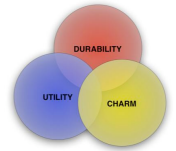


Class 11 CIS 573

(lecture 10)

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Penn Engineering - Computer & Information Science
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Roadmap

- Where are the Clouds
- I am not a lawyer, but ...
- First Impressions
- Review
- Readings this class: NONE!

Critical Dates

- Every class project review
- ~~July 23rd Mid Term~~
- ~~August 6th log books due - by Midnight~~
- August 11th project presentations
- August 13th Final

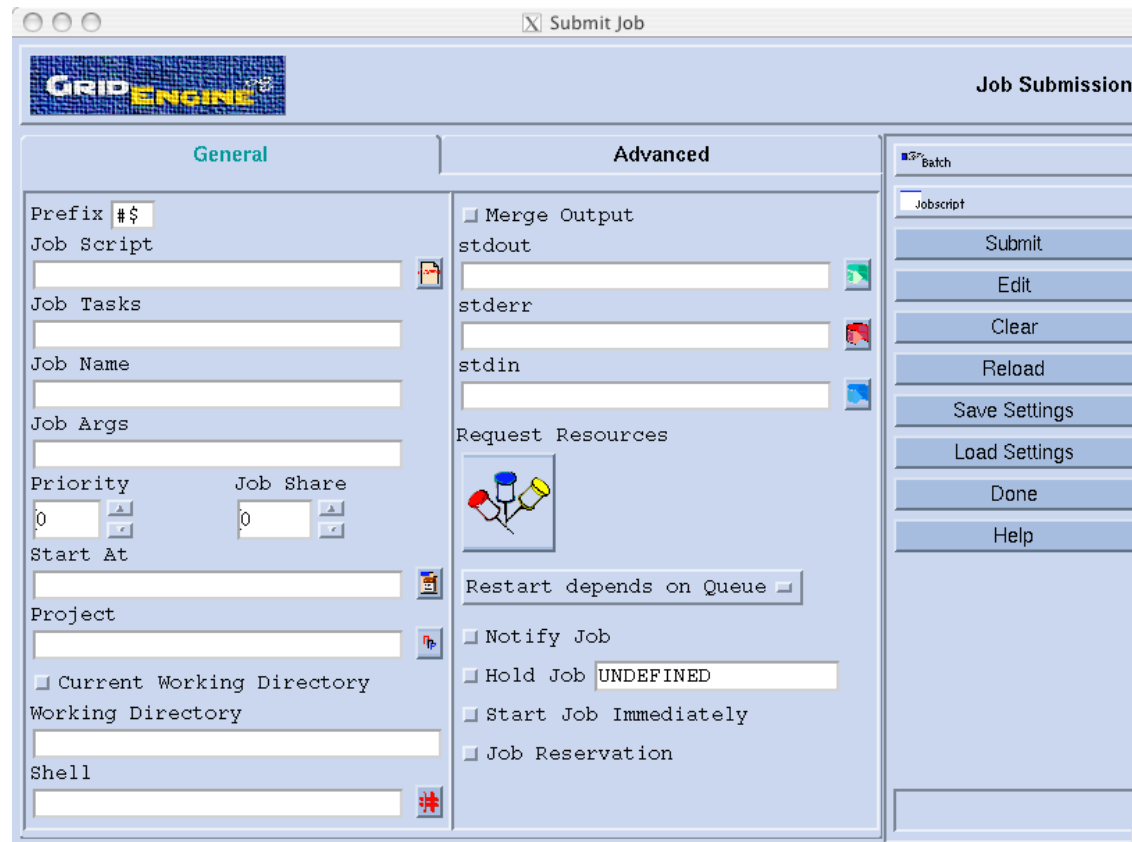
Teams

- Team 1 - Klein Keane, Beck, Buchman, Richardson, Nunez
- Team 2- Wilmarth, Caputo, Xiang, Francis, Nanda
- Team 3- Noronha, Fang, Huang
- Team 4-Whitehead, Liu, Ratnakar

Where are the Clouds?

