

WEBDEV[®]

New
Version

16

**INTEGRATED
DEVELOPMENT
PLATFORM**

Internet, Intranet, SaaS
Web 2.0, Ajax, HTML 5, PHP

All databases

MULTI-PLATFORM CODE:
Windows, .Net, Linux, Java,
PHP, J2EE, XML, Internet,
Ajax, Tablet, Smartphone,
Android, Windows Phone 7 ...

5GL development



DEVELOP 10 TIMES FASTER

www.windev.com

WELCOME TO THE INTERACTIVE INTERNET WORLD!

Summary

Today Internet and Intranet sites are linked in real time to the enterprise data and they behave like full blown applications.

WEBDEV 16 is the best solution to create these sites. WEBDEV 16 allows your teams to build the sites you're dreaming of, as well as all the necessary processes.

WEBDEV 16 enables you to easily include all the Web 2.0, **SaaS and mobile technologies** and to develop modern, robust and high performing sites. With WEBDEV 16, your teams will create these sites and these applications up to 10 times faster than before.

You'll stay within budget...

Your sites will operate **on any computers**, with all browsers and on all systems: Windows, Unix, Linux, MacOS, PDA, iPhone, Android, phone...

Trust **tens of thousands of developers** worldwide, like them choose the fastest platform for developing and deploying your Internet and Intranet sites and applications: **WEBDEV**.

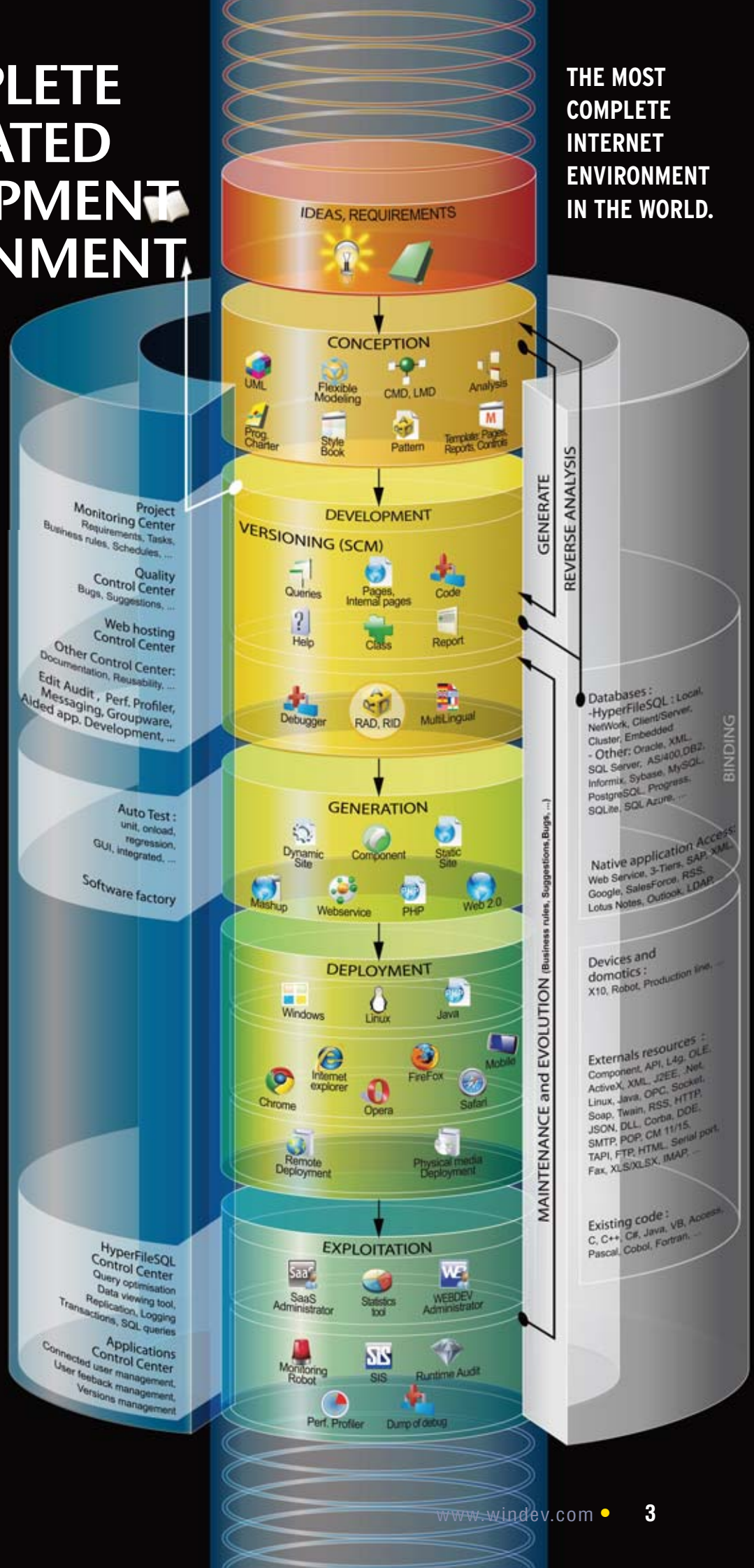
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A COMPLETE INTEGRATED DEVELOPMENT ENVIRONMENT

”
WEBDEV 16
ENABLES YOU
TO EASILY AND
QUICKLY CREATE
INTERNET,
INTRANET AND
SAAS SITES THAT
MANAGE DATA

THE MOST
COMPLETE
INTERNET
ENVIRONMENT
IN THE WORLD.



QUESTIONS/ANSWERS



We're going to answer the questions we're most often asked about WEBDEV. You're sure to find some of your questions answered here.

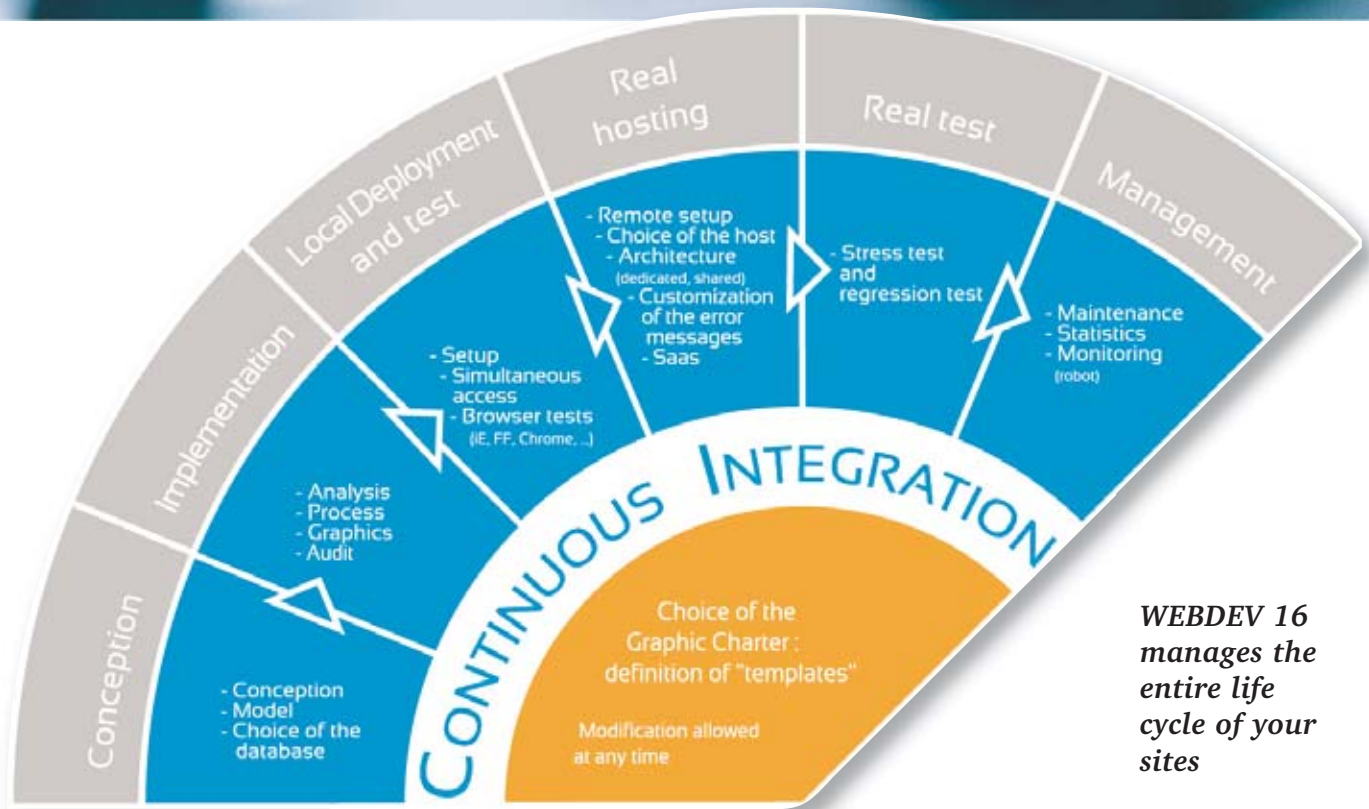
Do you have more questions? Call us, we'll gladly answer them.

1	Who is WEBDEV 16 for?	It is for any developer who wants to create Internet, Intranet, Extranet and SaaS sites and applications.
2	What types of sites and applications can be created?	Any type of site, but WEBDEV specializes in "dynamic" sites, which means sites that behave like real applications and that manage real-time data.
3	What do I need to know?	You need to have programmed at least once in your life (or at school!). In most cases, one week is enough for self-training with the tutorial provided with the product.
4	Do I need any special Internet skills?	Not at all. Your development teams will build robust and efficient sites. All the code (HTML, JavaScript, Server) is generated by WEBDEV 16.
5	How do I create an AJAX routine with WEBDEV 16?	All you have to do is click the "Ajax" button in the process... Nothing's easier.
6	What is the main benefit of WEBDEV compared to other tools?	There are several, to name a few: total integration, ease of use, development speed, 3 to 10 times faster, or the freely distributable database included with the product.
7	Does WEBDEV rely on standard technologies?	Yes, like HTML, HTML 5, XML, Javascript or PHP. But you don't need to know these technologies, WEBDEV automatically generates the necessary code.
8	I already have an application. Will I be able to use it with WEBDEV?	Yes. You can suck existing HTML pages. You can also mix WEBDEV pages with an existing site, while keeping your existing code.
9	I don't need to know Java, HTML, PHP or JavaScript to create sites?	No, you don't need to. WEBDEV automatically generates the optimized HTML, JavaScript and PHP code.
10	What if I want to enter HTML code directly, or use existing JavaScript code?	WEBDEV is open. You can enter HTML, PHP or JavaScript code directly in the editor (or copy existing JavaScript or HTML code), you can even use a JSP or ASP script.
11	I've read that WEBDEV is compatible with WINDEV ; do I need to own WINDEV?	WEBDEV is a totally independent platform. No other tool is required to develop with WEBDEV.
12	What if I already own WINDEV?	In this case, for one thing, training will be faster, the other thing is you'll be able to transform your WINDEV applications into Web applications...
13	Is the page editor WYSIWYG?	Yes, to the pixel!
14	What databases can be used with WEBDEV?	All databases can be used: HyperFileSQL, MySQL, SQLite, Oracle, AS/400, SQLServer, DB2, Informix, PostgreSQL, Progress, Access, ...
15	Are Ajax, XML, DHTML, Flash, CSS, W3C supported?	Yes.
16	Can I develop large and complex sites with WEBDEV?	Yes, this is where its true value lies. Internet, Intranet and SaaS sites.
17	What Technical Support is available?	It's very simple: WEBDEV Technical Support is free (15 free custom inquiries by phone or e-mail)
18	Who uses WEBDEV?	All kinds of professional entities: consulting companies, IS department, lab engineers, government offices, administrations, individual consultants, etc.
19	Can I generate pure PHP sites with WEBDEV 16?	Yes, this is a standard feature.
20	So WEBDEV is "the" tool for creating dynamic sites?	Yes, certainly.



Host your site on Windows or Linux!

WEBDEV 16 MANAGES ALL THE STEPS FOR CREATING A SITE



WEBDEV 16 manages the entire life cycle of your sites

ALL THE DEVELOPMENT PHASES OF YOUR SITES ARE SUPPORTED BY WEBDEV 16:

- Modeling
- Conception
- Analysis and program documentation
- Link with existing static sites
- Databases
- Programming (L5G, Ajax, services WEB, .NET & J2EE,...)
- Ability to re-use existing code
- Reports (PDF, bar codes,...)
- Secured payment
- Creation and use of components
- Documentation
- Tests during the development
- Link to the Back Office
- Hosting
- SaaS management
- Working with Web designers
- Setup at the hosting company
- Regression tests
- Performance tests

- Continuous integration
 - Maintenance
 - Traffic statistics
 - Assisted development
- WEBDEV, a complete and fully integrated product: quick training, best technical support (free).

Dynamic sites are now the norm for Internet or Intranet sites. These sites can be easily created and maintained with WEBDEV.



WHAT IS A "DYNAMIC" SITE?

REMINDER: STATIC SITE

A static site presents fixed pages, with preset links to other pages.

Roughly it's a set of pages on the Internet that can be consulted.

Usually the site offered information about the company, the group or the association: activity, address, product



information, sometime prices, a contact page...

The limits of static sites soon became evident: each time a piece of data needed to be modified, it had to be done manually, and the corresponding page had to be reloaded.

In order for product information to remain up-to-date, a static site had to be modified often.

WHAT IS A DYNAMIC SITE?

A dynamic site creates the pages a Web surfer sees on the fly, based on the surfer's requests and actions and the data present in the database at the time a page is requested.

Let's use the example of a catalog that contains 30,000 items: a static site could use 30,000 different static HTML pages!

A dynamic site could use just one page, designed to receive the data for all the items (product reference, picture, etc.) The server will assemble all the elements needed on the fly.

ALWAYS UP TO DATE.

The Dynamic site's data are always up to date since they come directly from the enterprise database.

You display the real inventory, you show users the real shipping date for their order, you manage schedules,...

SITES THAT ARE ACTUAL APPLICATIONS

The other interesting aspect of dynamic sites created with WEBDEV 16 is that they behave like "regular" applications. All the Know-how of traditional computing is available to you.

EASE OF USE

Thanks to its powerful complete development environment and its rich set of features. It is very easy for any developer, even without any internet specific skills, to create highly reliable and sophisticated internet site that are fast and easily modifiable.

ADDING A "DYNAMIC" SECTION TO AN EXISTING SITE

Today most companies have a static site but want to take advantage of dynamic features.

WITH WEBDEV 16, REUSE WHAT YOU ALREADY HAVE

To reuse what you already have, you can:

- add dynamic pages to the static site
- add static pages to the dynamic site
- mix static and dynamic pages
- import static pages into the dynamic site
- ...

MIXING STATIC AND DYNAMIC PAGES

This is the fastest solution.

Often the company already has a static site.

The static site is kept, and the dynamic pages are added, or replace some of the static pages.

It is also easy to transparently link two sites, a static one and a dynamic one.

IMPORTING STATIC PAGES

WEBDEV 16 offers a strong static page and template import feature (see page 38).

The existing pages are imported into the environment and are converted into WEBDEV 16 pages.

"REAL-TIME" REQUIREMENT

A price is updated in the company's catalog? The site is updated, immediately.

A new product reference is created? This product is included in the site automatically and immediately.

The inventory changes? The client who places an order is immediately informed.

Without the need to constantly modify or update pages, a dynamic site always displays up-to-date data.

"DYNAMISM" IS REQUIRED

Today your sites must behave like applications! Your sites must be dynamic sites.

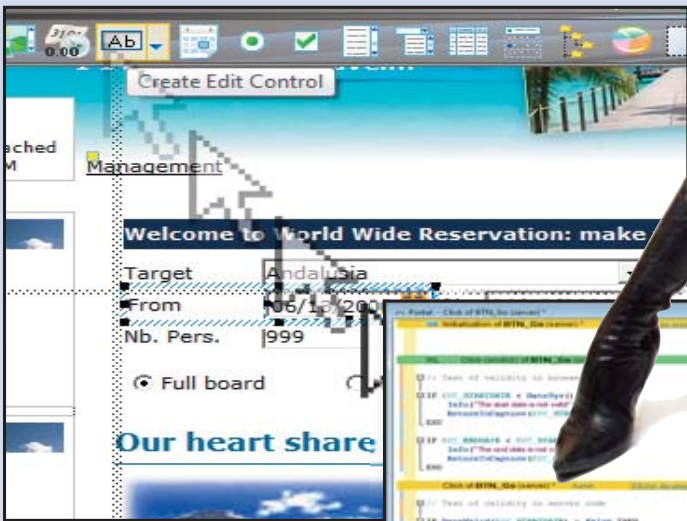
PAGE CREATION: A REVOLUTIONARY CONCEPT

Create your site "just with the mouse", WEBDEV 16 automatically generates the HTML code, the JavaScript code and the Server code needed for the site. And upon request, WEBDEV 16 even generates the PHP site.

