

Download the 3,100 Generated Networks

of our paper

"A simulation and evaluation of earned value metrics to forecast the project duration"
by

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On our website, you can download the 3,100 generated networks proposed in our paper. We have 4 different data sets, as follows:

Set 1: Network indicator:

serial or parallel network (SP)

SP = 0.1; 0.2; 0.3; 0.4; 0.5; 0.6; 0.7; 0.8; 0.9

Using 100 instances for each setting, we have generated 900 project network instances.

Set 2: Activity indicator:

activity distribution (AD):

Set 2.1: AD = 0.2; 0.4; 0.6; 0.8 and SP = 0.2

Set 2.2: AD = 0.2; 0.4; 0.6; 0.8 and SP = 0.5

Using 100 instances for each setting, we have generated $2 * 400 = 800$ project network instances for this sub-set.

Set 3: Precedence relations indicator:

Length of arcs (LA):

Set 3.1: LA = 0.2; 0.4; 0.6; 0.8 and SP = 0.2

Set 3.2: LA = 0.2; 0.4; 0.6; 0.8 and SP = 0.5

Set 3.3: LA = 0.2; 0.4; 0.6; 0.8 and SP = 0.8

Using 100 instances for each setting, we have generated $3 * 400 = 1200$ project network instances for this sub-set.

Set 4: Float indicator:

serial or parallel network (SP):

Set 4.1: TF = 0.2; 0.4; 0.6; 0.8 and SP = 0.2

Set 4.2: TF = 0.2; 0.4; 0.6; 0.8 and SP = 0.5

Set 4.3: TF = 0.2; 0.4; 0.6; 0.8 and SP = 0.8

Using 100 instances for each setting, we have generated $3 * 400 = 1200$ project network instances for this sub-set.

Each project instance contains 30 non-dummy activities and is written in the well-known Patterson format (Patterson (1976)). For more information about the specific calculations of the indicators, we refer to Vanhoucke et al. (2004). The networks have been generated by RanGen (see www.projectmanagement.ugent.be/rangen.php)

References

Patterson, J.H. , 1976, "Project scheduling: the effects of problem structure on heuristic scheduling", Naval Research Logistics 23, 95-123.

Vanhoucke, M., Coelho, J.S., Tavares, L.V. and Debels, D., 2004, "On the topological structure of a network", Ghent University, Working Paper 04/272