

Model Formation for Rework Cycle

Quality=1 ~ Dimensionless

Productivity=1 ~ Task / (Person * Month)

Rework Discovery= (Undiscovered Rework/Time to Discover Rework)*Project Finished
~ Task / Month

Time to Discover Rework=4 ~ Month

Staff Level=1 ~ People

Initial Work to Do=100 ~ Tasks

Rate of Doing Work=Rework Generation +Work Accomplishment
~ Tasks/Month

Cumulative Work Done= INTEG (Rate of Doing Work, 0)
~ Tasks

Rework Generation=MIN(Potential Work Rate*(1-Quality),(1-Quality)*Work to Do/TIME
STEP)*Project Finished
~ Task / Month

Project Finished=IF THEN ELSE(Work Done>99,0,1)
~ Dimensionless

Work Accomplishment=MIN(Potential Work Rate*Quality, Quality*Work to Do/TIME
STEP)*Project Finished
~ Task / Month

Potential Work Rate=Staff Level*Productivity
~ Task / Month

Undiscovered Rework= INTEG (Rework Generation-Rework Discovery,0)
~ Task

Work Done= INTEG (Work Accomplishment, 0)
~ Task

Work to Do= INTEG (Rework Discovery-Rework Generation-Work Accomplishment, Initial Work to
Do)
~ Task

FINAL TIME = 100 ~ Month

INITIAL TIME = 0 ~ Month

TIME STEP = 0.125 ~ Month