

MEEG 304 Performance Guidelines		
Phase 1 - Concept Selection		
Senior Design (for reference)		MEEG 304
<p><b>Customer's Valid Concept</b></p> <p>A concept was selected and proposed that:</p> <ul style="list-style-type: none"> <li>1. is aligned with project goals and specific wants.</li> <li>2. is shown to be the best option among alternatives based on trade-off analysis of key metrics derived from customer wants.</li> <li>3. incorporates available technology at an appropriate level.</li> </ul>	50	Identify & justify subsystems for further design development.
	40	Identify & justify subsystems for further design development.
<p><b>Resource use effectiveness</b></p> <p>The phase was executed in a cost and time efficient manner. 1) needed resources were identified, engaged, and managed effectively, and 2) milestones were met and deliverables were accomplished on time. A path-forward plan was created to deliver project results to the sponsoring/business, and as appropriate, define next step developments needed for commercial application.</p>	10	Describe the plan that was followed. Recommend a path forward.
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<p><b>Design team interaction or communication</b></p> <p>The effectiveness of the project was enhanced by the team's: 1) ability to engage and integrate contributions of the extended team in the project through continuous communication processes; 2) teamwork; 3) professional behavior and appearance; and 4) clear and persuasive articulation of project status, proposed results, and potential consequences for the sponsor's business.</p>	10	Function as a cohesive team; Deliver weekly updates, Meeting Agendas, Minutes, Team Norms, & Plan Events. Demonstrate timely communication in Online Logbook. Deliver persuasive Proposal with explanations of UDesign, schedule, & sketches.
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- ### Feedback - Content
- ◆ Show logic & assumptions
  - ◆ Use valid target customers
  - ◆ Derive Wants = "should" ; constraints = "must"
  - ◆ Derive lessons learned from benchmarking
  - ◆ Derive Metrics = ways to measure "wants"
  - ◆ Derive Target Values = Engr Reqts.
  - ◆ Summarize why wants, metrics, target values chosen
  - ◆ Identify, design, analyze critical subsystems
  - ◆ Generate Concepts
  - ◆ Explain tradeoffs among serious alternatives
  - ◆ Derive "Decisions", Select "Best" Concept

- ### Feedback - Form
- ◆ Always deliver your best effort
    - Context – what is this report for?
    - Use Graphics!
    - Embed important Figs & use Fig. #'s (Avoid Flip?)
    - "Sloppy" means unreadable ☹ (Use Writing Center)
    - Always spell-check, proof-read, make user-friendly
    - Always read out loud!

- ### Feedback - Other
- ◆ Logical order of tasks?
  - ◆ Validity of Customers/Wants/Metrics?
  - ◆ Benchmarking
    - Photos, Data, Lessons Learned?
    - PTO Refs?
  - ◆ Select Best Concept by Metrics/Target Values
  - ◆ Check sensitivity of decision to inputs?
  - ◆ TMI on Management?

