

Background in Web Development

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job applicant



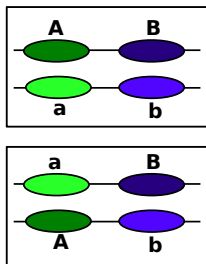
EMBL-EBI
ChEMBL group

June 12, 2012

- 1 Experience in research
 - Bachelor thesis
 - Master thesis
- 2 Experience at CERN
- 3 Recent experience and current work

The problem of haplotype frequency estimation – Bachelor thesis

AaBb ?



- Determining haplotypes with laboratory methods is expensive and time-consuming.
- In contrast, there are many cost-effective techniques for determining genotypes.
- In general, it could be impossible to infer haplotypes from genotype data.

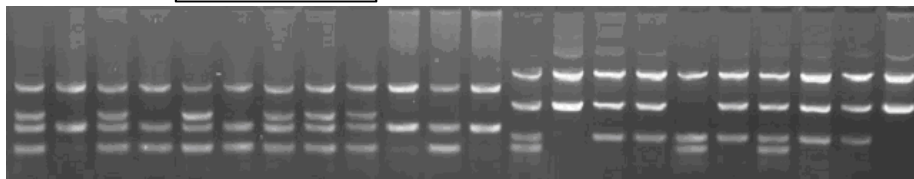


Figure:
Determining genotype experiment results

Idea of short overlapping window

Problem

Every algorithm employing full space search would operate with $O(c^n)$ complexity. This is why it cannot be directly applied to phasing long genotypes.

Solution – Genotypes can be divided into shorter pieces that overlap.

- Piece length is fixed, so is computation time.
- Phasing n pieces has now $O(n)$ complexity.
- Multiple pieces can be phased in parallel.
- If phasing algorithm is convergent total error should not be large.

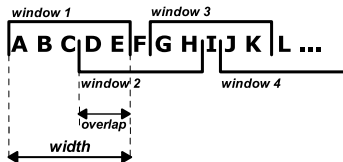
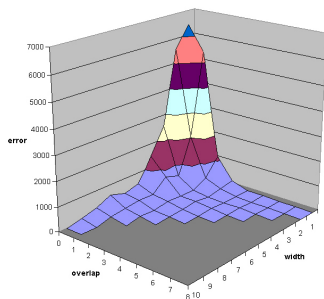
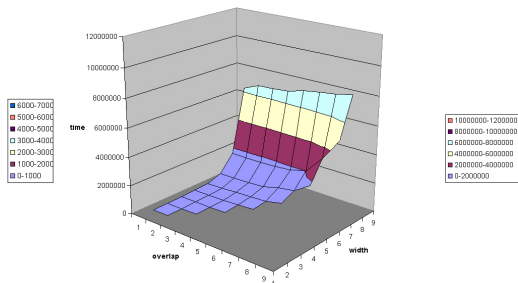


Figure: What are the error and execution time as a function of **width** and **overlap** parameters?

Results

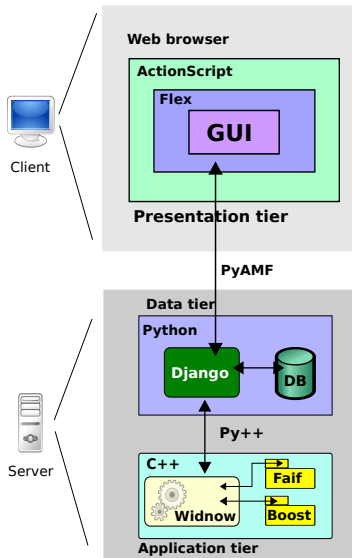


Error as a function of width and overlap parameters



Execution time as a function of width and overlap parameters

Application architecture



Automated functional annotation using classification algorithms and data fusion – master thesis

Functional genomics as a major field in applied bioinformatics

- Functional interpretation is a key step in the analysis of DNA and protein sequences.
- This task cannot be done without extensive functional annotation of the datasets.
- Due to the fast development of high-throughput sequencing technologies, an increasing amount of novel, uncharacterized sequence data have arisen.
- Standardized functional annotation is essential.

