airGRteaching: an R-package designed for teaching hydrology with lumped hydrological models

Guillaume Thirel, Olivier Delaigue, Laurent Coron, Vazken Andréassian, Pierre Brigode

airGRteaching

an R-package designed for teaching hydrology with lumped hydrological models

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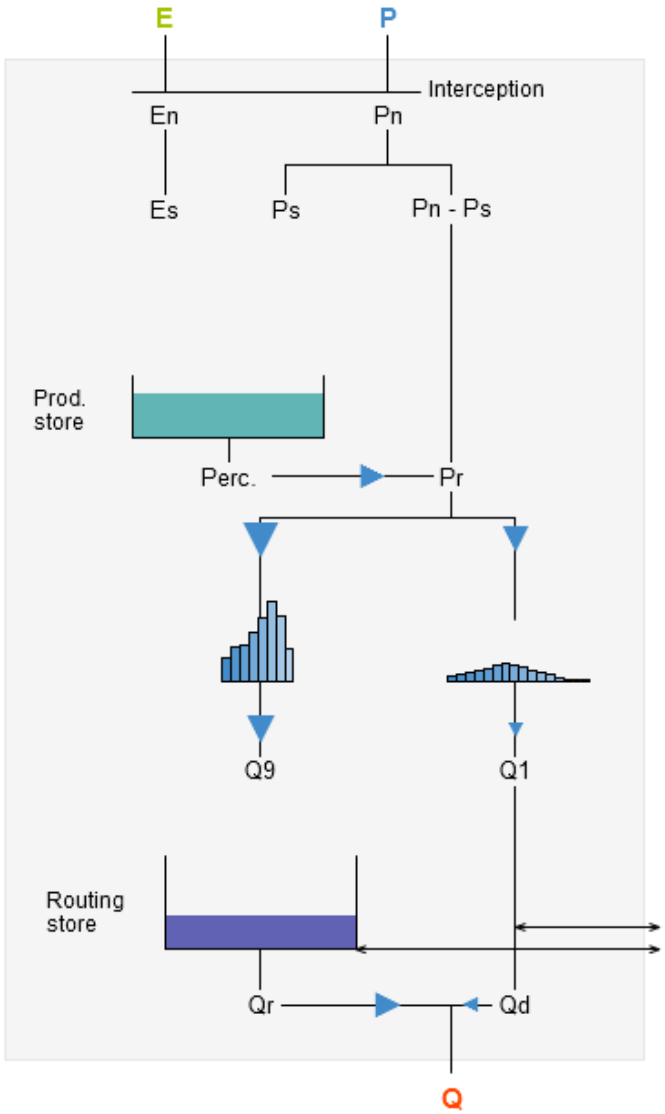
26th April 2017

Based on the airGR R-package:

- 3 daily models up to now (including GR4J)



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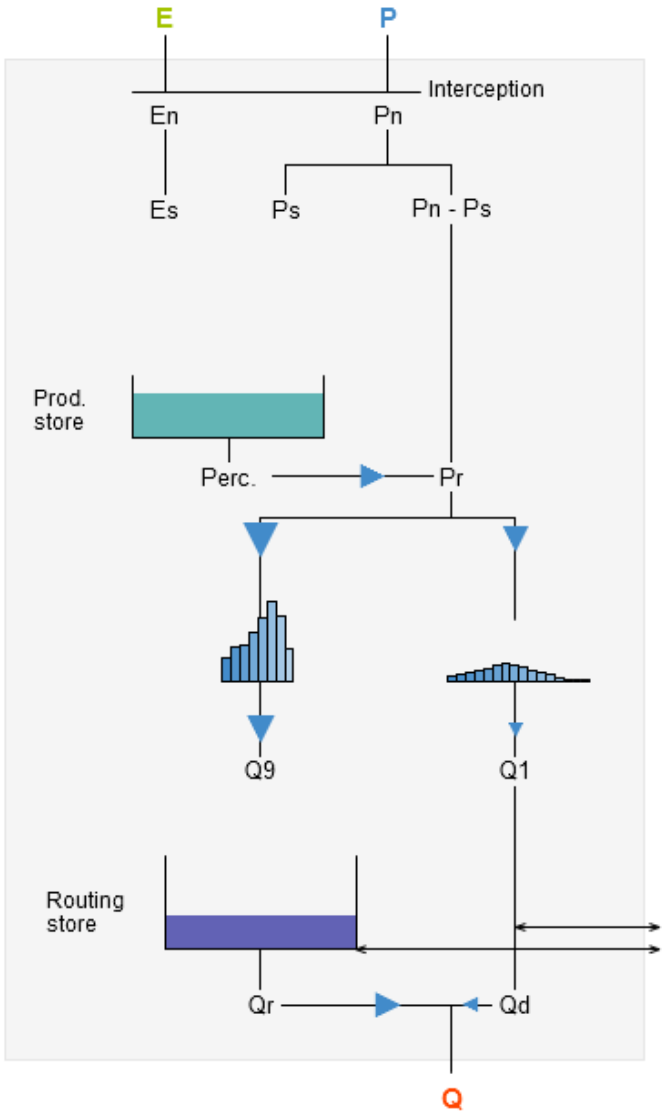
Basic level of programming required

