

# Software Week Winter 2020

The software week goal is to facilitate communication and collaboration between everyone as we move forward extended support for Fermi. FSSC members will be available at SLAC all week for group discussions and one-on-one meetings. In addition to targeted topics, we encourage attendees with broad or cross-cutting interests to join the various discussions. There will be plenty of work, so we'll need everyone to take part in this transition.

**Previous Software Weeks:** [Winter 2017](#), [Fall 2017](#), [Winter 2018](#)

**Dates:** March 2, 2020 - March 5, 2020

Live notes [link](#)

**Location:** Two conference rooms in B53 at [SLAC](#) have been reserved for each day.

- 3/2 - Almanor (Rm. 3002) & Havasu (Rm. 3004)
- 3/3 - Tulare (Rm. 4006) & Toluca (Rm. 4002)
- 3/4 - Tulare (Rm. 4006) & Toluca (Rm. 4002)
- 3/5 - Tulare (Rm. 4006) & Almanor (Rm. 3002)
- 3/6 - Almanor (Rm. 3002) & Havasu (Rm. 3004)

**Slack:** The [#softwareweek](#) channel is available for discussion.

**Remote access:** [Main room](#); [backup room](#)

## Attendees

- Liz Hays (arrive Monday ~noon)
- Don Horner
- Alex Reustle
- Joe Asercion
- Tom Stephens
- Nicola Omodei
- Tom Glanzman
- Richard Dubois (not Tuesday AM; not Wed PM - so far)
- Brian Van Klaveren
- Toby Burnett
- Eric Charles
- Steve Tether
- Heather Kelly (remote)
- Judy Racusin
- Rob Cameron (Monday only)

## Schedule and Agenda

All times Pacific Standard.

One conference room is schedule each day and the other is open for breakout sessions, side meetings, or whatever else might be needed. There is a lot of time for lunch, too, so we can use some of that time, if needed.

This is a draft schedule. Hopefully, it captures all the sessions/topics we will need. Things will probably need to be moved around to accommodate people's schedules or due to discussion at sessions, i.e., pick up something later or work on something that came up, further discuss ideas that come up.

Friday has been left open in case we need it, and Joe, Alex, Tom, and Don will be around that day.

We can discuss scheduling changes on the [#softwareweek](#) channel.

## Monday (2020-03-02)

Time	Almanor (B53, Room 3002)	Havasus (B53, Room 3004)
9am-9:30am	Kickoff ( <a href="#">PDF</a> ) <ul style="list-style-type: none"><li>• Discussion of goals and objectives</li><li>• Review accomplishments of previous software weeks.</li></ul>	

9:30am-11am	<p>Current status updates (<a href="#">PDF</a>)</p> <ul style="list-style-type: none"> <li>Fermitools <ul style="list-style-type: none"> <li>Overview of current development and build process</li> <li>Upcoming releases</li> <li>Python 3 transition</li> </ul> </li> <li>Break</li> <li>SLAC <ul style="list-style-type: none"> <li>FT2 reprocessing &amp; IGRF model update</li> <li>Batch farm</li> <li>Jenkins</li> </ul> </li> </ul>	
11am-noon	<p>Current and Future Staffing (<a href="#">PDF</a>)</p> <ul style="list-style-type: none"> <li>Who is even there anymore and what is their availability?</li> <li>Identify areas of shortfall.</li> <li>Identify people who can take over SLAC infrastructure and Fermitools/Fermipy tasks if current person leaves.</li> <li>Difficulty for FSSC personnel to take over on infrastructure that we don't use regularly.</li> <li>How much can we rely on collaboration people?</li> <li>Where can external folk inject the most help?</li> <li>Can we create a list of who to contact for various issues?</li> </ul>	
noon-2pm	Lunch	
2pm-3pm	<p>Fermitools future directions discussion</p> <ul style="list-style-type: none"> <li>What development needs to be done. What's missing from the tools.</li> <li>Discuss and work on improving interface between Fermitools and Fermipy.</li> <li>Modularizing the Fermitools?</li> <li>Effectively freeze the tools?</li> <li>Using other package managers?</li> <li>Who will be in charge of which packages, e.g., gtorbsim</li> <li>What does the C&amp;A group need that isn't being provided by the FSSC (and vice-versa)</li> <li>Switch to CMake instead of SCons?</li> <li>Support for RHEL6 and older Linux systems.</li> </ul>	
3pm-4pm	<p>SLAC infrastructure issues</p> <ul style="list-style-type: none"> <li>Data catalog. <ul style="list-style-type: none"> <li>Is Brian the only one who knows how to deal with it?</li> </ul> </li> <li>ASP <ul style="list-style-type: none"> <li>Does anyone besides Jim know how to maintain it?</li> <li>Any more documentation that this: <a href="#">ASP How-To Guide</a>?</li> </ul> </li> <li>ISOC tasks: Progress on this list: <a href="#">Regular and semi-regular manual ISOC tasks</a></li> <li>Update this page: <a href="#">Software Master List</a></li> <li>Paging</li> <li>Spread messaging system?</li> <li>Web apps</li> <li>Skimmer</li> <li>Update this page: <a href="#">SLAC to FSSC transition questions</a></li> </ul>	