The goal

Provide biologists with useful information to take into account when addressing the task of functionally characterizing their sequence data.

Automated functional annotation – the algorithm

Input

Uncharacterized DNA or protein sequence.

- BLAST.
- Gene Ontology lookup.
- Data fusion and inference.

Output

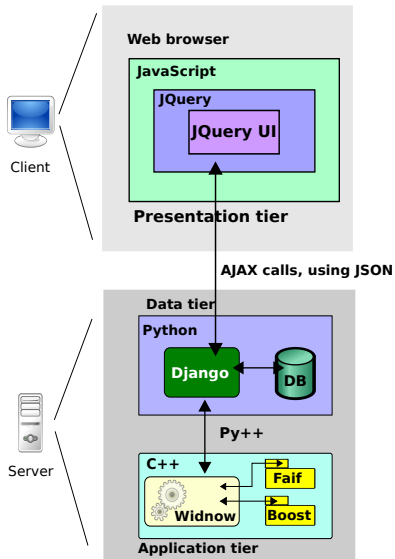
Inferred functional annotation for the input sequence

Inferring functional annotation

For combining multiple results the Dempster's rule of combination is used.

- Often used as a method of sensor fusion.
- Strongly emphasises the agreement between multiple sources and ignores all the conflicting evidence.
- Better alternative to weighted voting.

Application architecture



Site Status Board – an application monitoring the behaviour of all the centers of a particular VO

- SSB provides a single entry point that summarizes the status of the sites.
- The main idea is to provide a flexible framework which would allow VOs to define multiple monitoring metrics.
- The metrics can be added, deleted and easily modified.
- The most critical metrics can be combined into a single value for each site corresponding to its status.
- SSB keeps the history of how all the metrics have evolved over time..
- SSB consists of three components: collectors that gather information, a database and a web server.

SSB – implemented features

- XSLT replaced by Java Script template system.
- New coherent GUI.
- Filtering, paging, sorting in Expanded Table, computed on server side.
- Expanded Table ready for large amount of data.
- Redesigned backend.
- Client-side plotting.
- Bookmarking, undo/redo.
- Backbone.

Old and new SSB

Site Status for the CMS sites

Index Expanded Table Gridmap Alternative views

Last update: 2019-03-29 10:58:37 UTC

[Back to the main CMS SSB page](#)

Link to one of the SSBs to supervise their sites

T0 +T1		T2	
✓ T0_CH_CERN	● T2_AT_Vienna	✓ T2_BE_IHE	▲ T2_BE_UCL
✓ T1_DE_CERN	✓ T2_FR_SFRAGE	● T2_FR_BREU	✓ T2_FR_CSCS
✓ T1_DE_KIT	✓ T2_CN_Beijing	✓ T2_CN_CAS	▲ T2_CN_BUSTI
✓ T1_FR_GINIFR	✓ T2_KR_KNU	✓ T2_KR_KMACT	✓ T2_KR_KIST
✓ T1_FR_CNAF	✓ T2_UJ_UB	✓ T2_UK_GRIFFIN	✓ T2_UK_SHELL
✓ T1_TW_ASDC	✓ T2_TW_SINAP	✓ T2_TW_HKUST	✓ T2_TW_RIKIT
✓ T1_UK_RAL	✓ T2_UK_TFR	● T2_UK_UCL	✓ T2_UK_EPIC
✓ T1_UK_MMA	✓ T2_UJ_Pan	✓ T2_UJ_Pan	✓ T2_UK_BESU
	● T2_UK_Wisconsin	✓ T2_UJ_Pan	● T2_UK_BESK
	✓ T2_UJ_TPE	✓ T2_UJ_Pan	● T2_UK_Swiss
	✓ T2_UK_London_Brunel	▲ T2_UK_London_IC	✓ T2_UK_Schulz
	✓ T2_UK_Schulz	✓ T2_UK_Schulz	✓ T2_UK_Pan
	✓ T2_UK_Mitaka	✓ T2_UK_Mitaka	✓ T2_UK_Pan
	✓ T2_UK_BESK	✓ T2_UK_Swiss	
T2 with SSBs			
✓ T2_BE_IHE	● T2_UK_BESK	● T2_UK_BESK	✓ T2_UK_Schulz
● T2_FR_BREU	● T2_CN_BUSTI	✓ T2_UK_BESK	✓ T2_UK_SINP
	● T2_UK_BESK		

