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Queues in Acquisition

Or, don't let a good leading indicator go to waste

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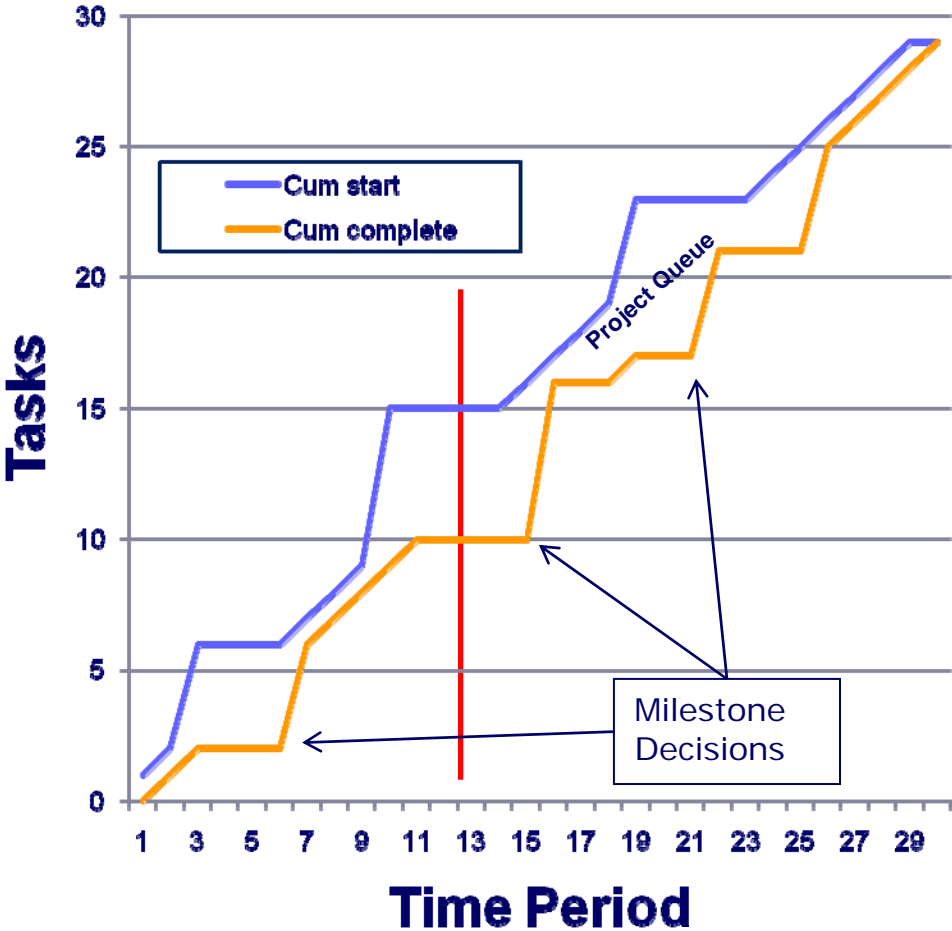
Audit . Tax . Consulting . Financial Advisory .



We Know Visible Queues Well



See a Project Queue



Calculate Queue Size – v1

$$\text{Queue size (man-hrs)} = \sum_t \text{Actual manhours}(t)$$

t is a started but incomplete task

Pro: accurate

Cons

- *raw data may not be timely*
- *not all projects enter man-hours by task*

Calculate Queue Size – v2

$$\text{Queue size (task-periods)} = \sum_t \text{Actual periods from start}(t)$$

