



# Control System Studio Status

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**MICHIGAN STATE**  

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**UNIVERSITY**



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science

# History and Future

- In the past we had problems
  - No traceability
  - Without a framework for unit testing on Jenkins
  - Anyone could commit on master, with whatever changes
  - Communication problems
  - Went too long without a release
- We started looking into the ISO 9001 Quality Standard one year ago

# Where are we now?

ControlSystemStudio / **cs-studio** Unwatch 29 Star 25 Fork 46

## Export logs from LogbookViewers #594

**Closed** shroffk opened this issue on Jul 17 · 0 comments

**shroffk** commented on Jul 17 Owner

Support exporting of log entries from the table and tree viewer to .csv and .txt files

**shroffk** referenced this issue from a commit on Jul 17

#594: Export logs from LogbookViewers: fixing the replaceall regex and ... dddf6e

**shroffk** referenced this issue from a commit on Jul 17

#594: Export logs from LogbookViewers: ... 0e736d1

This was referenced on Jul 17

**Logbook** shroffk/cs-studio#4  
3.3.x issue594 #596 Merged Merged

**shroffk** referenced this issue from a commit in diirt/cs-studio-integration on Aug 1

#594: Export logs from LogbookViewers: ... 148faa8

**shroffk** referenced this issue from a commit in diirt/cs-studio-integration on Aug 1

#594: Export logs from LogbookViewers: fixing the replaceall regex and ... 38cce12

**shroffk** closed this 28 days ago

**Labels** None yet

**Milestone** 3.3.8 - stable (3...)

**Assignee** No one—assign yourself

**Notifications** Unsubscribe  
You're receiving notifications because you're subscribed to this repository.

**2 participants**

**Lock issue**

# Where are we now?

## 3.3.x issue594 #596

Merged berry4 merged 7 commits into 3.3.x from 3.3.x\_issue594 3 months ago

Conversation 2 Commits 7 Files changed 7

Edit New issue



shroffk commented on Jul 17

Owner

No description provided.



eschuhmacher and others added some commits on Mar 26

- create export logs function, will allow user to export to a tab delim. ... 7c19499
- clean up dialog:= 21a40cb
- clean code a49743
- Merge pull request #445 from eschuhmacher/logbook ... 75b91a5
- Merge pull request #595 from ControlSystemStudio/logbook ... 3b1e3ae
- #594: Export logs from LogbookViewers: fixing the replaceall regex and ... dddff6e
- #594: Export logs from LogbookViewers: ... @e736d1



shroffk commented on Jul 17

Owner

Functionality to export a set of log entries into a .csv or a .txt file



berry4 commented on Jul 17

Owner

resolves #594



berry4 closed this on Jul 17



berry4 merged commit c58732a into 3.3.x from 3.3.x\_issue594 on Jul 17

Revert



berry4 added this to the 3.3.8 - stable (3.3.x branch) milestone on Jul 30

Labels

None yet

Milestone

3.3.8 - stable (3...

Assignee

No one—assign yourself

Notifications

Unsubscribe

You're receiving notifications because you modified the open/close state.

3 participants



Lock pull request



# Where are we now?

## 'Open OPI in View' opens view even when given an nonexistent absolute file path #648

Open mfurseman opened this issue on Aug 18 · 7 comments



mfurseman commented on Aug 18

To reproduce:

Create a widget on an OPI, and add the action 'Open OPI in View'. Specify an absolute file path that doesn't exist. When run the view is opened, then an error is shown, leaving an empty OPI View.

This doesn't happen with relative file paths.

I have a patch that can fix this issue, should I make a pull request?



berryma4 commented on Aug 18

Owner

Maybe related to #644

berryma4 referenced this issue on Aug 18

Check if file exists before opening OPI in View #649

Merged

berryma4 added this to the 4.0.0 - testing (master) milestone on Aug 18



willrogers commented on Aug 21

This patch doesn't work. If the 'absolute path' is relative to a workspace, it begins with a slash but is not a filesystem location. The check prevents valid workspace locations from being opened.

Branch bug648v2 handles both cases.

Edit New issue

Labels

None yet

Milestone

4.0.0 - testing (...)

Assignee

No one—assign yourself

Notifications

Unsubscribe

You're receiving notifications because you commented.

