

Leveraging software assets at Procter & Gamble



P&G has implemented EASA, an innovative technology that has resulted in substantial productivity gains and a greatly increased ROI from spreadsheets, legacy codes, databases and CAE applications.

"In 1906, the only way to fly was to be a pilot... In 2006, all you need to know is where the airport is. Likewise, for the last 50 years, modeling and simulation has required a 'pilot's license'. Now, with the aid of tools like EASA, we have developed the first 'modeling airport' for pilots AND passengers!"

Tom Lange, Director of Modeling & Simulation, Procter & Gamble

About P&G

Three billion times a day, P&G (NYSE: PG) brands touch the lives of people around the world. The company has one of the largest and strongest portfolios of trusted, quality brands, including Pampers®, Tide®, Ariel®, Always®, Whisper®, Pantene®, Mach3, Bounty®, Dawn, Pringles®, Folgers®, Charmin®, Downy®, Lenor®, Iams®, Crest®, Oral-B®, Actonel®, Duracell®, Olay®, Head and Shoulders®, Wella, Gillette® and Braun. The P&G community consists of almost 140,000.

The background

The application of IT to problems in engineering and manufacturing (often simply referred to as Computer Aided Engineering or CAE) is usually associated with the auto or aerospace industry, not a consumer products company. However, modeling and simulation play a key role in many of P&G's initiatives, from package or product design through process manufacturing and plant productivity.

The problem

Computer Aided Engineering at P&G was delivering tens of millions in savings per year, yet it was only being applied to 20% of the initiatives. There was an obvious opportunity to realize more savings if such a capability was more broadly accessible, but the steep learning curve for many of the tools used made this difficult. Sustainable and supportable systems architecture and associated work process changes were required to simplify and streamline access to modeling and simulation software.



The preference was to have this functionality web-enabled so that users would not need to install unfamiliar tools on their local desktops. A project was formed to deliver via the P&G intranet a common toolset and technology platform to simplify, deploy and automate any complex work processes involving existing software assets.

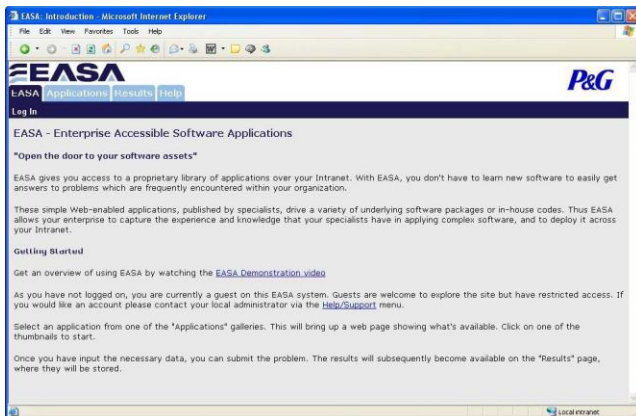
The solution

EASA was chosen as a key component in this initiative. EASA enables P&G staff to rapidly create, without any programming skills, graphically rich web-enabled applications that automate and simplify access to software and hardware. EASA provides a layer of abstraction to multiple computing software packages, giving it cross-function and cross-business unit applicability, and facilitates simulation at multiple points from the beginning to the end of commercial initiatives.

EASA has excellent database connectivity capability, allowing for data-fed applications as well as integration with corporate repositories for storing and archiving results. It also has cross-platform capability, meaning Linux, UNIX, and Windows applications can be accessed seamlessly as part of any given work process. In addition, EASA has simple, secure, easy-to-maintain infrastructure resulting in high availability and reliability.

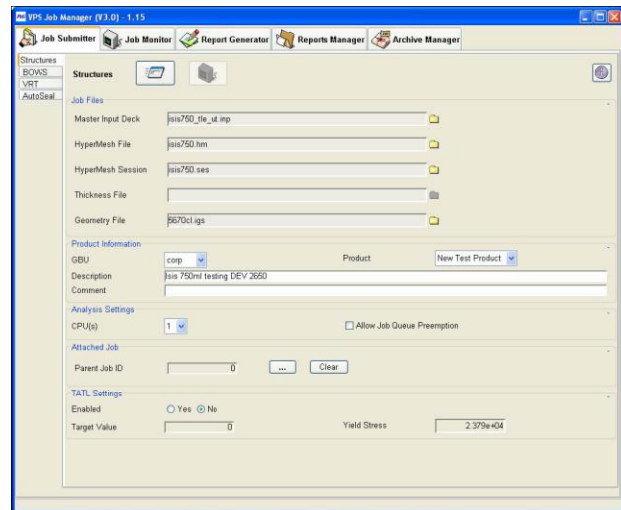
EASA's authoring tools allow P&G's staff to easily design, build and deploy custom tools. Authors can drag and drop predefined objects such as text input fields, menus, and choice lists needed on each input page. Authors can quickly define the inputs, processes, and outputs desired for each custom tool. The output may be tables, charts, graphs, images, or whatever the individual building the application deems appropriate for the user-audience.

The end users access these custom applications through P&G's intranet site. Users choose from a list of EASA applications and define the problem to be solved using simple input screens. The user's input is automatically processed "behind the scenes" by a variety of existing tools, ranging from Excel all the way to legacy codes, databases, and high-end, expert-only engineering applications. When a submission is complete, the results are once again accessed via a browser. All jobs are archived to prevent wasted time solving the same problem more than once.



P&G employees use a browser to access EASA and use the custom applications which have been published.

One specific example EASA application developed by P&G is used for Virtual Packaging Simulation (VPS), a compilation of several underlying tools, including structural simulation of containers subjected to various loads (which occur during stacking by retailers or squeezing by consumers). This suite of tools is driven by VPS Job Manager. Job Manager was originally a custom-built .NET client-based application that required each user to have their own individual installation. The new approach using EASA allows for a centralized deployment of a web-based version of Job Manager; it makes change management much simpler because all updates are made to a single, central instance.



VPS Job Manager, built with EASA, replaces a custom built .NET application and is significantly more cost-effective to deploy and maintain.

Other areas of application – facilitating the use of Excel and databases

An EASA application connected to a central Excel spreadsheet brings many benefits. For example, it means that everyone uses the same version of the spreadsheet; the IP contained in the spreadsheet is secured; and finally, the ease-of-use is improved. Another area of application for EASA is to create database interfaces which are tailored to specific applications. There is potential to leverage EASA to allow fast and easy analysis of marketing information, such as understanding or predicting the impact of a targeted promotion.

The value

Expanding usage of P&G's existing software tools across more initiatives delivers hundreds of millions of dollars per fiscal year, and EASA is an enabling component. The value is clearly strong and P&G believes it will bear out as it begins to increase the number and usage of models and processes it automates and deploys using the EASA software package.

"Globally dispersed and culturally diverse internal customers have not historically had access to some of our most valuable tools," said John Clisham, IT Manager for P&G's High Performance Computing group. "The EASA platform has changed this; we can now rapidly build and deploy to the enterprise custom web-based applications that facilitate the use of our existing tools. The benefits are clear; the need for expensive and time-consuming physical prototypes are reduced, resulting in improved product quality, and reduced time to market."