

# WHAT IF

You could identify & eliminate operational waste in your company?




## WORKFLOW SIMULATION + ANALYSIS

empowers businesses to make informed decisions which improve efficiency, eliminate waste and increase profit. Using a structured process Advanced Solutions' workflow simulation team collects data, builds models, designs alternatives, validates designs, and simulates "what if" scenarios. This process results in workflow data which informs business decisions to reduce operational waste.

Learn more at [www.AdvancedSolutions.com/WHATIF](http://www.AdvancedSolutions.com/WHATIF)

Advanced Solutions, Inc. is a diversified technology company providing integrated software solutions and services that enable businesses to achieve more effective products, processes, technologies and ideas.



 Identify your company's 7 Kinds of Operational Waste.



Overproduction (*Making more than is immediately required*)

- 1**
- Producing product in batches
  - Producing product before it is needed
  - Producing based on forecasts
  - Creating drawings in 2D & redrawing in 3D
  - Creating a drawing before it is needed
  - Engineering Change Orders

Transportation (*Unnecessary movement of products & materials*)

- 2**
- Moving product from one cell to another on fork lift
  - Moving product on a conveyor
  - Moving product from plant to distribution center
  - Document is moved from one employee to another
  - Printing and shipping
  - Engineering Change Orders (ECO)

Inventory (*Excess products & materials not being processed*)

- 3**
- Raw material
  - Work in Progress (WIP)
  - Finished goods
  - Multiple version of drawings
  - Partially finished drawings
  - Drawings waiting for approvals

Over-processing (*More work or higher quality than is required by the customer*)

- 4**
- Product inspection
  - Product rework
  - Awkward designs
  - Drawing inspections
  - Drawing approvals
  - Awkward designs

Waiting (*Wasted time waiting for the next step in a process*)

- 5**
- Product in queue for processing
  - Lack of raw material
  - Inspections
  - Drawing approvals
  - Permit approvals
  - Drafting delays

Defects (*Efforts caused by rework, scrap and incorrect information*)

- 6**
- Engineering Change Orders (ECO)
  - Product repairs
  - Scrap
  - Engineering Change Orders (ECO)
  - Drawing errors
  - Drawing omissions

Motion (*Unnecessary movements by people or machinery*)

- 7**
- Reprocessing
  - Extra process steps
  - Searching for tools
  - Unproductive site visits
  - Looking for drawings
  - Multiple handoffs for approvals