

The LHCb Electronic Logbook

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Overview

Introduction

Elog

Adaption and Integration



Outline

Introduction

Elog

Adaption and Integration



Introduction

Purpose

- ▶ The electronic logbook replaces the former paper control room logbook.
- ▶ It will not only be used by the shift crew in the experiment control room but also by internal and external experts working on the LHCb experiment.

Requirements

- ▶ It has to be **simple** and **user-friendly**.
- ▶ Web browser used to view, add and search logbook entries.
- ▶ Not only text entries but also pictures, hyperlinks and binary data should be supported.
- ▶ Automatic Timestamp.
- ▶ Preset attributes like fill/run-number and author name.

Outline

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Adaption and Integration



Elog in a Nutshell

- ▶ Developed at Paul Scherrer Institut (PSI) by Stefan Ritt (since 2001).
- ▶ Released as Open Source program under the GNU General Public License (GPL).
- ▶ Single daemon program written in C, available for Linux and Windows.
- ▶ It contains an integrated Web server.
- ▶ The "database" consists of plain ASCII files.
- ▶ Very versatile, can be adapted using the configuration file.
- ▶ A command line client to submit entries is also provided.
- ▶ Homepage: <http://midas.psi.ch/elog>

Configuration File

- ▶ Controls the program behaviour.
- ▶ About 100 possible options (for different logbooks, access control, email notification, RSS feed, logbook hierarchy, mirroring).
- ▶ Our file has about 40 non-comment lines.

Example (Defining Attributes)

```
Attributes = Author, Category, Fill, Run
```

Example (Display LHCb logo)

```
Title image =   
Title image URL = http://lhcb.web.cern.ch/lhcb/
```



Functionality

See program demo after the talk!

Or the Screenshots



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Problems and Adaptions

Some Problems

- ▶ Elog could not be integrated with the central Web servers. I actually spent one week developing an own, alternative program (using ASP, PerlScript and the Oracle database) until the decision for Elog was made.
- ▶ The scalability was tested and the program did not respond any more after it was filled with 100 000 entries.

Adaptions for Easier Use

- ▶ Elog provides the possibility to execute a shell command upon submission of new entries.
- ▶ This mechanism is used to call a Python script which automatically adds the fill-number and the run-number to the database.
- ▶ It is also used in order to auto-register new users.



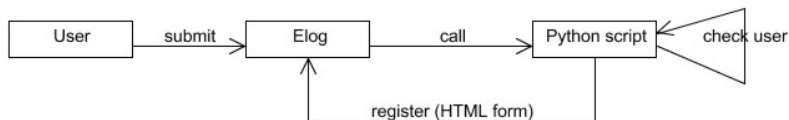
Remembering the Author

What they wanted (and **not** wanted)

- ▶ The author name should be preset when a user wants to submit a new entry.
- ▶ But there should be no need to register or to login every time, as it should be as simple as possible.

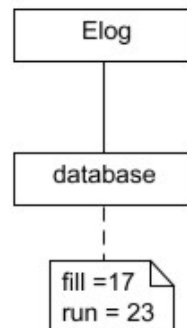
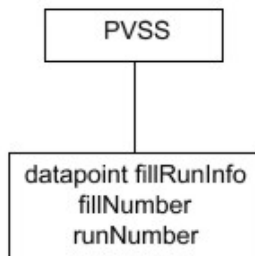
How I solved it

- ▶ Elog provides a built-in mechanism to preset attributes (which relies on the user-level access control).
- ▶ New users are automatically registered.



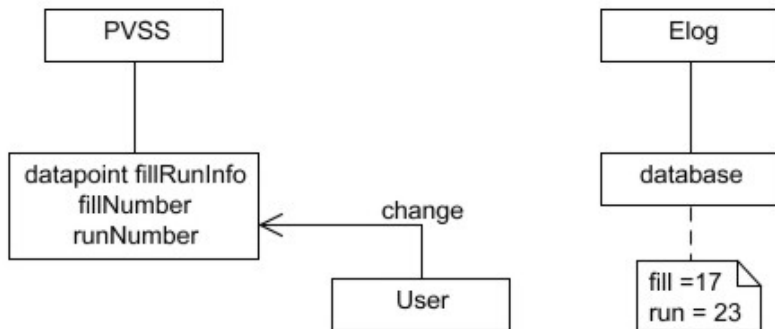
Integration with PVSS

- ▶ PVSS is the control system, which is used for the acquisition of data from hardware or software devices and for their supervision.



