



# GRIF | HPC plug-in

## Technical sheet

To boost performance using High Performance Computing into the simulation package

GRIF (GRaphical Interface for reliability Forecasting), a technology of TotalEnergies since the 80s, includes 3 packages and 12 modules allowing the user to choose the most appropriate modelling technique for the resolution of the studied system.

The HPC plugin provides high performance computing capabilities to Petro and Petri module from GRIF Simulation package, for an unlimited number of servers and processors.

Because the Petro module manages complex flow propagations for large systems and the Petri module leads you to search for rare events for safety considerations, their users are led to perform millions (or even billions) of simulations where computation time is a key element.

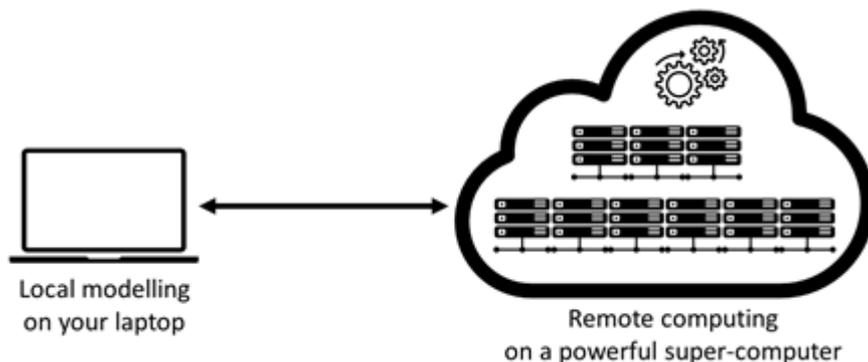
This advanced technology was initially developed by TotalEnergies for its HPC Pangea II. Today, the HPC extension is available on the market for all economic and industrial players looking for ultra-fast and high-performance computing engines for their reliability studies.

### The benefits of HPC plugin:

The HPC extension splits the histories/simulations of each operation into smaller calculations performed in parallel remotely via a cloud.

It enables 3 computations features:

- Remote computing on a Linux server (50-200 cores) in your premise or in the cloud.
- HPC computing on your super-computer using LSF or PBS scheduler (unlimited server number).
- HPC computing using Microsoft Azure (up to 1000 cores)



Linux versions are available for Debian/Ubuntu and RedHat/CentOS. Specific development can be done for matching your super-computer. Contact us if you want to rent a server configured for HPC computing in the Cloud. We provide either dedicated Linux server for remote computing or HPC service per minute of computation.

### Licensing of several HPC plug-in:

The HPC plug-in requires a specific license that is loaded when you start the Petri or Petro module. If several users want to use the HPC plug-in at the same time, you will need several licenses.

#### GRIF

GRaphical Interface for reliability Forecasting  
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**Hardware requirement:** Intel Core i3 or faster, 4 GB of free RAM, 1 GB of free space, no internet connection needed. **Software requirements:** Windows 10 or Linux or MacOS X with Java 11. **Licenses:** standalone with USB dongle or Floating licenses with Sentinel server. Installable, laptop.



Trial version available on  
[grif.totalenergies.com](http://grif.totalenergies.com)

