

Outils collaboratifs



DIRK HOFFMANN
CENTRE DE PHYSIQUE DES PARTICULES
DE MARSEILLE

Idées

- **Taille importante de la collaboration (500 comptes utilisateurs à ce jour)**
- **Impossibilité de gérer tous les contacts et toutes les interactions en présentiel**
- **Demande de disponibilité 24h/24 (7j/7)**
- **Réduction des coûts (dont temps) en utilisant des outils et procédures dématérialisés**

La situation dans CTA

- **Outil traditionnel : MediaWiki (wikipedia)**

<http://www.cta-observatory.org/ctawpwiki>

- Edition facile, extensions très limitées

- **Site grand public : Drupal**

<http://www.cta-observatory.org>

- **« Portail » SharePoint**

<https://portal.cta-observatory.org>

- Peut tout faire. (Il faut donc choisir !)
- Développement spécifiques possibles.

- **InDiCo : agendas et calendriers**

<https://www.cta-observatory.org/indico>

SharePoint @ CTA

■ Fonctions ShPt dans CTA

- Gestion des membres
- Archivage et classification des documents communs
- Annonces
- Sites des groupes de travail, WG (WP)
 - Documents (librairie « locale »)
 - Discussions
 - Listes, liens
 - ...

SharePoint pour ACTL

Site Actions  

BrowsePage

Dirk Hoffmann ▾



ACTL ▸ Home
Team site of the ACTL Work Package

Internal ▾ Consortium Bodies ▾ Working Groups ▾ Lists ▾ Helpdesk

Search this site...  

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External Documents

Discussions
Team Discussion

 Recycle Bin
 All Site Content

ACTL WP: Instrument Control and Operation

The task of the ACTL work package is described in the CTA preparatory phase application:

"Instrument control and data acquisition" The CTA instrument will have to deal with a larger variety of observation modes than current instruments and will operate with a high efficiency in an automatic mode. This requires a well designed, failure-tolerant system integrating both an automatic control layer and a software layer for the control and operation of the system. The design and implementation of the software layer needed to operate CTA is the task of the ACTL work package. All software applications will be based on a common software system providing a well-tested platform that embeds standard design patterns and avoids duplication of efforts. The development and maintenance of applications ranging from the control of the different hardware components of single telescopes to the full operation of the observatory will be simplified. Evaluation of existing common software systems and the development of first test applications have already started."

For access requests (write/read) on this site, you need to be a member of the [ACTL Members](#) group. If this happens not to be the case (yet), then please contact any member of the [ACTL Owners](#) group! You can set up special permissions for the documents and contents that you submit here. By default, everything is readable by all authenticated [CTA Members](#) and not for (anonymous) public users.

Recently changed pages ([click here for all](#))

☐	Type	Name	Modified	Modified By	Checked Out To
☐		Home	31/03/2012 06:33	Dirk Hoffmann	
☐		How To Use This Wiki	30/03/2012 10:44	Dirk Hoffmann	
☐		ALMA Documentation	29/03/2012 19:36	Dirk Hoffmann	
☐		Data Rates	29/03/2012 13:42	Dirk Hoffmann	

 Add new page

[Link to old WPC Wiki page "ACTL"](#)

[Link to old WPC Wiki page "DATA" \(until 2010\)](#)



Mailing list: cta-wp-actl@cta-observatory.org
[List info](#)
[List archives](#)

Work Package Coordinator :

Christian Stegmann
Christian.Stegmann@DESY.De

ACTL Group meetings

[ACTL group meeting \(video-conference\) \(RMS\)](#)
2012-03-27 - 2012-03-27

Portail (ShPt) pour CTA-France

Site Actions ▾



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Publish



France ▸ Bienvenue

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InDiCo

WPC Wiki

Records Centre

Documents

Comité CTA-France

Array Control

Data Management

NectarCAM

Shared Documents

Images et Photos

CTA-France

Discussions

Team Discussion

Liens

Calendrier CTA-France

ACTL

DAFA

CEIN

NectarCam

Liens

You arrived at the collaborative website of the french labs in CTA. Many contents are restricted to french members of the collaboration. If you believe you should have access to our documents, please request membership in the group [France Members](#) by contacting [Sandrine Couturier Le Quellec](#).