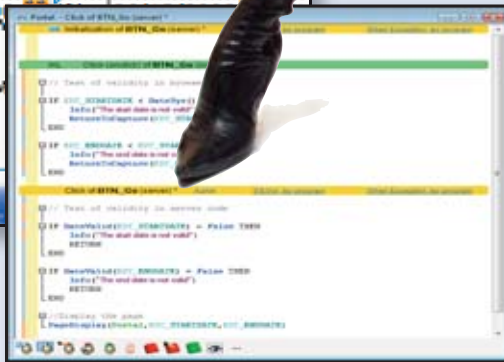
CLICK INSTEAD OF CODE

WEBDEV 16 is a complete integrated environment. The entire development is done in a single environment and a single language: WLanguage, a very powerful and easy to learn 5GL.

WEBDEV
WYSIWYG:
create visually



*The WEBDEV editor:
WYSIWYG, create pages and
controls with the mouse!*



*The WLanguage of WEBDEV: simpli-
fy and reduce the code!*

WEBDEV 16 frees you from learning complex Internet technology.

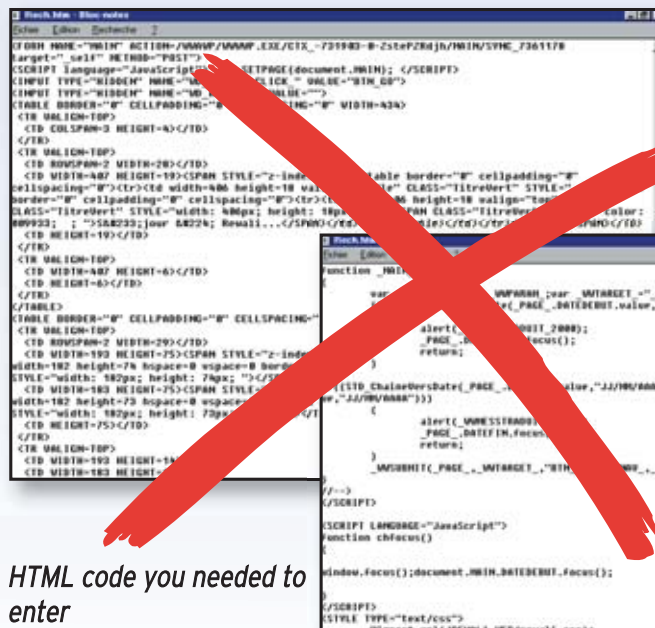
Furthermore, the processes are separated from the pages, unlike in traditional programming languages. Pages are easily created by moving controls with the mouse (see box page 14).

HTML AND JAVASCRIPT

No need to know HTML or JavaScript to build beautiful and powerful dynamic sites. WEBDEV 16 generates all the necessary code for you.

But WEBDEV 16 is open, you can always directly enter (or paste) low level code if you need to: HTML, Javascript, ASP scripts, JSP, Applets Java, PHP...

With WEBDEV, your teams develop any type of Web site and Internet, Intranet or SaaS applications up to 10 times faster.



*HTML code you needed to
enter*

*JavaScript code you needed to
enter*

Page and control creation and configuration is done in WYSIWYG mode, with the mouse. No need to know HTML to create sophisticated pages.

ALL DATABASES: MYSQL, ORACLE, AS/400, SQL SERVER, INFORMIX...

WEBDEV

Access all the databases

A dynamic site uses data. WEBDEV 16 can access any database on the market.

WEBDEV is an open product that lets you reuse or include existing sites or pieces of site.

ALL DATABASES ARE SUPPORTED (NON EXHAUSTIVE LIST)

WEBDEV can read and write in any database.

Some of the databases supported:

- HyperFileSQL*
- MySQL*
- Oracle**
- Informix**
- SQLServer**
- PostgreSQL*
- SQLite*
- IBM DB2**
- IBM AS/400**
- Sybase**
- Netware SQL
- Ingres
- Progress**
- XML*
- Bull DPS
- FoxPro
- Paradox
- Access
- xBase*
- ASCII*
- Excel*
- Etc...

*: standard native access **: optional native access

HYPERFILESQL, A POWERFUL SQL DATABASE, INCLUDED

WEBDEV comes with HyperFileSQL, a powerful client/server SQL database, already used by several million sites.

HyperFileSQL features are detailed page 35.

ACCESS IN NATIVE MODE

WEBDEV can natively access MySQL, Oracle, SQL Server, PostgreSQL, SQLite, AS/400, DB2, Informix, Sybase directly (modules available separately).

Installing these native accesses is extremely simple (a small size file). BLOB and Long Raw controls are supported. Access performances are impressive.

NATIVE SUPPORT FOR "AS/400" AND "ISERIES" DATABASES

WebDev accesses AS/400 databases directly (module available separately), without any ODBC, OLDB drivers and no ActiveX.

WebDev knows how to import and export DDS, run CL commands, manage a dataqueue,...

It is totally included in the environment, and the speed is impressive. Ask for the special brochure!

ALL DATABASES VIA ODBC OR OLE DB

WEBDEV 16 supports all the databases that have an ODBC or OLE DB driver.

SQL SCRIPT = WEBDEV ANALYSIS

An analysis defined in WEBDEV can be converted into an SQL script to create new SQL databases, and any SQL script can be converted automatically into a WEBDEV analysis to leverage existing code.

This offers total openness.

The existing structures are usually imported through a simple drag and drop into the data model editor.

THE STORED PROCEDURES

If the third-party database supports stored procedures, these are accessible by applications written using WEBDEV.

PROGRAMMING IS IDENTICAL REGARDLESS OF WHICH DATABASE IS USED

Regardless of the database used, you will also be able to use SQL commands or use the 5GL commands of WEBDEV, WLanguage (HReadNext, and so on...).

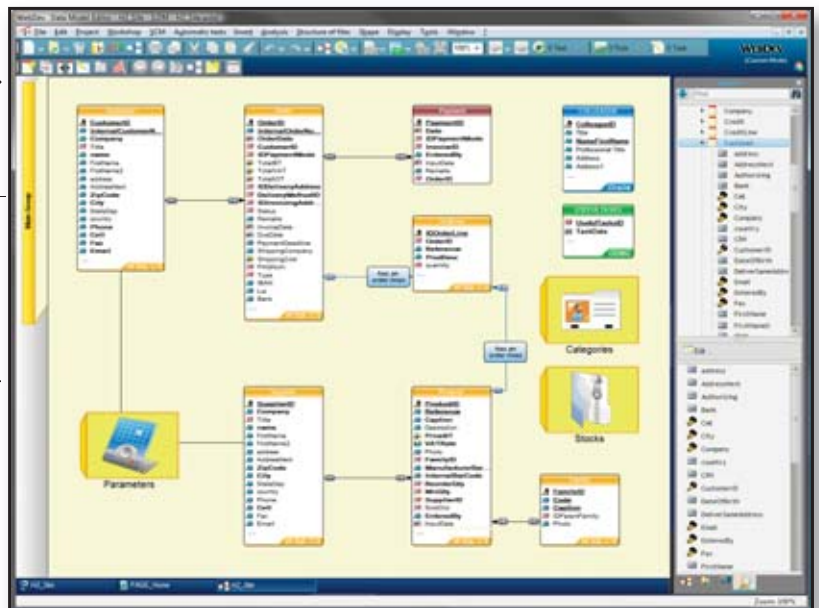
This again shows WEBDEV openness by allowing you to easily switch database.

YOU ARE USING WINDEV...

If you use WINDEV, note that you can share the project and its elements (code, classes, windows, queries, reports, ...) between the 2 environments, and export your applications to WEBDEV.

WEBDEV 16 lets you create a new site and its data, or create sites that use existing data, regardless of the hosting databases.

WEBDEV 16 comes with native access for SAP, Lotus Notes, Excel, Salesforce, Google and Outlook



Description of a data structure in WEBDEV

YOUR SITES ARE COMPATIBLE WITH ALL BROWSERS

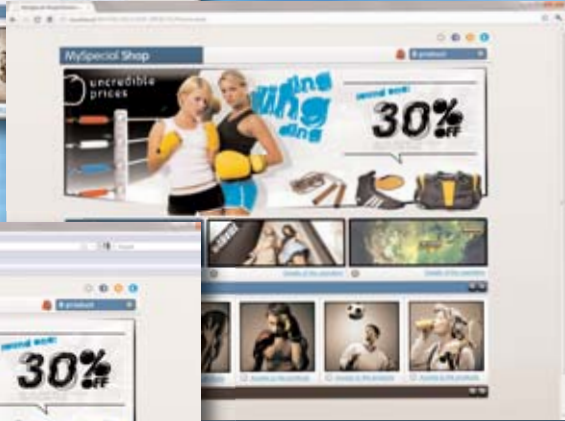
SITES CREATED WITH WEBDEV ARE COMPATIBLE WITH ALL BROWSERS

Browsers all have special features, that even differ among versions. WEBDEV generates generic code, which is recognized by almost all the standard Web browsers on the market. Here's how the same site looks under different browsers.



*Internet Explorer
on Windows*

*Firefox
on Windows*



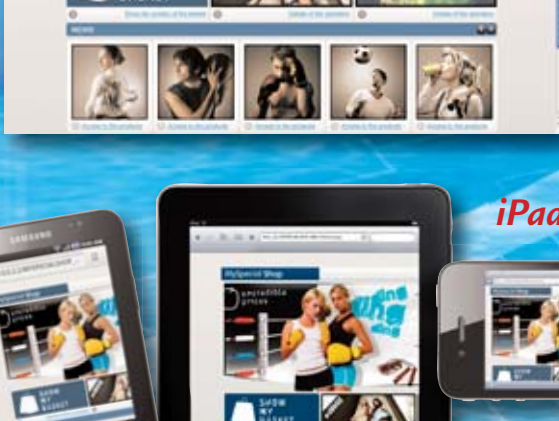
*Chrome
on Windows*



*Firefox
on Linux*



*Safari
on Mac*



iPad

**THE SAME WEBDEV
SITE DISPLAYED ON
ALL THE BROWSERS**

*Tablet
on Android*



iPhone



RAD: DEVELOP AN INTERACTIVE SITE IN JUST A FEW CLICKS



The (optional) RAD method for automatically building WEBDEV sites (RAD: Rapid Application Development) lets you automatically generate INTERNET and INTRANET sites that can be used directly.

Everything can be modified or customized. A full dynamic site can be built in ten minutes!

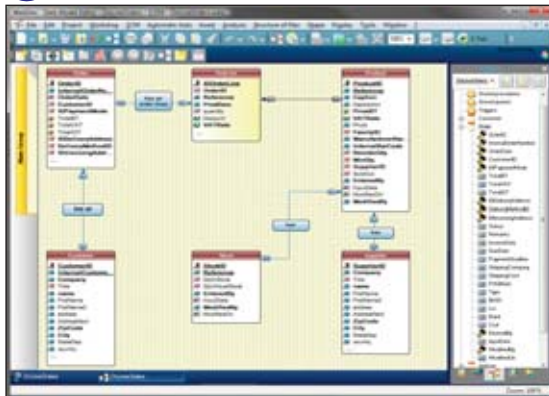
After specifying the description of the tables (analysis), creating a complete site with WEBDEV is automatic: menu, pages, code...

If the data that will be used has already been described (existing database for example), you can easily retrieve this description.

The generated site can be modified then.

Here's an example highlighting how to create a Web site using RAD.

- 1 Specify the database to use (analysis).

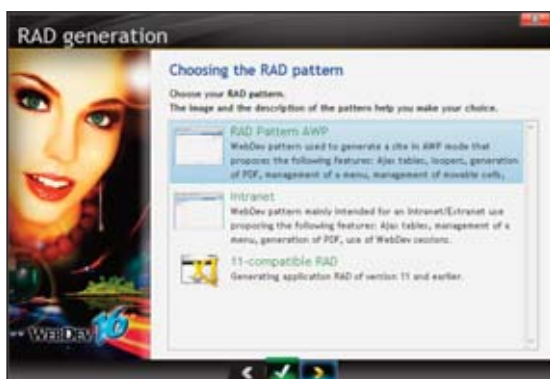


Visualization of the links between tables

- 2 Click the "RAD" icon in the icon bar. Note that the site can be generated in PHP.



- 3 Different looks (templates) are offered.



- 4 Select the tables to use. Relationships between tables will be managed automatically.



The power of WEBDEV in one click...

- 5 Generate ! The dynamic site is created! It is ready to use, with data entry pages, links between pages, and so on. But you can customize it, add static pages, add illustrations, modify the source code, add new features etc. There is no limit: you control the site's development.

- 6 When you're ready to install the site, select the automatic creation of the installation procedure and WEBDEV creates an installation procedure for you. If you've elected to use the integrated database, HyperFileSQL (freely distributable), this procedure will even include the database engine. Of course, WEBDEV presence is not required at your ISP, only the WEBDEV application server or a PHP engine is needed depending on the type of site generated.

That's it, the site has been created in just a few minutes!

GENERATE YOUR OWN CODE

Thanks to the pattern feature in WEBDEV, you can define the code that will be generated. The RAD tool will use your own code, classes and procedures!

PHP RAD: STANDARD

WEBDEV 16 lets you generate dynamic sites in PHP. You don't need to know PHP, WEBDEV 16 generates the required code. Also see page 28 for more details on PHP.

REPLY FASTER TO A REQUEST FOR PROPOSAL

Answering a request for proposal to win a contract is easy with WEBDEV!

It will be easier for you to come on top by presenting your future client with a real site quickly generated with RAD. You can then customize the site based on your client's taste and needs.

A real site is more impressive than a mere proposal!



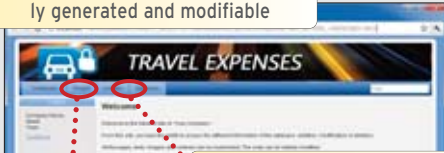
UNIVERSAL PORTABILITY

Multi-target development (Windows, Linux, .Net, Internet, Intranet, Pocket PC, Smartphone, Android, terminal, on Windows or Linux server ...) is now a lot easier thanks to the compatibility between version 16 of WEBDEV, WINDEV Mobile and WINDEV From the same code, create an Internet site and a Windows application for example!

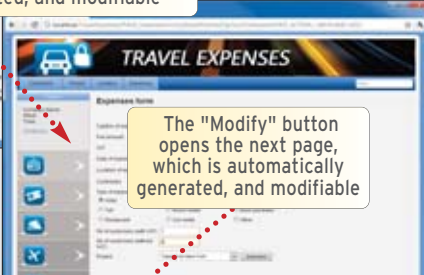
WEBDEV is compatible with WINDEV and WINDEV Mobile

HERE'S AN EXAMPLE OF PAGES AUTOMATICALLY GENERATED BY RAD

The choice buttons are automatically generated and modifiable

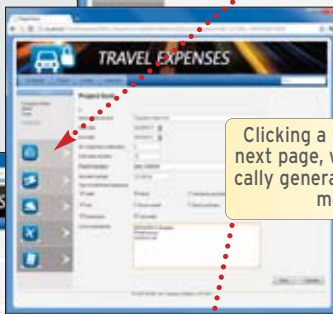


The "Expense" choice opens the next page, which is automatically generated, and modifiable



The "Modify" button opens the next page, which is automatically generated, and modifiable

The "Project" button opens the next page.



Clicking a button opens the next page, which is automatically generated and of course modifiable



And so on for each choice. Each generated page is fully customizable.

"APPLICATION" RAD

"Application" RAD, which complements the regular RAD, offers already developed sites, that you just configure according to your needs. The site can be used as is, or can be included into an existing site. Among the offered sites: blog, CMS (Content Management System), association site, Forum,...



WEBDEV site
on Linux server



PHP site
with WEBDEV



Windows application
with WINDEV



Linux application
with WINDEV



Java application
with WINDEV



Your code is fully Android compatible

WEBDEV site
on iPad, iPhone and Android tablet



WYSIWYG ENVIRONMENT

WEBDEV

The most intuitive method

WEBDEV 16 offers arguably the most powerful, the most user-friendly, and the most integrated work environment available on the market!

Your teams will easily create astonishing sites. No previous knowledge of Internet programming is required.

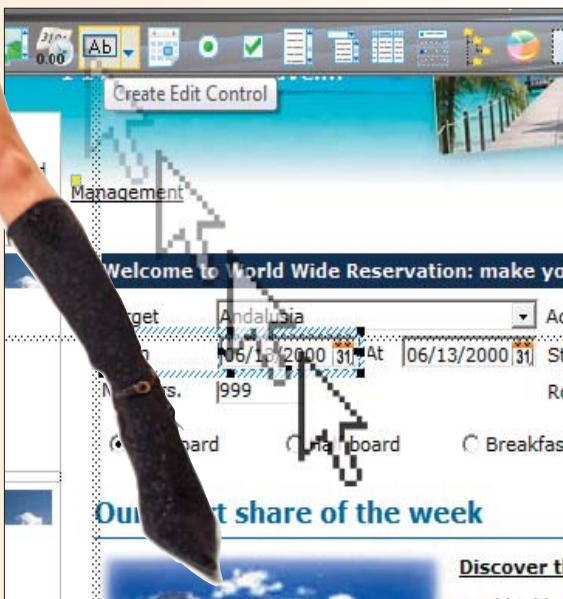
The WEBDEV page editor enables you to easily build incredible pages.