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**Price:** ~~\$2.49~~

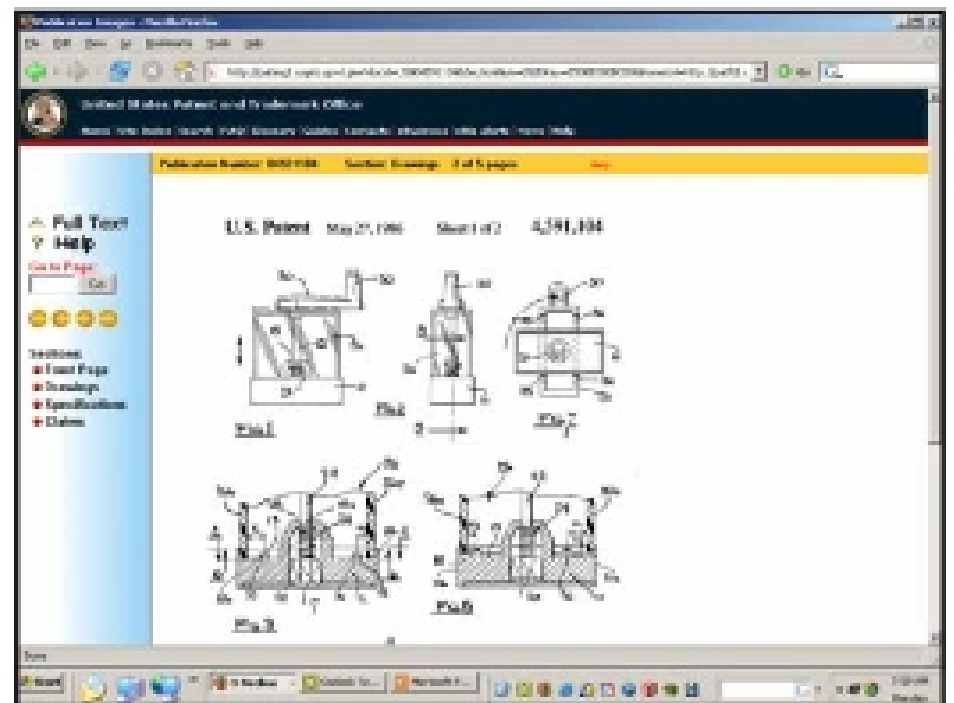
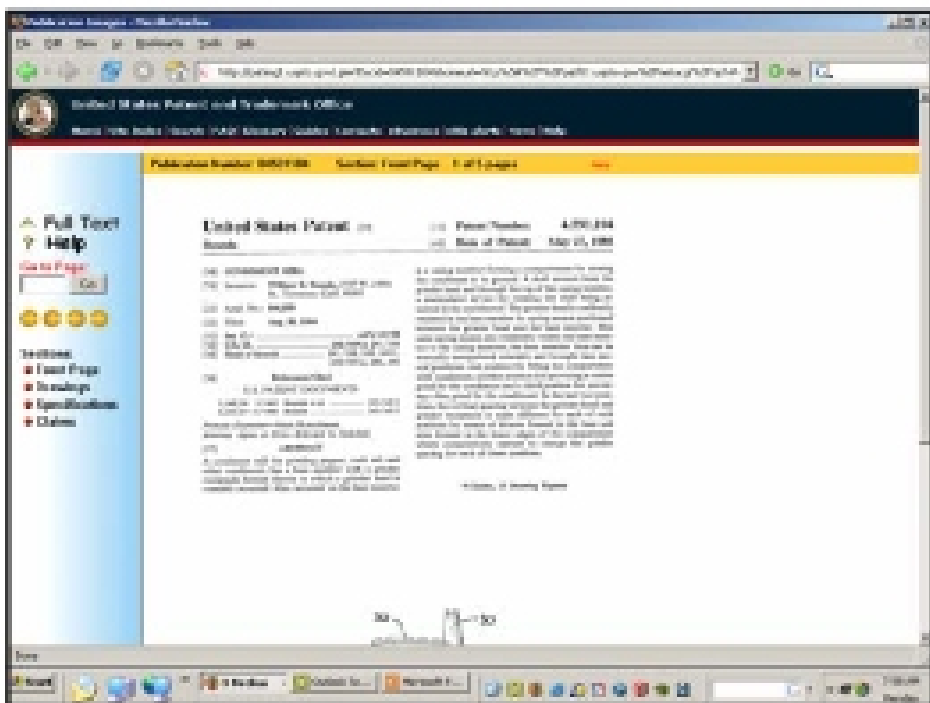
