# Week2: Operational Analysis and Workload Characterisation

A: requests arrived

B: sever busy for time

C: jobs completed

T: an observational period

Deductions:

Arrival rate l = A/T Output rate X = C/T

Utilisation U = B/T  
Mean service time per completed request = B/C

UtilisationU=B/T  
Mean service time per completion S=B/C

Output rate X=C/T

U=SX (If U not equal to SX, something is wrong)

• A(j)=Numberofarrivalsatdevicej  
• B(j)=Busytimefordevicej  
• C(j)=Numberofcompletedjobsfordevicej

• Inaddition,wehave  
• A(0)=Numberofarrivalsforthesystem  
• C(0)=Numberofcompletionsforthesystem

V(j) = C(j) / C(0)