



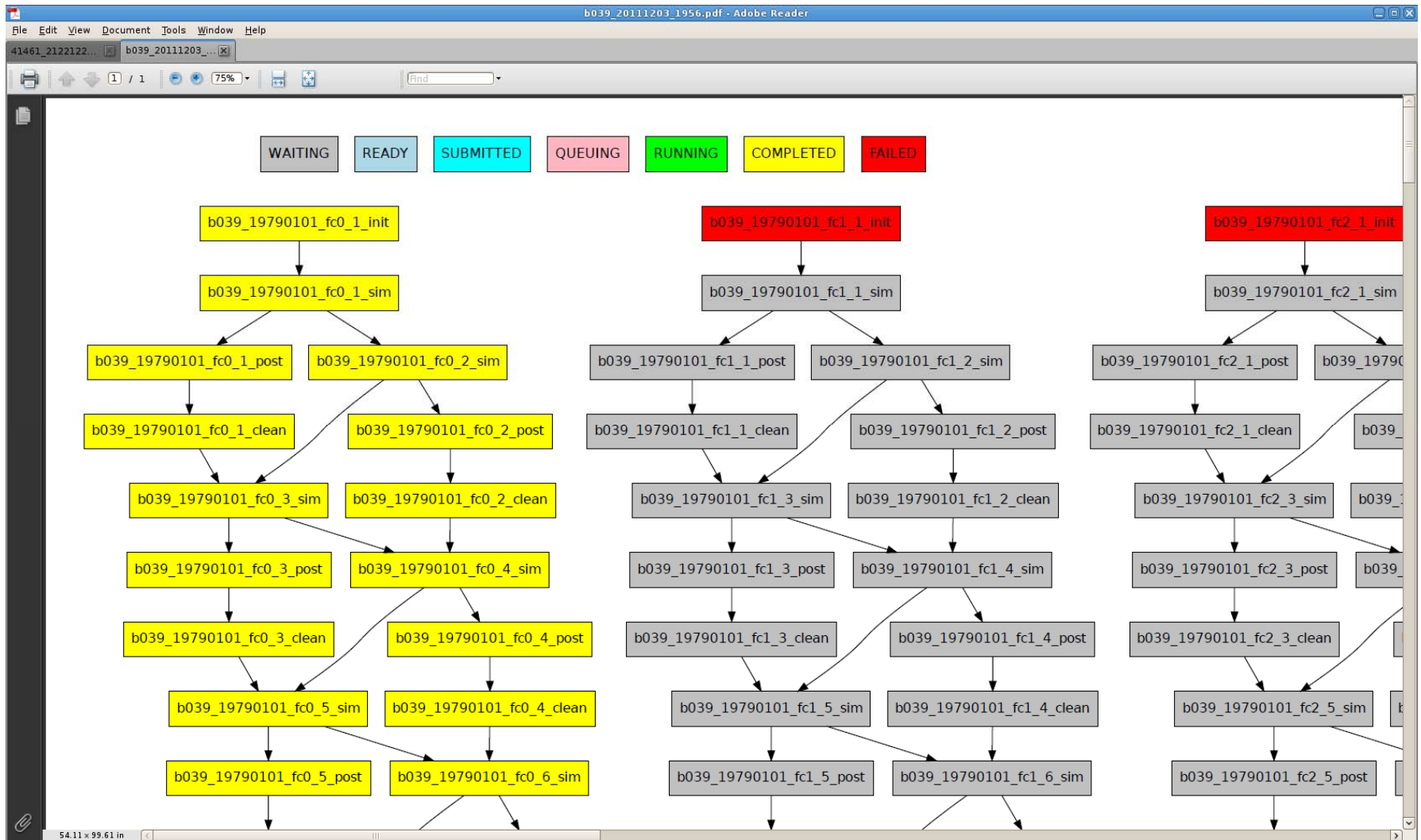
Autosubmit

From present to future

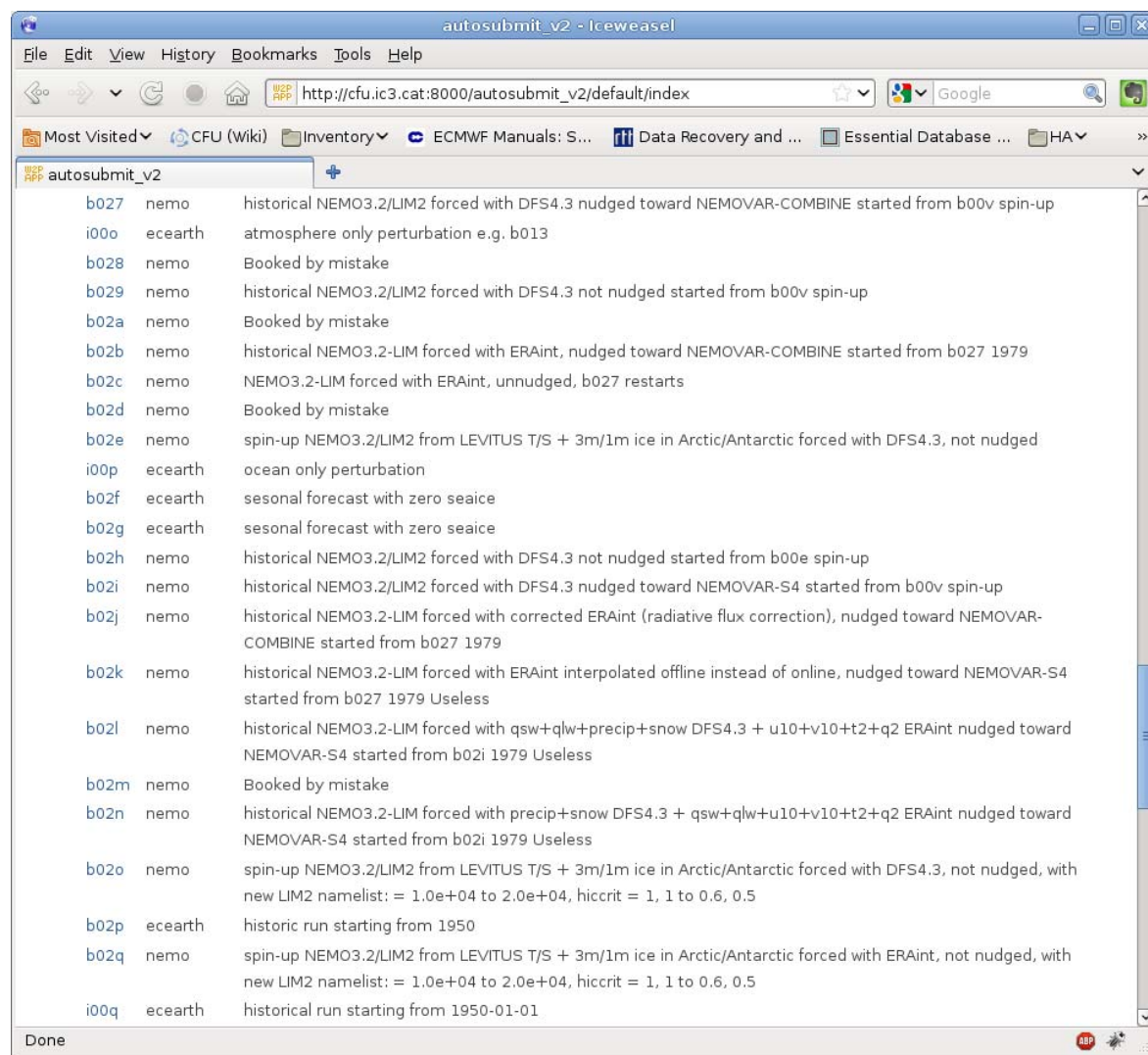
Current Version

- Autosubmit is a tool to create, manage and monitor experiments (currently EC-Earth, NEMO and IFS)
- It manages a table in SQLite to store name, type and description of the experiment
- It submits and monitors jobs with different queue schedulers:
 - SLURM – BSC
 - SGE – IC3
 - PBS - HECToR