If you have any questions about the French CTA activities, please contact the French CTA coordinator [Jürgen Knödseder](#).

Listes de diffusion

Pour suivre les communications dans notre communauté au niveau local, vous pouvez demander votre inscription sur les listes (nationales)

- CTA-FRANCE-L@listserv.in2p3.fr,
- CTA-MSTCAM-L@listserv.in2p3.fr.

(Voir instructions sur le serveur LISTSERV)

Prochaines réunions CTA France

Inscription ACTL-France meeting (6 avril 2012; CPPM)

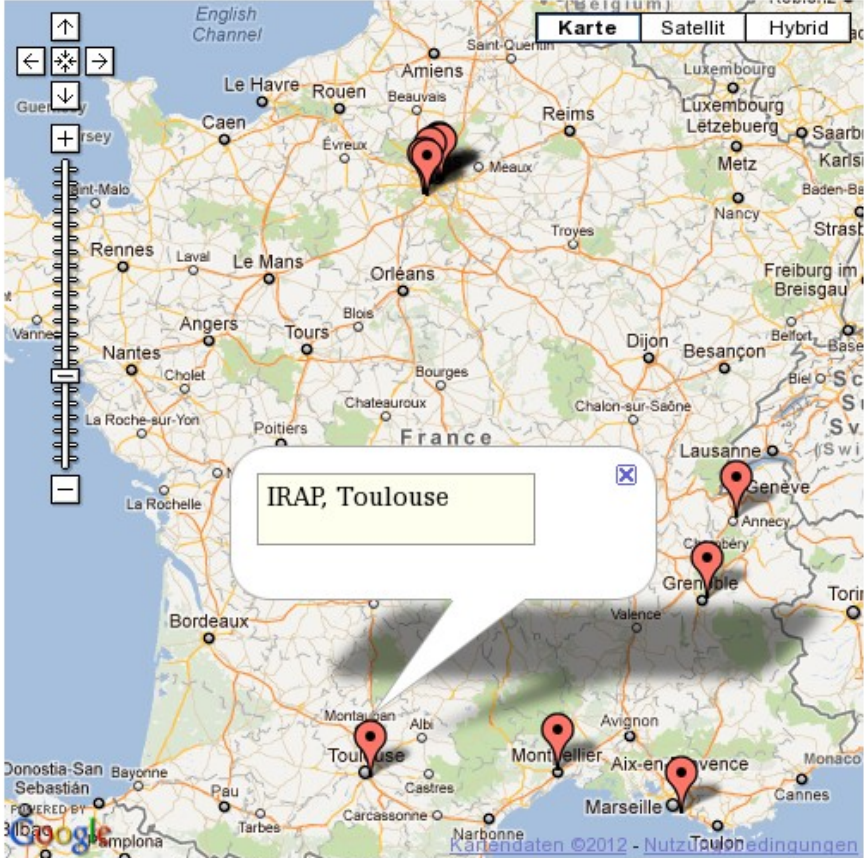
Réunions CTA France dans InDiCo

ACTL France (CPPM)	2012-04-06 - 2012-04-06
NECTArCam weekly (Universe)	
	2012-04-05 - 2012-04-05
Reunion de Travail NECTAr Cam (HW architecture, standards and Dataflow) (LPNHE)	
	2012-03-22 - 2012-03-22

Karte

Satellit

Hybrid



Locations updated: March 2012 [DH]

Outils CTA-France

- **Catégorie « CTA » dans InDiCo.In2p3.Fr**
 - <http://indico.in2p3.fr/categoryDisplay.py?categId=384>
- **Listes sur ListServ.In2p3.Fr**
 - CTA-France-L@ListServ.In2p3.Fr
 - CTA-MSTcam-L@ListServ.In2p3.Fr
 - Voir « portail » pour détails.
- **Et nous ?**

