

Vat/Asp

Software Engineering I

2000

P10a1
RJA

Computer Aided Software Engineering (CASE) tools are designed to help developers manage complexity.

Describe ^{what are the main} two different types of complexity ~~must~~ such a tool ^{must} deal with?

(4 marks)

What are the ~~needed~~ tools traditionally used to manage each type of complexity?

(6 marks)

Describe briefly one case history in which a serious failure was caused by each type, ~~and~~ indicate what features

(10 marks)

Model answer.

Incidental and intrinsic complexity.

High level languages; development methodologies

Incidental complexity failures: Patriot missile, Therac-25

Intrinsic complexity failures: LAS. Perhaps one of the redundancy case histories.