DIGISOLAR

pytrnsys suite

Damian Birchler

SPF Institute for Solar Technology

OST Eastern Switzerland
University of Applied Sciences

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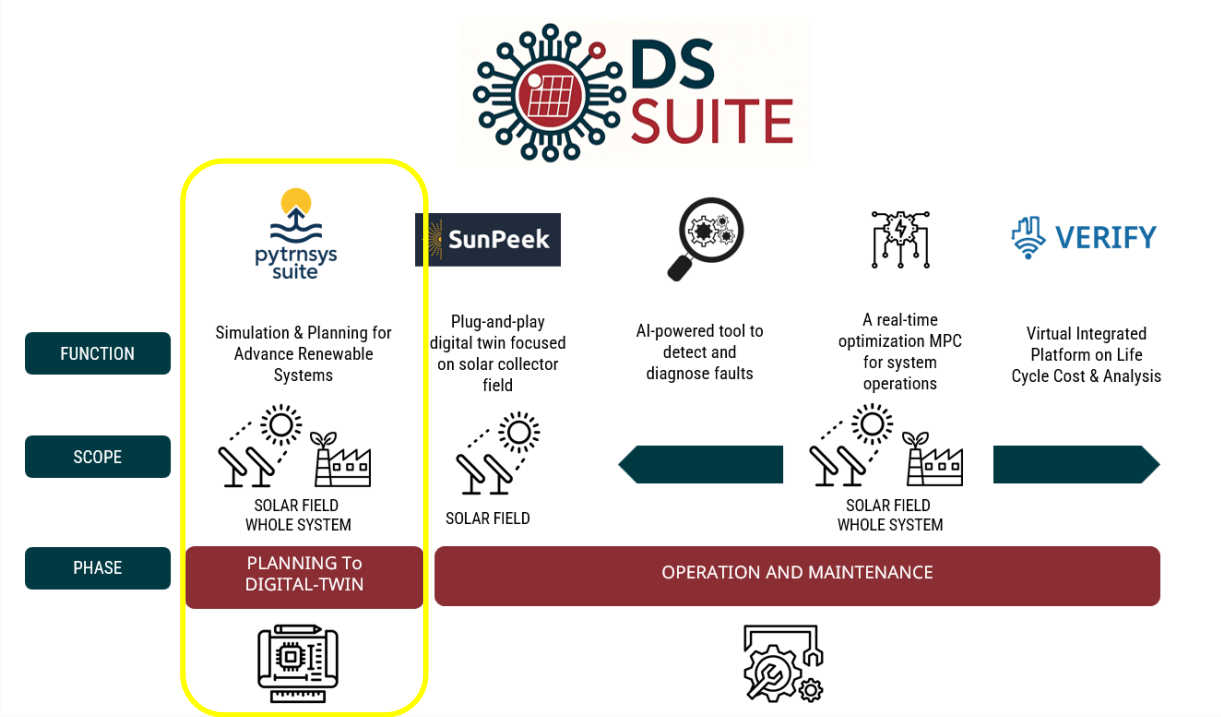
The pytrnsys suite

- The all-in-one harmonized Planning-To-Digital-Twin framework
- It is
  - web-based
  - reliable, investor-trusted
  - applicable across all project phases
  - uses the same computational engine throughout (pyTRNSYS)

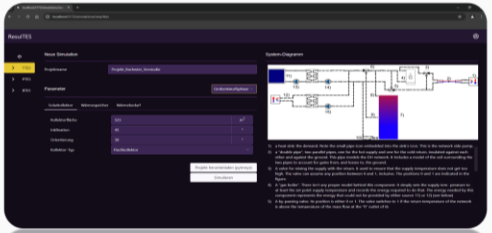


Current development

Future development

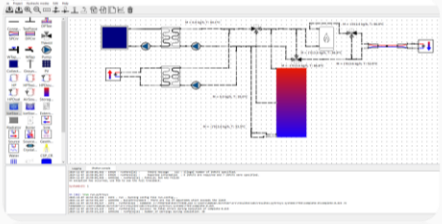
Feasibility analysis. → **Design** → **Detailed design / engineering** → **Operation**