Outils CTA-France

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 - Voir « portail » pour détails.
 - **Et nous ?**
- Outils pour le génie logiciel ?**

Génie logiciel

- Possibilités d'utiliser les services du CC (IN2P3/IRFU) :
 - Dépôt de code (*repository*)
<http://svn.in2p3.fr/>
 - URL = `svn+ssh://svn.in2p3.fr/cta`
 - Envoyer clef SSH *publique* aux admins (copie DH) pour obtenir l'accès
 - Suivi de tickets <http://forge.in2p3.fr/> (redmine)
- Outils de métrique
 - Essais avec Sonar

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Version 1 - 22. Mär 2012 23:17 Time changes...

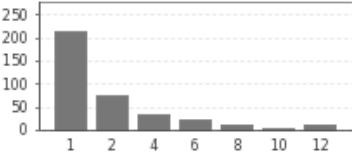
Lines of code
7.642
12.144 lines
3.523 statements
22 files

Classes
29
1 packages
378 methods
0 accessors

Comments
21,0%
2.033 lines
46,0% docu. API
109 undocu. API

Duplications
10,5%
1.281 lines
25 blocks
7 files

Complexity
2,8 /method
36,3 /class
47,9 /file
Total: 1.053



● Methods ○ Classes

Violations
1.672
Rules compliance
61,1%

 [Blocker](#)

 [Critical](#)

 [Major](#)

 [Minor](#)

 [Info](#)

0

0

651

1.018

3

Events All

22. Mär 2012

Version

1

Key:
Language:
Profile:
Alerts:

cta.nectar.NeCTArControl
java
[Sonar way](#) (version 1)
 [RSS Feed](#)

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Version 1 - 22. Mär 2012 23:17 [Time changes...](#)

Most violated rules [Any severity](#) [More](#)

▼ Magic Number	808	
▲ Visibility Modifier	161	
▲ Constructor Calls Overridable Method	126	
▼ Constant Name	95	
▼ Singular Field	83	

Most violated resources [More](#)

GUI_Camera	▲ 0	▲ 0	▲ 171	▼ 336	▼ 0
GUI_Drawer	▲ 0	▲ 0	▲ 87	▼ 141	▼ 0
UI_Trigger	▲ 0	▲ 0	▲ 59	▼ 83	▼ 0
GUI_Trigger	▲ 0	▲ 0	▲ 61	▼ 72	▼ 0
GUI_ReadBack	▲ 0	▲ 0	▲ 25	▼ 152	▼ 2

Longest unit tests
No results

Highest complexity [More](#)

GUI_Drawer	241	
UI_Trigger	111	
GUI_Camera	99	
UI_Cluster	97	
UI_PM	88	

Highest average method complexity [More](#)

UI_Stream	6,6	
UI_Camera	4,7	
UI_PM	4,0	
UT_Parser	4,0	
GUI_Camera	3,8	

Highest duplications [More](#)

UI_Camera	454	
UI_Cluster	436	
GUI_Camera	205	
GUI_ReadBack	55	
UI_Stream	52	

Most undocumented APIs [More](#)

GUI_Drawer	21	
UI_Cluster	14	
UI_Camera	12	
UI_Stream	12	
GUI_Trigger	11	

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Embedded database should be used for evaluation purpose only

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Profile Sonar way - Time changes... 

Severity	Count	Rule	Count
 <u>Blocker</u>	0	 <u>Magic Number</u>	808
 <u>Critical</u>	0	 <u>Constant Name</u>	95
 <u>Major</u>	651	 <u>Singular Field</u>	83
 <u>Minor</u>	1.018	 <u>Modifier Order</u>	14
 <u>Info</u>	3	 <u>Redundant Throws</u>	13
		 <u>Dont Import Java Lang</u>	2

Package	Count	Package	Count
 <u>nectar</u>	808	 <u>GUI_Camera</u>	307
		 <u>GUI_ReadBack</u>	124
		 <u>GUI_Drawer</u>	104
		 <u>UI_Cluster</u>	58
		 <u>GUI_Trigger</u>	56
		 <u>UI_PM</u>	37

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Profile Sonar way - Time changes...