- Grid - analogy to electric grid
- Cloud - analogy to internet
 - More service application oriented
 - SOA
 - Economic rather than technical issues
 - Open Cloud Manifesto - cloud should be open (broader Internet)
- The terms are blurring

Grid Job Submit



The screenshot shows a web-based interface for submitting a Grid Engine job. The window title is "Submit Job". The interface is divided into three main sections: "General", "Advanced", and a right-hand sidebar.

General Section:

- Prefix: # \$
- Job Script: [Text input field]
- Job Tasks: [Text input field]
- Job Name: [Text input field]
- Job Args: [Text input field]
- Priority: [Spin box, value 0]
- Job Share: [Spin box, value 0]
- Start At: [Text input field]
- Project: [Text input field]
- Current Working Directory
- Working Directory: [Text input field]
- Shell: [Text input field]


Advanced Section:

- Merge Output
- stdout: [Text input field]
- stderr: [Text input field]
- stdin: [Text input field]
- Request Resources: [Icon of three pushpins]
- Restart depends on Queue: [Text input field]
- Notify Job
- Hold Job: UNDEFINED
- Start Job Immediately
- Job Reservation

Right-hand Sidebar:

- Batch
- Jobscript: [Text input field]
- Submit
- Edit
- Clear
- Reload
- Save Settings
- Load Settings
- Done
- Help

Sun Grid Status



The screenshot shows the QMON Job Control interface. The window title is "QMON +++ Job Control". The interface includes a "GRID ENGINE" logo and a "Job Control" header. Below the header, there are three tabs: "Pending Jobs", "Running Jobs", and "Finished Jobs". The "Pending Jobs" tab is active, displaying a table of jobs. The table has columns for JobId, Priority, JobName, Owner, Status, and Queue. All jobs listed are in a "pending" state. To the right of the table is a vertical toolbar with various control buttons.

JobId	Priority	JobName	Owner	Status	Queue
11064	0.00000	sundoit.sh gtv		Eqw	*pending*
11065	0.00000	sundoit.sh gtv		Eqw	*pending*
11066	0.00000	sundoit.sh gtv		Eqw	*pending*
11067	0.00000	sundoit.sh gtv		Eqw	*pending*
11068	0.00000	sundoit.sh gtv		Eqw	*pending*
11069	0.00000	sundoit.sh gtv		Eqw	*pending*
11070	0.00000	sundoit.sh gtv		Eqw	*pending*
11071	0.00000	sundoit.sh gtv		Eqw	*pending*
11072	0.00000	sundoit.sh gtv		Eqw	*pending*
11073	0.00000	sundoit.sh gtv		Eqw	*pending*
11074	0.00000	sundoit.sh gtv		Eqw	*pending*
11075	0.00000	sundoit.sh gtv		Eqw	*pending*
11076	0.00000	sundoit.sh gtv		Eqw	*pending*
11077	0.00000	sundoit.sh gtv		Eqw	*pending*
11078	0.00000	sundoit.sh gtv		Eqw	*pending*
11079	0.00000	sundoit.sh gtv		Eqw	*pending*
11082	0.00000	sundoit.sh gtv		Eqw	*pending*

Buttons on the right side of the interface include: Refresh, Submit, Tickets, Force (checkbox), Suspend, Resume, Delete, Reschedule, Select All, Why?, Hold, Priority, Qalter, Clear Error, Customize, Done, and Help.

