#### Sun Grid Engine 6.0 Accounting & Reporting Tool

André Alefeld Software Engineering Sun Microsystems

www.sun.com/grid gridengine.sunsource.net





## Agenda

- Status quo
- Goals
- Architecture
- Navigation
- Screenshots of the UI Draft



## **Status Quo**

- Qacct commandline client
- No GUI
- Qacct based on accounting file
- Other interesting data not available via qacct
- sge\_sharemon delivers policy related 'accounting data'
- Only tabular representation



# Goals (1)

- Accessible via web browser
- Unify the information of qacct, sge\_sharemon etc.
- Access to derived usage statistics
- Predefined set of standard queries
- Addition of site specific queries
- Tabular & graphical presentation
- Easy query definition

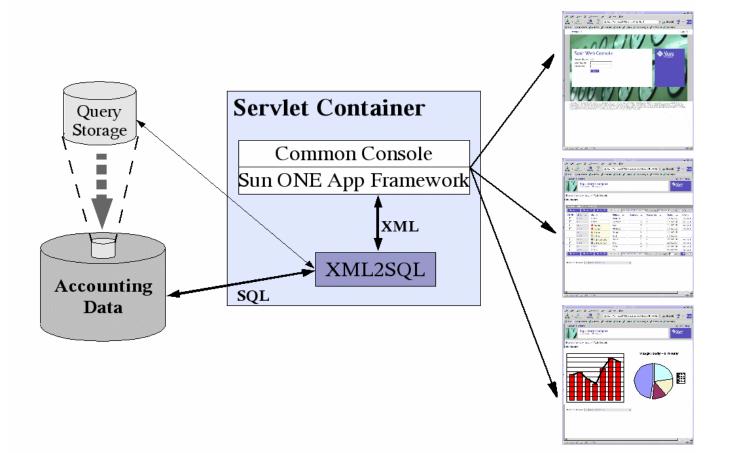


## Goals (2)

- Better scalability
- Export of data for postprocessing
- Automated Reports
- Four categories of accounting areas
  - Job
  - Host/Queue
  - Policy
  - System



#### Architecture



Copyright  $\bigcirc$  2003 Sun Microsystems

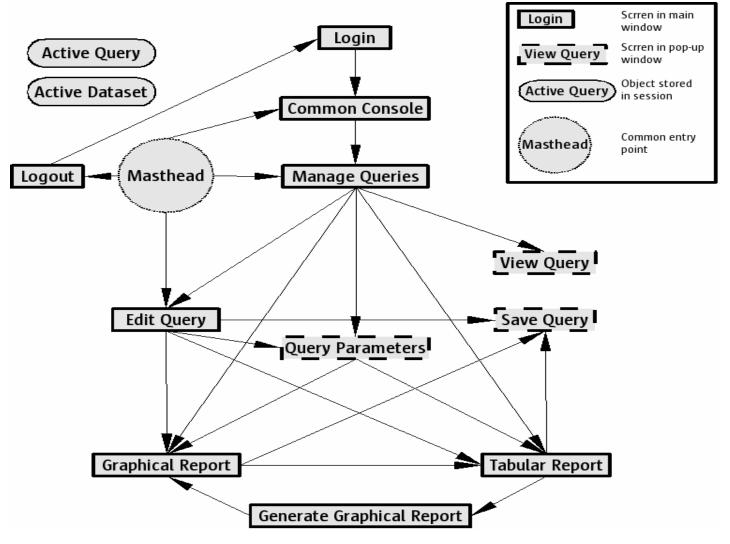


## Architecture (2)

- Accounting DB
- Accounting & Reporting Web App
  - Sun Web Console/S1AF based
  - Model part shall be runnable as commandline application as well for scripting
  - I18n, 508 compliance
  - report query definitions stored as xml
  - Common services like authentication and authorization from Sun Web Console
- Web Browser



#### **Navigation**





# Navigation (2)

- Manage Queries
  - List of stored queries
  - Management of queries
- Edit Query
  - Definition of new queries
  - Change of existing queries
- Query Parameters
  - user input like time interval as specified as late binding parameters in the query definition
- Reports