Monitoring



View of the experiment database



ID	Model	Description
b027	nemo	historical NEMO3.2/LIM2 forced with DFS4.3 nudged toward NEMOVAR-COMBINE started from b00v spin-up
i00o	ecearth	atmosphere only perturbation e.g. b013
b028	nemo	Booked by mistake
b029	nemo	historical NEMO3.2/LIM2 forced with DFS4.3 not nudged started from b00v spin-up
b02a	nemo	Booked by mistake
b02b	nemo	historical NEMO3.2-LIM forced with ERAint, nudged toward NEMOVAR-COMBINE started from b027 1979
b02c	nemo	NEMO3.2-LIM forced with ERAint, unnudged, b027 restarts
b02d	nemo	Booked by mistake
b02e	nemo	spin-up NEMO3.2/LIM2 from LEVITUS T/S + 3m/1m ice in Arctic/Antarctic forced with DFS4.3, not nudged
i00p	ecearth	ocean only perturbation
b02f	ecearth	sesonal forecast with zero seaice
b02g	ecearth	sesonal forecast with zero seaice
b02h	nemo	historical NEMO3.2/LIM2 forced with DFS4.3 not nudged started from b00e spin-up
b02i	nemo	historical NEMO3.2/LIM2 forced with DFS4.3 nudged toward NEMOVAR-S4 started from b00v spin-up
b02j	nemo	historical NEMO3.2-LIM forced with corrected ERAint (radiative flux correction), nudged toward NEMOVAR-COMBINE started from b027 1979
b02k	nemo	historical NEMO3.2-LIM forced with ERAint interpolated offline instead of online, nudged toward NEMOVAR-S4 started from b027 1979 Useless
b02l	nemo	historical NEMO3.2-LIM forced with qsw+qlw+precip+snw DFS4.3 + u10+v10+t2+q2 ERAint nudged toward NEMOVAR-S4 started from b02i 1979 Useless
b02m	nemo	Booked by mistake
b02n	nemo	historical NEMO3.2-LIM forced with precip+snw DFS4.3 + qsw+qlw+u10+v10+t2+q2 ERAint nudged toward NEMOVAR-S4 started from b02i 1979 Useless
b02o	nemo	spin-up NEMO3.2/LIM2 from LEVITUS T/S + 3m/1m ice in Arctic/Antarctic forced with DFS4.3, not nudged, with new LIM2 namelist: = 1.0e+04 to 2.0e+04, hicrit = 1, 1 to 0.6, 0.5
b02p	ecearth	historic run starting from 1950
b02q	nemo	spin-up NEMO3.2/LIM2 from LEVITUS T/S + 3m/1m ice in Arctic/Antarctic forced with ERAint, not nudged, with new LIM2 namelist: = 1.0e+04 to 2.0e+04, hicrit = 1, 1 to 0.6, 0.5
i00q	ecearth	historical run starting from 1950-01-01

Drawbacks

- Difficult to compare experiments: tool needed
- Few information stored in the database
- All jobs have to run in the same platform
- Experiment creation (job dependencies) are hardcoded
- Too tied off to (EC-Earth, NEMO and IFS) experiments

Future

- Integration of other PRACE platforms using e.g. [SAGA API](#) (next two months)
- Submit different jobs from same experiment to different platforms (next two months)
- Wrapper (meta-scheduler) for ensemble jobs that allows to submit one job with several tasks (e.g. several members) in it (next six months, only tested with toy model)
- Web front for experiment creation and control (next twelve months)
- Database design based on METAFOR project (next twelve months)