Help Login Site Status for the CMS sites, v0.13.0 rc1

Index Expanded Table View: default

T0 +T1 T2

Status	Site Name	Status	Site Name	Status	Site Name	Status	Site Name
✓	T0_CH_CERN	✓	T2_AT_Vienna	✓	T2_FR_IPHC	✓	T2_UK_BESK
✓	T1_CH_CERN	✓	T2_BE_IHE	✓	T2_HU_Budapest	✓	T2_UK_SINP
✓	T1_DE_KIT	✓	T2_BE_UCL	✓	T2_IN_TIFR	✓	T2_UK_METU
✓	T1_ES_PIC	✓	T2_BR_SFRAGE	✓	T2_IT_Bari	✓	T2_TW_Sinica
✓	T1_FR_GINIFR	●	T2_BR_UERJ	✓	T2_IT_Legnaro	✓	T2_UA_KIPT
✓	T1_IT_CNAF	✓	T2_CN_CSCS	✓	T2_IT_Pisa	✓	T2_UK_London_Brunel
✓	T1_TW_ASDC	✓	T2_CN_Beijing	✓	T2_UJ_Tsinghua	✓	T2_UK_London_IC
✓	T1_UK_RAL	✓	T2_DE_DESY	✓	T2_KR_KNU	✓	T2_UK_Schulz_RALPP
✓	T1_UK_RAL_Disk	✓	T2_DE_RWTH	●	T2_PL_Warsaw	✓	T2_US_Catech
✓	T1_US_FINAL	✓	T2_EE_Elonia	✓	T2_PT_LIP_Lisbon	✓	T2_US_Florida
		✓	T2_ES_CIDMAT	✓	T2_PT_NCG_Lisbon	✓	T2_US_MIT

Old and new SSB



Site Status for the CMS sites

[Found a bug? HELP](#)

- Index
- Expanded Table**
- Gridmap
- Alternative views

Put the mouse over any column header to get the description of the column.

Clicking on a column header will display the evolution of that column over the last 24 hours.

Information is more than 24h old.

Site Name	Job	Analysis	Job/Robot OK / Err	Condition	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err	Job/Robot OK / Err
TI_CH_CERN	OK	OK	OK / 115	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_DE_HIT	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CCINP3	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN2	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN3	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN4	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN5	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN6	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN7	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN8	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN9	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN10	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN11	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN12	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN13	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN14	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN15	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN16	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN17	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN18	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN19	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN20	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN21	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN22	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN23	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN24	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN25	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN26	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN27	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN28	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN29	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TI_FR_CERN30	OK	OK	OK / 100	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Site Status for the CMS sites, v9.13.6_rc1

Help | Login | Index | Expanded Table

Show 10 entries | Copy | Print | Save | v9.13.6 | default | Search...