4 participants



Lock issue



# Where are we now?

Google Drive Eric Berryman ▾ [Open in Drive](#)

cs-studio 7 items ☰ ☱












TITLE	LAST MODIFIED
📁 Customer Feedback	10/17/13 Eric Berryman
📁 Documents	Sep 30 Eric Berryman
📁 Forms	Mar 28 Eric Berryman
📁 Management Reviews	Oct 15 Eric Berryman
📁 Monthly Meeting	Sep 30 Eric Berryman
📁 Obsolete	10:17 am Eric Berryman
📁 Projects	Mar 7 Eric Berryman



# Where are we now?

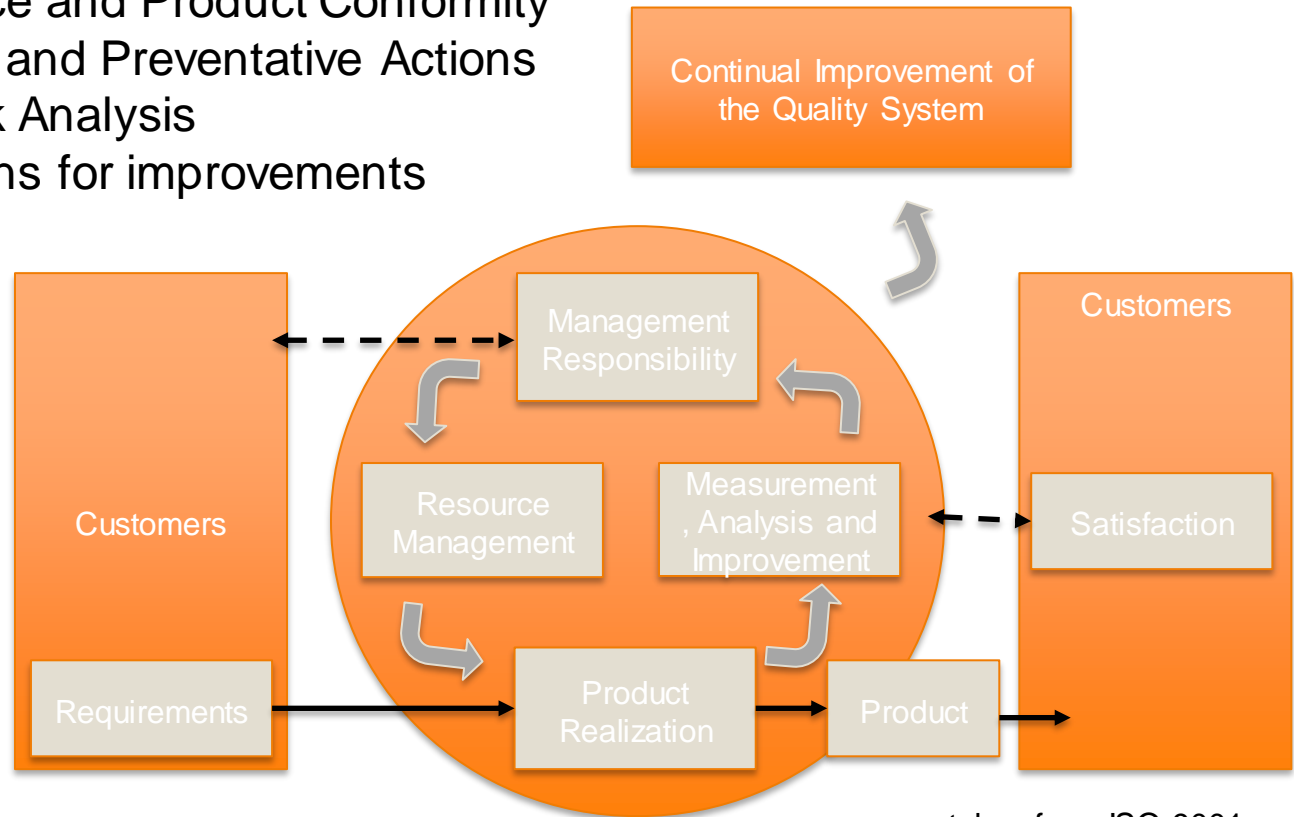
Google Drive Eric Berryman ▾  
[Open in Drive](#)

[cs-studio](#) > ... > Procedures 11 items ☰ ☱

TITLE	LAST MODIFIED
 originals	Sep 30 Eric Berryman
 Control of Records and Documents.pdf	Sep 30 Eric Berryman
 Corrective and Preventative Action.pdf	Sep 30 Eric Berryman
 CS-Studio repository structure	10/18/13 kunal shroff
 Development Process.pdf	Sep 30 Eric Berryman
 Internal Audit.pdf	Sep 30 Eric Berryman
 Maintenance Process.pdf	Sep 30 Eric Berryman
 Nonconforming Product.pdf	Sep 30 Eric Berryman
 Policy and Objectives	Sep 30 Eric Berryman
 Special Processes.pdf	Sep 30 Eric Berryman
 Validation and Verification	Sep 30 Eric Berryman

# ISO 9001 Quality Standard

- Following as a guideline to improve quality
  - » Management Review
  - » Quality Policy and Objectives
  - » Process Performance and Product Conformity
  - » Status of Corrective and Preventative Actions
  - » Customer Feedback Analysis
  - » Decisions and Actions for improvements
  - » Resource needs



taken from ISO 9001



# Management Review Meeting

Review of the Quality Management System by management regarding:

- suitability
- adequacy
- effectiveness

Opportunities for improvement  
resources needed

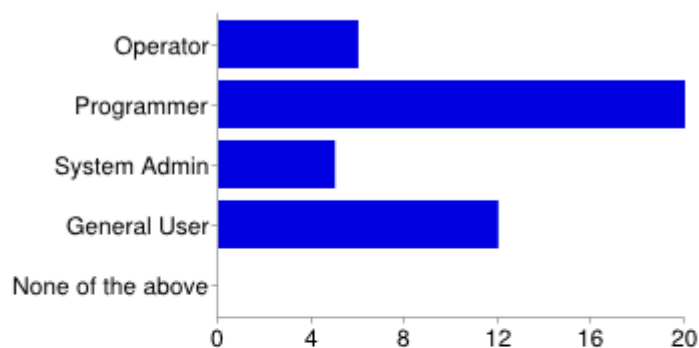
Need for changes  
including Quality Policy and  
Objectives

# CS-Studio Quality Policy and Objectives

- Through a strategy of continuous improvement and teamwork, the Control System Studio Collaboration is dedicated to supplying tools for control systems, data integration and data visualization to enable our users to achieve their scientific objectives.
  - The foundation for achieving our commitment is based on:
    - » understanding and meeting the requirements of our users,
    - » continuously improving all processes related to the Control System Studio product,
    - » effectively utilizing the creative talents in the collaboration
    - » and meeting statutory, regulatory, and other requirements.
- Objectives
  - Fraction of releases per site deployed vs releases considered for deployment minimum 75% within registered site representatives
  - **100% sites with registered site representatives moved to Tycho**

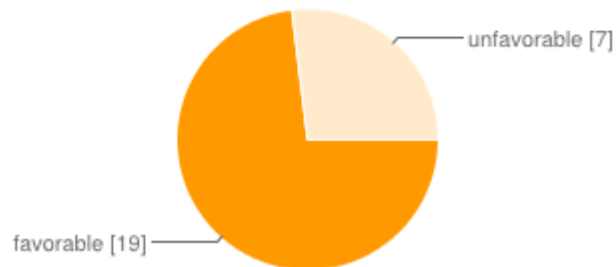
# Customer Feedback

## Please describe yourself



Operator	6	23%
Programmer	20	77%
System Admin	5	19%
General User	12	46%
None of the above	0	0%

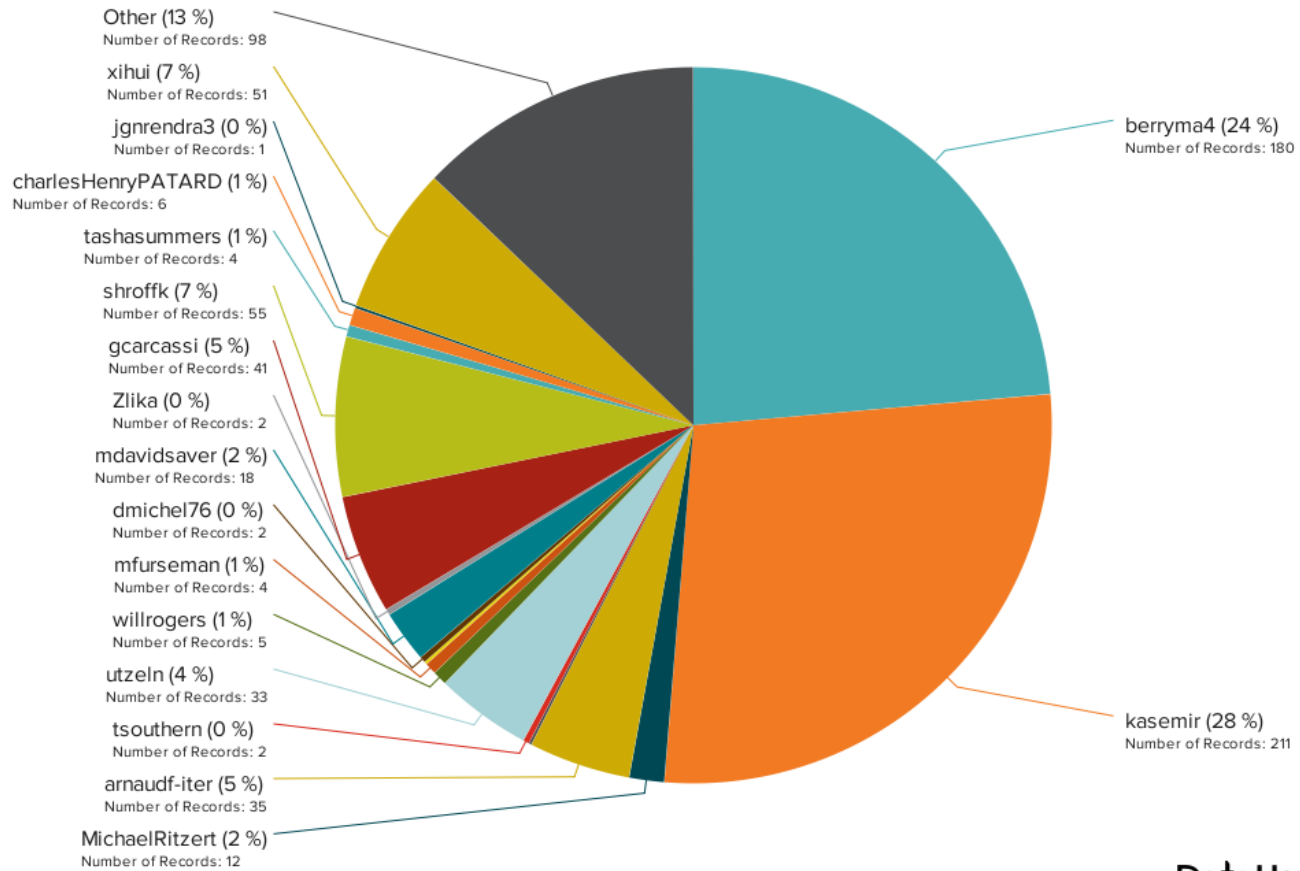
## What is your first impression of CS-Studio?



