

CSEsolutions Executive White Paper
Web Integration Products and Services
www.csesolutions.com

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Executive Summary

CSEsolutions offers a set of web integration products and services. Our core offering is the RoboSuite tool set. RoboSuite is an affordable, yet powerful and easy-to-use software suite that facilitates building robots for the purposes of web-based content monitoring, information collection and aggregation, and web service/application integration. The unique nature of the RoboSuite approach increases productivity, reduces implementation time, and has a low cost of ownership resulting in an overall reduction in a project's risk and cost. In some cases, the use of RoboSuite may obviate the need for higher priced software suites like: portals, enterprise application integration (EAI) tools or data warehouses.

The Problem and the Business Case

Every day more information and services are available via web-based servers. With every passing day there are increased economic pressures to streamline operations and provide more integration of information and services. At the same time, much relevant organizational information remains inaccessible in legacy systems. All the while, budgets are contracting and managers are seeking new ways to gain value for the dollars they spend.

For all the wealth of web-based information, its use is limited due to the vast amount of information available and its dynamic nature and unstructured format. Even if you're lucky enough to find the information you need, how do you make sure it is updated when the information changes? How do you process information to suit *your specific needs*? Would you create an intra-website showing today's Web top stories related to your company? You could hire a person to surf and cut'n'paste, but wouldn't it be much more efficient if the information you wanted could automatically be delivered directly to you, on-demand, on-schedule and in an easy-to-process format, such as XML?

Suppose your business could benefit from periodically analyzing some sets of data that are large, dynamic and residing in disparate locations. A data warehousing or EAI solution could be the answer, but what if you could accomplish your goal with less expense, in a short amount of time and at a much lower cost?

The Web provides opportunities for new ways of doing business. However, the Internet is meant for browsing and is not widely used as an integration platform for business systems. What if you wanted to create a web service that gives your users an aggregated view of all their bank accounts? You could try to convince the banks to allow you to snoop around inside their bank systems (good luck!), but wouldn't it be much simpler if your system could seamlessly interact directly with the banks' existing websites that already provide account-viewing functionality?

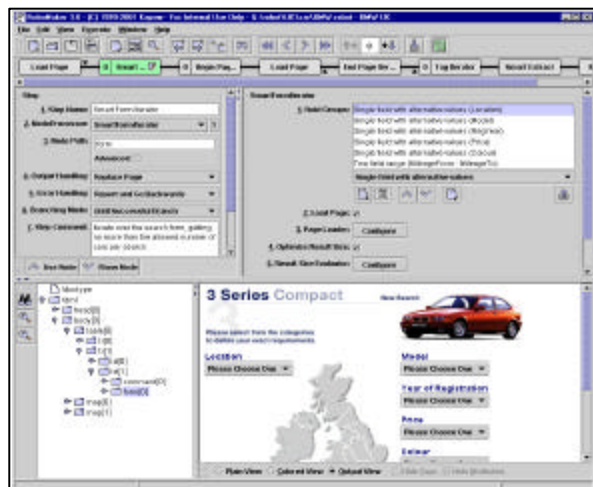
The Solution: RoboSuite

The solution is to create well defined and easily manipulated interfaces to websites and web services that allow you (or your business systems) to interact with websites with the same ease you interact with your own relational databases.

RoboSuite is a suite of applications that allows you to create, debug, manage, and interact with those interfaces. Using RoboSuite robots you can easily extract relevant news stories from a selection of websites, extract and normalize structured data from disparate web-based databases, and seamlessly interact with web services from multiple businesses and agencies.

If you know what kind of web information you're searching for and where that information resides on

RoboMaker User Interface



the web, RoboSuite can help you retrieve and integrate that information whenever you want and in the format you want. Whether it's a database format or XML format, information can be quickly delivered through a variety of channels.

If you want to offer your customers a service that is based on third party web services, then RoboSuite can help you interact with those web services in a rapid, robust and cost-efficient way.

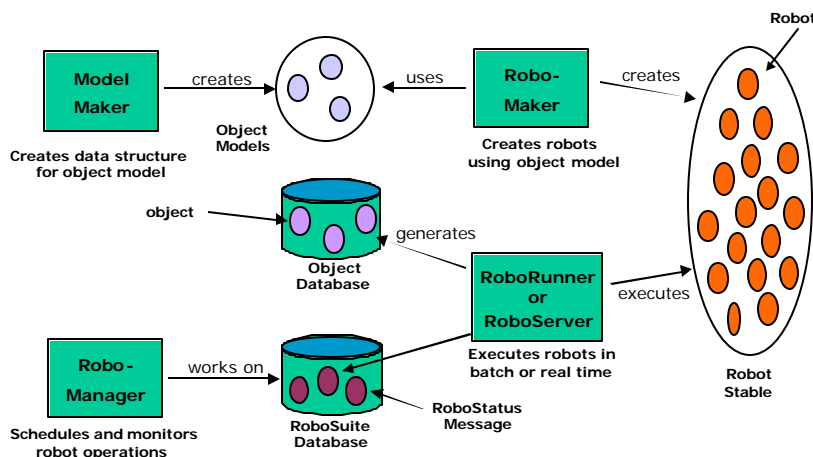
RoboSuite Overview

RoboSuite is a suite of applications whose common purpose is the creation, execution, maintenance, and management of robots. RoboSuite consists of five applications: ModelMaker, RoboMaker, RoboRunner, RoboServer, and RoboManager.