Severity

Blocker	0
Critical	0
Major	651
Minor	1.018
Info	3

Rule

Magic Number	808
Constant Name	95
Singular Field	83
Modifier Order	14
Redundant Throws	13
Dont Import Java Lang	2

[nectar](#) 808

[GUI_Camera](#) 307
 [GUI_ReadBack](#) 124
 [GUI_Drawer](#) 104
 [UI_Cluster](#) 58
 [GUI_Trigger](#) 56
 [UI_PM](#) 37

[nectar.GUI_Camera](#)

[Coverage](#) [Dependencies](#) [Duplications](#) [LCOM4](#) [Source](#) **[Violations](#)** [Raw](#) [New window](#)

507 violations Blocker: 0 Critical: 0 Major: 171 Minor: 336 Info: 0

☐ Full source | Time changes... | [Magic Number \(307\)](#)

56 `int i, j;`

57 `initComponents();`

58

59

60 `tableauDac = new long[8][16];`

Magic Number | 14 Tage

'16' is a magic number.

Magic Number | 14 Tage

'8' is a magic number.

61 `tableauModifDac = new boolean[8];`

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Profile [Sonar way](#) - Time changes...

Severity

	Blocker	0
	Critical	0
	Major	651
	Minor	1.018
	Info	3

Rule

	Simplify Boolean Expression	35
	Signature Declare Throws Exception	24
	Avoid Duplicate Literals	19
	Parameter Name	13
	Method Name	13
	Local Variable Name	12

35

- [GUI_Camera](#) 23
- [UI_Cluster](#) 6
- [UI_Camera](#) 4
- [GUI_Drawer](#) 2

[nectar.GUI_Camera](#)

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[Raw](#)
[New window](#)

507 violations
 Blocker: 0
 Critical: 0
 Major: 171
 Minor: 336
 Info: 0

☐ Full source
Time changes...
Simplify Boolean Expression (23)

964 UI_Log.logger.warning("hexa field should have lenght=8: '".concat(field).concat("\'");
965 rc = false;
966 }
967
968 if (field.matches("[0-9a-fA-F]{'".concat(Integer.toString(field.length())).concat("}'") == false)

[Simplify Boolean Expression](#) | 14 Tage
Expression can be simplified.

969 {
970 UI_Log.logger.warning("not an hexa field : '".concat(field));
971 rc = false;
972 }

983 String param = null;

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Profile [Sonar way](#) - [Time changes...](#)

Severity

Blocker	0
Critical	0
Major	651
Minor	1.018
Info	3

Rule

Parameter Name	13
Method Name	13
Local Variable Name	12
Cyclomatic Complexity	11
Parameter Assignment	10
Ncss Method Count	8

[nectar](#) 13

[GUI_Drawer](#) 5

[UI_Trigger](#) 5

[GUI_PM](#) 1

[GUI_Stream](#) 1

[UI_Cluster](#) 1

[nectar.GUI_Drawer](#)

[Coverage](#) [Dependencies](#) [Duplications](#) [LCOM4](#) [Source](#) **[Violations](#)**

[Raw](#) | [New window](#)

228 violations Blocker: 0 Critical: 0 Major: 87 Minor: 141 Info: 0

☐ Full source | [Time changes...](#) | [Parameter Name \(5\)](#)

2638 * @param Nf
2639 * @param DaqRunning 1 if trigger has to run, 0 otherwise.
2640 * @param eraseBit
2641 */
2642 **private void** CntrlDAQ(**int** ToT, **int** T0, **int** Mode, **int** Nf, **int** DaqRunning, **int** eraseBit)

[Parameter Name](#) | 14 Tage

Name 'DaqRunning' must match pattern `^[a-z][a-zA-Z0-9]*$`.