favorable	19	73%
unfavorable	7	27%

# Status of Preventative and Corrective Actions

Issue Creation Breakdown by Person



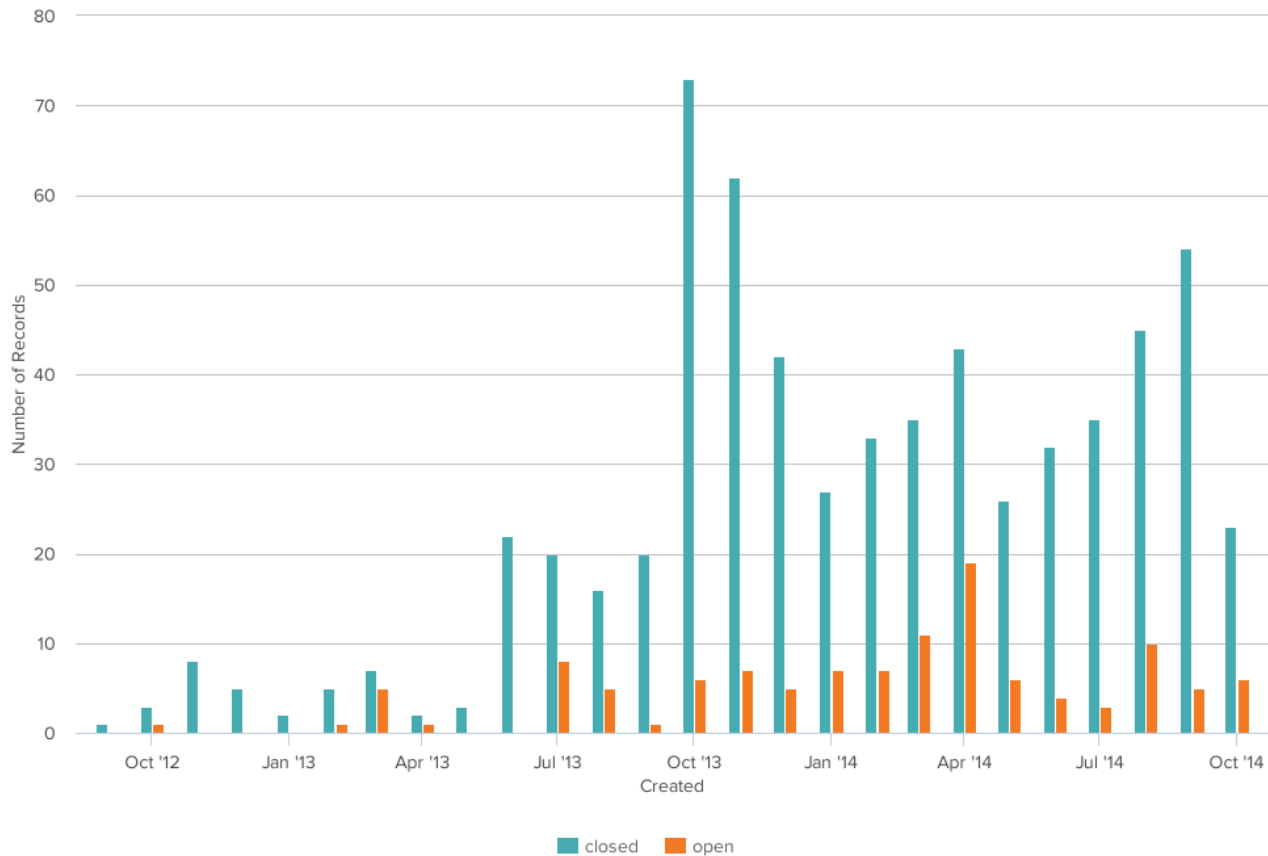
DataHero



# Status of Preventative and Corrective Actions

Total closed 644 (85%)  
Total open 118 (15%)