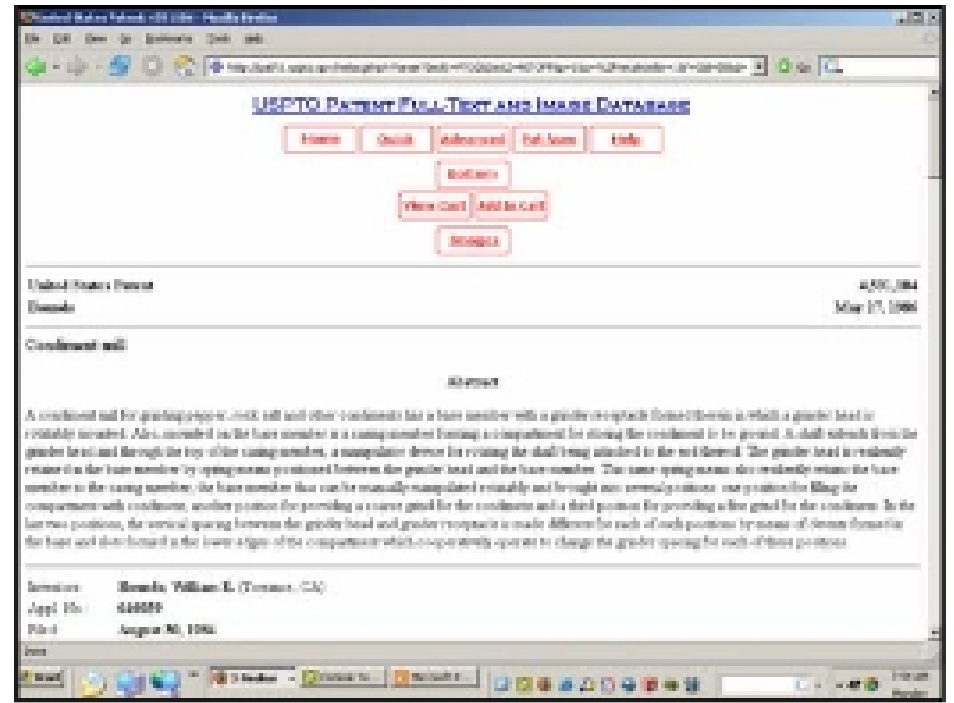
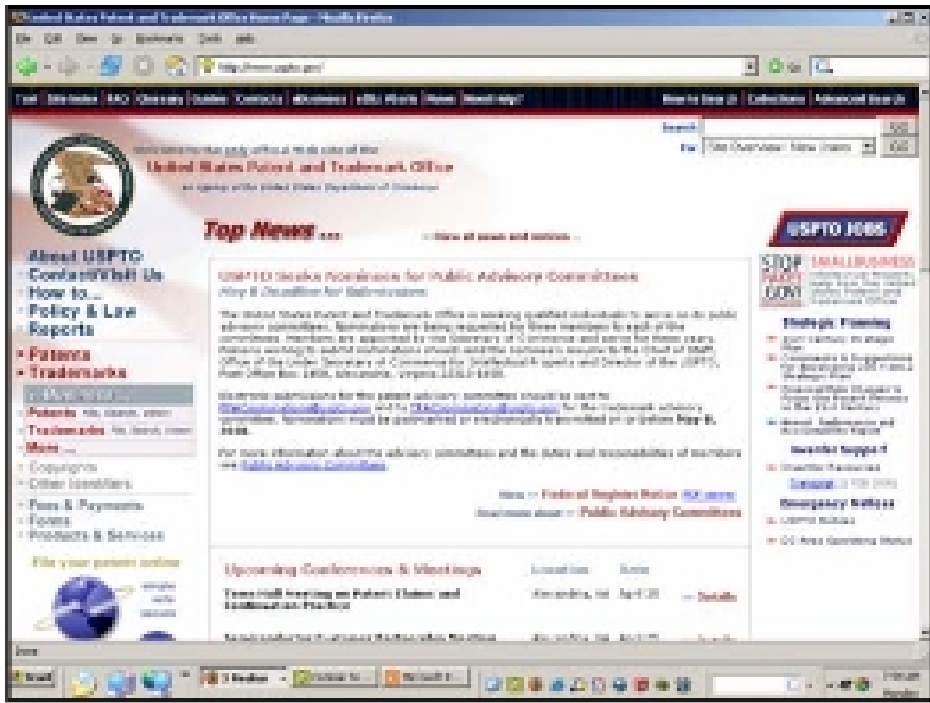
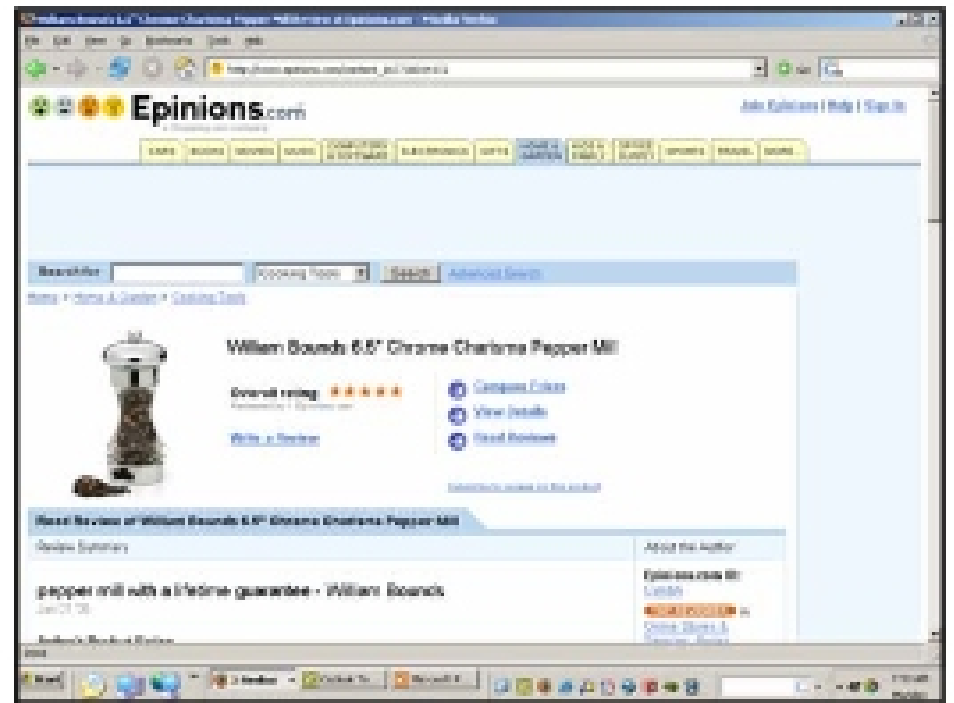
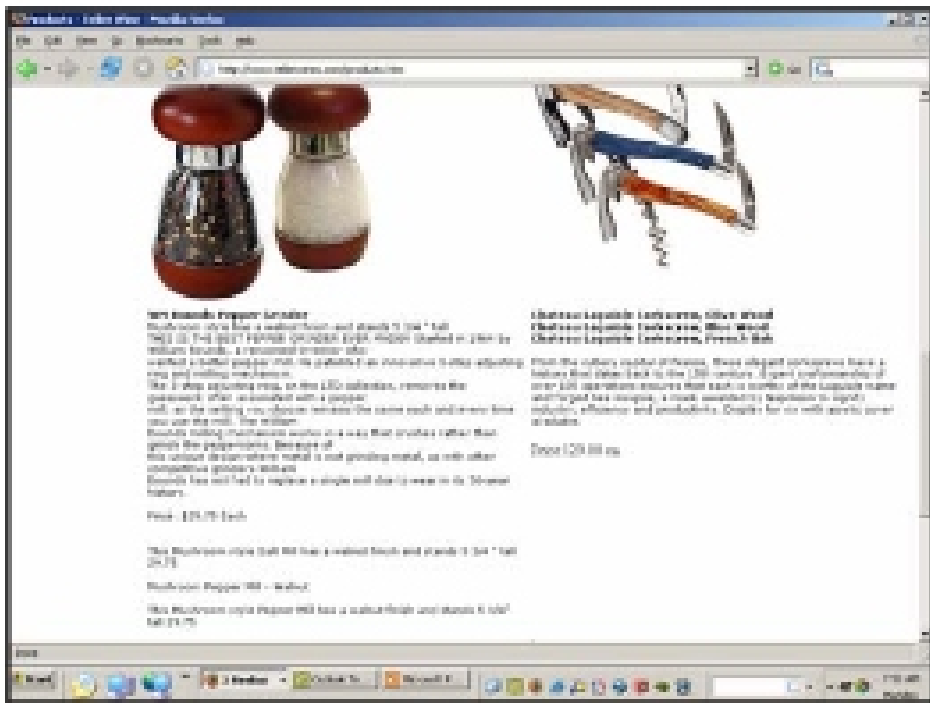