Only 3 simple functions for a full modelling exercise

- Preparation of data
- Model calibration
- Model simulation



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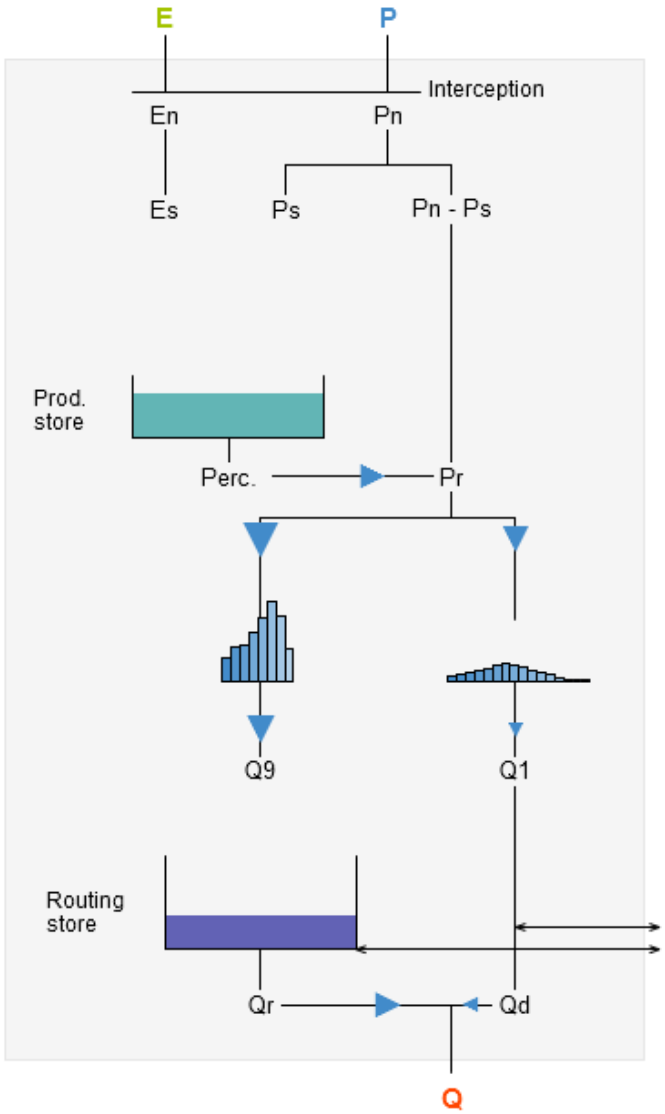
- Mouse events and interactive graphics



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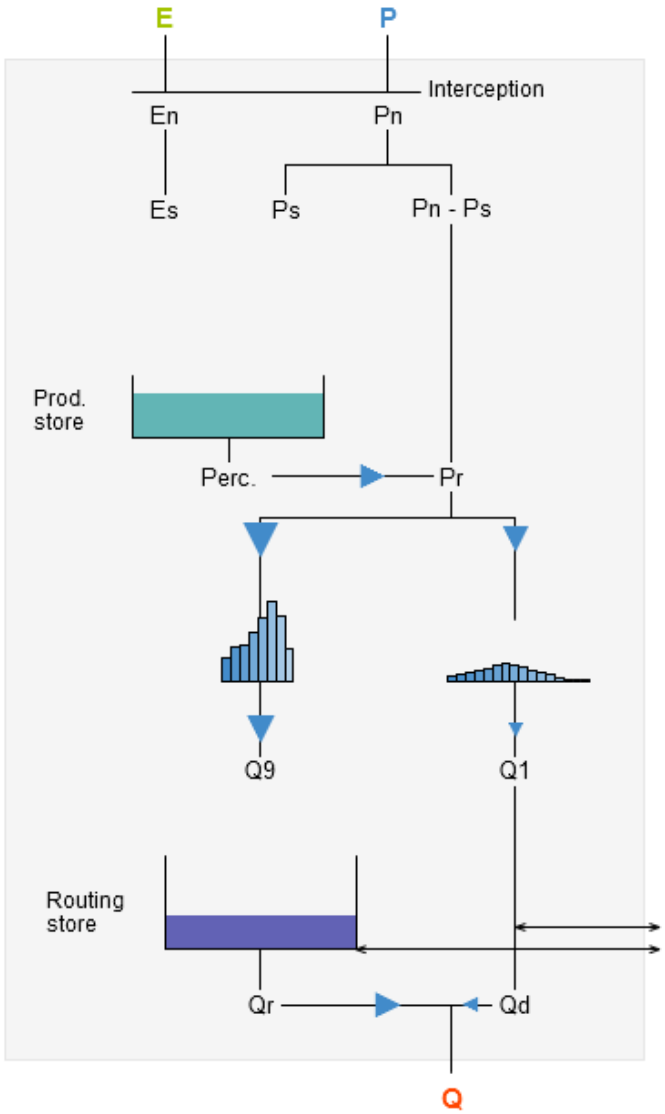
Graphical interface based on a Shiny interface

- Interactive flow simulation with parameters modifications
- Automatic calibration
- Internal variables evolution
- Time period selection



airGRteaching – Shiny interface