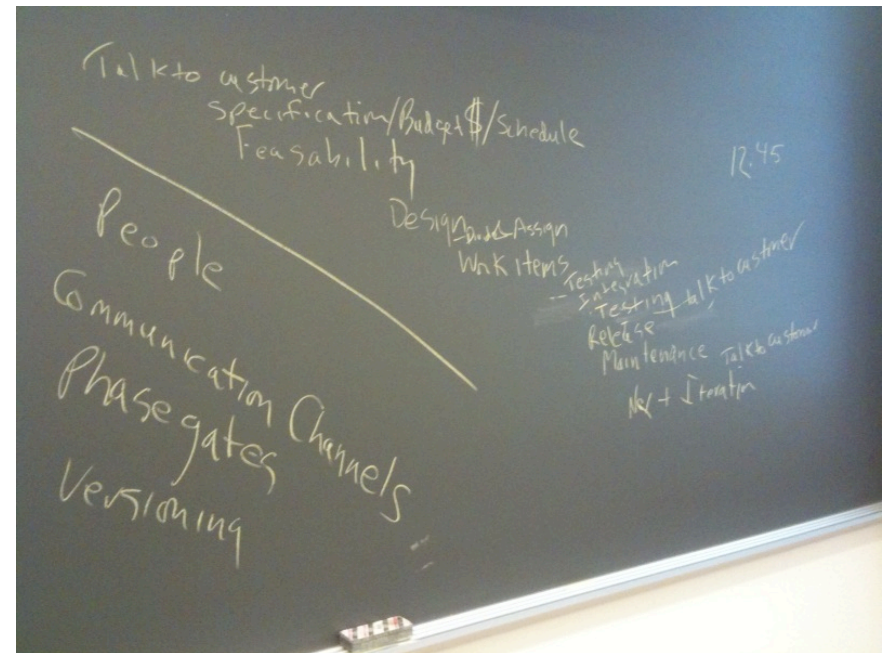
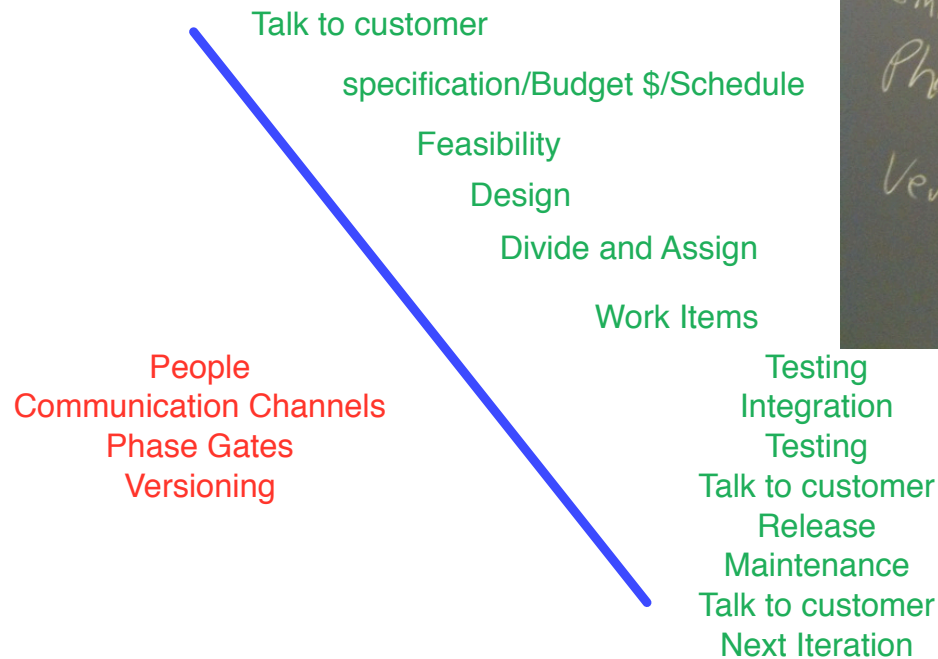
Open Source Licensing

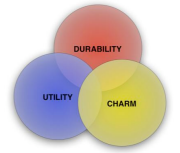
http://developer.kde.org/documentation/licensing/licenses_summary.html

license	Proprietary sfw linking	Distribution	Re- distribution with changes	GNU GPL compatible
GPL	Not allowed	Not allowed	Only with GNU GPL	yes
Apple public	allowed	allowed	Only with apple	no
Apache	allowed	allowed	Allowed so long as apache is not in name	no
BSD	allowed	allowed	allowed	Yes (modified)
MIT(X11), W3C	allowed	allowed	allowed	yes
Sun public	allowed	allowed	Only under Sun public	no

Any Changes?