online frontend



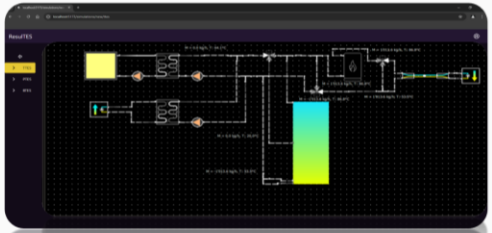
- Runs in cloud
- Easy-to-use **Free online** access tool.
- Predef. configurations hybrid ST systems.
- User must only parametrize predefined configurations. No modelling needed.
- **Export to pytrnsys GUI**.

pytrnsys



- Runs on user's computer
- Easy-to-use. **Import from Online tool**.
- Pytrnsys GUI for customisation.
- TRNSYS licence needed.
- All flexibility of pytrnsys available to tailor the scheme into the **Digital Twin**.

monitoring frontend

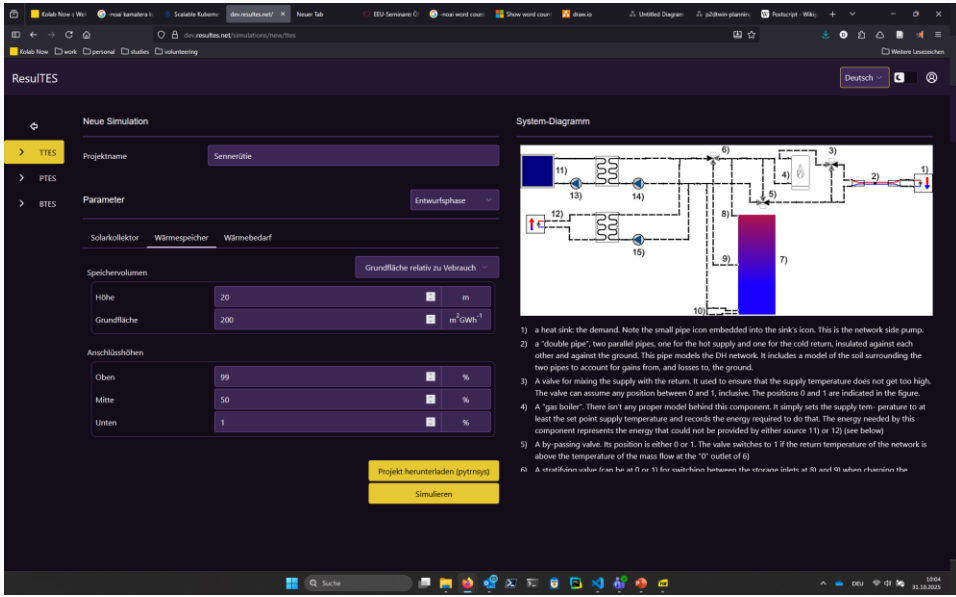


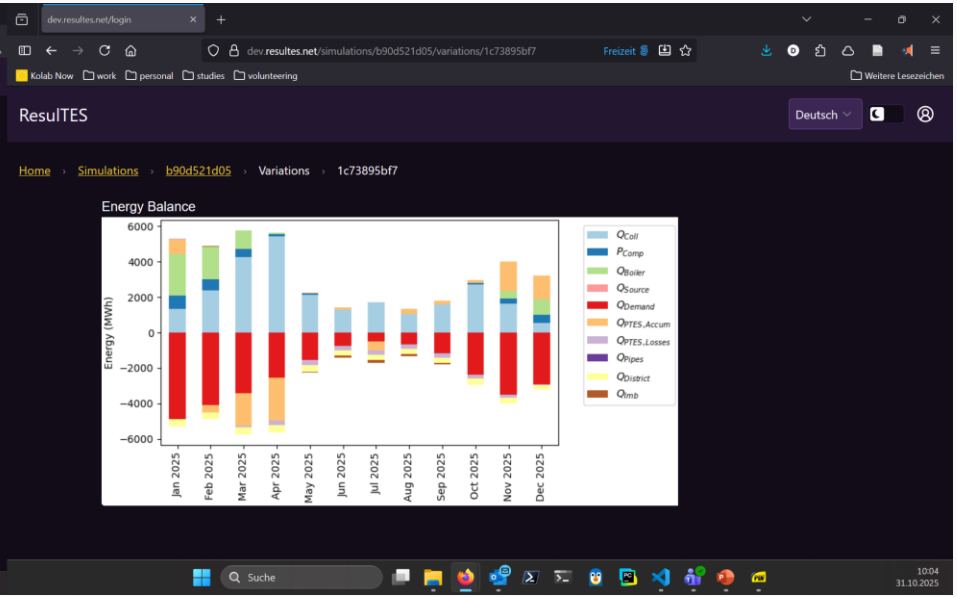
- Runs in cloud
- Custom GUI with SCADA connection.
- Performance evaluation.

Current state

Live at dev.resultes.net

Ask me for registration code if you're interested in trying it out.