## Screenshot of UI Draft (1)

<b></b>		acro 1.0 - Netscape			
<u>File E</u> dit <u>V</u> iew <u>G</u> o <u>B</u> ookmarks <u>T</u> ools <u>W</u> indow <u>H</u> elp					
Co Search Statistics CLOCKHART/sun3.4/mana Co Search					
🔺 🗔 🖂 Mail 🐔 Hom	ne 🖹 Bookmarks 🛇 CollabEx	🛇 BugTraq+ 🛇 SWLC 🖻 Se	arch 🖹 SUN 🖹 Spass		
😢 🔆 http://jini.india/dilber	t/ 💦 imap://aa11a-2003.t>	d 💊 Presentations – Corp	🛇 GridSphere Portal 🛛 🛇	acro 1.0	
Console   Version	Manage Queries   Manage	Resultsets		Log Out   Help	
Imanage_queries     User: cko Server: pc137					
acro > manage_queries Error_And_Information_Messages Select a view: all Select					
Query Name 👝	Timestamp 👝	Type of view 👝	Action		
Query_2003_001	yyyy:mm:tt:hh:mm:ss	job	Delete   Edit   Run	Copy   New	
Query_2003_002	yyyy:mm:tt:hh:mm:ss	job	Delete Edit Run	Copy   New	
Query_2003_003	yyyy:mm:tt:hh:mm:ss	system	Delete Edit Run	Copy New	
Query_2003_004	yyyy:mm:tt:hh:mm:ss	host	Delete Edit Run	Copy   New	
Query_2003_005	yyyy:mm:tt:hh:mm:ss	host	Delete Edit Run	Copy   New	
🔊 🖂 🔏 🖭 🚺 Docume	nt: Done (0.653 secs)				



## **Screenshot of UI Draft (2)**

••••••••••••••••••••••••••••••••••••			acro 1.0 – Netscape				
<u>. File Edit View Go</u> B	ookmarks <u>T</u> ools <u>W</u> indow <u>H</u>	elp					
G S S File:///home/aa114085/OPENSOURCE/MISC/LOCKHART/sun3.4/simple_query.html					Search	3. 🔊	
🖌 🗔 Mail 🐔 Hor	me 🖹 Bookmarks 🛇 Collabi	Ex 🛇 BugTraq+ 🛇 SWLC	ESearch ESUN ESpass				
🐏 🛇 acro 1.0							×
Console   Version	Manage Queries   Manag	e Resultsets				Log	Out   Help
User: cko			simple_quer	<b>y</b>	Sun.		
acro > simple_query Error And Information Me	90000						
	ed Query						
Simple Query Advance	eu Guery						
		Please select desired data	view: Job View 💽 sel	ect view			
This query will use the follow	ing fielde:						
Field Function		Name	Additional Parameter		User defined Na	me	add/delete
none						a	add
Average of j_cpu			time		c	lelete	
	j_account					ii d	lelete
	j_start_time					d	lelete
To further constrain the query This query will be limited to c	y, enter additional requiremen lata where: Masthead	is below.					
AND / OR	Field Name	Condition	Requirement		add/delete	late_binding	inaktiv
none 💌 🛛 non	ie 💌	none 💌			add		
j_cp	u	>=	130000		delete		
AND j_ac	count	-	'test_account'		delete		
AND j_sta	art_time	>=	2003-01-01 00:00:00		delete		
		Sort by: 🔲 none					
		Sort by: I Inone	🗾 🗖 Limit query to first				
			Run Save				
This is a help window that w	ill display information appropri	ate to the last form element	clicked.				
🔊 😔 🤱 💁 🗍 Docum							 ≞ ™ =∎=



## **Screenshot of UI Draft (3)**

ocro 1.0 – graphical Reoprt – Netscape <u>File Edit Vi</u> ew <u>Go B</u> ookmarks <u>T</u> ools <u>W</u> indow <u>H</u> elp		*
		🗆 🔍 Search 🛛 🖉 🔊
Image: Second se		
Console   Version   Manage Queries   Manage Resultsets		Log Out   Help
User: cko Server: pc137	configure View	Sure Sure
acro > configure view Error_And_Information_Messages		
Please configure your tabular report.		
🖂 configure table as Pivot		
Please select rows:		
Please select columns:		=
Please select data:		
show tabular report		
Please select a chart type 💿 barchart C piechart C linechart C stacked linechart		
Choose field for x-axis Host Host Host Host		
Choose field for y-axis Host		
show graphical report		