Site Name	Visible	Job/Robot	SAM TESTS				Production	Analysis	Site usage		Combinational Links
			CE	SRM	OK	Err			Running	Pending	
TI_CH_CERN	OK	n/a	OK	OK	100%	n/a	n/a	n/a	n/a	n/a	(last update: 2013-09-28 22:15:00 UTC last value: 2013-09-26 21:42:55 UTC)
TI_CH_CERN	n/a	100%/1000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
TI_DE_HIT	OK	100%/1000	OK	OK	100%(353)	100%(3)	415			3/5 combined	
TI_ES_PIC	OK	100%/1000	OK	OK	100%(195)	n/a	12	1		3/5 combined	
TI_FR_CCINP3	OK	n/a	OK	OK	100%(902)	n/a	1056	508		3/5 combined	
TI_IT_CNAP	OK	100%/1000	OK	OK	100%(235)	n/a	88	14		3/5 combined	
TI_TW_ASOC	OK	100%/1000	OK	OK	100%(358)	100%(7)	8	347		3/5 combined	
TI_UK_RAL	OK	100%/1000	OK	OK	100%(180)	n/a	328	2		3/5 combined	
TI_UK_RAL_Disk	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		3/5 combined	
TI_US_FNAL	OK	100%/1000	OK	OK	100%(1747)	100%(340)	n/a	n/a		3/5 combined	

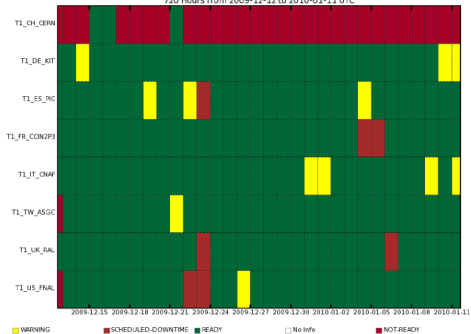
Showing 1 to 10 of 115 entries. DB query took 0.0276 s

First Previous 1 2 3 4 5 Next Last

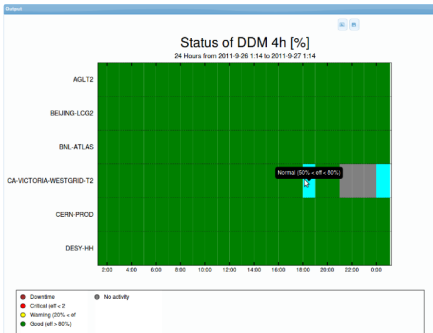
Old and new SSB

Status of SiteReadiness Status

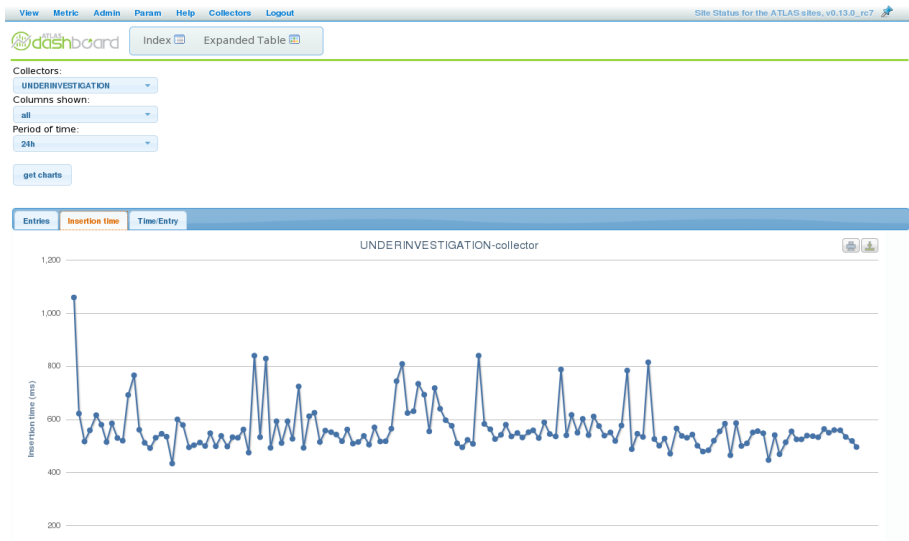
720 Hours from 2009-12-12 to 2010-01-11 UTC



View Column Info



SSB – collector metainformation

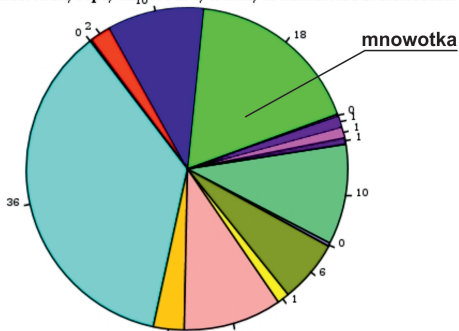


SSB – TODO

- Tests (jQunit, Selenium).
- Database synchronization.
- Web based installation wizard.
- Getting rid of FOUCs.
- Refactoring of DAO.
- Expanded Table should refresh periodically and highlight recent changes.
- NoSQL for Sieview Data.

