GRAPE

Graphical
RELAP5-based
Analysis
Platform for
Education & **Engineering**

RELAP5 Analysis Platform to Strongly Accelerate Your Research Activity

GRAPE is an analysis platform compatible with RELAP5-based codes, RELAP/SCDAPSIM and RELAP5-3D. GRAPE automatically sets up analysis and visualization environments by importing input deck files for RELAP5-based codes. Therefore you can start using GRAPE only with simple operations. The analysis environment reduces the hustle to make input decks, and the visualization environment dissolves your pain for post-processing of calculation results. GRAPE accelerates your research and development activities with effective and helpful features of GRAPE.
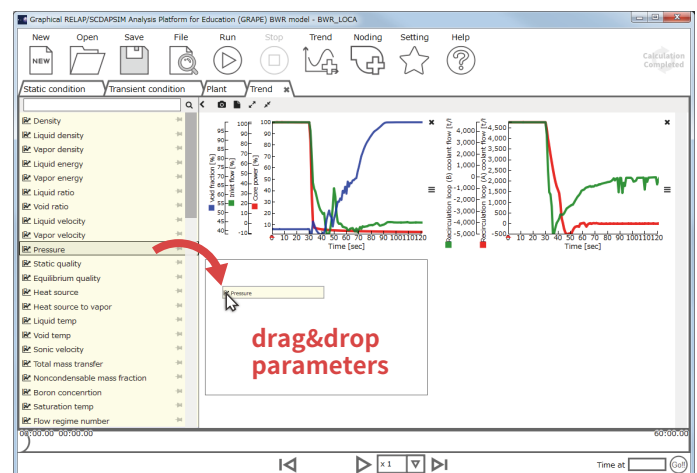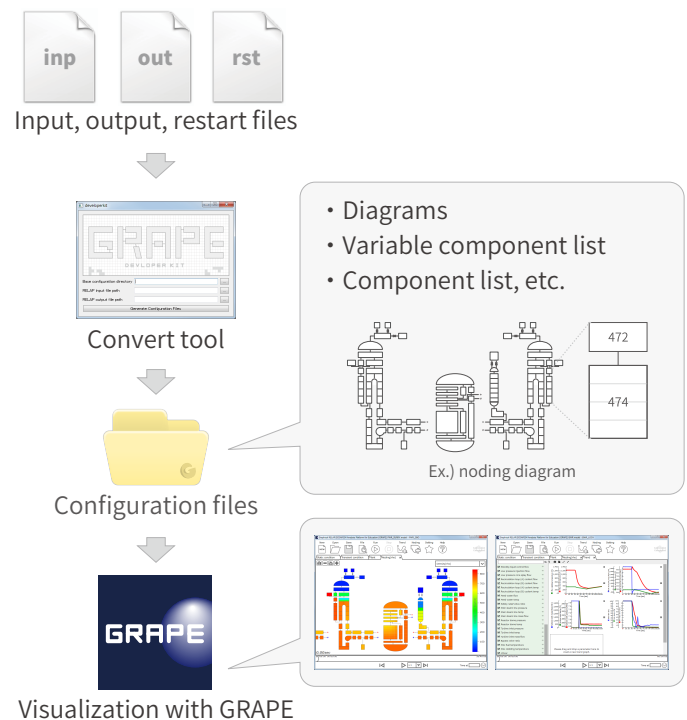
Features and Benefits

Import Your Own RELAP5 Input Decks

When you introduce an analysis platform, it often takes much time to prepare configuration files. But if you have an input deck of RELAP5-based codes, you are all done. GRAPE reads it and automatically sets up analysis and visualization environments so that you can quickly start using GRAPE for your research.

As soon as you verify whether your model is properly configured , the visualization functionary of GRAPE is for you. The convert tool automatically generates configuration files from your input deck. GRAPE reads it and visualizes calculation results.

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Input, output, restart files

Convert tool

- Diagrams
- Variable component list
- Component list, etc.

472
474

Ex.) noding diagram

Configuration files

GRAPE

Visualization with GRAPE

Powerful but Easy Graph Making

When you make many graphs from calculation results, you need to extract necessary data and visualize them using Excel, for example. It unexpectedly takes a lot of efforts, especially when you want to repeat changing conditions and parameters. GRAPE automatically extracts data and visualizes with simple operations, just clicking a few times. You become free from such annoying works and you will be able to devote to research activities such as data analyses, etc.

drag&drop parameters

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Reliable Technology for Tomorrow's Energy

