

CABLE: Review of 2014

Rachel Law

CABLE annual workshop, 3 December 2014

With thanks to everyone who has contributed to
CABLE this year ...

coding, documentation, sharing knowledge

<https://trac.nci.org.au/trac/cable/wiki>

Trunk updates

- CABLE2.2.3 (r1453):
 - ACCESS1.4 and ACCESS-ESM1 version of CABLE.
 - Working version of CASA-CNP for ACCESS.
 - <https://trac.nci.org.au/trac/cable/wiki/CableHistory>
 - #8, #30, #39, #45, #46, #48
- Soil albedo scheme: (#27)
 - Switch: calcsoilalbedo
 - ** Documentation **
- Technical fixes and improvements
- Trunk currently at r2287

CABLE tickets

- 72 tickets
 - 1st ticket: 25/9/12
 - 2012: 12 tickets (jxs, bep, rml)
 - 2013: 30 tickets (+ vxh, jtk, glb, txz, lxs, mrd, ccc, kxl)
 - 2014: 30 tickets (+ nnh)
- 35 closed tickets
- 37 active tickets

[Login](#)
[Settings](#)
[Help/Guide](#)
[About Trac](#)

[Wiki](#)
[Timeline](#)
[Roadmap](#)
[Browse Source](#)
[View Tickets](#)
[Search](#)

[Available Reports](#)
[Custom Query](#)

{1} Active Tickets (37 matches)

- List all active tickets by priority.
- Color each row based on priority.
- If a ticket has been accepted, a ^{1st} is appended after the owner's name

Ticket	Summary	Component	Version	Milestone	Type	Owner	Created
#52	dump mapping data applicable to ACCESS apps	UM		step 3 - benchmark (developer)	model improvement	jxs599 *	17/04/14
#38	Suggested User Guide updates/corrections	model	2.0	step 1 - validation	code improvement	somebody	21/10/13
#40	froot reconciliation across versions	MPI		step 1 - validation	code improvement	EAK/JS/BP	14/11/13
#49	alternate version of canopy scheme with switch	MPI		step 1 - validation	code improvement	jxs599	31/03/14
#63	Remove duplicated code in function psis1	biogeophys	2.0	step 1 - validation	code improvement	somebody	01/09/14

Active ticket review/summary

- New capability (technical) #52, #15, #33, #72, #51, #64
- New capability (science)
 - #61 (POP),
 - #18 (SLI),
 - #42 (soil resp),
 - #56 (Medlyn stomatal conductance)
- Bugs #57, #62, #65, #68, #7, #66, #67, #70, #69
- Technical clean-up #63, #2, #16, #34, #35, #37, #71, #58, #55, #54, #60, #9, #44, #22
- Science clean-up #39, #49 (canopy)
- Offline/online differences: #40 (froot)
- User guide: #38

Publications

- 21 papers listed for 2014 as accepted/published (authors from CSIRO, 5 Australian universities, overseas)
 - Please put in links
- 4 papers listed in Discussion section of EGU journals
- <https://trac.nci.org.au/trac/cable/wiki/CablePublications> rearranged for easier editing

CABLE publications and presentations

These lists of publications were originally taken from Appendix 3 of the CABLE Roadmap 2012-2017.

Please help to keep them up to date. Add papers, technical reports and conference proceedings to the lists. When the status of a paper changes, please move it from 'In preparation / Submitted' to 'Discussions' (if applicable) and 'Published' for the appropriate year. Please remember to update any 'in press' to give the full citation and provide active links if possible.

- Published journal papers split by year

- 2015: [Published2015](#)
- 2014: [Published2014](#)
- 2013: [Published2013](#)
- 2012: [Published2012](#)
- 2011: [Published2011](#)
- 2003-2010: [Published2003-2010](#)

'Accepted', 'in press', 'Discuss.' need to be updated and moved to 2014 if appropriate