PC SOFT has over 20 years of experience in publishing tools for building better UIs. We capitalized on this experience to build WEBDEV.

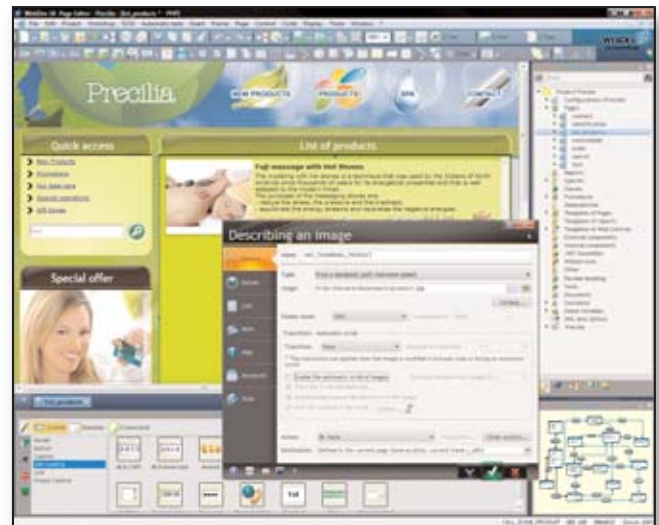
Note that the following pages detail many features presented in this chapter.

CONTROLS IN PAGES REVOLUTIONARY WYSIWYG!

The various controls (edit, static, image, etc.) are created and positioned **visually**, and interactively in the editor. What **you see** in the editor corresponds to **what the**



user will see in a browser. Pages (with the controls and their detailed settings) are stored as **reusable elements**. This technique simplifies coding by managing pages as **advanced objects** that contain the description of their controls. The page editor lets you visually create and modify controls, independently from the source code. You can also subscribe to the potential modifications of an element shared among several developers (**inheritance**). With WEBDEV 16 you can, of course, modify the properties of a control in **your program**: target, color, display,... For example, depending on the Web surfer's profile, you can hide or show special controls, etc. It's **dynamic**! This approach for working with controls will save you a **great amount of time** when maintaining your sites, and will make your programs more **robust**.



In the integrated environment

PRECISE POSITIONING WITH OR WITHOUT CSS

WEBDEV transparently uses powerful positioning algorithm (for the mouse) to position object at the pixel level.

WEBDEV can also use CSS style sheets. Style sheets are easily created from the environment.



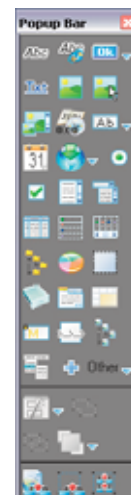
Layout tables can optimize a page's weight

ALL THE CONTROLS FOR INTERNET

The WEBDEV editor enables you to easily create and handle all the objects that you will need to quickly build outstanding interfaces (see pages 16 to 19).

The main objects managed by the UI editor are:

- Text, HTML label
- Edit and rich edit control
- Formatted display control
- Radio button, check box
- List box, listview, combo box
- Text button, graphic button
- Web Camera
- Static, dynamic and generated image
- Click area, Map area
- Table, Looper control
- HTML, DHTML control
- Java Applet control, Flash object
- Pager control



A **revolutionary programming concept!**

Page creation is easy: **drag the controls to create from the icon bar and drop them directly in the page with your mouse!**

The custom characteristics of the control are defined **visually** via the "7 tabs" (see page 15)

EASILY CREATE PAGES

- Supercontrol, Control template,
- IFrame, Internal page,
- SitemapPath, site map,
- Chart, calendar
- Tabs, etc.

ANCHORED LAYOUT (PERCENTAGE)

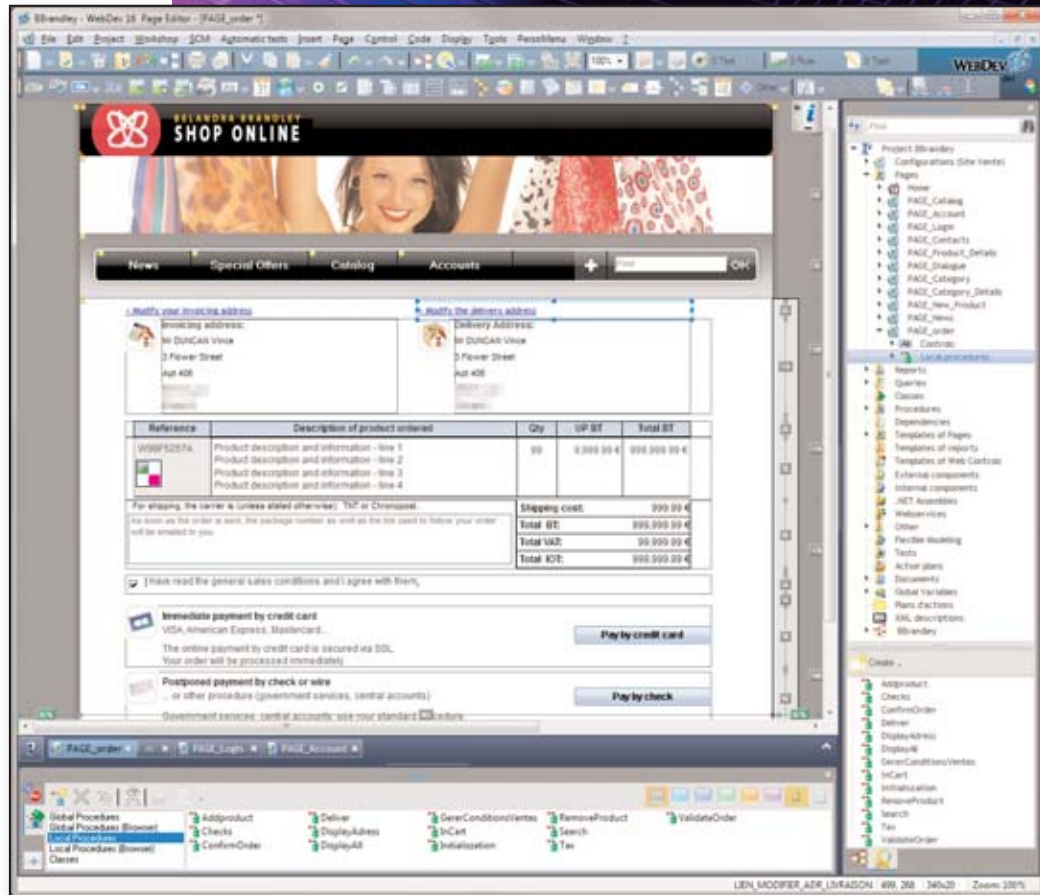
The controls' position can be defined as a percentage of the space available in the browser's screen, which allows for a balanced layout regardless of the browser window's size.

LOOPER CONTROLS

WEBDEV lets you create multi-column repeat regions (looper), automatically filled through a file link, or filled by custom coding (see page 16).

DEFINING A LINK

To define a link from a graphical button or a link control, simply point to the page to display using the mini-modifier.



This link can be redefined in your program if necessary.

BUSINESS CHARTS

A chart designer is supplied with WEBDEV; it enables you to create pie charts, bar charts, financial charts, and so on in 2D or 3D. Here again, we see the power of WEBDEV !



EASY GOOD-LOOKING PAGES

Pages are created easily, visually, and you have a large array of very powerful controls at your disposal. A WEBDEV "edit control" with all its integrated features, that is dropped in a page via a simple drag & drop operation corresponds to more than 50 lines of JavaScript code! You can easily imagine the overall number of lines of code you're saving.

INTELLIGENT BUTTONS

Multiple clicks on validation buttons are ignored by default. A user who clicks 3 times the "Validate" button won't receive 3 orders...

SITE MAP

The site map is built by analyzing the existing pages according to the fixed and coded links. A "Sitemap" control is automatically created to be included in the generated site.

TEMPLATES FOR ALL USES

WEBDEV 16 comes with a lot of page templates, allowing you to easily build sites for any target (such as an Apple iPhone below).



Discover in the following pages some of the main features offered by the integrated editor of WEBDEV 16.



AN INTEGRATED AND INTUITIVE WORK ENVIRONMENT

The ease-of-use of the WEBDEV WYSIWYG work environment is conducive to better productivity.

Your teams will easily develop the sites you need, and satisfy your clients and users.

It's easy to get started with WEBDEV 16: usually one week is all a developer needs.

Everything is integrated using the same operating mode, everything is visual, everything is included: your teams will develop faster!

Technical support is also included, which provides added comfort and noticeable savings, as well as reduced development times.

WEBDEV 16 is compatible with WINDEV 16.



Chromatic wheel in the environment

The integrated environment is very intuitive.

Moveable icon bar and toolbar, hidden or not, and customizable

A context sensitive menu (right click) is available to configure the icon bars.

A little yellow square indicates that the control is part of a template

A context sensitive menu (right click) is available to quickly access the various features



Pane: It provides a global view of the project; double-clicking an element (or doing a drag and drop) opens it instantly

Optional display

Status bar showing the page's name, its size,...

The "panes" offer components, controls, code, ... to save you time

The editors' interface is really very intuitive and very efficient.

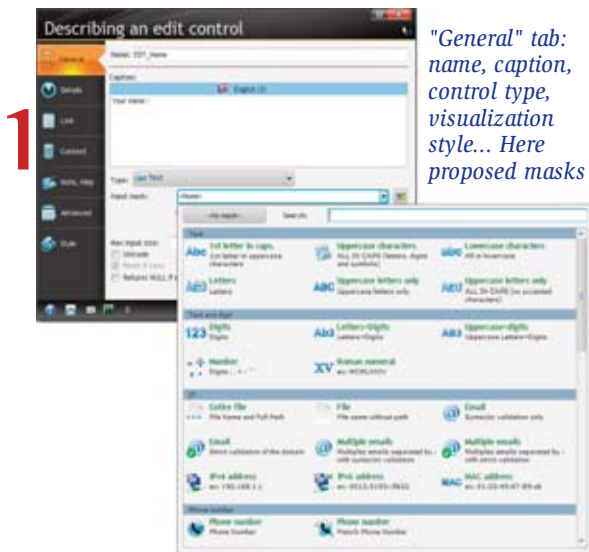
Note: the Ctrl W key combination lets you clear your workspace by hiding the panes.

"7-TAB" TECHNOLOGY: POWERFUL CONTROLS IN JUST A FEW CLICKS

The "7-tab" methodology for defining powerful controls is very intuitive: no need to know Internet programming, everything is in plain English.

The characteristics of each control are defined through an exclusive interactive dialog, which is very simple yet very powerful: the "7 tabs".

Each tab lets you define an aspect of the control. Then, you can modify these characteristics in your program if needed. The content of each tab differs based on the object type: here the "7-tab" corresponding to an "Edit" type control.



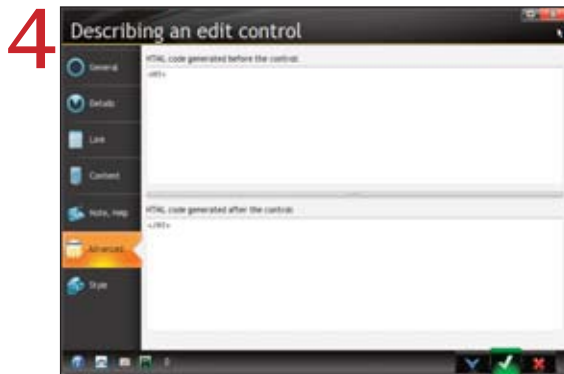
"General" tab: name, caption, control type, visualization style... Here proposed masks



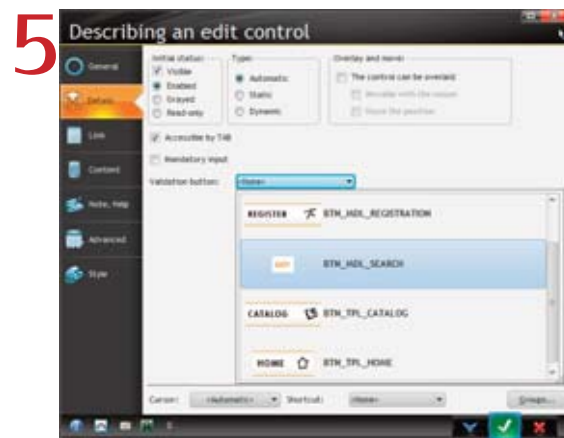
"Link" tab: to link data with pages, ...



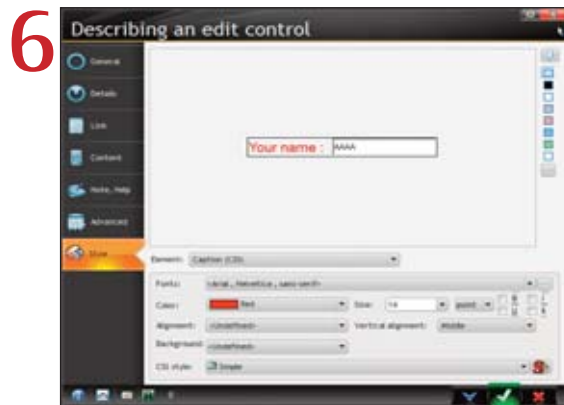
"Help" tab: tooltip, help messages...



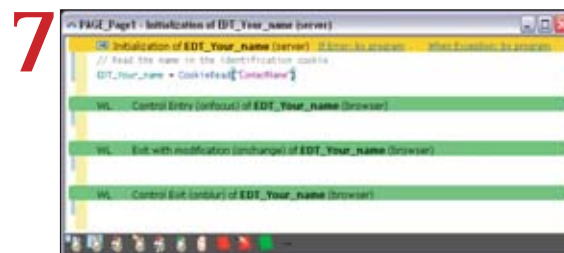
"Advanced" tab: to enter or copy HTML code



"Details" tab: define the input characteristics



"Style" tab: define the control's settings: font size, uppercase conversion...



"Code" tab: directly enter the WLanguage, JavaScript or PHP code in the control's event (control takes focus, click the control, etc.)

WEBDEV

The 7 tabs make building pages easier: just click



This "7-tab" presentation makes WEBDEV easy to master quickly.



POWERFUL CONTROLS FOR YOUR PAGES

WEBDEV 16 offers all the types of controls needed for building Internet and Intranet pages. Let's take a closer look at some of them.

Note that these controls work with Ajax.

HTML STATIC

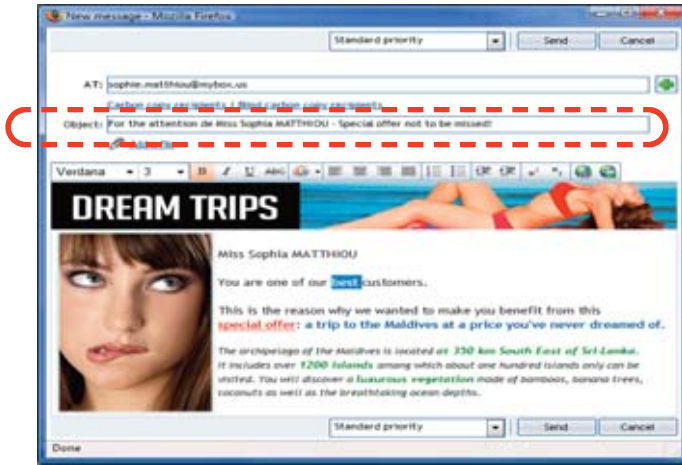


The "HTML static" control lets you edit a text area using all the usual attributes. You can even define links inside this type of control.

RICH HTML EDIT CONTROL

This type of control lets you create and lay out texts with rich attributes.

A toolbar is automatically displayed in front of the control to define the rich attributes. Data are saved in HTML standard.



When the cursor enters the control, the mask comes up. Note the bar used to enrich the text

EDIT CONTROL (WITH INPUT MASK)

The WEBDEV 16 edit controls allow you, as the other controls do, to define a large number of parameters, visually and intuitively through the "7-tab" interface or by coding. It is easy to define powerful input masks, without having to type a single line of code. Formats are shown as soon as the control is being entered.

Reservation period
from: to:

When the cursor enters the control, the mask comes up: here typing "/" is optional

Reservation period
from: to:

Among the input masks provided: duration, capitalize first letter, file name and path, e-mail address, etc...

TABLES AND AJAX TABLES

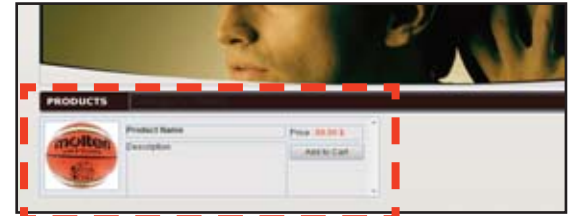
Tables are supported in WEBDEV 16. The Ajax mode is supported with tables, which eliminates the need for redisplaying the entire page every time a table's element is modified.

See page 21 for details about the features offered for Ajax tables.