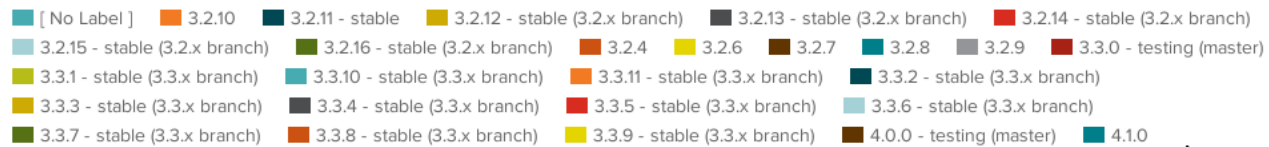
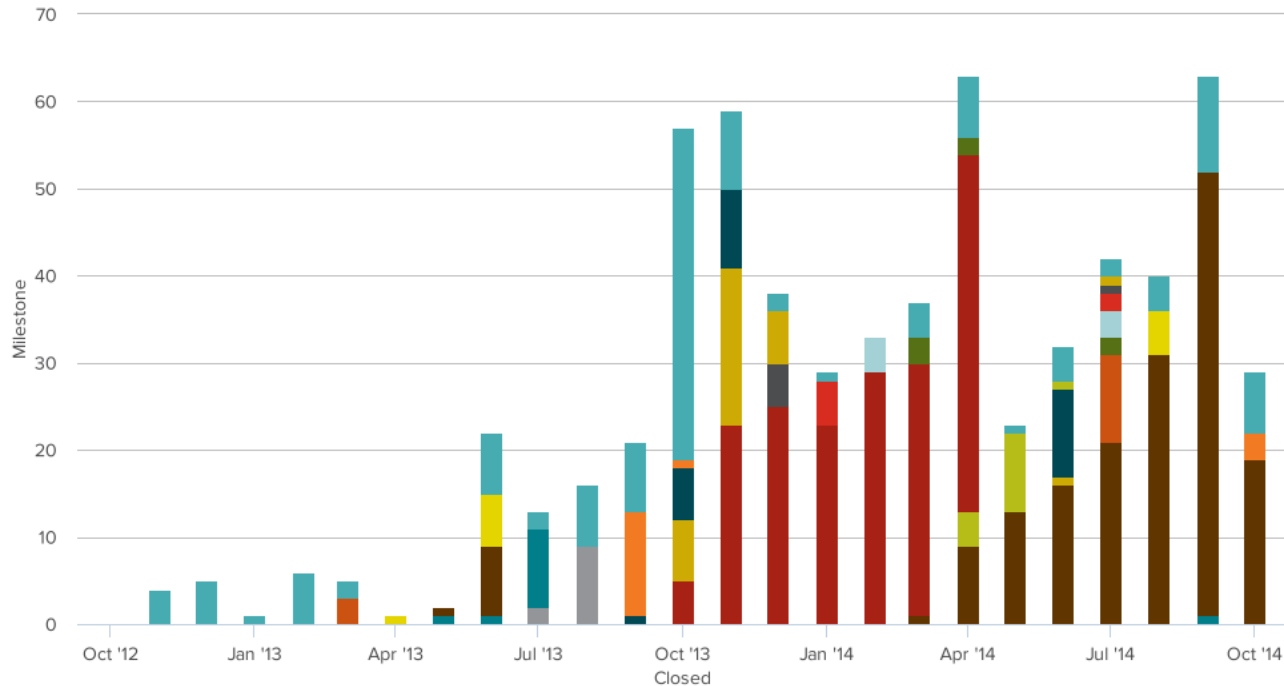
Issue created date by number of issues



DataHero

# Status of Preventative and Corrective Actions

Closed Issues by Month by Milestone



DataHero

# Results of Audits

- First audit was started last week
  - Site Representatives were emailed a form to fill out from the FRIB Quality Manager
  - The processes are being audited, not the people
  - Suggestions for improvements on our processes
- Results will be shared with the Site Representatives, and any issues or suggestions for improvements will be made into Github issues

# Actions for Improvement

- Issue of people working in a box for projects then, integrating too late.
  - lead should form a team, for weekly meeting, progress at monthly meeting
- Document process
  - Change to google spreadsheet with links (format change)
  - Make more clear
    - » Bug reports to Github issues
    - » User question to tech talk (close cs-studio-users)
    - » cs-studio-core build issues and development
- Maintenance Process
  - Move open issues from milestone to backlog, not the next milestone (Unless owner confirms)
  - Tag all repositories on releases
- Development Process
  - On demand (preferred Monday before Wednesday meeting) meeting for demonstrating project work



# Resource Needs

- BOY person still needed (interim still: BNL (RCP), ITER (RAP))
- If work can be packaged, contract work

