Prodrisk Roadmap

User meeting 2025

Teknologi for et bedre samfunn

Our team (spring 2025)

Researchers and technical staff

Knut S. Gjerden

Stefan Rex

Siri Mathisen

Amund S. Bergset

Emil Lysholm

Model coordination, contracts and administration

Hans Ivar Skjelbred

Hans Christian Bolstad

Eline Opdalshei
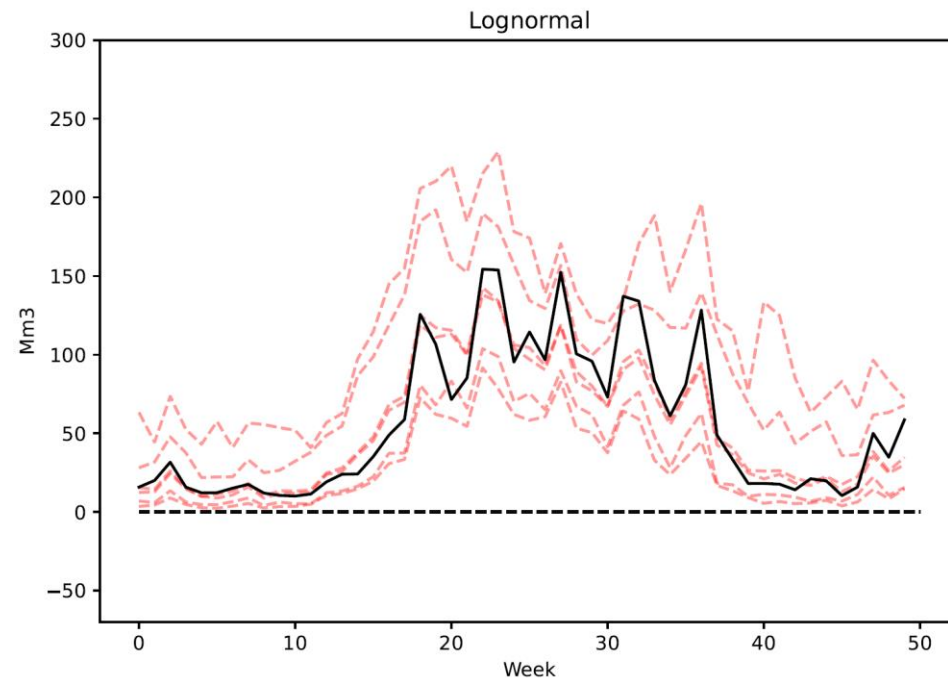
Teknologi for et bedre samfunn

Prodrisk Roadmap

- Recently added functionality

- Development plans

- Research potential

- Prodrisk events

Recently added functionality
Improved inflow modeling

- Delivery from IMPRO project

- Lognormal inflow model
  - Avoid negative inflow, with correct expectation values

- Internal improvements
  - Precision single → double
  - Skip auxiliary internal file

- Added in release 10.8.0

- Contact us if you do not have a license

$$x = e^{\mu_y + \sigma_y \xi} + \delta$$

Recently added functionality
API step series

- Development project «Complete functionality and hourly input series in API»
  - Priorities decided by project partners

- New time-series format (step series) for data flow between API and core
  - Will also benefit future developments
  - Will help to harmonize Prodrisk and LTM interfaces