REPEAT REGIONS ARE A POWERFUL CONCEPT

A repeat region (loop control) is a set of controls that are repeated horizontally and/or vertically a set or unset number of times.

Repeat regions are either filled from your program, or through a direct link with one of the data tables, or through queries.

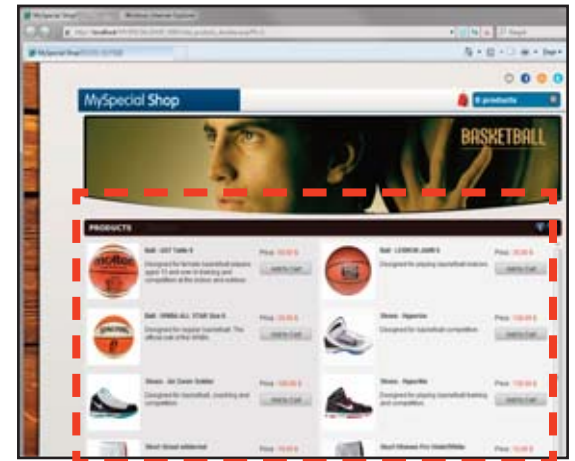


Looper control being defined in the editor

For example, the number of repetitions can be the number of records in the query...

You can modify each attribute of each control for each repetition. For example:

- row color
- font color (amount in red if negative for instance)
- item photo...



Looper control at run time

The repeat region can adapt dynamically the number of elements to display based on the page's width.



A repeat region can also be linear only.



PAGER CONTROL

The page navigation elements (and the associated code) are generated automatically for a looper control, as well as for a table,...



Pager control

DROP-DOWN MENUS

WEBDEV lets you create drop-down menus (horizontal and vertical) in WYSIWYG mode as well as "tab" menus. You can dynamically add (by coding) menu choices, sub-menu,...



TABS

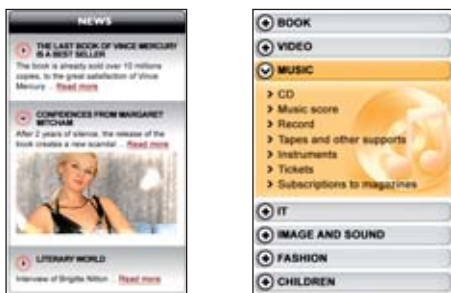
Tabs can easily be implemented..



Example of a page with tabs.

HIDESHOW CONTROL

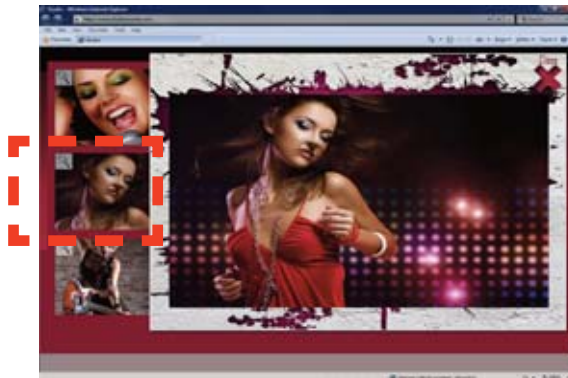
A HideShow control lets you expand and collapse a display area.



THUMBNAIL CONTROL (STATIC OR DYNAMIC)

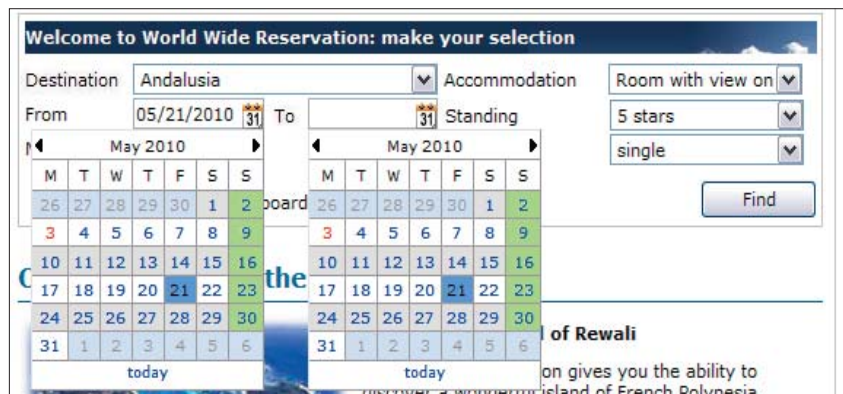
A Web site often manages images or photos that are also used as thumbnails, for selection purposes for instance. WEBDEV 16 automatically manages the dynamic generation of these thumbnails: they are created based on the initial image. WEBDEV 16 offers a second operating mode for these thumbnails: the static mode. In this mode the thumbnail is created by the graphic artist, with a content that may differ from the main image in order to show better or be

more representative.



CALENDAR CONTROL AND DATE EDIT CONTROL WITH POPUP CALENDAR

The calendar control lets you, either create a control integrated in a page, or open a "popup" calendar to enter the date (used often in Web sites). A large number of custom options and presentation options are provided: frame the current day, cross out dates in the past, show a date range, highlight holidays. The calendar control is handled in Ajax mode to prevent having to refresh the entire page when displaying the calendar or choosing a date.



The calendar control is very useful

CAPTCHA CODE

"Captcha", which are security codes the web user must type, are automatically managed. The captcha control automatically calculates and displays the distorted image corresponding to a text. This text is automatically generated by the control or defined by the application. The distortion changes for each display.





POWERFUL CONTROLS FOR YOUR PAGES

● ● ● *continued from page 17*

CHART CONTROL (AJAX)

The WEBDEV 16 chart control offers a large number of chart types in 2D and 3D modes: lines, bar, semicircle, pie...

The interaction between the users and the charts is done in Ajax mode, through a toolbar that let the users dynamically modify parameters: chart type, legend display, etc....



IMAGES, CLICKABLE IMAGES

The image control lets you display images in standard Web formats: Jpeg, Gif, Tiff, PNG...

The images can be clicked to start a process. The "auto scroll" mode lets you automatically display images found in a directory.

SUPPORT FOR PROGRESSIVE JPEG

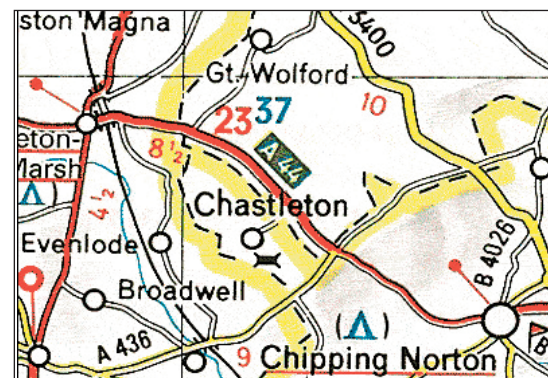
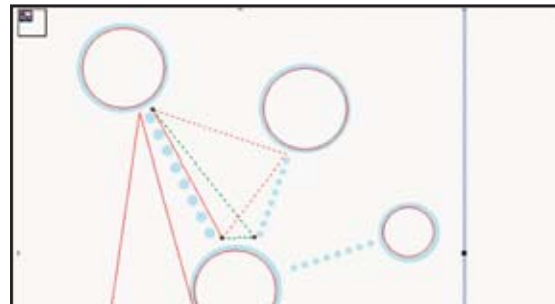
Progressive JPEG is a display format that displays an image progressively as the browser is loading it; the image comes in focus as it is being loaded.

When an image is added to a site, WEBDEV 16 lets you convert it into Progressive JPEG format.

CLICK AREA (MAP AREA)

Click areas enable you to perform hypertext operations: depending where a web user clicks in an image, different operations are launched.

Defining the click areas is very easy using the geometrical areas provided. Several areas can be linked.



If necessary, you can get the click coordinates, at the pixel level.

This can be useful for precision maps, such as geographical maps for example, or in the case of medical applications.

"VIDEO" CONTROL

The "Video" control lets you play videos of various format: Flash (Flv), QuickTime (Mov), Microsoft (Wmv)...

The read, pause, fast forward, and so on features are supported.

Video display is also managed by HTML 5 if the browser supports it (see page 21)



"FLASH" CONTROL

Flash controls let you insert Flash animation in a WEBDEV page: animated banner,...

Did you know it?

You can easily create "rollover tips" on all the controls.



FLEX CONTROL

The Flex format lets you create animations, banners, effects and forms.

You can include Flex files in a WEBDEV page.

SILVERLIGHT CONTROL

WEBDEV 16 lets you include Silverlight 2 type animations thanks to the "Silverlight" control.

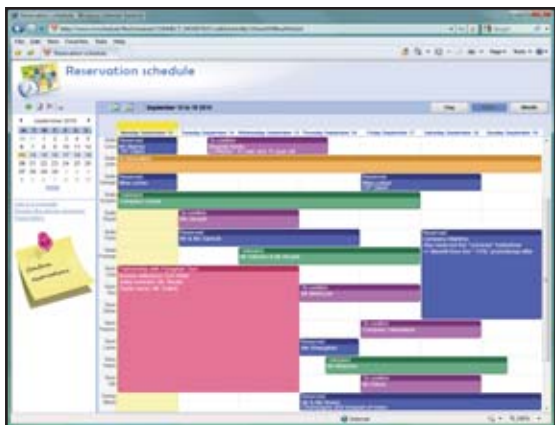
SCHEDULER CONTROL

The scheduler control lets you manage the schedule for multiple resources. This is an Ajax control.

The way this control works is very user friendly; it can be handled just with the mouse for creating, resizing, moving and deleting tasks and this, regardless of the browser.

It automatically links with data (data binding)

This control saves weeks of programming.



SITEMAPPATH (NAVIGATION PATH)

A "SiteMapPath" is a menu built while the user navigates inside a site.

It makes it easy to go back to the previous page. Generating this line is automatic.

A site map is also automatically generated.



Easy navigation

THE UPLOAD FUNCTION

File picker, multi-selection, progress bar... are supported out of the box. The Upload control lets you upload a file from the browser toward the server.



The size of uploaded files is not limited.

The upload can be performed in the background or can be scheduled.

HTML TABLE

The HTML Table enables you to easily create presentation tables in your pages.



AUTOMATIC DDW

The DDW (Dim Disabled Window/Page) feature is managed automatically on pages. The inactive page is grayed out as soon as a dialog box page comes up.

EFFECTS ON CONTROLS

WEBDEV 16 lets you easily define effects on image type controls: acceleration, clipping, fade-out...



Peeling corners are also supported.

COMPLETE CLIPART WITH OVER 10,000 IMAGES AND BUTTONS

WEBDEV 16 comes with over 10,000 pieces of clipart.

You can reference your own images and illustrations to add to the catalog.

The clipart content is rich and varied: images, icons, frames, animations, graphic buttons, bands, shapes...



ALL THE WEB CONTROLS

WEBDEV 16 also offers the following control types: Treeview, Webcam, Java applet, Iframe...

WEBDEV

*The simplest
and most intuitive
coding*





WEB 2.0: AJAX IN 1 CLICK

Web 2.0 technology allows Web applications to use UIs that are close in behavior to traditional Windows application UIs. An important element of Web 2.0 is "AJAX", which allows the browser to only refresh the part of a page that has been modified.

WITHOUT AJAX...

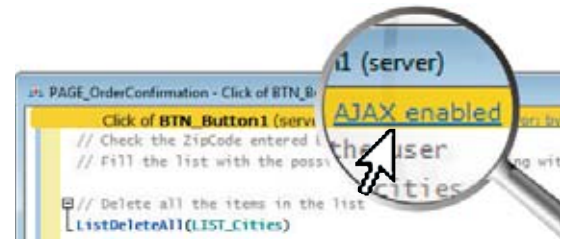
In traditional Web development, when the application wants to modify a single element in a displayed page (a price, or a list of vehicles for instance), the server needs to resend the entire page to the user's computer. This taxes the server, takes up some bandwidth, creates a "refresh" effect in the user's browser, and display can be slow when the browser must reinterpret and redisplay the entire page...

WITH AJAX...

With the AJAX technology, essential to WEB 2.0, it is now possible to send to the user's machine only the modified data, without refreshing the entire page. There're plenty of benefits: the server is less taxed, the information circulating is smaller, display is instant for the user without any bad repaint effect.

USING AJAX IN A WEBDEV SITE: 1 CLICK!

There's nothing special to program. You automatically benefit from AJAX. You can continue to code in 5GL (WLanguage). WEBDEV takes care of everything! An "AJAX" choice appears in the code editor's toolbar. If you want to enable AJAX for the operation, simply click ... the "AJAX" button. The label changes and becomes "AJAX enabled".



SECURITY

Because of its architecture, AJAX can start server procedures and processes from a browser call. To secure your sites, WEBDEV processes are protected from illegal calls (attempt to hijack a session, ...)

Some features available in "Ajax" tables. These features are available for Internet and Intranet sites

Search inside a table is made possible via the magnifier

Columns can be sorted

Columns can be resized

A scrollbar automatically replaces the pager

The background of the selection bar can be an image

Table rows are multi-selection

Table cells can be in edit mode

Anchor and automatic scrollbar

Automatic cache management (partial fetch), which only loads data needed for display and for comfortable human browsing

If a process takes some time, an hourglass comes up automatically



You decide with a simple click in the code editor which procedures can be called in Ajax mode.

WEBDEV AJAX TECHNOLOGY FOR CONTROLS

After an Ajax page request, all the affected controls are updated automatically based on their value on the server.

No coding is needed: no JavaScript code, no XML interpretation, everything is done 100% automatically.

AJAX TABLES

"AJAX" table management allows for very sophisticated features. The "Table" control automatically offers the following features without having to program anything:

- A vertical scroll bar comes up if needed;
- The records viewed are read from the table along with a few records before and after (automatic buffer, which enables partial fetch): the loading time is reduced to a minimum, providing complete smoothness;

- A horizontal scroll bar comes up if the size of the data to view is larger than the table's width;
- Column sorting can be done by simply clicking the column's header;
- Search through the "magnifier" is offered by default;
- Input is possible directly in the table's cells, still without any programming (not on the server, not in JavaScript in the browser).

These features allow for easier code sharing with WINDEV applications that use tables. Switching from a WINDEV application to a WEBDEV application is made even easier!

WEBDEV
AJAX in one click



HTML 5

HTML 5 represents an important evolution of the Internet standard. Complex Internet pages are getting standardized and new features are introduced. HTML 5 features are available for recent browser versions.

LOCAL APPLICATIONS

One of the strong point of HTML 5 is the ability to build Web sites that can work without being connected to the Internet. These features are very useful for mobile Web applications.

USING OFFLINE SITES

WEBDEV 16 lets you specify that a site or a set of pages can work in offline mode (without Internet connection). In this case, all the resources (pages, images, .js files, .css files, ...) used by the site or the pages are automatically put in the cache on the user's machine by the browser. This way the site can be used without reconnecting to the Internet.

LOCAL STORAGE (WEB STORAGE)

WEBDEV 16 lets a site store information on the user's computer. This information is stored in a context specific to the browser.

ACCESS IN LOCAL MODE TO A DATABASE (SQLITE)

WEBDEV 16 lets a site create and access a database created by the browser, on the user's machine via browser code.

This features allows you, for example, to enter data in offline mode, and then to automatically send it to the

server as soon as the connection is established.

GEOLOCATION BY GPS

WEBDEV 16 offers a set of browser functions that lets you interact with the GPS features of the device, if the device offers them: location, movement,...

BROWSER MODE DRAWING

WEBDEV 16 offers drawing functions, based on the HTML 5 standard.

The famous drawing family of functions of WLanguage becomes available in browser code in WebDev 16.

This is very useful to add notes to a map or in the field of augmented reality.

VIDEO WITHOUT PLAYER

A site built with WEBDEV 16 used in a browser supporting the HTML 5 standard doesn't require any plug-in (Windows Media Player, Quick Time or Flash...) to play videos.

This allows you to interact with the video via WLanguage and to customize the display.



Here a map displayed via an image control: the route was drawn using the Browser code drawing functions





INTRANET: WEBDEV IS KING!

WEBDEV IS THE IDEAL TOOL FOR CREATING AN INTRANET (AND EXTRANET)

WEBDEV is the ideal tool for creating Intranet sites. An Intranet site is a site private to a set of users: companies, customers, suppliers...

It can be used within a company, or externally. Access is granted via password and authentication, which is automatically supported by WEBDEV (see page 27)

COMPLETE SECURITY AUTOMATICALLY

The site's security is automatically ensured since the pages of an Intranet site built with WEBDEV are not referenced by search engines.

The dynamic operation (each page is built dynamically on the server right before being displayed) protects requests and their results, which can be encrypted.

NO LIMIT

The richness of features in WEBDEV lets you develop sites that behave like real applications, you are not limited: expense management, supplier discounted price list, order taking, confidential information distribution, subscription to a paid service, bank account management,



Secure travel expense management site of a company

portal...

WEBDEV is the ideal tool for creating Intranet and Extranet sites, and this is why thousands of large companies have created their Intranet with WEBDEV.

