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MBA

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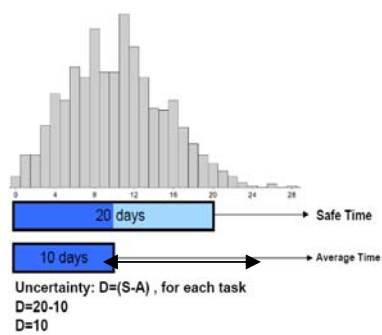
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$$Buffer\ Size = \sqrt{D_1^2 + D_2^2 + \dots + D_n^2} \quad ()$$

D=10 for this example

$$Buffer\ Size = \sqrt{10^2 + 10^2 + \dots + 10^2} = 28.28$$

RF

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q

r(i,q)

i

d_i

i

T . q

Rav(q)

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[]

σ_i

$$RF(q) = (\sum_i r(i, q) \times d_i) / T \times Rav(q) \quad ()$$

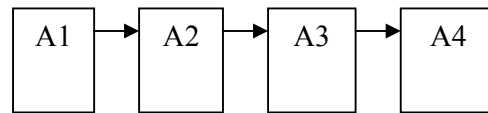
$$r' = \max_q \{RF(q)\} \quad ()$$

$$A = 1 + r' \quad ()$$

$$BUFFER\ SIZE = (A * \sum_j del_i) \quad ()$$

P1

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.P1

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A1

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A2 (

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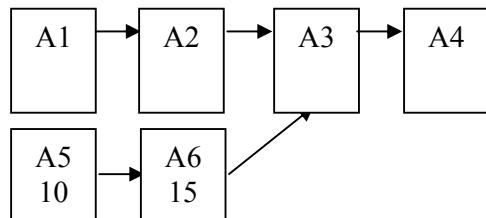
A3 (

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A4 (

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P2



.P2

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P1

A4 A1

A5

A6

A3

P1

A3

P2

σ

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A3

(P1

A3

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- M_i

$$del_i = \sigma_i \quad ()$$

$$BUFFER\ SIZE = \sum_j del_i \quad ()$$

$$M_i = \frac{|j|-1}{k} \times \sum_i \frac{\sigma_i}{|j|} \quad ()$$

$$Buffersize = M_i + (A \times \sum_i del_i) \quad ()$$

$E(x) = e^{\mu + \frac{1}{2}\sigma^2} \quad ()$
 $Var(x) = e^{2\mu + 2\sigma^2} (e^{\sigma^2} - 1) \quad ()$
 $Median(x) = e^{\mu} \quad ()$
 $Mode(x) = e^{\mu - \sigma^2} \quad ()$

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4

(μ σ^2)

μ

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X

$$P(X_i > x) = P(X_i < x) = 0.5 \quad ()$$

$$Median(x) = \exp(\mu) \quad ()$$

$$\mu = \ln(Median(x)) \quad ()$$

σ

σ

σ

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$$Y \sim N(\mu, \sigma)$$

$$X = \exp(Y)$$

σ

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$\sigma > 1$

$0 < \sigma < 1$

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σ

$\sigma > 0.5$

$\sigma > 0.5$

$\mu = \text{Ln}[\text{Median}(X)]$

$0 < T_i < 2 \text{ Median}$

122.1, Median) ()

σ

122.2

<2 Median) :

σ	P(X < 2 Median)	P(X > 2 Median)
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.	.	.
.	.	.
.	.	.
.	.	.

$\sigma > 0/5$

%

σ

μ

P(X < 2

μ

σ

Median)

σ

$0 < \sigma_i < 0.5$

$$stdev_{log} = \sqrt{\log\left(1 + \left(\frac{stdev}{mean}\right)^2\right)} \quad ()$$

$$mean_{log} = \log(mean) - \frac{1}{2} \times \log\left(1 + \left(\frac{stdev}{mean}\right)^2\right) \quad ()$$

$$r1 = \text{Sqr}(-2 * \text{Log}(\text{rnd}())) * \text{Sin}(2 * \text{PI} * \text{rnd}()) \quad ()$$

$$r1 = mean_{log} + r1 * stdev_{log} \quad ()$$

$$r1 = \exp(r1) \quad ()$$

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$\sigma =$:

RM ²
C&P
RSEM
APRT

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$\sigma = 0.4$

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.(% . .)

$\sigma = 0.5$

RM ²
C&P
RSEM
APRT

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$\sigma = 0.4$

RM ²
C&P
RSEM
APRT

$\sigma = .$

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RCPS

PSPLIB
<http://129.187.106.231/psplib/>

RCPS

RS

:(NC)

PSPLIB

RS

:(RF)

RF .

RF

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:(RS)

RS

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1 -Critical Chain Project Management
3 - Goldratt
5 - Product Development Institute (PDI)
7 - Cut & Past Method
9 - Safe Time or Safe Estimate
11 - Adaptive Buffer Sizing Procedures
13 - Adaptive Procedure With Density (APD)
15 - Resource & Morphology & Risk Method (RM²)
17 - Average Estimate
19 - Microsoft Project 2007
21 - CCPM+
23 - Box Muler
25 - High Risk Environment Method (HREM)

2 -Kolisch Hartman
4 -Theory of Constraints
6 -New Bold
8 - Root Square Error Method (RSEM)
10 - Average Time or Average Estimate
12 - Feeding Chain
14 - Patters On Data Set
16 -Morphology
18 - VBA
20 - As Late as Possible
22 - Visual Basic for Application
24 - Resource Usage