## 3.3.x (stable)

- 3.3.x marked feature complete as of April 30<sup>th</sup>, only accepting pull request that fix issues/performance
  - PVMManager functions for arrays – FRIB / NSLSII
  - Tycho build – DESY / CosyLab / FRIB
  - Autocomplete – ITER
  - PVMManager time cache (design plan) – ITER / NSLSII
  - Shift service integration – NSLSII
  - Archive Appliance Databrowser plugin – FRIB / CosyLab
  - Validation and Verification Plan – ESS / CosyLab
  - OPI regression tests – NSLSII
- Requests from last meeting (ICALEPCS 2013)
  - Multi state led in BOY – FRIB
  - BOY template iterator application – FRIB

## 3.3.x (stable)

- Validation and Verification Plan – ESS / CosyLab
  - Using Maven Tycho build
  - Jenkins for continuous integration
  - Surefire for code coverage
  - SonarQube for static code analysis

# 4.0.x (testing)

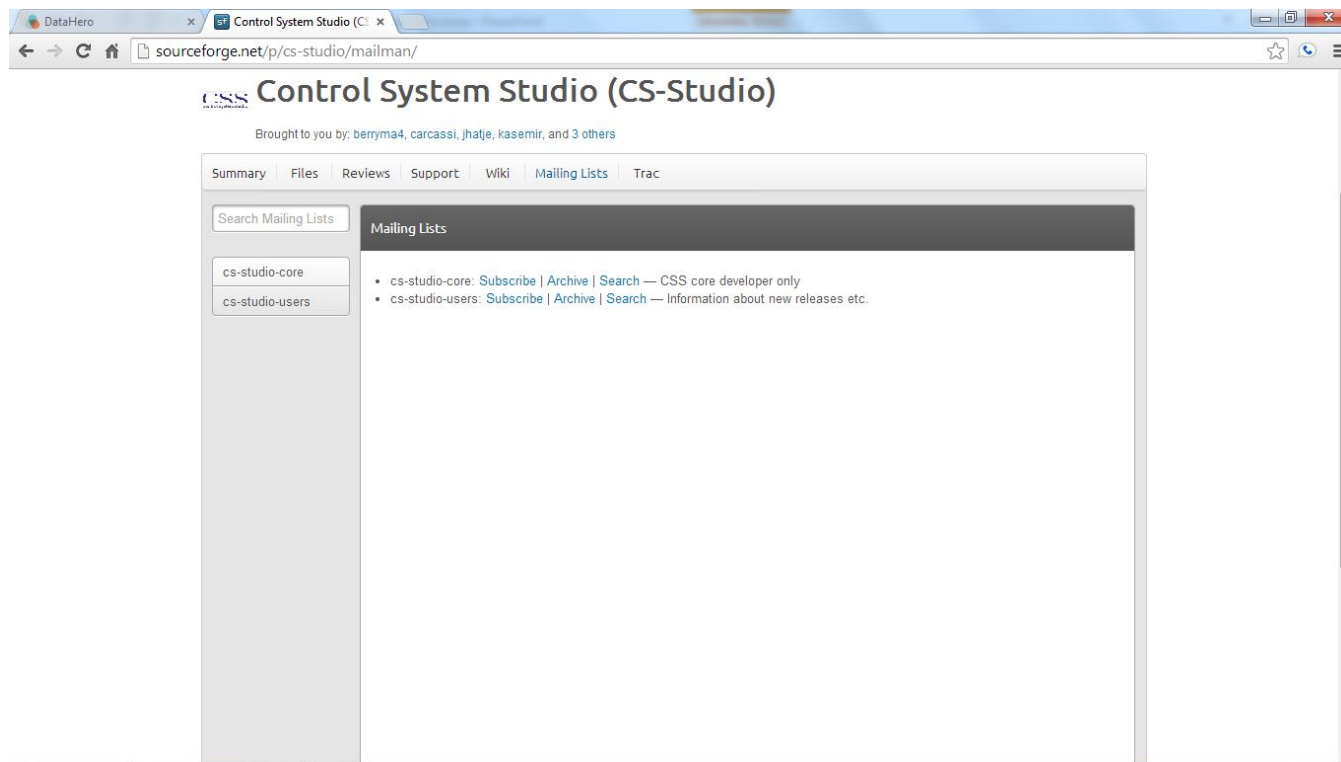
- 4.0.x marked feature complete October\*
  - Move to eclipse 4.4 (Lead: SNS(RCP), ITER(RAP))
  - Feature clean up (owner of the feature/application) (Lead: BNL)
  - Implement Validation and Verification plan (Lead: ESS / CosyLab)
  - CS-Studio development environment (Lead: FRIB - Reviewers: SNS, BNL)
  - Common product (Lead: FRIB - Reviewers: SNS, BNL)
  
- We will delay up to another 2 months
  - » feature cleanup and reorganization (Lead: BNL – Reviewer: FRIB)
  - » rap build (Lead: ITER – Reviewer: SNS)
  - » Validate Unit tests (Lead: FRIB – Reviewer: ESS)