## Tuesday (2020-03-03)

Time	Tulare (B53, Room 4006)	Toluca (B53, Room 4002)
9am-10am	<p>Fermitools code development (<a href="#">PDF</a>)(<a href="#">MP4</a>)</p> <ul style="list-style-type: none"> <li>How to contribute to the Fermitools</li> <li>Go over the process of using the new development paradigm</li> <li>How to use Github, submit patches, etc</li> <li>How to update, build locally etc.</li> </ul>	
10am-11am	<p>Fermitools Azure pipeline (<a href="#">MP4</a>)</p> <ul style="list-style-type: none"> <li>Maintenance and development</li> <li>Training on design/development of the Azure pipeline</li> <li>Joe will go in depth about how pipeline functions as Azure and how config file functions.</li> </ul>	

11am-noon	Fermitools documentation <ul style="list-style-type: none"> <li>• Documentation status             <ul style="list-style-type: none"> <li>◦ Missing fhelp files</li> <li>◦ What is out of date?</li> </ul> </li> <li>• What is needed? New threads? Who will do them?</li> <li>• Using Jupyter notebooks</li> <li>• Work together on documentation?</li> </ul>	
noon-2pm	Lunch	
2pm-4pm	Halfpipe & L1 pipeline future <ul style="list-style-type: none"> <li>• FT2 reprocessing &amp; IGRF model update. Installing new pipeline.</li> <li>• Document how to do FT2 reprocessing.</li> <li>• Go through current documentation to update (and remove old information).</li> <li>• Get together to discuss and write document pipeline how-tos and fixes.</li> <li>• Update re-piping documentation.</li> <li>• Document database schema.</li> <li>• Dealing with missing datagrams - Causes, handling, what to do if repiping fails?</li> <li>• Data lifecycle from an ISOC perspective             <ul style="list-style-type: none"> <li>◦ where does the data go?</li> <li>◦ what do the processing steps do?</li> <li>◦ how does this interact with the infrastructure?</li> </ul> </li> <li>• Data reprocessing documentation</li> <li>• Nicola knows about FT1 reprocessing. Are the steps documented?</li> </ul>	

## Wednesday (2020-03-04)

Time	Tulare (B53, Room 4006)	Toluca (B53, Room 4002)
9am-10am	Fermitools testing <ul style="list-style-type: none"> <li>• How to get the tools tested before release. C&amp;A group role?</li> <li>• Improving unit tests.</li> <li>• Turn analysis thread Jupyter notebooks into scripts that can be run automatically</li> </ul>	
10am-11am	Fermitools user support and tracking tasks <ul style="list-style-type: none"> <li>• Where to report issues JIRA vs. Github</li> <li>• github tracker and helpdesk staffing, response times etc.</li> <li>• Ways to improve the process</li> </ul>	
11am-noon	SLAC move to CentOS. <ul style="list-style-type: none"> <li>• Create the containers and move pipeline to containers to run on Centos7.</li> <li>• Do the process together and test.</li> <li>• What else is affected?             <ul style="list-style-type: none"> <li>◦ Archiver? (Doesn't work on CentOS 7. See <a href="#">Archiver vs. CentOS 7.</a>)</li> <li>◦ Fastcopy?</li> <li>◦ ASP?</li> </ul> </li> </ul>	
noon-2pm	Lunch	
2pm-3pm	Adding capabilities to the FSSC data server <ul style="list-style-type: none"> <li>• The FSSC data server is being moved to new, better hardware, including NVMe SSDs.</li> <li>• How this will affect the data server.</li> <li>• Do we want to add new capabilities? New filtering? Allow all sky searches?</li> <li>• Any new data products to add to the server?</li> </ul>	
3pm-4pm	Fermitools bug fix workshop <ul style="list-style-type: none"> <li>• Get together to go through and maybe fix reported Fermitools bugs/issues.</li> <li>• Need Eric, Joe, Alex, Tom, Don others?</li> </ul>	

## Thursday (2020-03-05)

Time	Tulare (B53, Room 4006)	Almanor (B53, Room 3002)
9am-9:30am	Change in SLAC batch system. <ul style="list-style-type: none"> <li>• Have Tom, Brian and ?</li> <li>• Work on moving to the new batch system.</li> <li>• Have Tom develop contacts with infrastructure staff.</li> </ul>	
9:30am-10am	GLASTRelease and Jenkins <ul style="list-style-type: none"> <li>• Heather, Brian, Alex, Joe, Joanne?</li> <li>• Make sure GR builds with Jenkins.</li> <li>• Is Heather's knowledge about build and deployment documented?</li> </ul>	
10am-11am	Fermipy	
11am-noon	Closeout <ul style="list-style-type: none"> <li>• Review decisions</li> <li>• Assign action items</li> </ul>	
noon-2pm	Lunch	
2pm-3pm		
3pm-4pm		

## Friday (2020-03-06)

Time	Almanor (B53, Room 3002)	Havasut (B53, Room 3004)
9am-10am		
10am-11am		
11am-noon		
noon-1pm	Lunch	
1pm-2pm		
2pm-3pm		
3pm-4pm		