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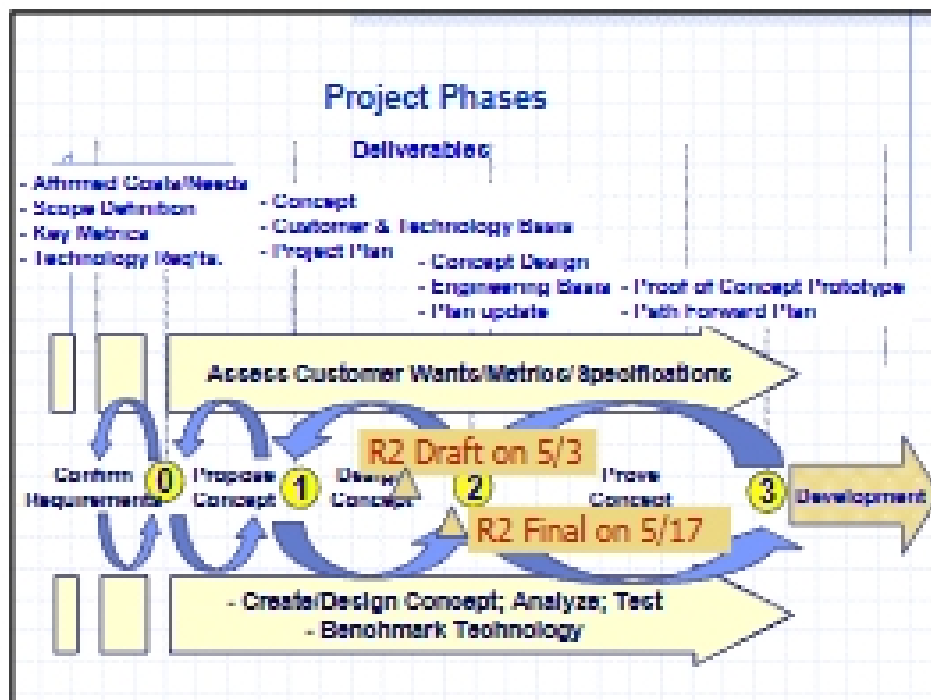
[2 used & new](#) available from ~~\$2.49~~

