



KEY POINTS

The **TechWatch Tool** Provides:

- Quick, consistent model (PV) building, revision, sharing, and management - *A Repeatable Process!*
- Easy, seamless transfer of PVs into and out of the database, promoting sharing and collaboration among analysts
- A powerful tool suite for generating credible time estimates for the acquisition process of a technology or other capability

COLLABORATION

We welcome participation from other government agencies and commercial entities in its further development and use, including:

- Membership in the Technology Watch User Group
- Access to the **TechWatch Tool**
- Training
- Collaborative Process Visualization Development

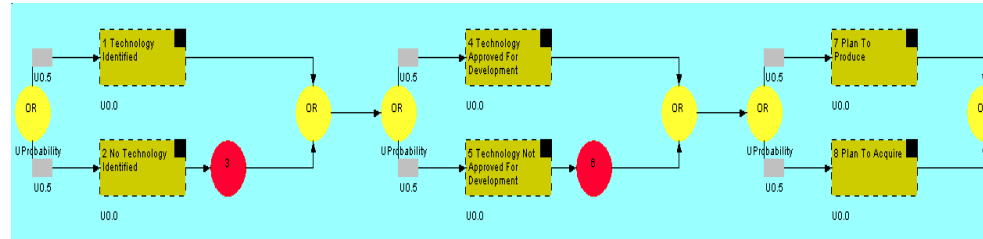
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Consistency and Collaboration

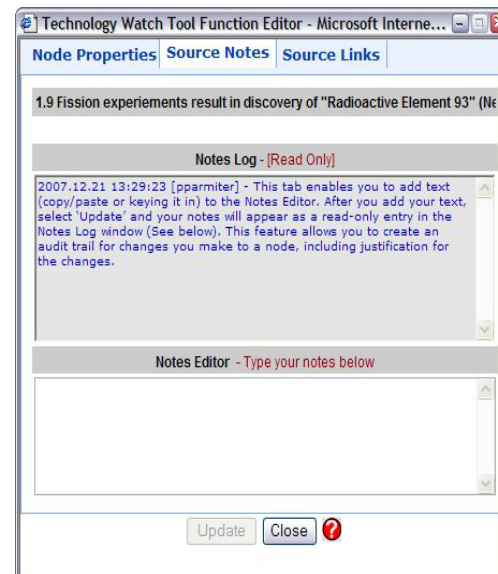
PROCESS VISUALIZATION TEMPLATE

Below is a section of a standard, top-level template that is available to build system, technology, and other **PVs**. Benefits of the standard template include **PV** consistency, vetting, and sharing.



SOURCING PROMOTES COLLABORATION

The TechWatch Tool enables full sourcing down to the individual node level. Source information may be typed in or copied/pasted from an external document. In addition, live links can be created to network files or Websites. Node-level sourcing builds an audit trail for changes made to a node, including justification for the changes, thus strengthening collaboration between analysts working on the same PV. Sourcing also creates a history of the analysis done within a PV that will remain even after those who originally developed the PV move on to other jobs or retire.



Anticipate The Future



Purpose and Benefits

The **TechWatch Tool** (TechWatch Tool) was developed by Innovative Management Concepts, Inc. (IMC) for the US Army National Ground Intelligence Center (NGIC) to support their Technology Watch Program. The Tool was designed to assist Army force developers as they work to maintain military overmatch while ensuring against technical surprise for the Future Force.

The **TechWatch Tool** is flexible and extensible enough to be used for depicting timelines for the development of “threat-level” technologies or capabilities, or for depicting the duration of operational or other processes.

WHAT ARE THE BENEFITS OF THE TECHWATCH TOOL?

- Produces **credible** time estimates
- Establishes a **consistent methodology**
- Accounts for uncertainties and risks
- Captures institutional **knowledge**

SYSTEM FEATURES AND REQUIREMENTS

Since the **TechWatch Tool** is “browser-based,” there is no need to load the application onto each user’s workstation. Because it resides on a powerful central server, multiple users have instant access to the latest upgrade and to user data that are timely and accurate.



