

jBASE Web Builder productivity benefits over traditional web development methods

GENERAL

jBASE Web Builder is more productive than traditional methods of developing eCommerce applications. The productivity benefits result from a number of features which are detailed in this white paper.

Benefits for any individual application are difficult to quantify, but developing in jBASE Web Builder should be at least as quick as other methods, and usually developers are more productive by orders of magnitude.

SESSION DATA

Because of the fact that web applications are stateless, session data typically has to be used to produce internet applications with similar levels of functionality to non-internet applications.

The level of support available to the application developer varies according to the methodology being used to develop the application. In the worst case, no support at all is given ranging up to the level of support offered inside jBASE Web Builder.

Session handling and security are built in to jBASE Web Builder. No additional developer effort is required to handle data between individual pages.

In some methodologies such as CGI, PERL scripting or PHP, very little support is given to the developer. Code would have to be written to write session data out to storage, and to read it in again.

In addition code would have to be written to clear up the storage area and purge any out of date information.

Active server pages fair slightly better in that a server object is built in, but the architecture means that the use of the server object requires going to the same server for every request. This means that the ability to scale out to many web servers is very difficult to achieve.

Session storage also automatically stores information concerning every interaction that a user has with the web server, so that under jBASE

Web Builder, a full audit trail can be maintained of a users actions inside an application.

SECURITY

jBASE Web Builder has a powerful security model built-in. This security model allows different levels of security to be attached to every object within an application.

If a user does not have the right privileges to view a given object, the object is omitted from the page when it is built. Users can be members of many groups, and objects may be secured to many groups declaratively without writing a single line of code.

Most other web development methodologies place the responsibility for implementing application level security squarely at the door of the application developer.

In addition to application security, jBASE Web Builder session information is checked on every interaction to make sure that the client's IP address is the same as the original client that initiated the session.

INTERNATIONALISATION

A default jBASE Web Builder installation comes with one language set up (the default language). Users can configure new languages by entering the name of the language under the language configuration screen.

All text strings which are attached to a web page can be easily set up to have multiple values for different languages. A default value can be provided, and then a different value for each language which has been defined.

When setting up a user, a language may be chosen from any that have been set up, or may be left as the default. Any web pages served up to that user will have the correct content served to them according to the language chosen.

CODE RE-USE

The unique object based structure of the jBASE Web Builder environment allows well designed applications to re-use a large

proportion of the code. Two or more screens that use similar elements can be made to have references to a shared object.

SUPPLIED COMPONENTS

A full palette of components is shipped with jBASE Web Builder to enable an application developer to build sophisticated applications straight out of the box. Components are included for drop down tree-view menus, progress bars and Iframes, as well as all the standard HTML form components.

Application Developers using other toolsets have to write out HTML code for all screen components (at best) or are restricted to a preset selection of standard HTML form components.

EXTENDIBILITY

The entire environment within jBASE Web Builder is user-extendible which means that users can add their own components and language elements.

The components are conceptually similar to ActiveX components or Java applets, but require no run-time. They are rendered on a web page as ordinary HTML, so they can be browser independent, and have no problems with Firewalls.

This means that over time, as a jBASE Web Builder application developer builds their own library of components (both visual and language), the environment should become even more productive.

EMAIL

An email service is built in to jBASE Web Builder which allows web applications to process SMTP and POP emails. Applications developed using other tools which need to send emails will require code to build and send emails. The effort required to do this will vary from platform to platform, but could potentially be quite significant.

MAINTENANCE

Applications developed using jBASE Web Builder can be easily moved from one server and deployed onto another server by using the import and export functionality within jBASE Web Builder.

Each time an application is exported, the application may have a build comparison associated with it. This provides a full report of everything that will have changed (and who by) since the last version was exported. A history is kept, and regression is possible to older versions of the application.

Every change that happens to an application is logged, and jBASE Web Builder allows infinite levels of Undo/redo functionality, not just when designing a screen, but also when writing code. When editing an object, a mini history is on display showing the last five occasions an object was changed.

Every time an object is opened for editing within jBASE Web Builder, it is locked so that another user cannot edit the same object at the same time.

It is possible to interactively debug jBASE Web Builder applications over the internet.

None of these facilities are available in other web development toolsets.

APPLICATION HELP

A fully integrated help system is included within jBASE Web Builder which allows application developers to add either help buttons or pictures to their applications.

Each of these help objects can be mapped to a user defined help entry. When the user clicks on the help object at run time, an HTML help window is launched containing the entry designated by the user.