AUTOMATIC XML, WORD, EXCEL AND OPEN OFFICE EXPORT MENU

WEBDEV
The simplest and most intuitive coding

AUTOMATICALLY EXPORT TO XML, WORD, EXCEL AND OPEN OFFICE

With tables and loopers, an automatic export menu to XML, Word, Excel and Open Office is offered to the Web user.



The data found in the table or in the looper will be automatically exported to the selected tool and format. When exporting to XML, the XSL style sheet needed by the browser is also generated.

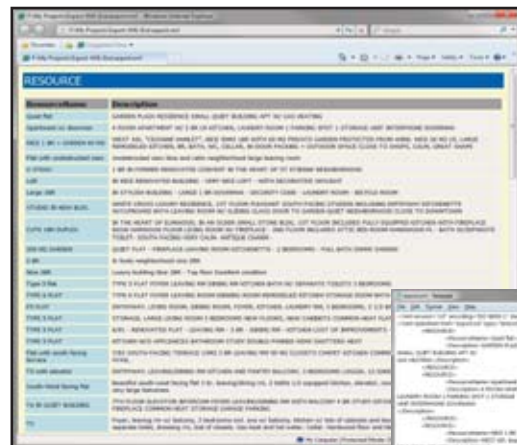
NOTHING TO CODE

No programming is required to benefit from this feature. Of course, you can disable this feature if needed.

TOTAL OPENNESS

If you want to program automatic export for your sites, programming commands are available in the WEBDEV 5GL.

The **HExportXML**, **TableToXML**, **XMLFirst** commands, let you customize all the operations.



Here an XML page using a style sheet, and its "raw" code with tags

TEMPLATES AND SKINS: EASY STYLE BOOK!



A site in the summer



The same site during the winter: modifications are applied to the entire site, automatically

WEBDEV

Page template, skin template, inheritance and overloading allow for easy change management



TEMPLATE, TO DEFINE THE PAGE STRUCTURE

A template is a reference page that will be used by every new page. The template contains the default layout of the page, the default positioning of the page's elements and enables you to insure that each page created will follow this positioning.

A template can contain images, controls, code, procedures, and so on. Inheritance and overload are supported.

SKIN TEMPLATE, DEFINE YOUR PAGES' LOOK

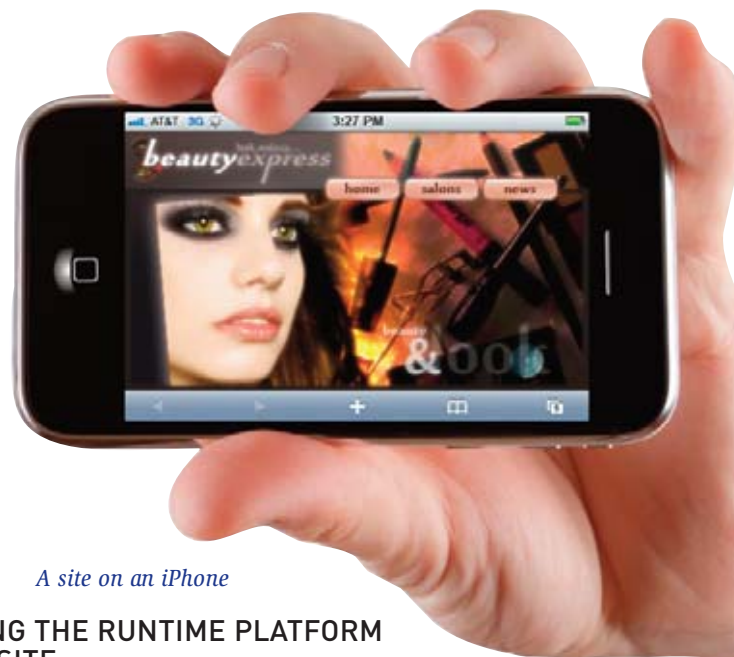
A skin template defines a site's color palette, its illustrations, fonts,... Changing skin allows you to change the look of your site without changing the structure of the pages.

A large number of skin templates are provided with WEBDEV 16.

YOUR SITES ON MOBILE DEVICES



A site on a tablet



A site on an iPhone

THE WEBDEV 16 ENVIRONMENT IS ADAPTING

Some mobile devices let you view Internet sites. Some sites are created (or adapted) specifically to run on mobile devices.

Version 16 of WEBDEV lets you specify right when creating a project whether it is intended to be used on a mobile device.

The various choices offered by the environment during the project development (skins, preset templates, GO, etc.) will be suited for mobile devices.

TARGETING THE RUNTIME PLATFORM FOR THE SITE

WEBDEV 16 lets you get in real time the actual platform (iPhone, iPad, Android, Windows Mobile, Blackberry, etc.), the browser family (Internet Explorer, Firefox, Chrome, Safari, etc.) and its version, and dynamically adapts the format and content of a site's pages.

IPHONE ET IPAD

Special functions are reserved for sites that will run on iPhone and iPad. When this platform is detected, your site runs these special functions: opening size, full screen mode,...



THE 5GL PROGRAMMING LANGUAGE: EVERYTHING IS POSSIBLE!

The integrated WEBDEV 5GL language - **WLanguage** - lets you describe all the operations you need. Your teams won't have to sweat over HTML or JavaScript code. **WLanguage** makes programming Internet and Intranet sites easy.

INTERNET PROGRAMMING HAS NEVER BEEN THIS EASY

The WEBDEV 5th generation language (WLanguage, already used by tens of thousands of programmers worldwide) brings an extra level of confidence which makes site development a lot faster.



HOW TO PROGRAM WITH WLANGUAGE?

- There are two types of Internet code:
- code that is executed on the host server (entered in the yellow band - see opposite)
 - code that is executed on the user's browser (entered in the green band - see opposite).

Note that this code can be generated by the RAD tool and the WEBDEV wizards.

AUTOMATIC HTML AND JAVASCRIPT GENERATION

Browsers only understand HTML and JavaScript code. Optimized HTML and JavaScript code is automatically generated from the WLanguage code targeted for the browser. The code is reliable, very concise and easier to maintain.

AUTOMATIC PHP CODE GENERATION

WEBDEV 16 offers a very interesting feature: the created pages and the entered code are automatically converted to PHP code. Without knowing PHP, you easily create dynamic PHP sites! More than 600 WLanguage functions are already supported in PHP (see page 32).

JAVASCRIPT AND HTML KNOWLEDGE: NOT REQUIRED

You don't need to know JavaScript, HTML or PHP to develop with WEBDEV. However, if for any reason you wish to write or reuse JavaScript, HTML or PHP code, WEBDEV allows it.

AUTOMATIC AJAX

For an operation to be "Ajax", simply click a button (see page 20).

YOU WON'T GET STUCK

The WEBDEV 5GL is extremely powerful. You probably will never need to use these commands, but having them available insures you'll never be stuck. Furthermore, you can enter HTML, DHTML, JavaScript or PHP code, include Java applets, Flash animations, ASP or JSP code, etc...

JAVA APPLET

WEBDEV 16 lets you use Java applets (written with WEBDEV for instance) in your sites: this makes developing them easy!

WLANGUAGE: POWERFUL, INTUITIVE

Easy to remember English commands makes coding intuitive, and maintenance easy. The developer does not have to second guess any of the commands.

WLanguage commands (**HReadFirst**, **HReadNext**, **SSLActive**, **HFound**, and so on) are easy enough to understand. And easy to maintain.

WLanguage allows for faster programming and better code quality.

A WLanguage command often corresponds to dozens (if not hundreds) of lines of JavaScript code: your teams will develop faster.

SENDING AN EMAIL

Sending e-mails is simple. The command is simply called **EmailSendMessage**. You can add attachments. The email is sent in a background task.

OPTIMAL DATABASE INTEGRATION

WLanguage is optimized to manage table data: it offers a predictive input for table names and columns.

POWERFUL STRING MANAGEMENT

WLanguage offers very powerful string management features!

Programming is much faster:

- dynamic size automatically managed (no risk of overflow like in C for example)
- concatenation with the "+" operator
- automatic conversion from numeric to text, and conversely
- advanced search functions
- multiple test commands (**CASE**, **SWITCH**,...)

PROFILER: OPTIMIZE YOUR CODE'S SPEED

WEBDEV 16 comes with a profiler, which measures the speed of each instruction in your code.

OOP (OBJECT)

Object Oriented Programming (and all its concepts) is fully supported by WEBDEV: multiple inheritance, constructor, destructor, public, private, polymorphism... The use of OOP is optional and can be mixed with traditional programming.

WLanguage brings a structured 5GL to Internet development. Having productivity tools such as the debugger is a major plus.



To see the exhaustive list of all the 5GL commands, download the online help for WEBDEV 16 from PC SOFT's site

A CODE EDITOR THAT ASSISTS YOU

The code editor is a major contributor to **WEBDEV power and efficiency**. Coding is intuitive, fast and done directly in the relevant control.

A REVOLUTIONARY PROGRAMMING CONCEPT

The unique code editor technology helps create quality code and develop faster.

THE WEBDEV DEVELOPMENT METHOD

The most common events for a control are offered by default in the code editor, and shown by a color band. For example, for an "edit" type control, the default events are: control initialization, data entry in the control, control loss of focus, do (action) for each modification. You just enter the corresponding code in the section you need.

Control initialization

- Control gets focus (*on focus*)
- Modification (*on change*)
- Control loses focus (*on blur*)

```

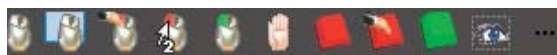
PAGE_Contact - Initialization of EDT_ZipCode (server)
Initialization of EDT_ZipCode (server) If Error by program When Ex
WL Control Entry (onfocus) of EDT_ZipCode (browser)
// Display a button allowing the selection of a zipcode from a
BTN_SeeZipCode.Visible = True
WL Whenever Modified and Exited (onchange) of EDT_ZipCode (browser)
// Hide the button allowing the selection of a zipcode from a
BTN_SeeZipCode.Visible = False
WL Control Exit (onblur) of EDT_ZipCode (browser)
// Test the validity of the zipcode
    
```

Example: an edit control

The code that will be run in the browser can be entered in WLanguage or in JavaScript, it's your choice.

ALL EVENTS ARE SUPPORTED

The less common events are offered through icons displayed at the bottom of the screen.

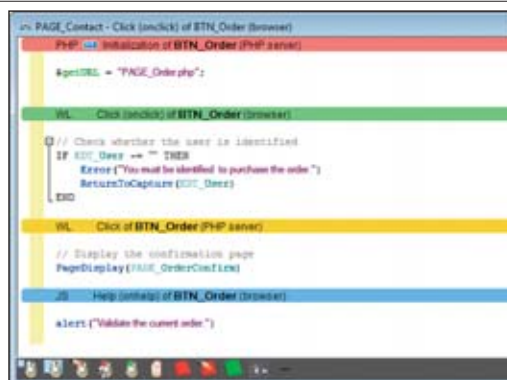


All events are supported: click, double click, key down, key pressed, key up, mouse button down, mouse button up, mouse out, mouse over, focus lost, focus gained, modification, selection of control content, call to help, load, submit,...

SYNTACTIC COLORING

To make coding easier and more readable, each word is colored according to its type.

SERVER CODE, BROWSER CODE



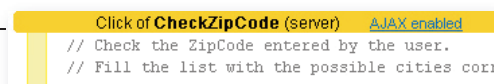
The yellow band indicates that the code entered is WLanguage code that will be executed on the Server. The green band indicates that the code entered is WLanguage code that will be executed in the browser. The pink band indicates that the code entered is PHP code.

The blue band indicates that the code entered is JavaScript code.

It's visual and intuitive!

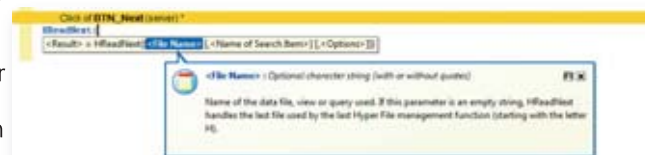
AJAX

Regarding AJAX, simply click the "AJAX" button on the line to use this technology (see page 22).



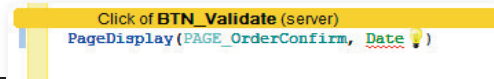
AUTOMATIC COMPLETION

When typing a command, the type of parameter expected is offered in a pull-down list. A tooltip also provides information about each parameter of the function used.



REAL-TIME ERROR CHECKING

If a syntax error occurs, it'll be detected in the code editor, before the project gets compiled! Errors are flagged by underlying the function whose syntax is invalid in red.



COLLAPSED/EXPANDED

The code editor offers a convenient expand/collapse code feature: you can hide tested code for better readability!

GLOSSARY (CUSTOMIZABLE)

Each command can be entered in abbreviated form.

SOURCE CODE MANAGER

WEBDEV 16 comes with a versioning tool, the shared Source Code Manager (SCM, see page 32)

The code editor is part of the overall user friendliness of WEBDEV 16.

WEBDEV

WLanguage is a 5th generation language: it eliminates 90% of the code, it simplifies coding tremendously while providing incredible power.

WEBDEV 16 supports UML and automatically creates the class diagram by reverse analysis of the code. Conversely, a UML diagram generates the classes' code.



INTERNET DEBUGGER

POWERFUL YET USER-FRIENDLY DEBUGGER

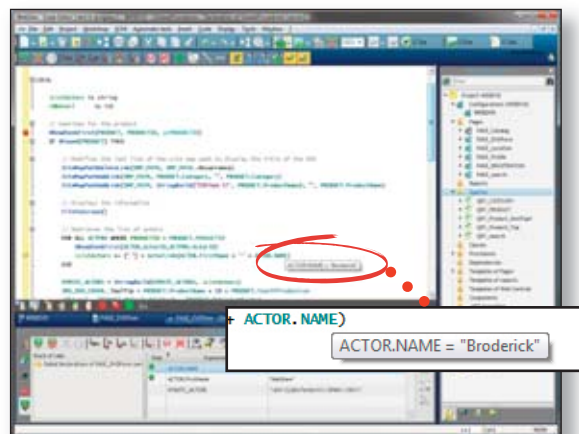
To fine tune your interactive Web site, the debugger lets you run your site's code step by step, and visualize or modify the contents of given variables.

ADVANCED FEATURES

- step-by-step execution, skip functions, instantly exit a function, execution up to a given line,...
- autostop, which stops the execution for each change to a variable's value or to a given expression
- automatic visualization (can be turned off) of all the variables in the line being executed (watch)
- visualization of expressions that contain functions
- display the value of the variable under the tooltip
- decimal or hexadecimal result
- real-time call stack
- trace of code run
- 32 or 64 bits
- ...

REMOTE DEBUGGING

You can debug a server remotely: you can debug the server located at your ISP without going there.



PHP AND AWP DEBUGGER

The debugger works in "AWP" mode (the mode of semiautomatic contexts). In PHP, you can debug the initial application.

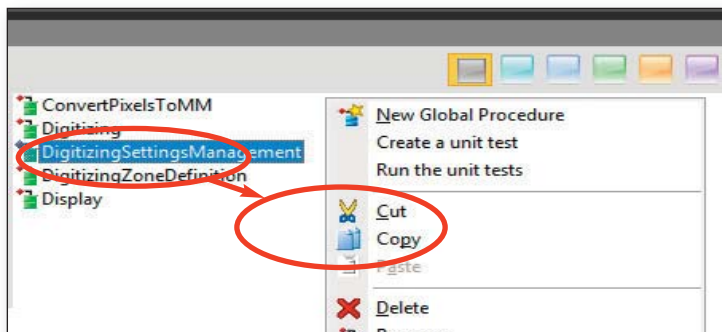
The debugger saves you a lot of precious time when fine tuning your application. It'll soon be indispensable!

UNIT TESTS

Automated testing is only one of the phases that ensure your software's high quality, but it is an important one. WEBDEV 16 also offers regression tests, unit tests, integration tests and load tests.

UNIT TEST OF PROCEDURES AND CLASSES

The creation of test suites is totally integrated in the environment. To directly test a procedure or a class, simply use the popup menu that offers to create (and then replay) a new unit test.



APPLICATION VALIDATION RATE

The testing center displays the list of existing tests, the version of the site on which each of these tests has been run and the result of the test.

This information is also displayed in summary mode in the project Dashboard.

THE TEST SCENARIO EDITOR

When running a test, if an error is found in the site, clicking the script's error positions you directly where the error occurred in the code.

TEST VERIFICATION DURING CURRENT OPERATIONS

Each modified element that has not been validated by tests is flagged. The Test Center also flags all the errors that have not been corrected as well as regressions.

A history of the validation rate is automatically stored, which allows the site's quality to be tracked over its life cycle.

This verification is also performed when you include elements in the source code manager.

EASY COMPONENTS

The concept of component drastically simplifies development: It is used as a black box, very easily and securely.

A component may contain code, pages, images, classes, an analysis, and even data tables.

SECURE DEVELOPMENT THANKS TO COMPONENTS

A component is a "black box", a building block; the developer using it only knows the entry points and the nature of the information that may be returned.

The ability to create elaborate components as easily as traditional applications will simplify your development.