[See larger image](#)

**Features:**

- ◆ Adds Great Flavor To Your Dishes
- ◆ All Natural
- ◆ Quality Sealed For Freshness





## Phase 2 – Big Picture

- ◆ Intro – Summarize Project
- ◆ Detail Design
  - Design Freeze by Ph2 Draft Submittal
  - Engr Drawings + Bill of Materials
  - Analyses
  - Risk Reduction

## Phase 2 - Intro

- ◆ Background
- ◆ Customers/wants – updated
- ◆ Benchmarking
  - Lessons, metrics, range of wild ideas
- ◆ Metrics & Target Values – How?, Why?
- ◆ Summary of Concept Selection
- ◆ Design Freeze by Ph2 Draft Submittal

## Phase 2 – Detailed Design

- ◆ Flow Chart of Decisions?
- ◆ Subsystems & Interactions
- ◆ Critical Metrics, Target Values
  - Include deflection, strength, fatigue, vibration...
- ◆ Assumptions!
  - Cantilever conservative for stress
  - Simple supports conservative for deflection
- ◆ Easy/Tough Choices & Compromises
- ◆ Safety Factor/Margin Summary

## Phase 2 – Audience Issues

- ◆ Coherence is #1 task
- ◆ Graphics (shrink sizes)
  - Re-do sketches
  - Intersperse figures in report body
  - Reverse White on Black images
- ◆ Schedule – Roll up earlier sub-tasks
- ◆ Drawings – Need Bill of Materials
- ◆ Backup Slides – Key to Good Q/A

MEEG 394 Performance Guidelines		
Phase 2 - Concept Design		
	Senior Design (for reference)	MEEG 394
Translating Concept to Design	A design with comprehensive proof-of-concept studies and the remaining risks are less than 50% higher in the context of the sponsor's business and 20% higher in the context of the sponsor's customer wants and needs, with target values, metrics, the context of current technology/benchmarks, 3) Critical performance metrics for the sponsor's business within the concept.	75% of grade
		<ul style="list-style-type: none"> <li>Continued development of the best concept design among various alternatives, and validate based on: 1) Unfrozen metrics of assessing and integrating customer, wants, &amp; constraints; 2) adding value to sponsor's business; and 3) technical feasibility validated in the context of applicable best technology/benchmarks.</li> </ul>
Processes and effectiveness	The plan was created and evolved, and the effect of changes to needs/resources was limited, a regular and managed schedule, and 2) evidence of a regular and managed process. A path forward plan was created to deliver project results to the sponsor's business, and as appropriate, delivery of the developments needed for commercial application.	10
		<ul style="list-style-type: none"> <li>Describe the plan that was followed.</li> <li>Recommend a path forward.</li> </ul>
Engagement, interaction and communication	The effectiveness of the project was enhanced by the team's: 1) ability to engage and integrate contributors of the sponsor's business into the design through continuous communication processes; 2) awareness; 3) publication of behavior and appearance; and 4) clear and consistent articulation of project status, selected results, and beneficial consequences for the sponsor's business.	10
		<ul style="list-style-type: none"> <li>Function of a moderator/team/Chair/Weekly Updates, Working Agenda, Minutes, &amp; Peer Goals.</li> <li>Delivered late, timely communication in Online Logbook.</li> <li>Deliver per course Design Report with engineering drawings, published path list, &amp; engineering analysis.</li> </ul>