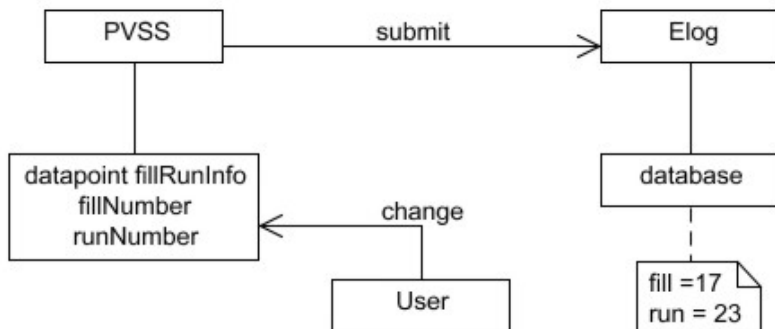
Integration with PVSS

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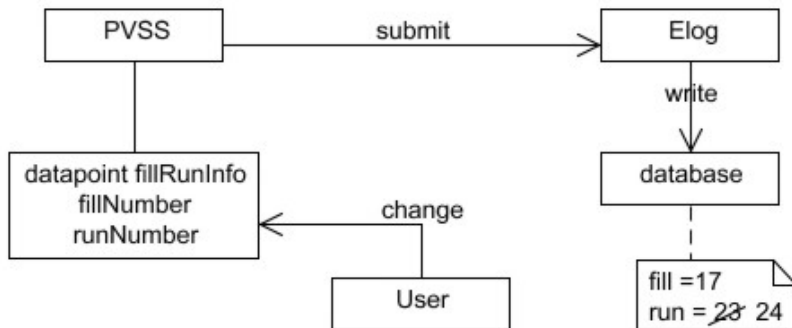
Integration with PVSS

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Integration with PVSS

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Summary

- ▶ Elog matched our requirements and we therefore decided to use it.
- ▶ It is very flexible but I still had to perform some special adaptations and to integrate it with PVSS.
- ▶ But we still rely on substantial changes which will be made by Stefan Ritt.

Outlook

- ▶ The logbook will be installed on the testbed in order to get real user feedback.

The End

Thank you for your attention!

Questions?

Otherwise it's time for the DEMO!



Screenshots

LHCb Electronic Logbook, Page 1 of 11

Logged in as "tlohe"

Navigation: List | New | Find | Logout | Config | Help

Search: Show last | All entries | Author: | Category: All entries | Fill: | Run: | Subtext: All entries | 215 Entries

ID	Date	Author	Category	Fill	Run	Text
215	29-Aug-2005 16:38:52	tobias	Test	210	210	The different LHCb logos are attached here
214	29-Aug-2005 16:33:08	tlohe	Test	210	210	Okay, I'll be there!
213	29-Aug-2005 16:32:49	tobias	Test	210	210	wonderful, so let's meet at 1900 at entrance B.
212	29-Aug-2005 16:32:14	tlohe	Test	210	210	Yes I want
211	29-Aug-2005 16:31:44	tobias	Test	210	210	Does anyone want to join me going to the swimming pool after work?
210	30-Jul-2005 12:30:00	tlohe	Other	210	210	Test entry scalability
209	29-Jul-2005 12:30:00	tlohe	Other	209	209	Test entry scalability
208	28-Jul-2005 12:30:00	tlohe	Other	208	208	Test entry scalability
207	27-Jul-2005 12:30:00	tlohe	Other	207	207	Test entry scalability
206	26-Jul-2005 12:30:00	tlohe	Other	206	206	Test entry scalability
205	25-Jul-2005 12:30:00	tlohe	Other	205	205	Test entry scalability
204	24-Jul-2005 12:30:00	tlohe	Other	204	204	Test entry scalability
203	23-Jul-2005 12:30:00	tlohe	Other	203	203	Test entry scalability
202	22-Jul-2005 12:30:00	tlohe	Other	202	202	Test entry scalability
201	21-Jul-2005 12:30:00	tlohe	Other	201	201	Test entry scalability
200	20-Jul-2005 12:30:00	tlohe	Other	200	200	Test entry scalability
199	19-Jul-2005 12:30:00	tlohe	Other	199	199	Test entry scalability
198	18-Jul-2005 12:30:00	tlohe	Other	198	198	Test entry scalability
197	17-Jul-2005 12:30:00	tlohe	Other	197	197	Test entry scalability
196	16-Jul-2005 12:30:00	tlohe	Other	196	196	Test entry scalability