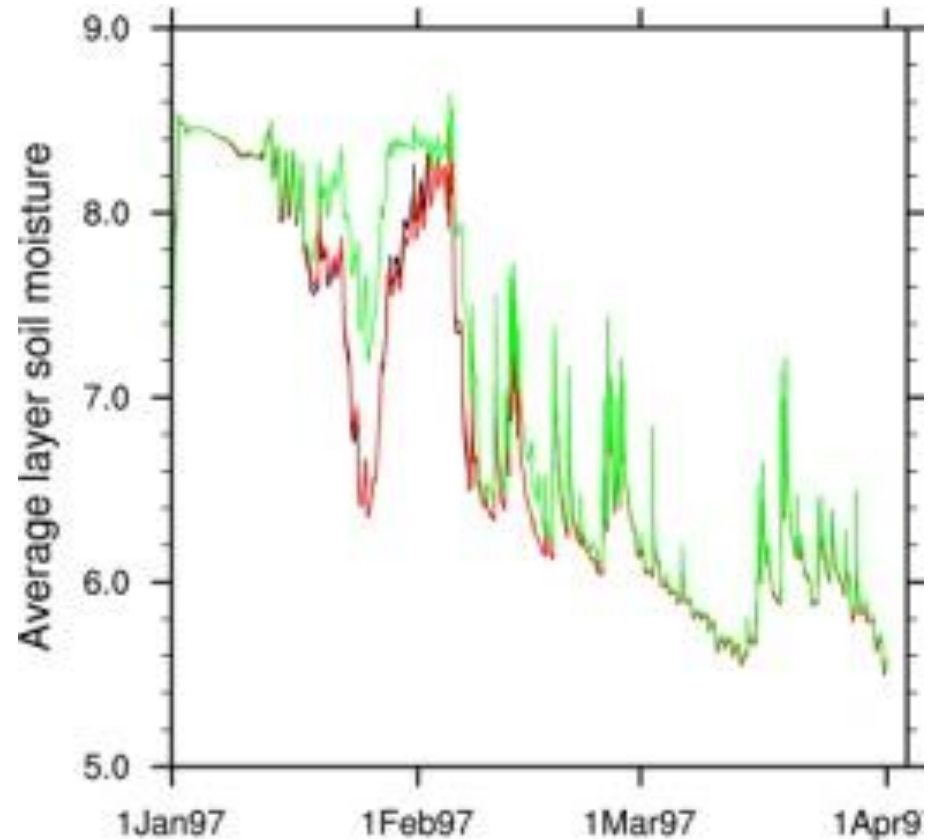
- Papers under review in Discussion journals (publicly available): [CableDiscussions](#)
- Technical reports: [CableTechnicalReports](#)
- Conference proceedings: [CableProceedings](#)
- Submitted and in preparation papers (not publicly available): [CableInPrepPapers](#)
- Presentations from CABLE related meetings: [CablePresentations](#), [CablePresentations2013](#), [CablePresentations2014](#)
- Posters about CABLE: [CablePosters](#)

Other things of note

- CABLE user guide into wiki format
 - easier to update and keep track of changes
- Video conferences
 - March (5 speakers)
 - June (short updates – 11 speakers)
 - October (6 speakers)
- CABLE datasets
 - <https://trac.nci.org.au/trac/cable/wiki/CableData>

CABLE through JULES

- Single-site
- Global offline
(Huqiang Zhang)
- UM8.5
(Jhan Srbinovsky)



From 2013 workshop: <https://trac.nci.org.au/trac/cable/wiki/WorkshopAction>

Action items

CABLE evaluation

- ✓ Share datasets – ask NCI for directory on raijin for datasets (Jatin) and page on trac describing
- ✓ Wiki page to describe scripts, [CableScripts](#). Scripts on repository, check out from branch (user branch or 'Share' branch)
 - Ticket for issues on pfts (Marcus)

Land-Use

- ? • Continue conversation – video-con (land group meeting), workshop later
- Identify paired flux tower data with different land cover types
- Audit pft parameters. Hard-wired, and also which need pft dependence
- ? • Land-use change input files. Assess credibility.

Data assimilation

- ✓ Share experience – workshop, technical. COE funding (at CoE uni with maths co-host). Maths of Planet Earth link.

CABLE technical

- Test suite – define, ✓ develop, ✓ automate, run tests
- Benchmark tests – performance against previous version etc
- ✓ Trunk flexibility – get changes into trunk more quickly, test there and then make tag (stable release)
- [CableForum](#) on trac page – empty – use to share current issues **Still empty except a link to this list**

Soil and Hydrology

- First goal is conservation of mass, energy, water
- Bring river routing into CABLE code (from ACCESS or elsewhere) - Mark
- ? • Splitting ET - Mark
- Snow – PhD project? Ideally need a new scheme. Start from what put into SLI?

Non-veg surfaces

- ✓ Martin Best visit – put urban modelling on agenda
- Benchmarking datasets – flux tower for Melbourne intercomparison
- Datasets for lake verification
- Tile for comparison with met obs (screen temperature etc)
- Need for emissions from urban areas - Peter R input (high res satellite products)