# 4.1.x (unstable)

- 4.1.x due date 6 months after 4.0.x freezes
  - Move sites to Tycho/Maven (Lead: FRIB)
  - Validate unit tests (Lead: FRIB – Reviewers: ESS)
  - Java 8 branch use of Instant and Period (Lead: BNL – Reviewer: SNS)
  - Review javafx table; tables throughout cs-studio (Lead: BNL – Reviewers: SNS)
  - Perspectives for Operational use (Lead: SNS – Reviewers: BNL and FRIB)
  - OSGI diirt bundles (Lead: BNL/FRIB – Reviewer: SNS)
  - Review VTypes for Java 8 (Lead: BNL – Reviewer: SNS)
  - Diirt Time cache (Lead: ? – Reviewer: BNL)
  - Databrowser rework of plot, model load/save (Lead: SNS – Reviewer: ISIS)
  - OPI Examples with good practices (Lead: ? – Reviewers: SNS, BNL)
  - Save/Set/Restore UI (Lead: FRIB – Reviewer: BNL)
  - Uniform properties; java properties, eclipse properties, third-party (Lead: BNL – Reviewer: ?)

# Mailing List

- Subscribe at Sourceforge for question about build and development
  - <http://sourceforge.net/p/cs-studio/mailman/>
    - » [cs-studio-core@lists.sourceforge.net](mailto:cs-studio-core@lists.sourceforge.net)
- Subscribe to tech-talk for user questions



# Github Issues

- Report bugs to Github (or pick one to work on)
  - <https://github.com/ControlSystemStudio/cs-studio/issues>

The screenshot shows the Github interface for the repository `ControlSystemStudio / cs-studio`. The page displays 22 open issues. A red box highlights the **New Issue** button in the top right corner. The issues listed are:

- Logbook screenshot of Window or whole screen on Linux contains remains of dialog** (#530) - Opened by kasemir on Wednesday at 10:30am
- CSS built by tycho cannot select workspace; pvmanager bundling and auto Start** (#527) - Opened by kasemir on May 9, 3 comments
- Alarm config dialog: Make non-blocking** (#514) - Opened by kasemir on May 2, 3 comments
- update poms for eclipse e4** (#496) - Opened by berry4 on Apr 29, 2 comments
- create jenkins jobs for 4.x on cloudbees** (#495) - Opened by berry4 on Apr 29
- Remove javax.annotations** (#491) - Opened by kasemir on Apr 25, 1 comment
- Clean up features** (#462) - Labeled with `project`

# Attend Meetings

- We use Google Hangouts to share our progress and discuss issues
  - Follow us on Google Plus
  - <https://plus.google.com/101349549663920375487/posts>
  - Meetings are posted (viewable after being added to group)

The screenshot shows a web browser window displaying a Google Plus profile for "Control System Studio". The browser address bar shows the URL <https://plus.google.com/101349549663920375487/posts>. The profile header includes the name "Control System Studio", a "Manage this page" button, and statistics: "83 followers | 14,840 views". The "Posts" tab is selected, showing three posts. The top post, dated April 22, 2014, discusses a design proposal for validation and verification. The middle post, dated April 29, 2014, is a meeting announcement for "CS-Studio Monthly Meeting" on Wednesday, April 30, 9:00 AM EDT, via Hangouts, with attendees kunal shroff, Kay-Uwe Kasemir, Dylan Maxwell, and 3 others. The bottom post, dated March 31, 2014, is partially visible. The page also features a navigation bar with "About", "Posts", "Photos", and "Videos" tabs.



# Fork Us on Github

- Just go to the git repository you would like to work with
  - <https://github.com/ControlSystemStudio/cs-studio>
- Basic workflow
  - “Fork” button -> issue -> associated commit -> pull requests -> merge

The screenshot shows the GitHub repository page for `ControlSystemStudio/cs-studio`. The browser address bar displays `https://github.com/ControlSystemStudio/cs-studio`. The repository is public and has 18 stars and 36 forks. The `Fork` button is highlighted with a red box. The repository description states: "Control System Studio is an Eclipse-based collections of tools to monitor and operate large scale control systems, such as the ones in the accelerator community. <http://controlsystemstudio.github.com> — Edit". The repository statistics show 19,731 commits, 29 branches, 27 releases, and 26 contributors. The current branch is `master` and the repository is named `cs-studio`. A merge pull request #529 from `ControlSystemStudio/bug515` is visible. The commit history includes: `applications` (o.c.apputil.ui.ImageTabFolder: Dialog was partially visible on Linux, Wednesday at 10:23am), `build` (Resynch with master, on Mar 26), `core` (core: add extra to repo, on May 9), `products` (SNS: Copy UI product icons for tycho, on May 9), `gitignore` (Add configuration for Reproducible Qualifiers Plugin. Remove CS-Studi..., on Feb 18), and `README.md` (Create README.md, on Aug 6, 2013). The sidebar on the right contains navigation options: Code, Issues (100), Pull Requests (1), Wiki, Pulse, Graphs, Network, and Settings. The HTTPS clone URL is `https://github.com`. The page footer shows the URL `https://github.com/ControlSystemStudio/cs-studio/fork`.