SSB – Impact chart

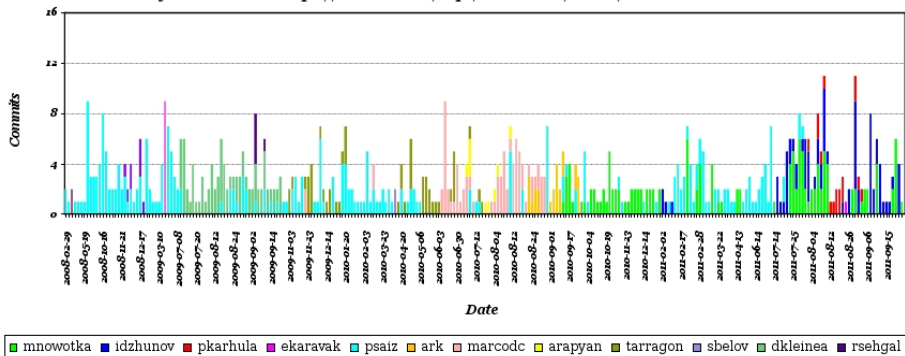
<https://svn.cern.ch/repos/dashboard/trunk/arda.dashboard.siteview>



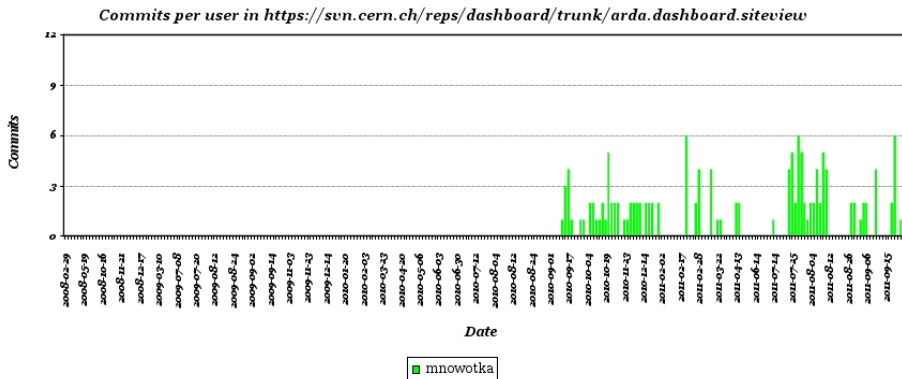
■ idzhunov ■ pkarhula ■ ekaravak ■ psaiz ■ ark ■ marcodc ■ arapyan ■ tarragon ■ sbelov ■ dkleinea ■ rsehgai ■ elisal ■ sic

SSB – Commits

Commits for all users in <https://svn.cern.ch/repos/dashboard/trunk/arda.dashboard.siteview>



SSB – My commits



Framework

Benefits for the dashboard framework:

- Coherent set of tools and libraries.
- Proofs of concepts.
- Authentication mechanisms implemented in framework.
- Better documentation.

MonAlisa

- Installation on every node.
- Instalation and tuning of ML Repository.
- Alarms.
- New Metrics.