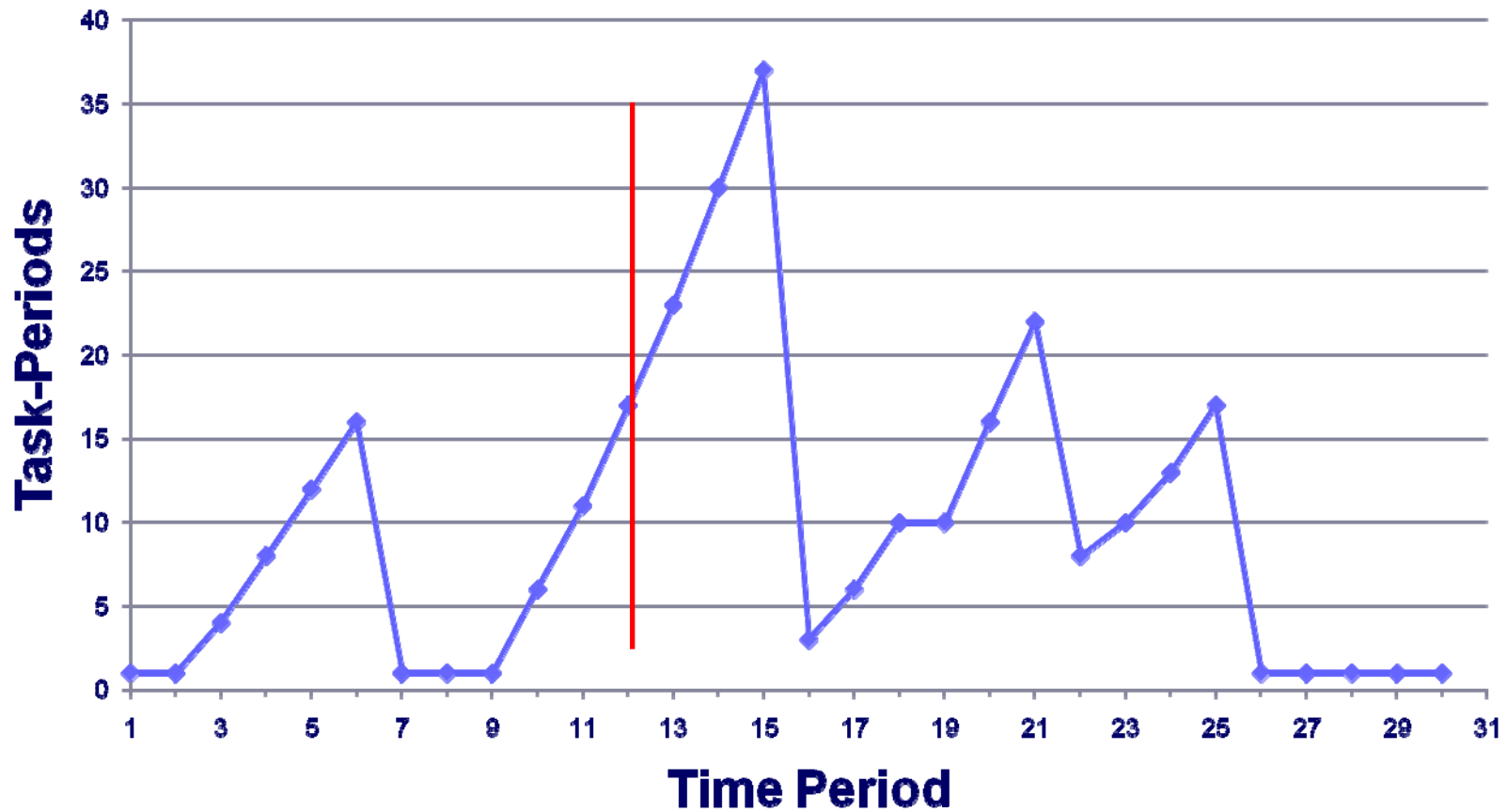
t is a started but incomplete task

Pros

- *Fast*
- *Available from simple IMS data*
- *All projects enter task finish dates*