# Our Website

CS-Studio | Welcome... x

controlsysteemstudio.org

HOME PAGES FEATURES

## EASILY INTEGRATES WITH YOUR CONTROL SYSTEM

With PVManager at the center visualize any datasource service or event driven

The diagram illustrates the system architecture. It includes components like 'IOC', 'CA client (ICA/CAI)', 'Mazar', 'Core Java Client', 'pvmanager core', 'Data Sources', 'Data Definition', 'Processing', 'Visualization', 'pvm services', 'master', 'bindings', 'Web services', 'ChannelFinder', 'API', 'Olog', 'API', 'if-update', 'Logbook', 'Channel Viewer', 'Log Viewer', 'Data browser', 'BOY', 'General purpose clients', and 'Specialized clients'.

## Control System Studio

Control System Studio is an Eclipse-based collection of tools to monitor and operate large scale control systems, such as the ones in the accelerator community. It's a product of the collaboration between different laboratories and universities.

[DOWNLOAD NOW](#)



### Documentation and Records

Policy and objectives, manual, process charts, control of records and documents, internal audit, control of nonconforming product, corrective/preventative action.



### Contribute

Would you like to contribute? Follow the Getting Started instructions.



### Users

User processes; How to join our "Users" group. How to submit issues and feature requests.

## Our Collaboration



FRIB



Facility for Rare Isotope Beams  
U.S. Department of Energy Office of Science  
Michigan State University

# Our Website

CS-Studio | Welcome... x

controlsystemstudio.org/contribute.html

## Dashboard

Current milestone: 4.0.0 - testing (master)

22 open issues - 7 closed issues - due on: Fri Oct 31 2014 03:00:00 GMT-0400 (Eastern Daylight Time)

Task name	Assignee	Priority	State
Product tweaks for Eclipse 4: 'console'	kasemir		closed
o.o.epics.pvtree: Fix NPE when no other view open	None		closed
PVTree NullPointerException when no other view open	kasemir		closed
Email 'screenshot' of CSS window on Linux contains dialog	kasemir		closed
4.0.x: Toolbar buttons are odd	None		closed
4.0.x: 'Reset' of Perspective doesn't work	None		closed
Mac OS X Launcher Issues: Java 7, Gatekeeper	None		closed
Logbook screenshot of Window or whole screen on Linux contains remains of dialog	None		open
CSS built by tycho cannot select workspace; pvmanager bundling and autoStart	None		open
Alarm config dialog: Make non-blocking	shroffk		open
update poms for eclipse e4	dylan171		open
create jenkins jobs for 4.x on cloudbees	berryma4		open
Remove javax.annotations	None		open
Clean up features	None		open
Open BOY detached without CS-Studio main workbench screen	None		open
Conform to Americans with Disabilities Act in BOY	None		open
Logging and client stats	None		open
Extend Eclipse perspectives to fit operational needs	None		open
Archive retention policy and tools	None		open
PostGres Archive Stored Procedures for Optimized Requests	None		open
Review plugin packaging for dlirt plugins	None		open
Support 'cropped' screenshot for logbook, mail, maybe more	None		open

## Build Status

Status	Build name
🟢	CS-Studio - Applications - 3.3
🟢	CS-Studio - Classpath Check
🟢	CS-Studio - Core - 3.3
🟢	CS-Studio - Docbook
🟢	CS-Studio - ITER
🟢	CS-Studio - Maven-osgi-bundles - 3.3
🟢	CS-Studio - NSLSII
🟢	CS-Studio - NSLSII-dev
🟢	CS-Studio - Product
🟢	CS-Studio - Product - 3.3
🟢	CS-Studio - Product - 3.3 - script
🟢	CS-Studio - Product - hotfixes
🟢	CS-Studio - Pull Request
🟢	CS-Studio - Release
🟢	CS-Studio - Release - 3.3
🟢	CS-Studio - Thirdparty - 3.3

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controlsystemstudio.org/contribute.html

## Ongoing projects

Task name	Assignee	Priority	State
Clean up features	None		open
Open BOY detached without CS-Studio main workbench screen	None		open
Conform to Americans with Disabilities Act in BOY	None		open
Logging and client stats	None		open
Extend Eclipse perspectives to fit operational needs	None		open
Archive retention policy and tools	None		open
PostGres Archive Stored Procedures for Optimized Requests	None		open
logbook search dialog bugs and features	shroffk		open
BOY examples for widgets using Pvmanager and graphene	shroffk		open
Update time (range) handling	None		open
Design of BOY for Eclipse v4	None		open
Upgrade Range Widget	shroffk		open
Handle Backward compatibility with existing screens	berryman4		open

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