MonAlisa



MonALISA Repository



Repository Home Administration Section Events XML Feed MonAlisa GUI

Repository

- MonALISA Repository
- Global Views
- Statistics
- Services
- Machines
- Collectors
- Repository info
- Installed packages

close all

This page: bookmark, URL

Dashboard machines' status

What is this

Machines status

Host	sms state	CPU					Networking (eth0)		Busiest disk		httpd workers		httpd now		httpd instance avg		httpd instance total		Tml		
		Online	Load	usr	sys	lowlat	idle	IN	OUT	Util (%)	Device	IOPS	Running	Idle	Req/s	Traffic	Req/s	Traffic		Bytes/req	Requests
dashb-virtuaID6																					
dashbboard03	production		0.04	0.667	0.103	0.131	99.08	0.176 Mbps	0.711 Mbps	1.601	sdcs	5.38	2	98	7.491	0	3.8	46.1 KB/s	12300	107736	1.
dashbboard17	production		0.03	1.662	0.75	0.365	97.07	87.4 Kbps	30.91 Kbps	0.997	hdn	5.516	1	7	0.017	85.31 B/s	0.04	173 B/s	4342	170	72
dashb-virtuaID9																					
dashb-virtuaID11			0.16	1.217	2.1	0	96.45	0.824 Kbps	3.868 Kbps	0.042	sdcs	0.817									
dashb-virtuaID4			0.42	13.73	11.01	0	74.33	1.718 Kbps	3.393 Kbps	0.083	sdcs	3.083									
dashbboard11	maintenance		0.08	0.36	0.2	0.015	99.41	12.53 Kbps	22.2 Kbps	0.12	sdcs	4.083									
dashbboard21	production		0.4	1.437	0.674	0.345	97.02	0.101 Mbps	0.529 Mbps	0.992	hdn	5.549									
dashbboard09	production		0.01	0.965	0.125	0.021	98.86	80.69 Kbps	0.52 Mbps	0.213	sdcs	3.7	3	72	6.85	0	3.59	57.5 KB/s	16384	102092	11
dashbboard27	maintenance		0.01	0.282	0.218	0.161	99.26	2.349 Kbps	4.166 Kbps	0.43	hdn	3.017									
dashbboard31	production		0.32	1.925	0.536	17.41	79.02	95.24 Kbps	91.88 Kbps	19.78	hdn	5.699	74	54							
dashbboard22	maintenance		0.05	0.33	0.362	0.201	99.07	2.458 Kbps	3.152 Kbps	0.572	hdn	2.666									
dashb-virtuaID7																					
dashbboard25	production		0.17	3.052	0.904	0.396	95.17	83.56 Kbps	51.35 Kbps	0.965	hdn	6.832									
dashb-virtuaID2																					
dashbboard23	production		0.19	0.128	0.287	9.902	89.64	2.456 Kbps	3.215 Kbps	16.48	hdn	2.066									
dashb-virtuaID5																					
dashbboard02	production		0.01	0.069	0.184	0.127	99.57	3.987 Kbps	4.478 Kbps	1.427	sdcs	6.3									

Other applications

- Dashboard for Google Earth.
- SiteView.

Presentations

Group meetings presentation:

- jQuery.
- Charting.
- Deployment and load balancing.
- noSQL.
- Architecture of JS applications.

Twiki articles:

- JS tools and libraries (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/Libs>).
- MVC architecture (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/ModelViewController>).
- Dashboard services documentation (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/Services>).
- MonAlisa installation procedure (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/MonAlisa>).
- Authentication mechanism in dashboard framework (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/Auth>).
- Form handling (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/FormHandling>).
- Google Earth emergency (<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/DashbEarth>).

Other

- Contributing to CHEP papers.
- Attending to Daily Ops.
- Attending to CMS Ops.
- Summer Student.

What I learned

- Java Script technologies.
- Dashboard Framework.
- CERN School of Computing.
- Sys Admin stuff.
- Many interesting lectures (including those by Richard Stallman and James Watson).
- French language course.
- Working in multinational environment.
- Working in large organisation.
- Living abroad.
- Faster than light neutrino.

Horus.pl



Development of business applications intended for use by corporate clients:



Orange



T-mobile



Play



Netia

Horus Workflow

Horus Workflow


Horus Workflow is used to define and monitor workflow in business processes. It supports the implementation of any number of administrative processes, personnel, management or sales.