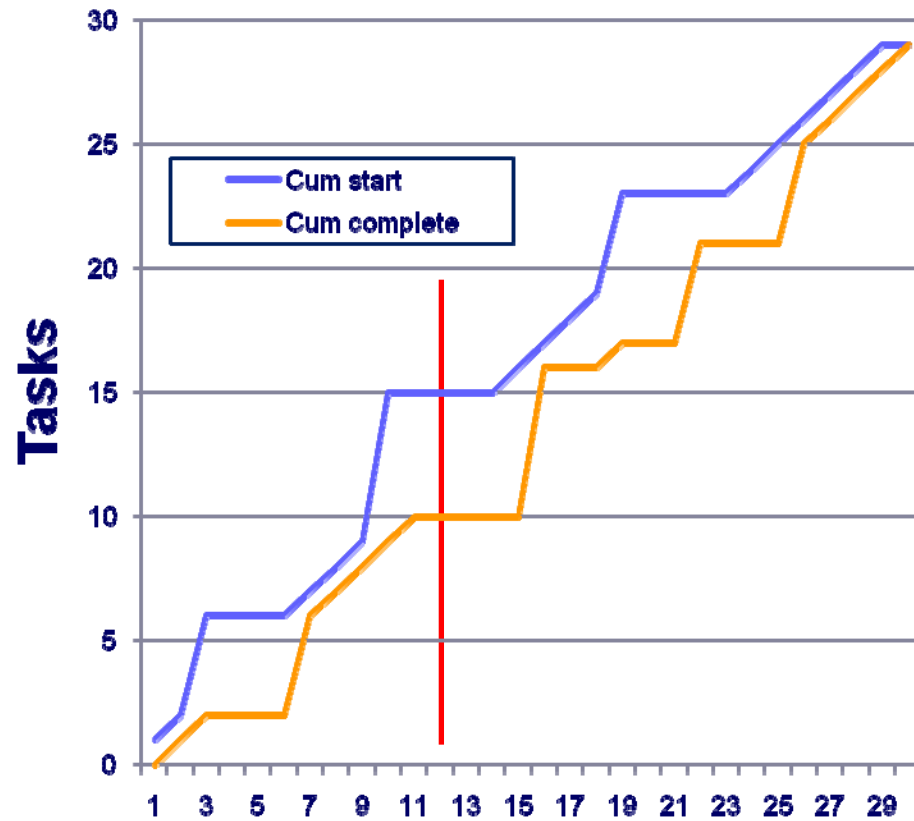
Con: not as accurate as man-hr calculation