Components within the environment

SECURE YOUR COMPONENTS

The components that you create are secure, meaning that nobody can see or copy their source code, their analysis, etc....

MULTI-TARGET COMPONENTS

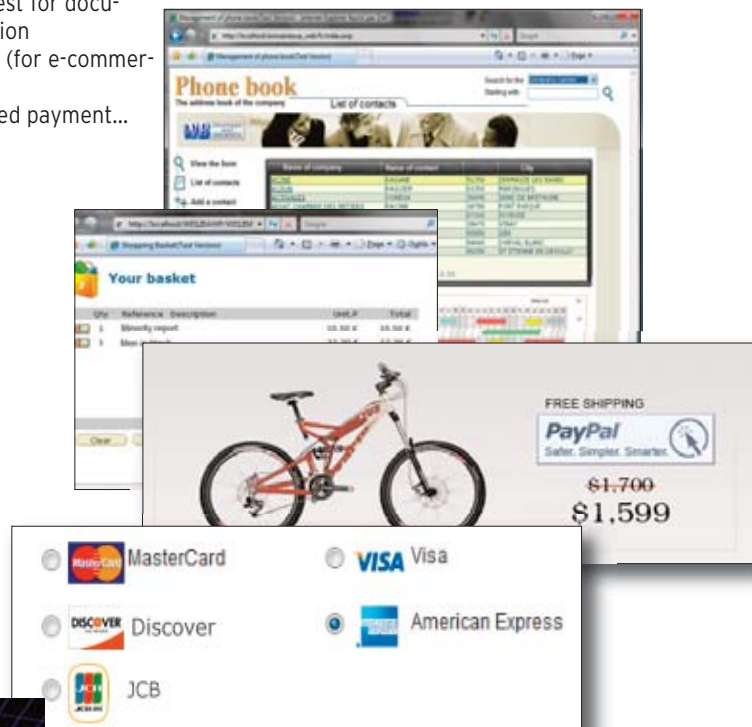
Components are compatible between WINDEV, WINDEV

Mobile and WEBDEV. This allows for even better code reuse.

LARGE NUMBER OF READY-TO-USE COMPONENTS PROVIDED

WEBDEV 16 comes with a large number of components (and their source), which you can use in your sites.

- request for documentation
- paper (for e-commerce)
- secured payment...



WEBDEV

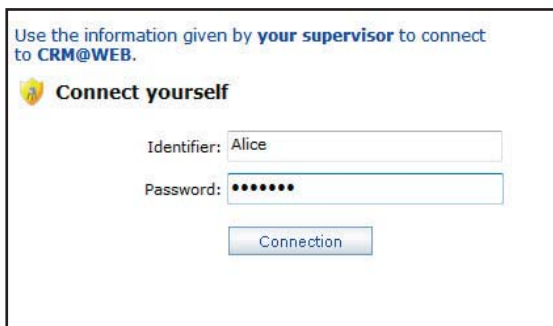
Don't keep reinventing the wheel, reuse!

SECURITY OF YOUR SITES: PASSWORD PROTECTED ACCESS

CONTROL ACCESS TO A SITE'S PAGES

Accessing sites or pages in a secure way can be a requirement: it is standard with WEBDEV 16!

The "user groupware" features allow you to define passwords for people or groups of people.



Access control is simply defined in the editor. No programming is needed to insure secured access to your applications, simply activate the "Groupware" option.

GRANULAR ACCESS CONTROL

Access control enables you to filter the access to several elements: menu choices, buttons, controls, groups of

controls, pages, reports, ...

The protected elements are inactive and either grayed out or hidden based on your choice.

THE SUPERVISOR MODE

The supervisor of the delivered site will be able to set up the user rights at any time. a friendly editor lets you define and manage these rights.

If you want, the rights of the users or group of users can be created or modified by programming.

LDAP

If you want to use an existing LDAP login database, the access control will use it.

SAAS

WEBDEV 16 offers advance features for managing SaaS applications (see page 37).

Automatically make your sites secure, without coding anything!

WEBDEV

Use Web services





WEB SERVICES: EASY



RELY ON WEBDEV EASE-OF-USE TO CREATE WEB SERVICES

WEBDEV 16 lets you easily use, create, deploy and host web services.

USING WEB SERVICES

It is very easy to use a Web service from WEBDEV. The structures of the WDSL file will automatically be converted into native WLanguage types.

EASY CREATION OF WEB SERVICES

Web services are easily created: simply define the set of procedures that make up the Web service interface. The WDSL file description is automatically generated.

EASY WEB SERVICE DEPLOYMENT

Web services are hosted on a computer that has a WEBDEV application server. The installation procedure is automatically generated.

EASY WEB SERVICE HOSTING

The hosting technology is based on the robust WEBDEV standard application server.

This technology allows for insuring the Web service availability as well as its speed.

Request are executed simultaneously, in separate processes, which ensures security.

Web services can be consumed by any type of application, created in WINDEV, WEBDEV or with any other third-party language.

MASHUP

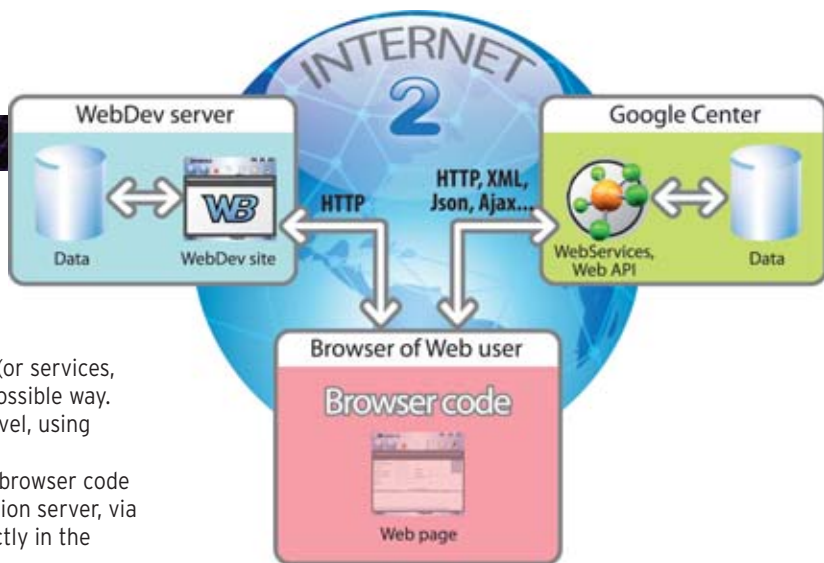
MASHUP

The "mashup" concepts consists in aggregating data from different programs (or services, or data sources), and this in the simplest possible way. You can perform a mashup at the server level, using native WLanguage functions.

You can also perform a mashup directly in browser code without executing any code on the application server, via Web APIs or by including components directly in the page to interact with them.

The data exchanges offered by these services can be structured in XML or in JSON.

Mashup of a WEBDEV site, Google Calendar and Google Map.



and to interface with those in browser mode.

INCLUDE ".JS" FILES EXTERNAL TO THE SITE

This feature enables you to include ".js" files (or other resources) that are external to the site. This allows you to include the programming interface files offered by external services (Web API)

HANDLING EXTERNAL JAVASCRIPT OBJECTS FROM WLANGUAGE

WLanguage in "browser" mode allows for the interfacing with Web APIs such as the ones offered by Google, Yahoo and to facilitate interaction with external components offered by these sites (GoogleMap, GoogleCalendar, ...).

JSON

You can handle JSON data directly in WLanguage via the **JSONExecute** functions.

NATIVE ACCESS: GOOGLE APPS, SAP, LOTUS NOTES...

WEBDEV AT THE SERVICE OF SAP

SAP R/3 is a very popular ERP tool. A site built using WEBDEV 16 can access SAP ERP data natively (through BAPI). Data are accessed directly by SAP, accesses can be traced and priority management is maintained. A family of functions enables you to establish a connection (with authentication) and call BAPIs and pass them parameters. A wizard helps import automatically the structures used. You don't need to install the SAP UI module. All the WEBDEV features are available.

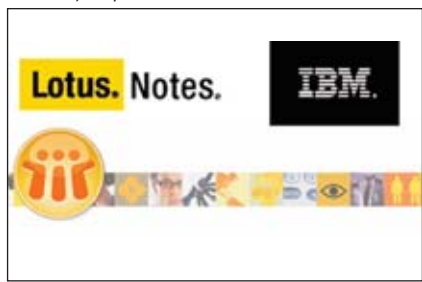


QUERIES BASED ON SAP

The report generator (see p 31) can be used to create queries on data found in a SAP database.

NATIVE ACCESS TO LOTUS NOTES

WEBDEV sites can access Lotus Notes in native mode. Access e-mails found on the Lotus Notes (Domino) mail server, in incoming and outgoing modes, is standard in native mode. Access to contacts, appointments, tasks and documents found on the server is easy. This enables you to create Intranet sites that are totally integrated with your company's I.S.



Lotus Notes usual security is respected, of course, through the Lotus certificate.

NATIVE ACCESS TO OUTLOOK

WEBDEV sites can access Outlook in native mode. Access to Outlook mails, in incoming and outgoing modes, is standard. Access to contacts, appointments and tasks is easy, in read and write mode. This enables you to create Intranet sites that are totally integrated with your company's I.S.

NATIVE ACCESS TO GOOGLE APPS

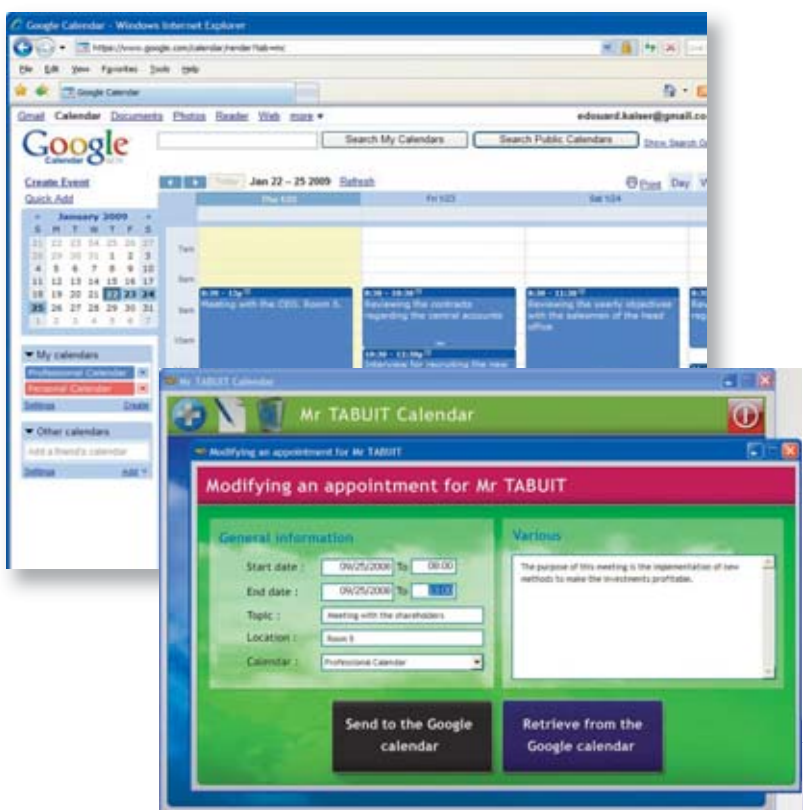
Aside from the ability to connect to Google application through mashup, WEBDEV 16 offers native access to Google applications' data: Google Calendar, Google Map, Google Contacts, Adwords, Picasa... This allows data to be retrieved and then displayed in a custom format on the site. Here is some sample code for retrieving Gmail contacts and displaying them in a WEBDEV table.

```

Connection is gglConnection
Connection.Email="WebDev16@gmail.com"
Connection.Password="password"
GglConnect(Connection)
Contacts is array of gglContact
Contacts=GglContactList(Connection)
TableDisplay(TABLE_Contacts)

```

WEBDEV
Open to all standards



Example of native access to Google Calendar, which will be used later in a WEBDEV 16 page





GENERATE PHP CODE

PHP WITHOUT KNOWING PHP!

All the power of WebDev (WYSIWYG editor, data model editor, UML, query editor, advanced controls, WLanguage, etc.) is available for creating php sites. The pages and the code (in WLanguage) are automatically converted to PHP code (you can also enter PHP code directly).

Without knowing PHP, you easily create dynamic PHP sites!

PHP RAD

The RAD method is also available to generate PHP sites in just a few clicks. Automatically generate your sites from the data model editor (see page 10 and 11).

DIRECT ENTRY OF PHP CODE

In the WEBDEV code editor, you can write (or paste) PHP code.

```

PAGE_Blog - Global Declarations of PAGE_Blog (PHP server)
WLanguage - Global Declarations of PAGE_Blog (PHP server)

PHPConstants is dynamic array
PHPConstants = ListConstants()

FOR EACH ELEMENT AConstant OF PHPConstants
  LoopierAddLine(LOOP_Stats, AConstant, ValueOfConstant(AConstant))
END

PHP - Local Procedure ListConstants (PHP server)
Function ListConstants()
{
  $arrCtes = get_defined_constants();
  if (count($arrCtes) == 0) {
    return array();
  } else {
    return array_keys($arrCtes);
  }
}

PHP - Local Procedure ValueOfConstant (PHP server)
Function ValueOfConstant($k)
{
  return constant($k);
}
    
```

Here, the process in red is a piece of PHP code.

You're never stuck. You can mix PHP code and WLanguage code in the same page.

ADVANCED CONTROLS AS WELL

In addition to the standard controls (edit control, static control, etc.) most WEBDEV 16 advanced types of control are available in PHP: table with automatic scroll bars, looper controls, calendar, tab, rich edit control, HTML text, automatic ruler...

This allows you to tremendously streamline coding and brings great security to your sites through input masks that only allow the entry of data in set formats.



WEB 2.0: AJAX IN PHP

A large number of controls and operations are AJAX compatible in PHP mode: you create Web 2.0 PHP sites thanks to WEBDEV 16! (see pages 20 and 21)

ADVANCED TYPES

In addition to standard PHP types, WEBDEV 16 lets you use advanced types in your

code.

Programming is easier and more secure this way. The advanced types are: date, time, duration, data source, associative arrays, structures, numeric ... Powerful syntax and operators are also available: FOR EACH, string operations, optional concatenation, "start with" operator,...

CODE SHARING

Using WLanguage allows for sharing code between pages and PHP sites, WEBDEV standard sites and even with WINDEV applications! This saves a lot of time and increases reliability through code reuse.

EASY AND AUTOMATIC MANAGEMENT OF PHP SESSIONS

Managing PHP sessions (contexts) is automatic. Simply declare the variables that must be retrieved the next time the page is run. There is no serialization process to code.

PHP 4 & PHP 5 COMPATIBILITY

WEBDEV 16 generates PHP code that is compatible with both PHP 4 and PHP 5.

HYPERFILESQL ACCESS

Access to HyperFileSQL (Classic, Network and Client/Server) is insured through SQL commands.

MYSQL, POSTGRESQL, ORACLE ACCESS

Access to MySQL PostgreSQL and Oracle databases is supported. Note that all databases that offer an ODBC driver can be accessed.

AS/400 (IBM I) ACCESS

Access to AS/400 is native (module to purchase separately).

CALLING PHP SCRIPTS

You can call an external .php script from a PHP page or a standard WEBDEV page using the **PHPExecute** command. You can use either a POST method or a GET method, the result is returned in a string.

WAMP & LAMP

WAMP (Windows, Apache, MySQL, PHP) and LAMP (Linux, Apache, MySQL, PHP), acronyms often used for these technologies based on 4 components, are supported by WEBDEV 16.

EASYPHP: AUTOMATIC CONFIGURATION AND SETUP OF WEBDEV

When installing the WEBDEV 16 application server, the Apache Web servers (used notably by EasyPHP) are automatically detected and configured.

ACCESS TO FREE HOSTING

Generating a PHP site allows you (among other things) to access "free" hosting services for your dynamic sites. This option can be useful for sites from associations or small companies that don't want to use dedicated hosting.

With WEBDEV 16, PHP is easy!

REPORT EDITOR: GENERATE PDF IN REAL TIME (INVOICES...)



A report editor solves the problem of Internet reporting.

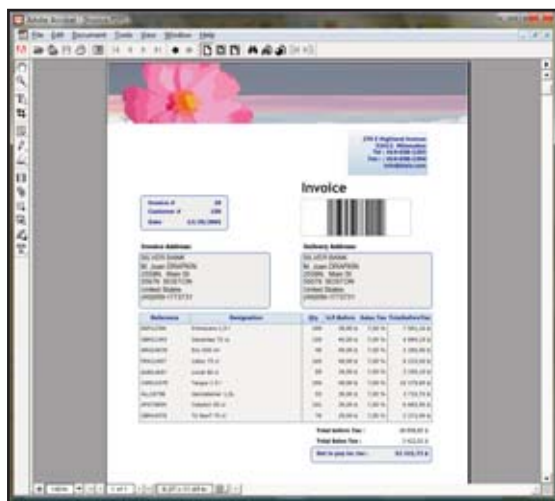
And it makes creating printouts easier.