- Project partners have received test versions

- Delivery in version 10.9.1
  - Core, API, pyprodrisk
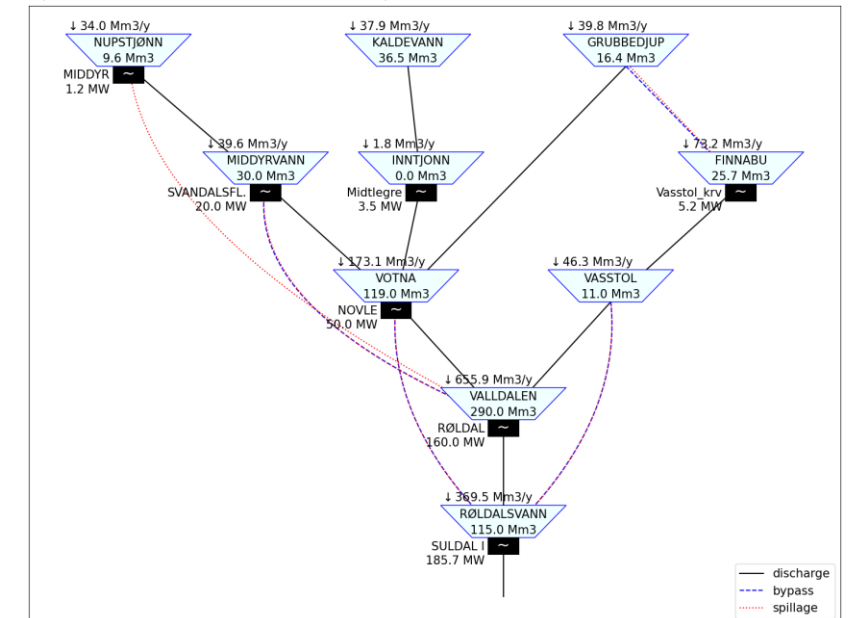
Recently added functionality
API step series

- Implemented some restrictions with intra-week resolution
  - min/max. bypass and flow restrictions
  - maintenance for plants and pumps
  - other time-dependent input will follow successively

- Added previously unavailable functionality to API
  - Restrictions as inflow series
  - Multiple price scenarios per inflow scenario
  - Load and transmission
  - (Time-dependent PQ curves) → postponed to next release

Recently added functionality
Various new features

- Local energy equivalents in the API
  - Automatic processing equivalent to corresponding LTM input
  - Release 10.7.0

- Scenario-dependent start volumes
  - Enable simulation and continuation modes with series simulation (–sim and –forts)
  - useful for advanced analyses
  - Release 10.8.3

- Pyprodrisk
  - Dump and load: organize your models in yaml and h5 formats
  - Time zone support (1.4.0)
  - Topology plot (1.4.0)
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Planned developments

- Objective value contributions: improved logging
  - Expected release in Q2

- Discharge ramping
  - Operationalization from HydroCen 3.4
  - Pending

- Continuation of time series conversion to new format and intra-week core implementation
  - Depending on resources

- Multi-market tool from HEU ReHydro

Research potential

- SINTEF intends to develop one of the following into an IPN application

- Short descriptions will be distributed to Prodrisk users

1. Water values for flexible operation
   - negative prices, plant description, and head correction

2. Maintenance planning
   - optimize planned outages

Prodrisk events
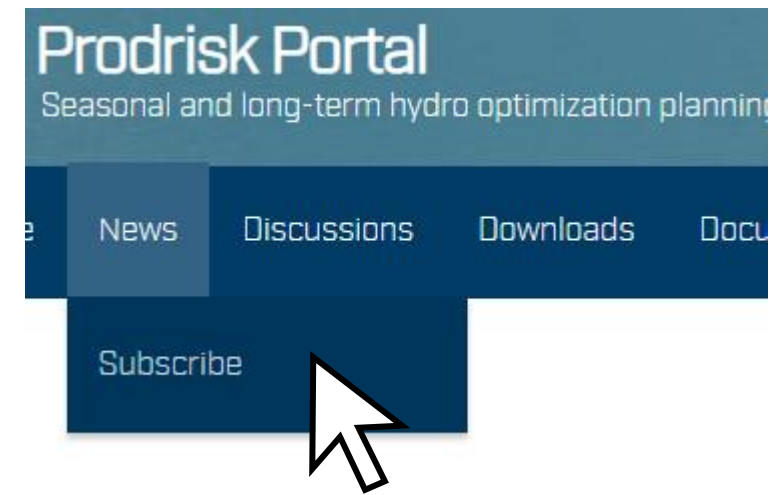## Prodrisk course

- Given sufficient interest, we will offer an introductory Prodrisk course

- See related news on the portal
  - Leave a comment if you are interested

- Most likely after summer, in-person

Prodrisk events
Prodrisk annual cycle

- Common releases with LTM in June and November

- Minor releases continuously

- Prodrisk forum: March and September (3h digital)
  - Next time: September 3rd, 2025

- Any news and releases are announced on the portal
  - … and automatically generated emails if you have signed up for the mailing list

75 år med teknologi for et bedre samfunn

sintef.no/75