

Electronic Logbooking at SLAC

Matt Gibbs

Outline

- History of the E-Log at SLAC
- Some interesting features
- Problems with the E-Log

History

E-Log, circa 2005

SLAC ELOG

Logbooks: [ACCELERATOR](#) | [PEP](#) | [MCC](#) | [NLCTA](#) | [8-PACK](#) | [RF](#) | [BIC](#) | [SPPS](#) | [SW_LOG](#) | [TLOG](#)

actions: [Make an Entry](#) | [Logbook prefs](#) | [Scrollable/printable logbook](#) | [Pending entries](#) | [Login](#)

Other Links:

[ELOG News \(last updated 12/17/2003\)](#)

[ELOG Users Guide](#)

[SLAC homepage](#)

Start Date: End Date:

Logbook: ACCELERATOR PEP MCC NLCTA 8-PACK RF
 BIC SPPS SW_LOG TLOG

Area: Sort Order: Source:

Search(?): in

<u>number</u>	<u>date</u>	<u>name</u>	<u>area(s)</u>	<u>title</u>
Thursday				
• 1080	16-Oct-03 00:35	Kubler, Krist		Parking HER RF 8-5

Database query + PHP page generation time = 0 seconds

result set has 1 records

E-Log, circa 2008



Logbooks: [ACCEL](#) | [PEP](#) | [MCC](#) | [NLCTA](#) | [NLCTA-LASER](#) | [XTA](#) | [LBAND-MARX](#) | [LBAND-SNS](#) | [RF](#) | [XFD](#)
[BIC](#) | [ASTA](#) | [SPPS](#) | [ITF](#) | [SPEAR3](#) | [SPEAR-SE](#) | [SSRL-BLDO](#) | [AMRF](#) | [PCD-PEE](#) | [PEM-FT](#)
[PEM](#) | [SW_LOG](#) | [LCLS](#) | [LCLS-LASER](#) | [FACET](#) | [TLOG](#)

actions: [New Entry](#) | [MCC Shift Form](#) | [MCC Shift Summary](#) | [PEM Shift Form](#) | [Preferences](#) | [Scrollable View](#) | [Pending entries](#) | [Logout](#)

Other Links: [ELOG Authorized Users](#) | [ELOG News](#) | [ELOG Tricks](#) | [ELOG Users Guide](#) | [CATER](#) | [SLAC homepage](#)

Date: Start: End: Shifts:

<input type="checkbox"/> ACCEL	<input type="checkbox"/> PEP	<input checked="" type="checkbox"/> MCC	<input type="checkbox"/> NLCTA	<input type="checkbox"/> NLCTA-LASER	<input type="checkbox"/> XTA	<input type="checkbox"/> LBAND-MARX	<input type="checkbox"/> LBAND-SNS	<input type="checkbox"/> RF
<input type="checkbox"/> XFD	<input type="checkbox"/> BIC	<input type="checkbox"/> ASTA	<input type="checkbox"/> SPPS	<input type="checkbox"/> ITF	<input type="checkbox"/> SPEAR3	<input type="checkbox"/> SPEAR-SE	<input type="checkbox"/> SSRL-BLDO	<input type="checkbox"/> AMRF
<input type="checkbox"/> PCD-PEE	<input type="checkbox"/> PEM-FT	<input type="checkbox"/> PEM	<input type="checkbox"/> SW_LOG	<input type="checkbox"/> LCLS	<input type="checkbox"/> LCLS-LASER	<input type="checkbox"/> FACET	<input type="checkbox"/> TLOG	

Options: Area: Entry Type: Sort Order: Source: Search Time: Display Time:

Search: Title/Text: Username: View: Refresh:

	<u>Time</u>	<u>Title</u>	<u>Name</u>	<u>Area(s)</u>
<input type="checkbox"/>	▶	06/19 phasing TCAV for slice meas	E_Tse	
<input type="checkbox"/>	▶	06/19 Having trouble with TMIT in TCAV region, mig...	A_Egger	FACET
<input type="checkbox"/>	▶	06/19 SUBST 29 switch-tubes being replaced--bypass...	T_Sommer	LCLS

E-Log, today

[New Entry](#) [Quick Entry](#) [Login](#) [Jump To Logbook](#) [Other Actions](#) [Show/Hide Filters](#) [Shift Change Mode](#) [E-Log Help](#)

Date:

Start: End: Shifts:

Search:

Title/text: Username:

Shade entries by area

[Apply Filters](#) [Default Settings](#)

Flags	Time	Title	Name	Areas
Day Shift, Tue, 19-Jun-12				
<input type="checkbox"/> A	▶ ↻ 10:59	Having trouble with TMIT in TCAV region, might be clipping?	A_Egger	FACET
<input type="checkbox"/> T s	▶ ↻ 10:51	Updated BSY BPM scale factors and offsets	S_Hoobler	
<input type="checkbox"/>	▶ ↻ 10:16	21-8 and 25-2 NIRP tests are done	T_Sommer	LCLS
	▶ ↻ 09:59	Line temperature alarm limits can now be changed from the	S_Hoobler	

A Few Novel Features

Quick Entry Button

- Create an entry without leaving the logbook page
- Only the essentials - text and title.

[New Entry](#)
[Quick Entry ▾](#)
[Logout](#)
[Jump To Logbook ▾](#)
[Other Actions ▾](#)
[Show/Hide Filters](#)
[Shift Change Mode](#)
[E-Log Help](#)

Title:
Areas: LCLS FACET

Log Entry Text:

Logbook:

[Make Entry](#)
[Close](#)

Date:

Start:
End:
Shifts:

Search:

Title/text:
Username:

Shade entries by area

[Apply Filters](#)
[Default Settings](#)

Flags	Time	Title	Name	Areas
Day Shift, Sat, 04-Aug-12				
+ f	▶ ↶ 08:01	* Re: Howard's A-Line recipe -- reminder	R_Gold	LCLS

Owl Shift, Sat, 04-Aug-12

AJAX Loading

- New entries are automatically loaded without refreshing the page
- Full entries and their attachments are loaded on-demand - speeds up loading, and saves bandwidth.

AJAX Performance

Viewing one week's worth of entries:

	Page load time	Data Transferred
Without AJAX	24.7 seconds	7.25 MB
AJAX	3.1 seconds	636 KB

Automatic Entry Classifier

- Based on the title and text of an entry, determines which accelerator you are talking about.
- Naive Bayes Classifier

iOS Client

- Native app
- Full functionality: read and write entries, search, create follow-ups, the works!

Demo

Problems

Awful User Preferences

- Typical use varies greatly from user to user, so defaults don't please everybody.
- Logbook preferences are not very powerful, most defaults can't be changed.
- Preferences are stored per computer, not per user.

Group-Specific Features Are Hard

- Logbooks are hard to customize for different groups.
- Shifts start at different times
- Not all features are relevant to all groups.

Unfriendly Interface

- Interface is not easy to learn, and some features are hard to discover.
- Confusing conventions - 'LCLS' is a logbook and an area.

Frightening Codebase

- 35999 lines of code, spread out among 201 files
- Almost no structure to the files
- Hard to maintain, hard to modify

End