

## Reading 04

9/15/2022

10 Possible Points

Attempt 1



IN PROGRESS

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Unlimited Attempts Allowed

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## Cruise Control Design Case Study

This week, you will be reviewing another set of alternative designs for a different case study, covering another classic problem used for examples in software engineering and software design.

### To read

- [required] M. Shaw. [Beyond objects: A software design paradigm based on process control](https://canvas.vt.edu/courses/156121/files/23790851/download?wrap=1) (<https://canvas.vt.edu/courses/156121/files/23790851/download?wrap=1>). *ACM Software Engineering Notes*, 20(1):27-38, Jan. 1995.
- [required] M. Shaw. [Comparing architectural design styles](https://canvas.vt.edu/courses/156121/files/23790867/download?wrap=1) (<https://canvas.vt.edu/courses/156121/files/23790867/download?wrap=1>). *IEEE Software*, 12(6): 27-41, Nov. 1995.
- [optional] G. Fairbanks. Chapter 2 and 14. *Just Enough Software Architecture* [textbook] Marshall & Brainerd, 2010, pp. 15-31, 273-295.
- [optional] L. Bass, et al. [Chapter 8 Case Study: Flight Simulation](https://canvas.vt.edu/courses/156121/files/23790861/download?wrap=1) (<https://canvas.vt.edu/courses/156121/files/23790861/download?wrap=1>). From *Software Architecture in Practice*, 2nd Ed., Pearson Education, 2003.

### To turn in

Prepare a brief (no more than one page) written answer to the following two questions. Write up your answer using MS Word or LaTeX, and generate a PDF version in a file named [R04-yourPID.pdf](#). One well-presented paragraph for each question is sufficient.

1. What characteristics of a software design problem would make it a good match for a process control

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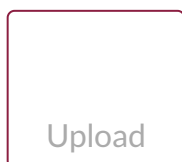
2. Looking at the designs in the readings and how each attempts to be flexible, what kinds of potential change/adaptability can you identify for the cruise control design problem?

Upload your PDF to this assignment here on Canvas.

✓ View Rubric

Reading Assignment Evaluation					
Criteria	Ratings				Pts
Question 1 <a href="#">view longer description</a>	5 pts Good: shows critical engagement with the readings assigned	3 pts Marginal: repeats content from the reading without additional insight	1 pts Minimal answer: does not show engagement with the reading	0 pts No answer	/ 5 pts
Question 2 <a href="#">view longer description</a>	5 pts Good: shows critical engagement with the readings assigned	3 pts Marginal: repeats content from the reading without additional insight	1 pts Minimal answer: does not show engagement with the reading	0 pts No answer	/ 5 pts
					Total Points: 0

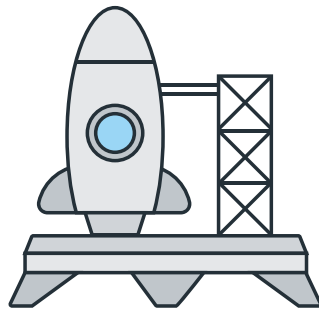
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