Horus Workflow System Features:

- Support for managing tasks
- The ability to define own processes
- Support for document management processes
- Support for a variety of organizational structures
- Monitoring of user activity (change history)
- Management of the company organizational structure

Horus Workflow – application screenshot

The screenshot displays the Horus Workflow application interface. The main window title is '266+ Nieruchomość | Zarejestrowana'. The left sidebar contains navigation options: 'Mój profil', 'Moje dane', 'Baza danych' (with sub-items: 'Klasy (64)', 'Lokale (310)', 'Nieruchomości (132)'), 'Zadania' (with sub-items: 'Bieżące (1)', 'Archiwalne (10)'), and 'Nr zarządzenia' (with a 'Wyszukaj' button). The main content area shows a form for a real estate listing with the following fields:

Dane podstawowe			Lokale			Media			Stawki			Umowy		
Nr zarządzenia	:	11248C/14/07/2011	Sposób zagospodarowania	:	Na potrzeby jednostek państwowych	Kubatura budynku	:	10245	m ³	Wysokość całkowita	:	16,45	m	
Data zarządzenia	:	14-07-2011	Kubatura budynku	:	10245	m ³	Wysokość całkowita	:	16,45	m	Długość	:	30	m
Adres (ulica i numer)	:	Sierakowskiego 90	Długość	:	30	m	Szerokość	:	30	m	Liczba kondygnacji naziemnych	:	4	
Kod pocztowy	:	03-445	Liczba kondygnacji podziemnych	:	1		Rok budowy	:	1956		Liczba lokali ogółem	:	25	
Dzielnica	:	Praga Północ	Zdjęcie nieruchomości	:										
Nr działki	:	219/4562/97/9												
Nr obrębu	:	4569/48												
Rodzaj użytków	:	Bk - tereny przemysłowe												
Nr księgi wieczystej	:	54854/6/v/44												
Powierzchnia ogółem	:	4659	m ²											
Władający	:	brak danych												
Użytkownik	:	brak danych												

At the bottom of the application window, there is a footer that reads 'Created by Horus'.

Horus Workflow – technologies

Used technologies and libraries:

- Spring
- Maven
- JBoss
- Hudson / Jenkins
- Coffee Script
- JQuery UI

TMS Brokers Brokerage House



Tasks and responsibilities:

- Development of financial reporting software
- Supporting promotional campaigns
- MetaTrader API programming

TMS Brokers – technologies

Used technologies and libraries:

- JQuery UI
- Highcharts and Highstock
- Python
- Django
- C++

GO4X

GO4Challenge 2012

WYŚCIG INWESTORÓW RYNKU FOREX

O KONKURSY

Zasady i terminy

RANKINGI

Sprawdź
wyniki

NAGRODY

O co walczysz?

POLEĆ ZNAJOMYM

Zdobądź dodatkową nagrodę!

EDUKACJA

Poznaj rynek FOREX!

WEŹ UDZIAŁ »

RANKINGI

RANKING GENERALNY

RANKING TYGODNIOWY

RANKING DZIENNY

Sprawdź swoją pozycję w rankingu:

OK »

POZYCJA	GRACZ	STOPA ZWROTU
1.	Eve	1005%
2.	GANESZA	761,41%
3.	konkur	750,65%
4.	STUFF	507,84%
5.	siwek00	396,04%

Aktualizacja z dnia: 01-06-2012 23:30:25

NIE BIERZESZ JESZCZE UDZIAŁU
W KONKURSY?

**ZACZNIJ GRAĆ O NAGRODY
CZAS UCIEKA**



WEŹ UDZIAŁ »

ZOSTAŃ MISTRZEM FOREX

- sprawdź porady i bezpłatne
szkolenia w sekcji edukacja

SPRAWDŹ »



KOMENTARZ DO WYNIKÓW OSIĄGNIĘTYCH W DNIU 31.05.2012

Github

Source

L^AT_EX source of this presentation can be downloaded from github:

```
git://github.com/mnowotka/ChEMBL-job-web.git
```

Thank you for your attention.