After logging on, analysts may “point, click, and go” from any computer, anywhere, and may access information used and saved by other analysts from different locations. Though web-enabled, individuals may personalize application views to display data and reports according to their own preferences. The following configuration is necessary to access the application:

Server

- Oracle 10g
- JBoss Application Server
- Java Version 1.4 or higher

Client

- Windows XP with Internet Explorer (up to 6.1) or Netscape Navigator (up to 7.1)
- Minimum 2 GB RAM
- Java 1.4.2/1.5 JRE with Java Web Start

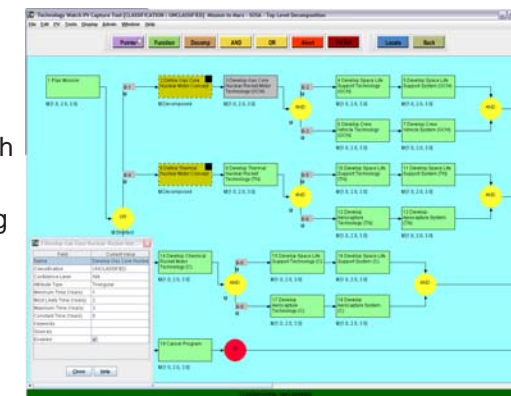
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Comprehensive Tool and Analysis

The **TechWatch Tool** time estimates are based upon **Process Visualizations (PVs)** which can depict a development process for a technology, capability, or operation from requirement to completion.

THE PROCESS VISUALIZATION depicts the probable paths an entity may take to execute an operation, or to develop a particular technology or capability. **PVs** can be built with as many activities and sub-processes as needed with no limitation in breadth or depth.

THE PV CAPTURE TOOL is the tool for building and modifying **PVs**. It features easy “point-and-click” functionality to create, delete, or modify nodes and branches within a **PV**. A powerful *What You See Is What You Get* interface mirrors the **PV** in the **TechWatch Tool**.

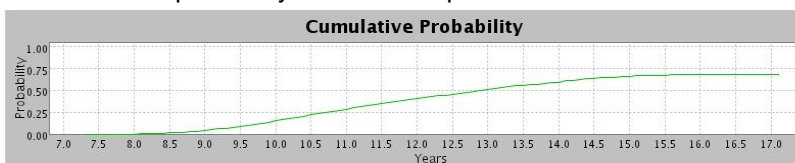
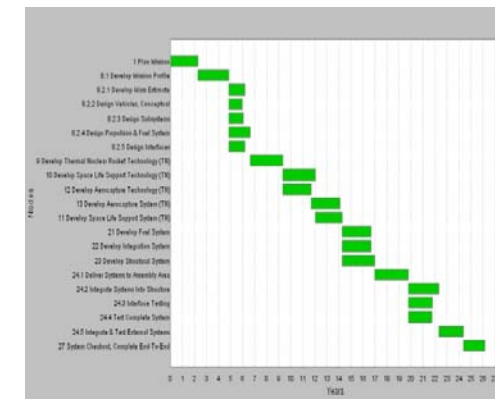


THE SIMULATION ENGINE

With analyst-supplied time estimates and path probabilities, the **Simulation Engine** generates reports with probability distributions, path reports (right), node sensitivity, and other statistical tables and graphs.

ANALYSIS AND ASSESSMENT

Uncertainty is inherent in long-term time estimating. As illustrated below in the **Cumulative Probability Graph** (e.g., a 50% probability that an entity will successfully develop a technology in 13 or fewer years), the **TechWatch Tool** factors in this uncertainty as well as the possibility that a development effort could fail.



INTERIM CAPABILITY ANALYSIS

The **TechWatch Tool** can provide various time predictions for achieving **Interim Capability Levels**. Within a **PV**, specific capability units (e.g., TRL Levels) can be added to one or more **PV** functions or decompositions. Running the Simulator will then generate a step chart depicting various time forecasts (e.g., minimum time, average time, quartiles) for when each capability milestone may be reached.