[Parameter Name](#) | 14 Tage

Name 'Nf' must match pattern `^[a-z][a-zA-Z0-9]*$`.

[Parameter Name](#) | 14 Tage

http://localhost:9000/drilldown/violations/161?&...parameterNameCheck&rule_sev=MAJOR&severity=MAJOR#

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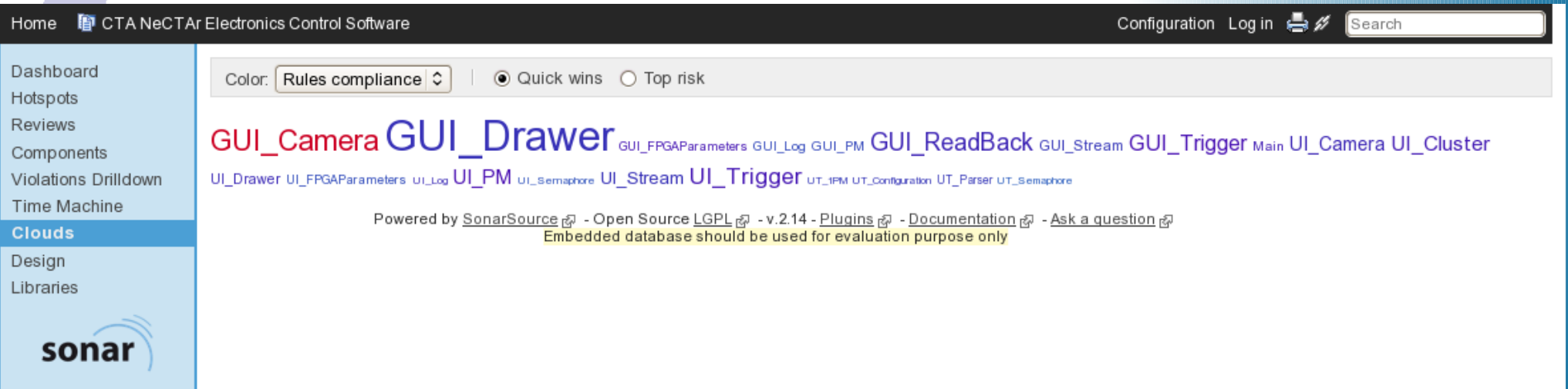
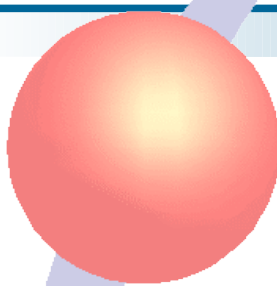
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Name	Rules compliance	Coverage	Build time	Links
 CTA NeCTAr Electronics Control Software	61,1%		22. Mär 2012	

Name	Rules compliance	Coverage	Build time	Links
  nectar	61,1%		22. Mär 2012	

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Sonar (8)



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Color: Rules compliance Quick wins Top risk

GUI_Camera GUI_Drawer GUI_FPGAParameters GUI_Log GUI_PM GUI_ReadBack GUI_Stream GUI_Trigger Main UI_Camera UI_Cluster

UI_Drawer UI_FPGAParameters UI_Log UI_PM UI_Semaphore UI_Stream UI_Trigger UT_IPM UT_Configuration UT_Parser UT_Semaphore

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sonar

Génie logiciel (suite)

- **Des outils existent pour nous faciliter la vie ...**
- **et surtout garantir :**
 - **une meilleure qualité du code**
 - **une collaboration plus efficace sur le code.**
- **Mais ...**
- **... néanmoins, il faut définir des règles**
 - **sur une base commune**
 - **pour le travail en collaboration !**

Résumé (mes conseils)

- **Utilisez :**
 - SharePoint pour les documents
 - InDiCo pour les réunions
 - SVN pour votre code
 - Trac pour le suivi d'incidents et des tâches
 - Sonar pour l'optimisation formelle et les métriques
- Cela vaut même pour les électroniciens !