Queue Metric, Task-Periods

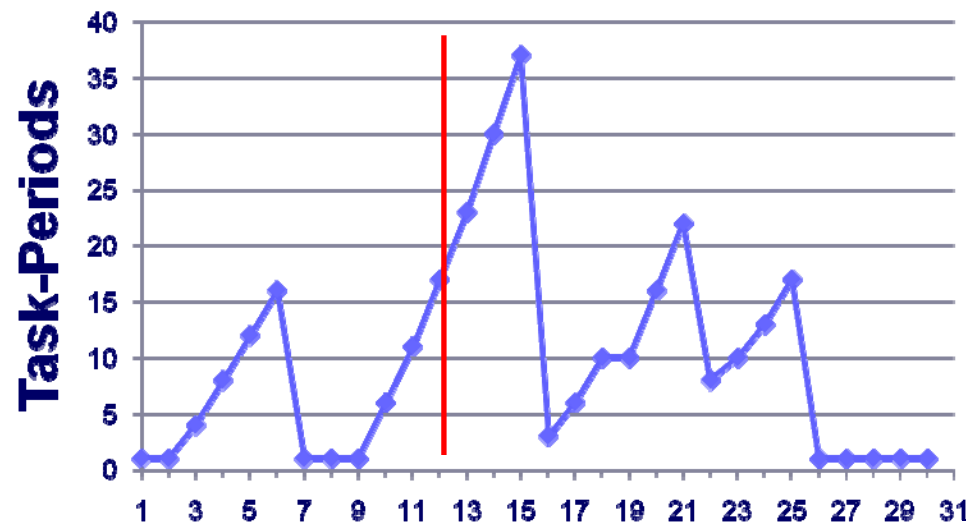


Comparison

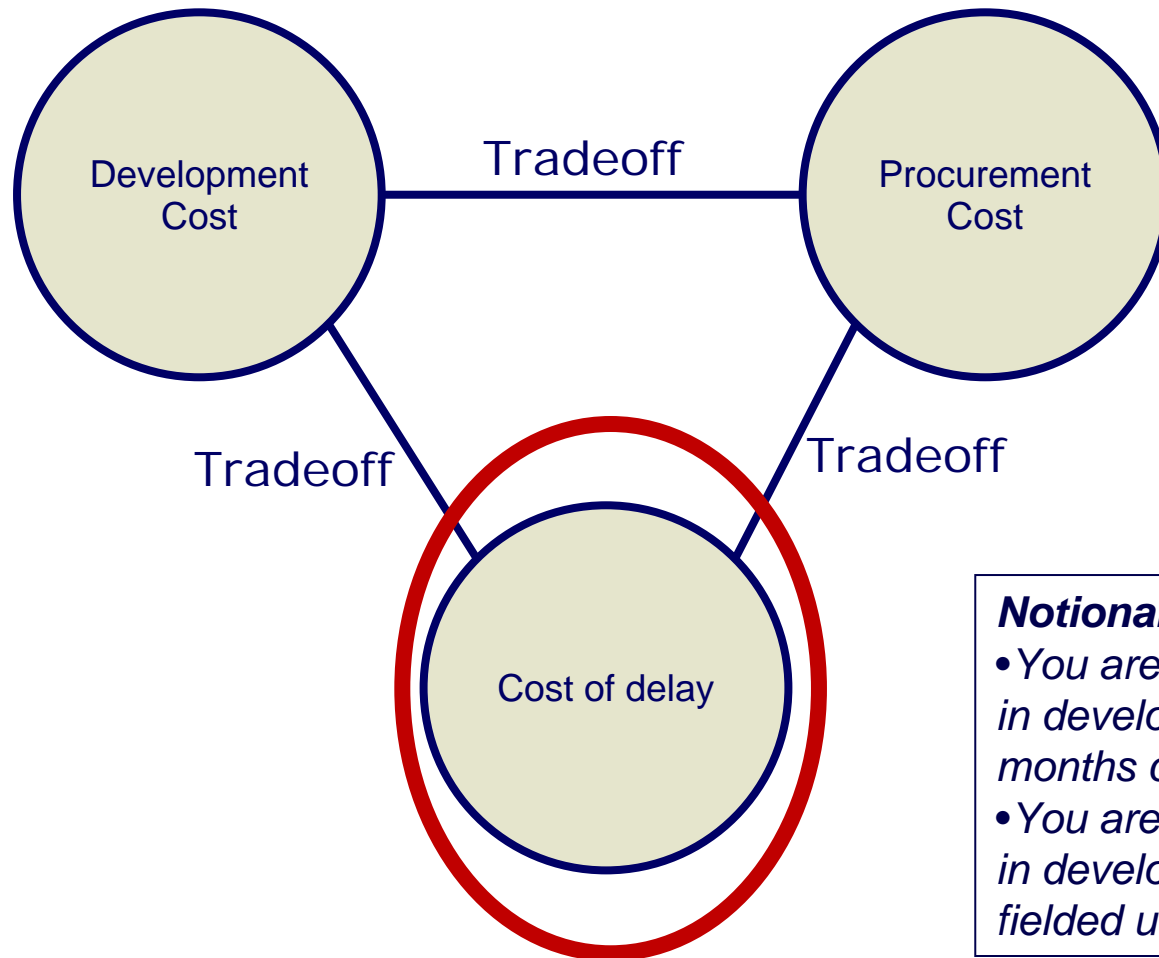
- Project overview



- Queue metric



Control Queues with Economics



Hard to estimate!

Notional examples

- You are authorized to spend up to \$1m in development cost to save three months cycle time*
- You are authorized to spend up to \$1m in development cost to save \$10m in fielded unit cost*

References

- Lean Advancement Institute, MIT <http://lean.mit.edu/>
- [Factory Physics](#) by W. Hopp and Mark L. Spearman
- [Toyota Product Development System](#) by Morgan and Liker
- [The Principles of Product Development FLOW: Second Generation Lean Product Development](#) by Donald G. Reinertsen
- [Maneuver Warfare Handbook](#) by William S. Lind

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