color for CTF
* param.LineStyle\_ctf = line style for CTF
* param.LineWidth\_ctf = line width for CTF
* param.MarkerType\_ctf = marker type for CTF
* param.alpha\_ctf = transparency for CTF
* param.MarkerSize\_ctf = marker size for CTF
* param.color\_htf = line color for HTF
* param.LineStyle\_htf = line style for HTF
* param.LineWidth\_htf = line width for HTF
* param.MarkerType\_htf = marker type for HTF
* param.alpha\_htf = transparency for HTF
* param.MarkerSize\_htf = marker size for HTF
* param.color\_orc = line color for ORC
* param.LineStyle\_orc = line style for ORC
* param.LineWidth\_orc = line width for ORC
* param.MarkerType\_orc = marker type for ORC
* param.alpha\_orc = transparency for ORC
* param.MarkerSize\_orc = marker size for ORC

1. **Model outputs:**

The three graphical outputs of this code are:

* line\_htf: graphical variable which includes properties of HTF display (useful for plotting legend)
* line\_ctf: graphical variable which includes properties of CTF display (useful for plotting legend)
* line\_orc: graphical variable which includes properties of ORC display (useful for plotting legend)

1. **External function requirements:**

The user must download patchline.mat to Ts\_diagram.mat.

1. **Matlab version:**

This code has been developed under Matlab R2015a

1. **Contact:**

For any further information, please contact one of the main developers of ORCmKit:

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