It has a double use:

- on one hand, for Intranet applications
- on the other hand, for dynamically generating reports that will be sent to the Web user (PDF invoice for example).

PDF INCLUDED

Reports can be created in PDF format (without any additional charges, or any additional module needed).



A PDF report generated by WEBDEV 16

CREATING A REPORT: EASY

A wizard automatically offers to help create high quality reports; it asks questions so you won't forget anything! On an Intranet, reports are printed on a printer accessible from the server.

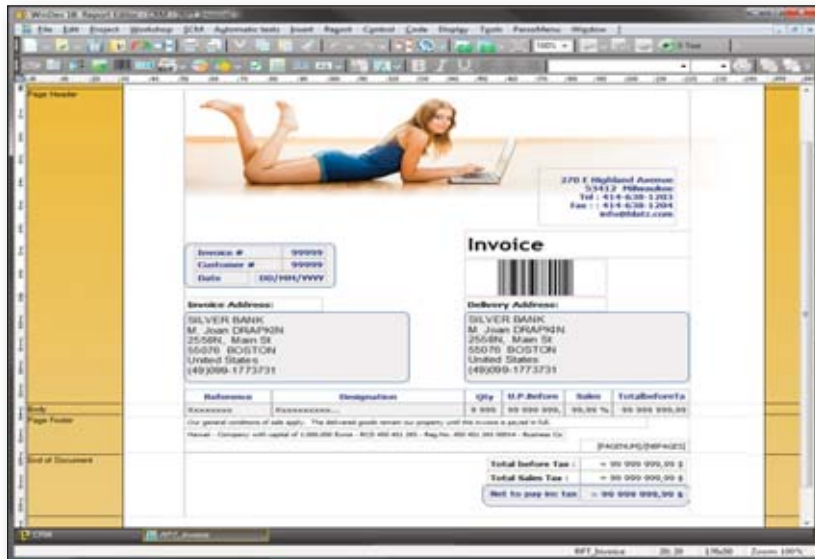
On the Internet, the report will be sent to the Web user as: HTML, RTF, PDF...



Choosing the type of report to create

ALL THE DATA SOURCES

The data used for a report can come from any source: HyperFileSQL, Oracle, Access and so on, query, text file, memory, page table, etc....



PDF PAGE BACKGROUND

The report editor supports page background and pre-printed forms such as tax forms.

A report being created in the environment

INCLUDE IMAGES: AUTOMATICALLY

Including images - BMP, TIFF, PCX, GIF, JPEG, PNG, and so on - in a report is extremely simple. The image can be preset (logo, for example), or come from your program or from a file (product picture, for example).

You can also easily print drawings originating from your program.

WEBDEV
A WYSIWYG report editor, precise to the pixel

SOURCE CODE WHEREVER YOU WANT

WebDev enables you to include any executable source code (WLanguage) anywhere in a report: this way you can create your most custom reports without any problems.

AUTOMATIC BAR CODES



WEBDEV 16 automatically prints bar codes (horizontally or vertically).

The supported formats are: QR Code, UPCA, UPCE, EAN13, EAN8, CODE128, CODE39,

CODE93, CODE11, intervalled 2 of 5, CODABAR, CB_MSI, Datamatrix, PDF417...

MAIL REPORTS

With WEBDEV it's easy to create a dynamic report (the invoice for the product a user just ordered online for instance) and mail it immediately (in PDF format for example).

ROYALTY FREE REPORT DISTRIBUTION

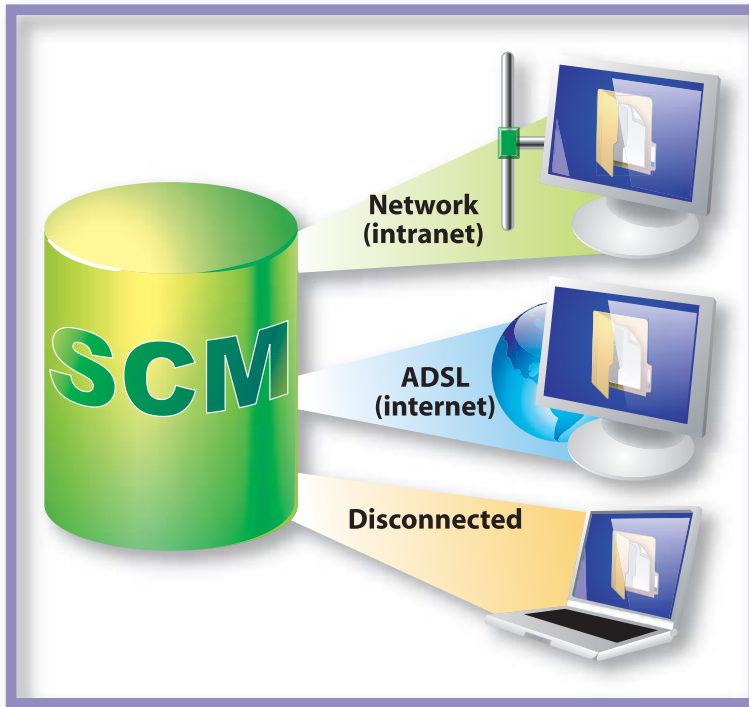
Furthermore, you don't pay any royalty to distribute your reports along with your WEBDEV sites.

With WEBDEV 16, sophisticated reports are made easy!





VERSIONING TOOL (SCM)



SINGLE DEVELOPER

Even if you develop by yourself the versioning tool presents some benefits: it keeps a history of the modifications for all the elements and acts as a backup and archiving tool for the versions. Branch management allows you to easily manage several versions of the same site, which is very useful.

SOURCE DATABASE

SCM uses a source code repository: procedures, sets of procedures, classes, pages, reports, components, queries, analyses, dependencies (images,...). This free database can be installed in a few minutes either on a dedicated server, or on a share drive of a network computer.

TOTALLY INTEGRATED

Totally integrated with the environment, the versioning tool (SCM) provides better team work, modification and version history, management for concurrent versions of an application, and automates the backup of the development team's source code.

The versioning tool brings comfort, flexibility, security and speed.

Sized to accommodate teams of 1 to 100 developers, SCM facilitates and standardizes exchanges between developers without imposing constraints.

POWERFUL FEATURES

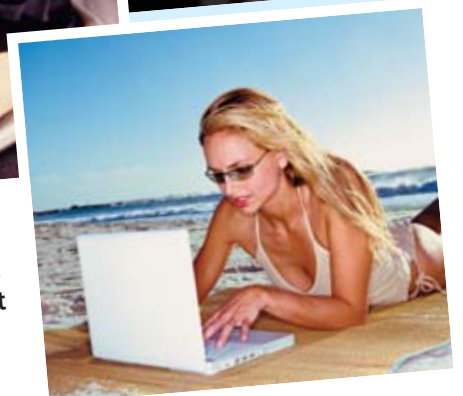
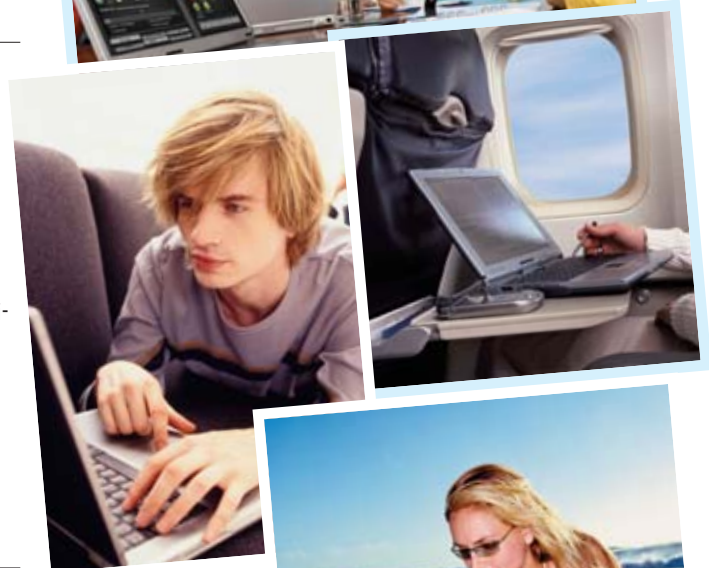
- SCM is totally integrated in the development environment; for instance, SCM offers to check out an element when you first try to modify it.
- The database supports several projects; if several projects use the same element, it can be shared.
- A history of all the elements (pages, code, queries,...) since their creation, is stored in the repository (a complete or partial purge is always possible).
- The project is available on all the development machines; therefore you can work on an offline machine.
- Branch management is covered.
- "Diff" (differences) between 2 elements is available: source, page,...
- At any time you can consult the list of modifications performed between two versions by yourself and/or other developers or webmasters...

CONNECTED AND REMOTE

SCM accepts remote connections through the internet. this way you can work on a project from an agency or from a customer site, without fear of losing the modifications performed.

If you are connected (with DSL for instance), the modifications that you perform will be immediately available to the other developers.

SCM automatically manages dependences: files used (images,...) SCM detects them in the project and saves them with the project.



Develop at the office, on the road and even at the beach!

MANAGING THE LIFE CYCLE: CONTROL CENTERS CONTROL YOUR PROJECTS: DASHBOARD

TO MANAGE THE LIFE CYCLE

A control center is an application that monitors one aspect of a site's life cycle.

A Control Center allows you to have a global view of the corresponding area, either during the development phase, or at a deployed site, or also for maintenance or application evolution.

The Control Centers used the most for Web development are:

- Project Monitoring Center
- Quality Control Center
- Hosting Control Center.

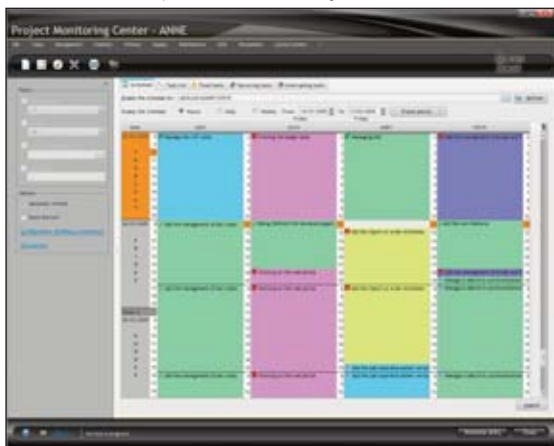
The Control Centers are fully integrated with the environment; information is shared.



The dashboard

PROJECT MONITORING CENTER

The center is used to check the schedule for each task assigned and performed by each team member and also monitors the requirements management.



Manage the schedule in real time

MANAGING THE REQUIREMENTS AND TASKS

The Project Monitoring Center lets you define and follow the status of each requirement for each version of the project. A requirement corresponds to a feature that needs to be developed in the program.

Tasks (development, test, documentation task, ...), bugs, business rules, and so on can be associated with each requirement.

QUALITY CONTROL CENTER

This center is used to monitor bugs and user feedbacks (bugs and suggestions).



Impact analysis

HOSTING CONTROL CENTER

The hosting control center lets you configure the hosting profile and maintain the hosting server. Account management and web server management is also performed from this center (see page 40 to 43).

PROJECT DASHBOARD

The dashboard provides a global vision of the project, its progress and quality. Lights come on when some (configurable) levels are reached: number of bugs, missed deadline ... and show what optimizations to perform.

Managing project is made easier.



MODELING A DATABASE: EASY (UML, MERISE,...)

When you create a dynamic site from scratch, you need to define the tables that will be used. It's easy with WINDEV 16.

And if you have existing databases, WEBDEV can use them directly.

WEBDEV uses a visual representation to describe how the data is organized. The Merise and UML methods are included in the environment. Note that WEBDEV supports all the analysis methods.

DEFINING A NEW STRUCTURE

Say you need to define new tables, let's take a look at a simple but representative example of the creation of a new file structure: the definition of the "Product" and "Orders" tables.

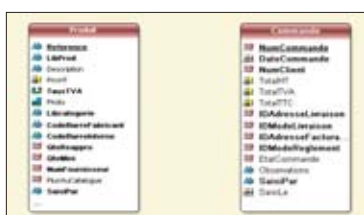
1. Let's create the "PRODUCT" table: simply specify its name and general information.

2. Let's create the table's structure: each column is defined or retrieved from the data dictionary.

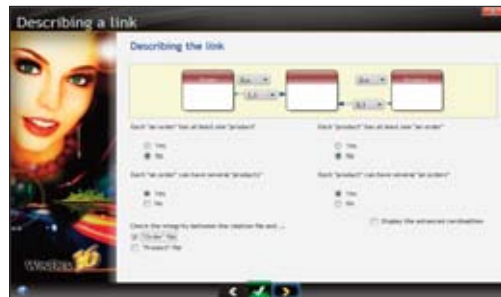


3. The "ORDERS" table is created in the same way. CUSTOMERS place orders.

Therefore these two tables need to be linked in the analysis. After clicking the "link" tool in the icon bar, simply draw a link between these two tables using the mouse.



4. WEBDEV 16 then asks some simple questions, in natural language, to automatically determine the type of relationship between the two tables.



The questions are very basic. For example, here:

*Each "product" belongs to at least one "order": yes or no?
Each "product" can belong to several "orders": yes or no?
Etc...*

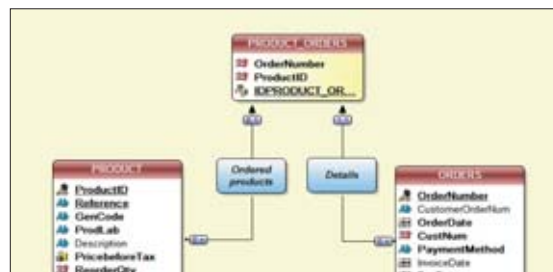
Based on the answers to these simple questions WEBDEV sets the right cardinality attributes and determines whether a relationship table is needed!

5. WEBDEV then requests the rules to apply for deletions or modifications (referential integrity).

*Forbid the deletion of Product that has an Order: yes or no?
Etc...*

6. That's it, the tables are linked, your work is done.

The query editor will find the right joins automatically, and each editor in the development environment will know how to work with the data...



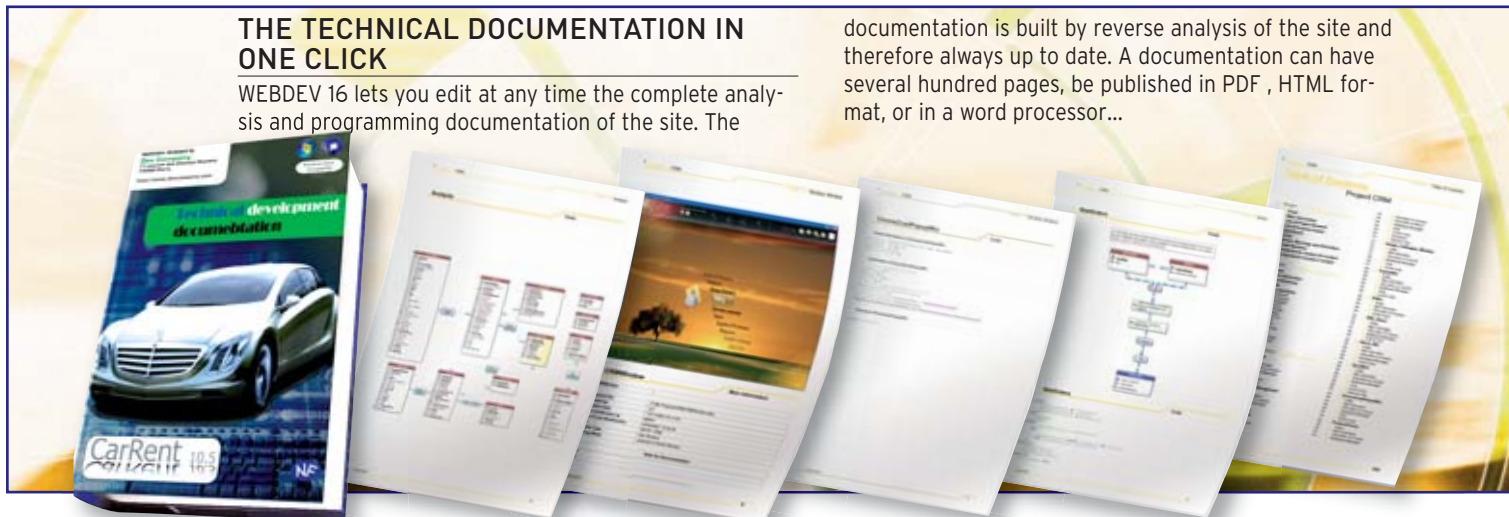
A link table is automatically created.

Now, all there is to do, is print the documentation (optional), generate the pages and the code with the RAD tool, or start a new development... It is that simple.

THE TECHNICAL DOCUMENTATION IN ONE CLICK

WEBDEV 16 lets you edit at any time the complete analysis and programming documentation of the site. The

documentation is built by reverse analysis of the site and therefore always up to date. A documentation can have several hundred pages, be published in PDF, HTML format, or in a word processor...