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Developments within DigiSolar

New systems

- Model three DigiSolar plants in pytrnsys suite (Izmir, Bad Rappenau, Komotini)
- Five representative, big commercial hybrid-ST system “archetypes”

New functionality

- Digital Twin
  - Connect to plant
  - Compare expected KPIs from simulation to actual KPIs from measurements continuously

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Funded by

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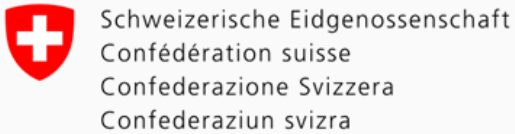

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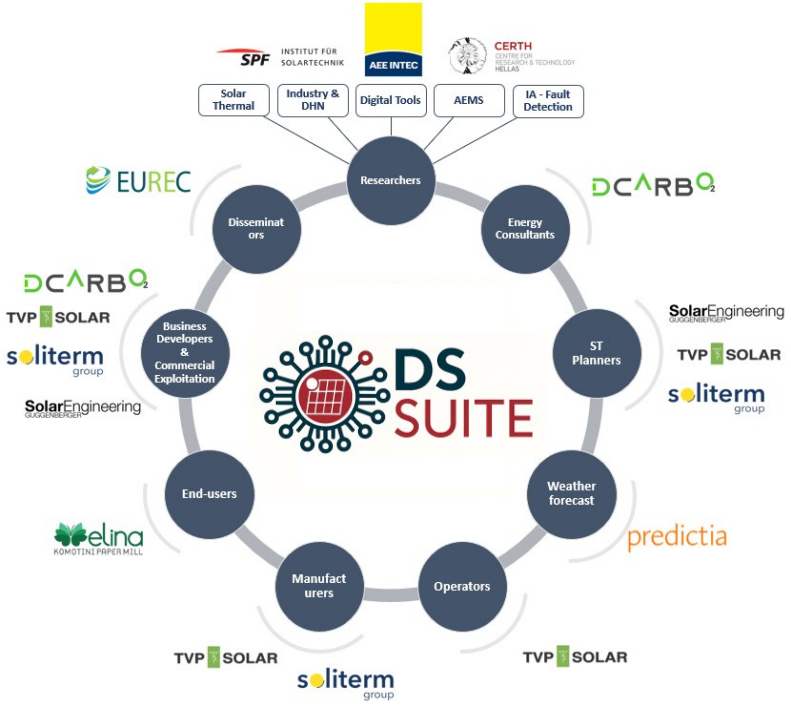
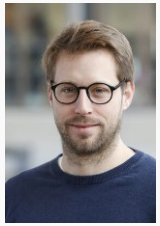
Thank you





Damian Birchler
damian.birchler@ost.ch