July 7th, 2009



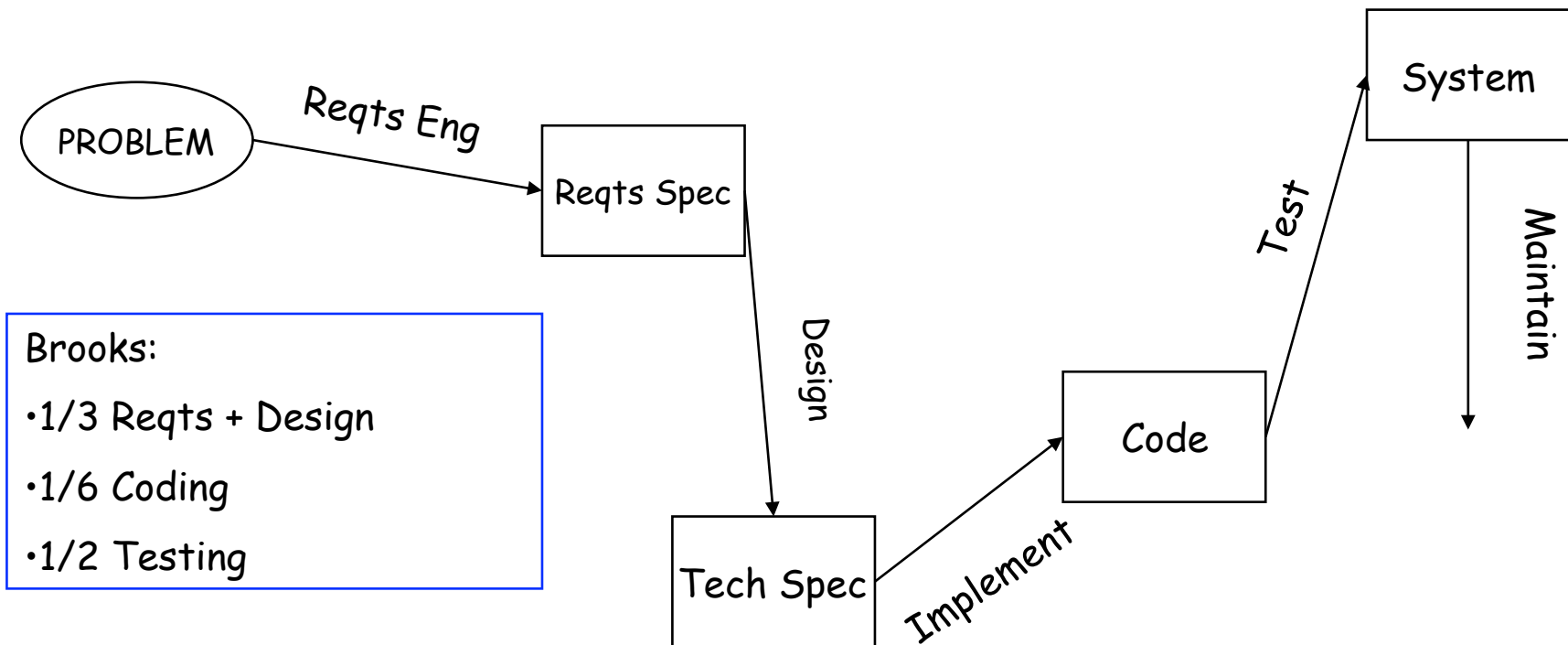


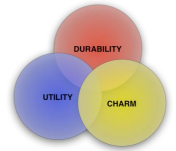
REVIEW!

Software Engineering Knowledge

- SWEBOK, SoftWare Engineering Body Of Knowledge:
 - Software requirements analysis
 - Software design
 - Software construction
 - Software testing
 - Software maintenance
 - Software configuration management
 - Software quality analysis
 - Software engineering management
 - Software engineering infrastructure
 - Software engineering process

Simplified Model





Class 1-3

- Software Engineering Overview
- Software Process Models
- CMM and the SEI
- Project Management
- Software Engineering micro and macro aspects
- Software Engineering Certification
- Requirements elicitation and representation
- Software project estimation
- Risk management
- Software Architecture
- Software Reviews

Class 4-end

- Design
- OO Design
- Quality
- Coding
- Testing
- Open Source
- Microsoft Development
- Anti-Patterns
- HCI
- Real Time Software Engineering
- Reliability
- SOA
- Security

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