Last reload at 2005-08-30 11:01:22

System tray: Done, AdBlock, 11:01 AM Tuesday, 8/30/2005



Screenshots

LHCb Electronic Logbook, Page 1 of 11

Logged in as "tlohe"

Menu: List | New | Find | Logout | Config | Help

Search: Show last | All entries | Author: | Category: All entries | Fill: | Run: | Subtext: | All entries | 215 Entries

Goto page 1, 2, 3 ... 9, 10, 11 Next All

ID	Date	Author	Category	Fill	Run
215	29-Aug-2005 16:38:52	tobias	Test	210	210
The different LHCb logos are attached here					
214	29-Aug-2005 16:33:08	tlohe	Test	210	210
Okay, I'll be there!					
> Wonderful, so let's meet at 1900 at entrance B.					
>					
>> Yes I want					
>>>					
>>> Does anyone want to join me going to the swimming pool after work?					
213	29-Aug-2005 16:32:49	tobias	Test	210	210
Wonderful, so let's meet at 1900 at entrance B.					
> Yes I want					
>					
>> Does anyone want to join me going to the swimming pool after work?					
212	29-Aug-2005 16:32:14	tlohe	Test	210	210
Yes I want					
> Does anyone want to join me going to the swimming pool after work?					
211	29-Aug-2005 16:31:44	tobias	Test	210	210
Does anyone want to join me going to the swimming pool after work?					
210	30-Jul-2005 12:30:00	tlohe	Other	210	210

Done

Windows Taskbar: start | eRead - Microsoft Ou... | LHCb Electronic Log... | screenshots | ebg.doc - Microsoft ... | hcblog@serv01... | 11:06 AM Tuesday 8/30/2005



Screenshots

The screenshot shows a Mozilla Firefox browser window displaying the LHCb Electronic Logbook. The address bar shows the URL `http://pdcbtbsrv01.cern.ch:21734/LHCb/?mode=thread&expand=1`. The page title is "LHCb Electronic Logbook :: List". The user is logged in as "tlohe". The page displays a list of log entries, with the current entry highlighted in yellow. The list includes entries from August 29, 2005, and July 14, 2005. The interface includes navigation links like "List", "New", "Find", "Logout", "Config", and "Help". There are also search filters for "Author", "Category", and "All entries". The Windows taskbar at the bottom shows the Start button, several open applications including "iRead - Microsoft Office", "LHCb Electronic Logbook", "screenshots", "elbg.doc - Microsoft Word", "hcblog@srv01...", "PVSS Online Help", "PVSS 3.0: Console", and "Microsoft PowerPoint". The system clock shows 11:09 AM on Tuesday, 8/30/2005.

Screenshots

LHCb Electronic Logbook, Page 1 of 1

Logged in as "tlohe"

List | New | Find | Logout | Config | Help

Full | Summary | Threaded

ID	Date	Author	Category	Run	Text
215	29-Aug-2005 16:38:52	tobias	Test	210	The different LHCb logos are attached here
214	29-Aug-2005 16:33:08	tlohe	Test	210	okay, z'll be there!
213	29-Aug-2005 16:32:49	tobias	Test	210	wonderful, so let's meet at 1900 at entrance B.
212	29-Aug-2005 16:32:14	tlohe	Test	210	yes I want
211	29-Aug-2005 16:31:44	tobias	Test	210	Does anyone want to join me going to the swimming pool after work?