E-mail : sim_info@neltd.co.jp URL : http://www.neltd.co.jp/grape/

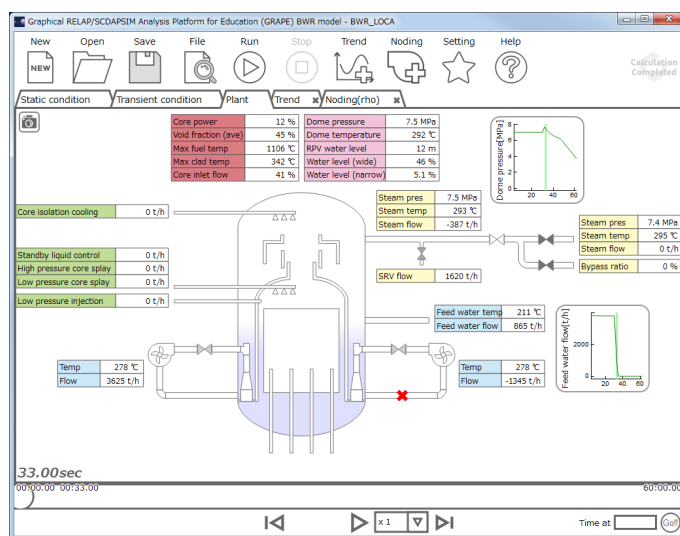## Macro Language to Support Automation

In sensitivity analyses, it is necessary to perform many calculations with various conditions and to summarize their results. The tasks for managing parameters to change, making input decks for these parameters and summarizing their results are quite complicated. With macros implemented in GRAPE to support sensitivity analyses, the process from execution of calculation to visualization is automatically performed, which greatly reduces your effort and time.
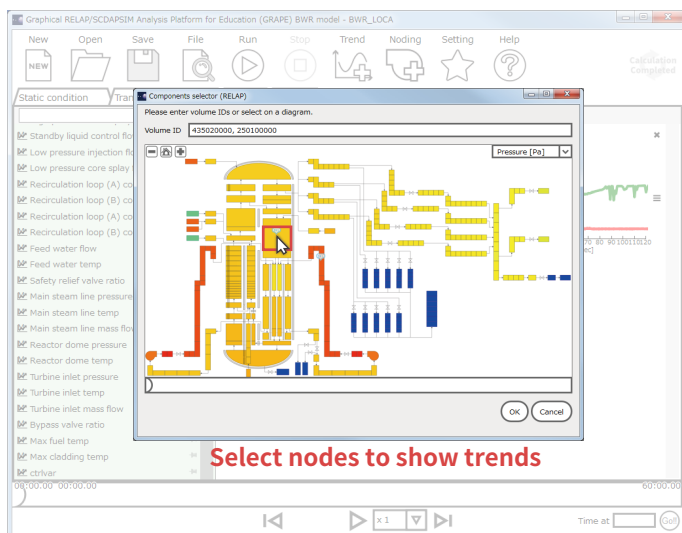
Request of sensitivity analysis

GRAPE

Summary DB

Convert tool
C:/_

Input files

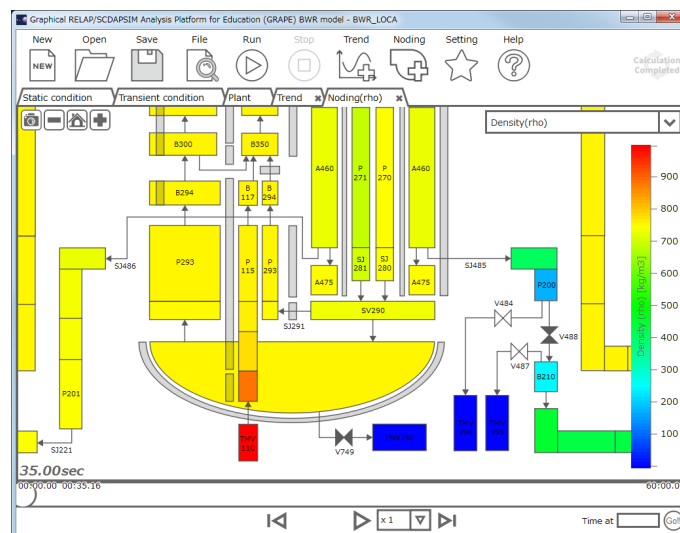Calculation results
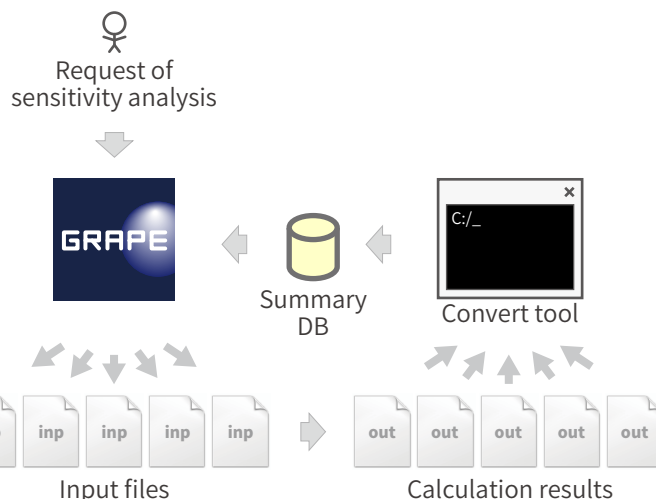
Gallary
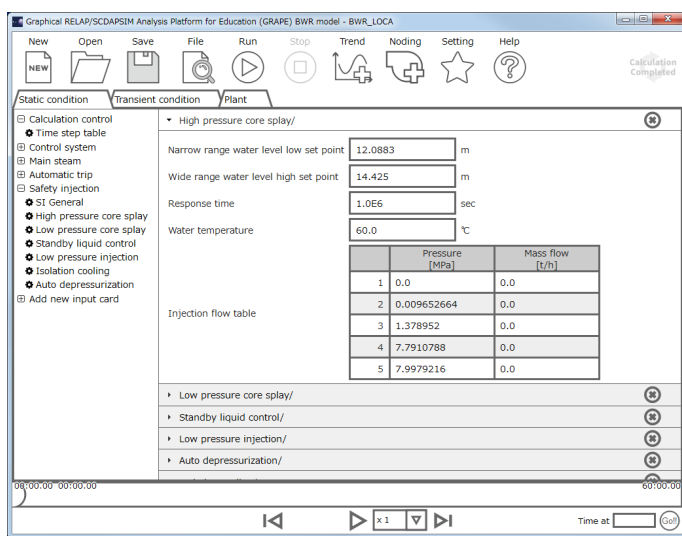
Customizable input conditions

Plant animation and widjet graphs on pllant diagram

Select nodes to show trend graph

Thermal-hydraulic parameter distributions on noding