



# The Assessment Profiling System (TAPS) Environment, Health & Safety (EHS)

## TECHNOLOGIES

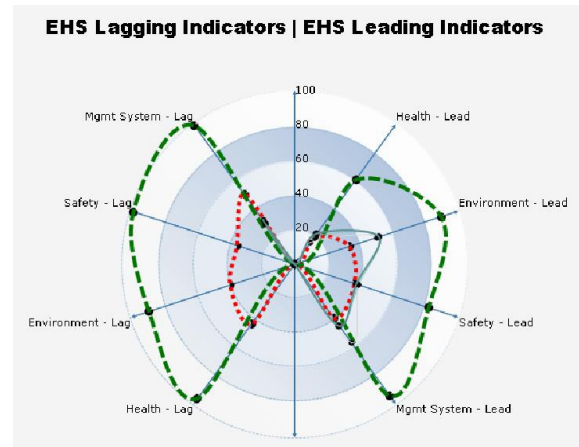
We've all heard "what gets measured gets managed." Certainly, *what* you measure does matter, but more importantly, exactly *how* do you assess your measures of performance in terms of overall effectiveness and performance improvement? How do metrics enable your organization to make decisions about "what gets managed?" In many organizations, metrics are often presented in disparate formats that do not readily provide a "big picture" understanding of overall performance. With TAPS EHS, you can combine quantitative, subjective, or non-traditional metrics to establish a comprehensive performance baseline.

### Technical Description

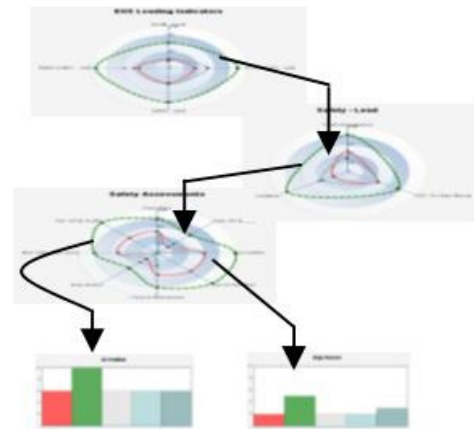
**TAPS** is a collaborative decision support and situational awareness tool that implements a multi-attribute utility architecture to provide a web-based information service for real-time assessment of key metrics that contributes to decision making. SYS Technologies co-developed TAPS as a concept from the US Navy's Naval Warfare Development Command for a net-centric, decision support display system. The tool's graphical visualization allows a user to cognitively process and rapidly assess overall progress toward accomplishing a set of goals or alternatives. The visualization is driven by a Valuated State Space (VSS) logic engine, which is a hierarchical-based data structure, or "metrics framework," that utilizes mathematical relationships between low-level environment metrics and measures of effectiveness to high-level effects in order to produce a quantitative and semantically consistent model of the decision maker's domain. TAPS is useful for any manager that has a complex environment challenge

TAPS implementation is not limited to government applications. SYS has built a TAPS framework to help companies improve their ability to assess

environment, health, and safety performance: "TAPS EHS."



**The Assessment Profiling System (TAPS) is a metrics framework capability for enhanced decision support in any complex environment.**



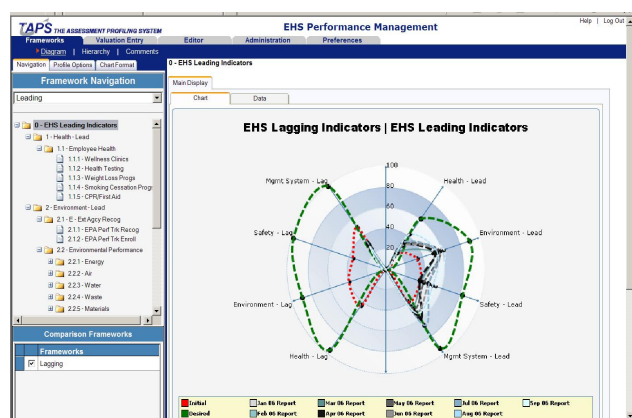
One powerful feature of TAPS web service is to provide an immediate drilldown of key relevant processed information to all decision makers in the organization, from any location that they can normally connect to their network. Additionally, this status or reporting can be provided to all participants which serves as an invaluable feedback mechanism.

## Functionality

The TAPS structure enables the user to monitor and manage the measures of effectiveness (MOE) and performance (MOP) metrics contributions to numerous events and relevant areas of concern. A key feature of the logic engine is a mathematical normalization process that logically fuses objective and subjective data inputs and produces values automatically for the displays. An additional feature is a proprietary algorithm that provides confidence or uncertainty values on data at the metric level.

In order to assess improvement in any endeavor, valid methods of measuring performance must be established. Drivers for EHS metrics include compliance with regulatory statutes, competitive advantage, and improvement of corporate stewardship and reputation.

Many EHS metrics such as pollutant releases, materials use/efficiency, energy use/efficiency, water use/efficiency, greenhouse gas emissions, percent reuse/recycle/disposal, packaging, land use, environmental incidents, and health and safety indicators are already collected by most companies as a matter of compliance, inventory, or operational management. However, most of this information is presented in disparate formats that do not readily provide a comprehensive or “big picture” understanding of the information presented.



TAPS uses a common “tree” structure to provide drilldown to any level in the selected metrics framework. You can also compare more than one framework in the TAPS Main display panel (e.g., EHS Leading and Lagging Indicators).

TAPS EHS presents information in an integrated linear format utilizing a variety of visualizations including the ‘Kiviat’ diagram to present the information in a relevant, user configurable, intuitive display.

TAPS provides several levels of secure user access including reader (read-only), author (data entry), editor (data entry and metrics framework management), and administrator.

Utilizing your Subject Matter Experts (SMEs), SYS will assist your organization in developing a customized metrics framework to meet your needs.

- Identify relevant metrics
- Construct the TAPS metrics framework (detailed, hierarchical description)
- Determine the relative “weight” of each metric as they contribute to the environment being assessed
- Establish the achievement / assessment criteria and numeric cardinal value assignments (relevancy)
- Pre-select assessments for measures of performance (MOP) on which utility values are assigned

TAPS EHS is pre-loaded with two metrics frameworks, “EHS Leading Indicators” and “EHS Lagging Indicators.” These frameworks represent common EHS metrics and can be easily tailored to your specifications.

Using TAPS EHS, an organization can establish a framework to ensure that actions and decisions are aligned with regulatory compliance, reductions in risk and liability, improved internal and external communications, increased operational and administrative efficiencies, streamlined business processes, and innovations in environment, health, and safety solutions.

For additional TAPS EHS information or a demonstration, contact Kathy Bates at (865) 607-1757 or e-mail [kathy.bates@webtechteam.com](mailto:kathy.bates@webtechteam.com).