Briefly, ModelMaker creates the *object models* for the objects that the robots use when interacting with a website, e.g. an article object model or an account balance object model. RoboMaker creates and debugs the robots, and RoboRunner and RoboServer execute the robots in a robot farm. RoboManager is used to manage the robot life cycle, including monitoring the status of robots.

The RoboSuite Architecture diagram illustrates how RoboSuite applications work together. Note, however, that the applications can work independently of one another. For example, you can use RoboRunner to run robots created and maintained by another company.

RoboSuite Architecture



Why RoboSuite?

If you currently monitor, collect and/or aggregate content from web servers or you foresee projects where web-based content collection/aggregation would enhance the value of your organization, RoboSuite will allow you to do it faster and cheaper than your current methods.

Unlike its competitors, RoboSuite offers a broad set of unique features utilizing a mature, off-the-shelf product. The benefits of these features include:

Increased Productivity

RoboSuite offers a visually based point and click environment for building powerful robots for either broad or precise information extraction. Because of its unique visually based approach, no unique programming skills are required. Building Robots is easy to learn and once mastered, robots can be built much more rapidly than by other existing means. Typically, people can build productive robots on their first day of training. Further, RoboSuite offers a visually based debugging tool so any errors can be easily identified and fixed rapidly.

Robots created as part of RoboSuite also have the ability to perform interactive queries using Kapow's XML based Robot Query Language (RQL). The RQL enables robots to perform complex transactions with web-based applications in either a batch or real time mode for either open or secure environments. RoboSuite is fully compatible with secure web based protocols.

Because of the ease of building and testing a robot, employees charged with collecting and aggregating content will be, on the average, twice as productive as those using other available techniques. In some cases java scripts, which could take days to write and test, can be replaced by a robot that can be created in than less than an hour.

Reduced Integration Cost and Risk

Web application integration using RoboSuite means significantly lower integration cost compared to traditional Enterprise Application Integration solutions based on back-end integration. Not only is RoboSuite cheaper than traditional EAI products, it utilizes front-end browser based integration meaning that existing applications and their databases do not require modification. This is significant. When existing applications don't have to be altered the need and expense for potentially time-consuming design coordination is eliminated. Furthermore, because the integration task is simplified the time, cost and risk of system integration is greatly reduced. Adding a new third party application becomes a much simpler task and isn't dependent on the system life cycle. This results in savings not only in the design and development phases, but in the integration test and rollout phases as well.

Fast Implementation

Integrating web applications using RoboSuite means fast implementation because no changes need to be made to the original applications. Using RoboSuite enables you to quickly and easily create and maintain interfaces to existing web applications without modifying them. Robot gathered content can easily be ported to an SQL database or as a spreadsheet or XML feed. Most projects can be completed in days or weeks, rather than months.

Easy to Maintain

All robot activity is easily monitored in a visually based RoboSuite environment. All important robot activity is logged in a database that is easily searched and monitored by RoboSuite. Robots can be configured to send emails if they fail and need to be updated.

Low Cost

Compared to typical enterprise level tools, e.g. data warehousing, EAI's or portals, RoboSuite is an inexpensive, yet powerful integrated development environment. While RoboSuite is very complementary to solutions requiring portals and EAI's, there are also instances where it can serve as a markedly lower cost alternative.

The acquisition price of RoboSuite coupled with its ease of learning, increased productivity, fast implementation times and ease of maintenance all combine to make RoboSuite a product with a low cost of ownership.

Increased Customer Satisfaction

Because your staff is more productive and spending less time either performing application integration or repetitive content collection/aggregation; they can spend more time creating new value for the customers you service.

Increased Quality

One of the unique features of the robots is their ability to do data format conversions as part of the data collection process. This allows data from disparate sources to be aggregated directly into a normalized database for data mining. This feature is easily incorporated into a robot and when used it shortens the time and lowers the cost of creating a quality, aggregated database when compared to other means.

Due the powerful processing tools of the robots, the RoboSuite eliminates the need for the programming of repetitive scripts for repetitive operations and the entry of redundant data. This minimizes the likelihood of programming errors with the result being an increase in both productivity and quality of content collection and also the quality of the resulting data.

Platform Independence

RoboSuite can run on any Java-compliant operating system, including Windows and Linux.

Scalable Solutions

RoboSuite scales well in the development, maintenance and execution of thousands of robots.

The Solution Provider: CSEsolutions

CSEsolutions is a reseller of the RoboSuite tool set developed by Kapow Technologies, a company dedicated to deliver world-class robot technology that allows you to easily and automatically interact with websites regardless of their content or structure.

CSEsolutions, in addition to selling the RoboSuite tool set, also provides RoboSuite training, first level support and technical services. The technical services include robot building, system architecture analysis and data object analysis in order to maximize the use of the RoboSuite. CSEsolutions has a teaming alliance with Kimball Consulting, Inc. and can provide security-cleared personnel for support and services as necessary.

Kapow Technologies is a Danish Company, founded in 1998. It is presently doing business in Europe and its clients include the Danish government, the Bank of Denmark and Lycos Europe.

CSEsolutions is part of Charles Street Enterprises, which began doing business in 2000. The CSEsolutions staff has over 50 years of experience in working in the government sector, over 25 years of experience in the commercial sector and over 80 years of experience in software and information technology products and services.

Summary

If you are currently or will be monitoring websites, collecting/aggregating information or integrating web-based services or applications, you should consider utilizing RoboSuite from CSEsolutions. RoboSuite can reduce your costs, shorten your schedules and release your people for additional, higher value assignments.

RoboRunner and RoboServer Flow