Last reload at 2005-08-30 11:09:57

Done

start | zRead - Microsoft Ou... | LHCb Electronic Log... | screenshots | elcg.doc - Microsoft ... | hcblog@srv01... | 11:10 AM Tuesday 8/30/2005 | Adibod



Screenshots

LHCb Electronic Logbook, Page 1 of 1

Logged in as "tlohe"

List | New | Find | Logout | Config | Help

Author: tlohe

Full | Summary | Threaded

Show last Week Author: tlohe Category: All entries Fill: Subtext: All entries 3 Entries

ID	Date	Author	Category	Fill	Run	Text
216	30-Aug-2005 11:27:17	tlohe	Test	210	210	http://lhcb.web.cern.ch/lhcb/
214	29-Aug-2005 16:33:08	tlohe	Test	210	210	okay, I'll be there!
212	29-Aug-2005 16:32:14	tlohe	Test	210	210	yes I want

Last reload at 2005-08-30 11:30:43

Done

start

Inbox - Microsoft Out... screenshots elog.doc - Microsoft ... fcblog@sm611-rcv... LHCb Electronic Logb...

11:30 AM Tuesday 8/30/2005



Screenshots

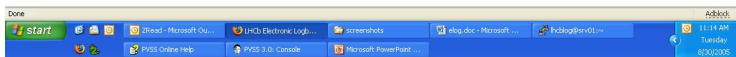
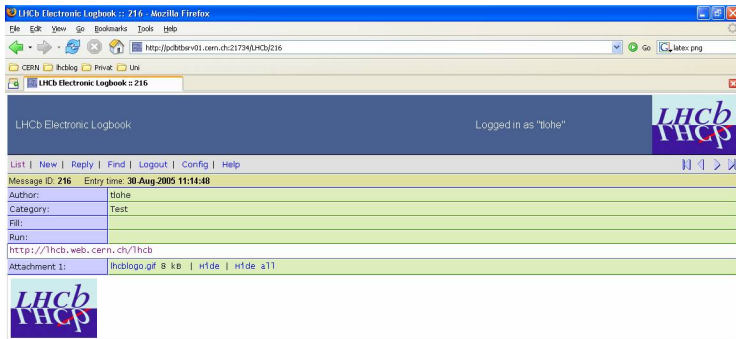
The screenshot shows a Mozilla Firefox browser window displaying the LHCb Electronic Logbook. The address bar shows the URL `http://pdcbtsrv01.cern.ch:21734/LHCb/?cmd=New`. The page title is "LHCb Electronic Logbook :: New".

The main content area is a form for creating a new logbook entry. It includes the following fields and options:

- Submit**, **Preview**, **Back** buttons at the top.
- Fields marked with * are required.
- Entry time:** 30-Aug-2005 11:11:51
- Author*:** llohe
- Category*:** Radio buttons for shift, Other, Auto, and Test. An **Add Category** button is also present.
- Fill:** (empty field)
- Run:** (empty field)
- URL:** `http://lhcb.web.cern.ch/lhcb`
- Encoding:** Radio buttons for ELCode, plain, and HTML. A checkbox for Suppress shell execution is also present.
- Attachment 1:** `http://lhcb.web.cern.ch/lhcb/lhcblogo.gif` with **Browse...** and **Upload** buttons.
- Submit**, **Preview**, **Back** buttons at the bottom of the form.

The Windows taskbar at the bottom shows the system tray with the date and time: 11:14 AM, Tuesday, 8/30/2005. The taskbar also displays several open applications, including "start", "zRead - Microsoft Ou...", "LHCb: Electronic Log...", "screenshots", "elcg.doc - Microsoft ...", "lhcblog@srv01...", "PVSS Online Help", "PVSS 3.0: Console", and "Microsoft PowerPoint ...".

Screenshots



Back to the Talk

