

Homework 4 (due 12/7/2006 at 12:05pm)

via email to ada@cc or hardcopy in class

1. Discuss the pros and cons of the file-upload vs. remote access model for distributed file servers.

2. What kind of file sharing semantics are supported in NFSv3?

3. Assumption: all variables originally hold the value 0.

a) Consider the following sequence of operations:

P1: W(x)1 R(x)2 W(x)3

P2: W(x)2

P3: R(x)2 R(x)1

P4: R(x)2 R(x)3

Is this execution causally consistent? Add or modify an event to change the answer.

b) Consider the following sequence of operations:

P1: W(x)1 W(x)3

P2: R(x)1 R(x)1 R(x)3

Is this execution strictly consistent? Add or modify an event to change the answer.

c) Consider the following sequence of operations:

P1: W(x)1 W(x)3 S

P2: R(x)3 S R(x)1

Is this execution weakly consistent? Add or modify an event to change the answer.

d) Consider the following sequence of operations:

P1: L W(x)1 W(x)3 U

P2: L R(x)1 U R(x)1

Is this execution release consistent? Add or modify an event to change the answer.