Copyright  $\bigcirc$  2003 Sun Microsystems



## **Screenshot of UI Draft (4)**

	acro 1.0 - tabular Reoprt - Netscape		
_ <u>E</u> ile <u>E</u> dit ⊻iew <u>G</u> o <u>B</u> ookmarks <u>T</u> ools <u>W</u> indow <u>H</u> elp			
🔾 🕥 🕥 🚫 🛇 🔊 🖓 file:///home/aa11408	Search 🖉 🔊		
🗐 🖂 Mail 🐔 Home 🖻 Bookmarks 🛇 CollabEx 🛇 Bu	ıgTraq+ 🍫 SWLC 🖻 Search 🖹 SUN 🖹 Spass		
🔮 🛇 acro 1.0 - tabular Reoprt			$\mathbf{X}$
Console   Version   Manage Queries   Manage Result	sets		Log Out   Help
Tak User: cko Server: pc137			SUIT.
acro > Tabular Report Error And Information Messages			
Runtime of completed jobs Sorted ascending by host			
Host	Owner	Total Runtime	Jobs completed
Muster1.Sample.com E	gon Rumpelstielzchen	2:55:34	10
Muster2.Sample.com	1ax Holle	1:42:10	5
Muster3.Sample.com	sterix Gallier	0:15:26	2
NeuerHost.NewSample.org	iustav Kleinlich	3:15:48	25
NeuerHost.NewSample.org F	ainer Unsinn	5:12:12	7
	save Resultset save Query e	xport	
This is a help window that will display information appropriate to th	e last form element clicked.		



## **Screenshot of UI Draft (5)**

acro 1.0 – graphical Reoprt – Netscape	
<u>File Edit View Go Bookmarks Tools Window Help</u>	
C C C C File:///home/aa114085/OPENSOURCE/MISC/LOCKHART/sun3.4/graphical_report.html	] 🔍 Search 🛛 🐇 🔊
🚬 🖂 Mail 🐔 Home 🖹 Bookmarks 🛇 CollabEx 🛇 BugTraq+ 🛇 SWLC 🖹 Search 🖹 SUN 🖹 Spass	
🔮 🛇 acro 1.0 - graphical Reoprt	×
Console   Version   Manage Queries   Manage Resultsets	Log Out   Help   📤
Graphical Report	Sure Sure
acro > Graphical Report Error_And_information_Messages	
Runtime of completed jobs Sorted ascending by host	
No. Owner   5 1 Fgon Rumpelstielzchen   2 Max Holle   3 Asterix Gallier   4 Gustav Kleinlich   5 Rainer Unsinn	
save Resultset save Query export	
🕲 🛥 🎉 💇 🔝 Document: Done (0.569 secs)	▼ ===== •==



## **Screenshot of UI Draft (6)**

Cile Edit View Co. Deckmonic Tools Window	acro 1.0 - Ne	tscape				
Elle Edit View Go Bookmarks Tools Window Help						
🗼 🥝 💿 💿 🚫 🛇 🔊 👘 file:///home/aa114085/OPENSOURCE/MISC/LOCKHART/sun3.4/manage_resultsets.html 🖸 🔍 Search 🖧 🚺						
🔺 🗔 Mail 🐔 Home 🖻 Bookmarks 🛇 Colla	abEx 🛇 BugTraq+ 🛇 SWLC 🖻 Search 🖻	SUN 🖹 Spass				
🕙 🛇 acro 1.0				X		
Console   Version   Manage Queries   Man	age Resultsets			Log Out   Help   📥		
User: cko Server: pc137	ge_resultsets	Sun Sun				
acro > manage_resultsets Error_And_Information_Messages Select a view: all Select						
Name of Resultset 👝	Description	Timestamp 👝	View 🛆	Action		
resultset_of_Query_2003_001	Description of Resultset	yyyy:mm:tt:hh:mm:ss	job	Delete View		
resultset_of_Query_2003_002	Description of Resultset	yyyy:mm:tt:hh:mm:ss	job	Delete View		
resultset_of_Query_2003_003	Description of Resultset	yyyy:mm:tt:hh:mm:ss	system	Delete View		
resultset_of_Query_2003_004	Description of Resultset	yyyy:mm:tt:hh:mm:ss	host	Delete View		
resultset_of_Query_2003_005	Description of Resultset	yyyy:mm:tt:hh:mm:ss	host	Delete View		
🔊 🖂 🎉 💇 🔲 Document: Done (0.864 secs)						



#### André Alefeld andre.alefeld@sun.com

www.sun.com/grid gridengine.sunsource.net