HYPERFILESQL: WINDOWS AND LINUX CLIENT/SERVER SQL DATABASE



Discover HyperFileSQL in all its details with this 24-page documentation available on www.windev.com

WEBDEV 16 supports all the databases on the market.

WEBDEV comes with an SQL database, HyperFileSQL, which is very powerful, very fast and very reliable.

Distribution of the HyperFileSQL engine is free.

WEBDEV SUPPORTS ALL MAJOR DATABASES

WEBDEV works with all the databases on the market (see page 8).

A PROVEN DATABASE COMES WITH THE PRODUCT: HYPERFILESQL

"HyperFileSQL" (Classic and Client/Server version) comes with WEBDEV 16. It is a robust and reliable database, already used on millions of sites worldwide.

SHARING DATA WITH BACK OFFICE

Data can easily be shared with workstations, to process orders, send packing list, create invoices for instance... WINDEV is the ideal companion to WEBDEV for building solid Back Office applications.

EASY REMOTE ACCESS

The remote access allows you to handle and process via your internet connection, in real time, the data found at a hosting company for example.

EXTREMELY FAST

The total command integration and the (automatic) index setup allow for incredible access speed. This provides better response times for your site, be it an Internet or Intranet site.

TOTAL INTEGRATION

The engine is totally integrated with the development environment.

At any time, in all the editors, you have immediate access to all the information regarding the tables and columns.

The interaction between the user interface and the database management system allows for easier and faster programming.

CONFIDENTIALITY: 128-BIT ENCRYPTION

On the Internet, data are located on a server: you need to protect them against illegal access; this is easily done with HyperFileSQL. Data and index encryption is available for better security.

ADVANCED FEATURES

HyperFileSQL offers advanced features: cluster, integrity, log, transactions, triggers, automatic concurrent access management, Unicode, hot maintenance (without disconnecting users)...

OPEN TO OTHER PROGRAMS

The ODBC and OLE DB drivers provided with HyperFileSQL let you read and write from third-part programs and applications.



Server configuration, here in Linux



SQL AND WLANGUAGE

You can access the data through SQL commands or via the powerful WLanguage functions. You can mix SQL and WLanguage commands in the same program.

CODE OPTIMIZATION IN WLANGUAGE

WLanguage (WEBDEV's 5GL language) is optimized to provide fast database access. The direct link between pages and tables simplifies programming.

For example, the **PageToFile** command transfers the content of the controls found in the page to the table's buffer (data file's buffer). It only takes one line of code. This way you don't have to write an assign statement for each variable!

THE CODE CAN BE GENERATED!

Programming is very easy, quick and reliable. The code can be generated automatically when creating pages through RAD!

INSTALLING AND CONFIGURING

HyperFileSQL installs immediately, without requiring any other software. Similarly, database administration is performed automatically.

Changes to the database structures are automatically managed (SDD technology).

HYPERFILESQL DEPLOYMENT: FREE

Using HyperFileSQL can save you hundreds of thousands of dollars (and even more when deploying Intranet sites).

A non-negligible benefit.

HyperFileSQL Client/Server is your sites' best ally!

Free HyperFileSQL deployment

WEBDEV
329 millions of billions of rows: it's the authorized size of a HyperFileSQL table: you're safe...

FEATURES
128-bit encryption
Referential integrity
Log files
Replication
Transactions
Triggers
Unicode
Import Export
Cluster
Compress/Decompress memos on the fly
TECHNOLOGIES
Automatic maintenance (SDD)
Concurrent access management
Automatic reconnection
Zero administration
Resume automatically after incident
Automatic Deployment



VISUAL QUERY EDITOR

The editor enables you to automatically create simple or complex queries on tables. This simplifies programming even more: pages, tables, loopers, combo boxes, and so on, can be based on queries...

NO NEED TO KNOW SQL TO CREATE POWERFUL QUERIES

Thanks to the visual editor, all you need to do is choose the columns to include, specify the selection conditions using the wizard, and the query is built.

You can, of course, modify the SQL code generated by the query editor.

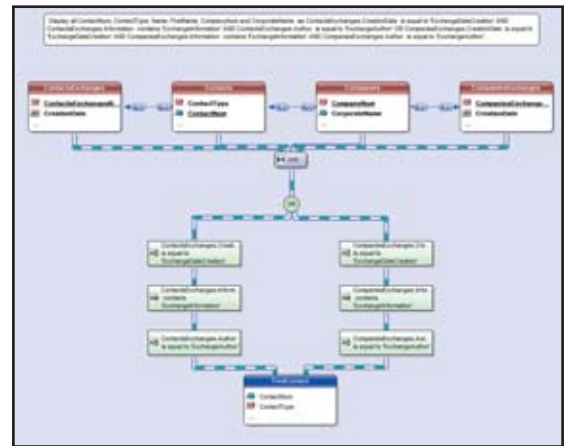
Queries run on HyperFileSQL (Classic, Mobile and Client/Server version), as well as any other database.

You can use WLanguage code with queries (hRead* commands).

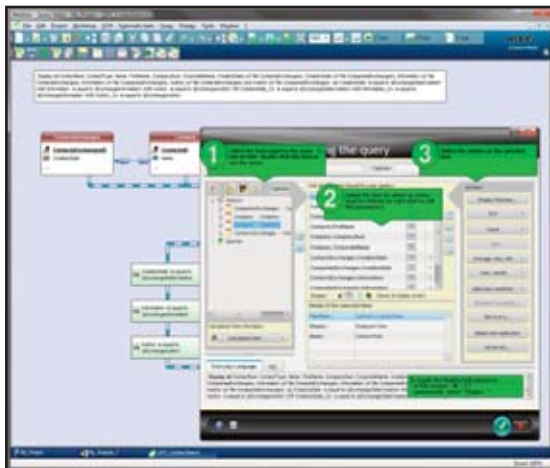
VISUAL QUERIES

The query is also generated in natural language as you make your choices in the editor (or in SQL, if you choose so).

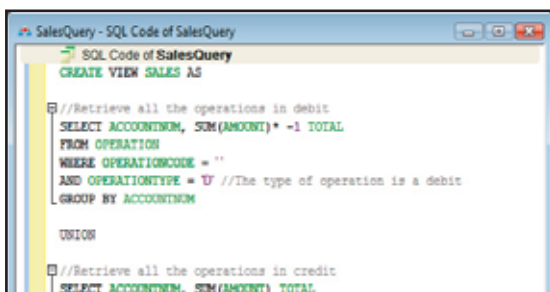
Once validated, the query is displayed graphically in the development environment, which makes it easier to understand when you need to make changes.



3 Once the query is defined, it is represented graphically.



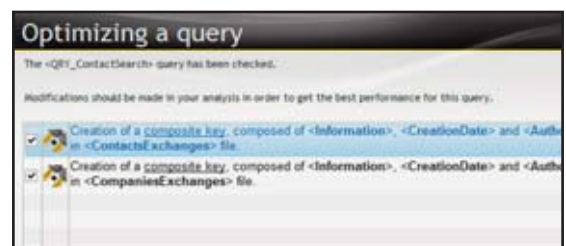
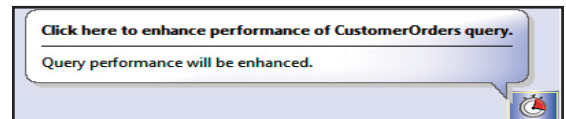
Query editor ("floating" help displayed)



1 The SQL code is automatically generated

OPTIMIZED EXECUTION

With HyperFileSQL, the choice of the best index will be performed at run time, taking into account the real weight of each index in the table. If keys are missing, the environment will flag them automatically through AAD (Aided Application Development).



QUERIES BASED ON QUERIES...

A query result can be a visualization table, a printed report, even a HyperFileSQL table. A query can use the result of another query as its source.

QUERIES BUILT ON ANY DATABASE

The data source for a query can be a HyperFileSQL database or a third-party database: Oracle, SQLServer, DB2, AS/400, MySQL, Access...

The query editor makes accessing your data much easier to program.

Everyday Language
SQL

2 **2** The query is built in natural language in front of your eyes

Display all ContactNum, ContactType, Name, FirstName, CompanyNum and CorporateName as ContactsExchanges. CreationDate is equal to 'ExchangeDateCreation' AND ContactsExchanges.Information contains 'ExchangeInformation' AND ContactsExchanges.Author is equal to 'ExchangeAuthor' OR CompaniesExchanges.CreationDate is equal to 'ExchangeDateCreation' AND CompaniesExchanges.Information contains 'ExchangeInformation' AND CompaniesExchanges.Author is equal to 'ExchangeAuthor'.

SAAS & CLOUD

SaaS (acronym for "Software as a Service") is a delivery model for software.

Customers don't pay to buy the software but to use it. Data is stored on the application provider's servers and not locally at the company.

EASY SAAS

Version 16 of WEBDEV provides the needed tools for easily delivering SaaS solutions. The SaaS administrator lets you describe the use authorizations. Customer account management lets you define the rules for using the site: authentication, number of authorized connections, connection time, etc. This management is done directly from the administrator interface or via WLanguage functions. At run time, the site checks the connection authorization and the user's rights via a set of WLanguage functions.

SAAS ADMINISTRATOR

The administration software can work with or without human intervention. It lets you create company accounts, user accounts based on an initial configuration, without any human intervention. The interface is offered in Web mode.

SAAS ADMINISTRATION API

The WLanguage functions available for managing accounts are (non exhaustive list):

- account creation and deletion
- account modifications: add users, time slots, number of users,...
- initialization of a database by cloning a reference data-

base

- defining the connection to the database
- ...

SAAS AUTHENTICATION API

Among the elements to manage in a SaaS site, you'll find:

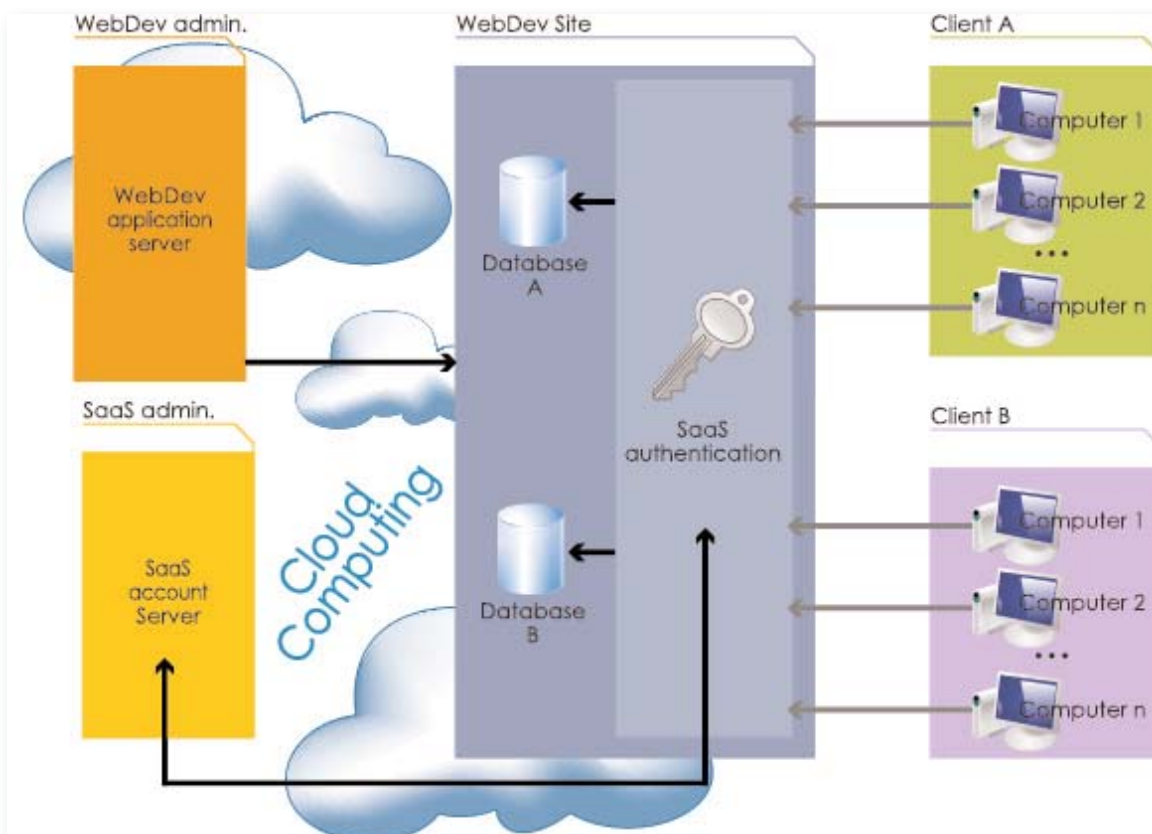
- Connecting and disconnecting
- Company identifier
- Company password
- User identifier
- User password
- IP address check
- Maximum number of connections
- Maximum connection time
- Authorized connection time, etc...

PRICING MANAGEMENT

Pricing management is easily done through a simple setting.



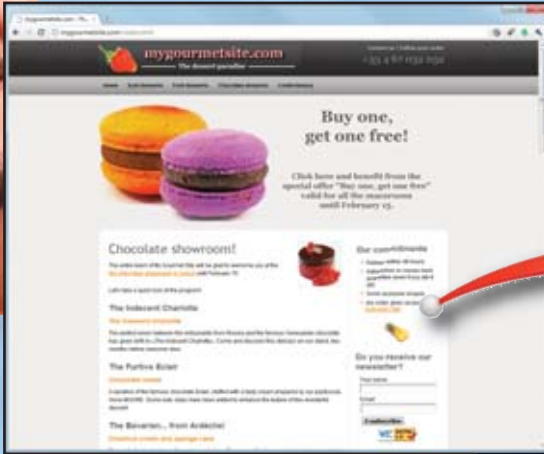
SaaS is easy with WEBDEV 16!



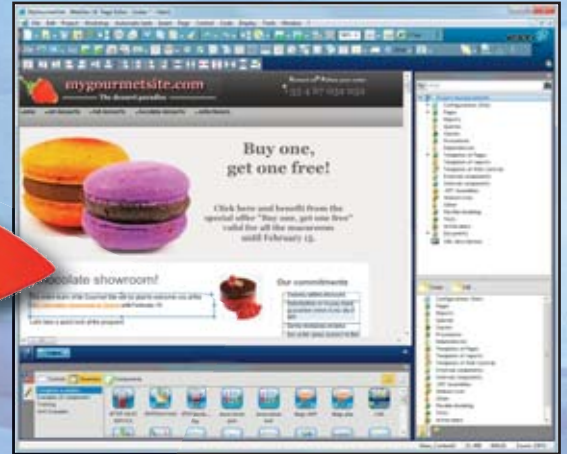
IMPORTING EXISTING HTML

Importing HTML pages

Existing static pages can be retrieved in WEBDEV 16. The corresponding controls are created.



The original static page...



The same page imported in the WEBDEV editor

Importing pages is also useful for creating a style book compatible with an existing site, and preserving the site's look and feel.

IMPORTING EXISTING HTML CODE

WEBDEV has an interesting feature: "suck in" existing HTML pages.

The page is imported into WEBDEV, and each text, image, link, and so on is automatically converted into a WEBDEV object.

The overall page's look and feel is kept.

This way you can easily reuse existing code.

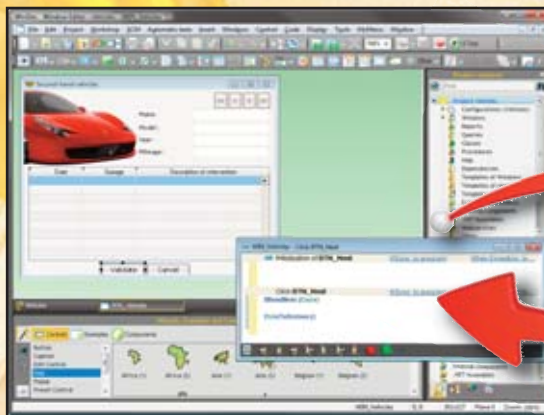
IMPORTING EXISTING DREAMWEAVER CODE

You can import Dreamweaver pages, templates and libraries. When importing a page created with Dreamweaver, if a Dreamweaver template is detected, it is automatically converted into a WEBDEV page template. If this template is detected in another imported page, it will be automatically substituted with the previously created page template.

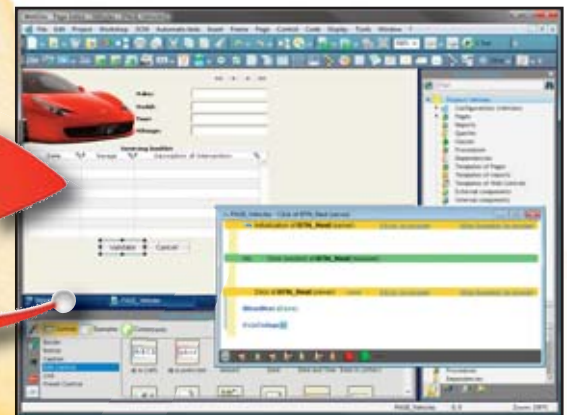
IMPORT/EXPORT WINDEV APPLICATION

WINDEV import, export and share

Importing, exporting and sharing WINDEV applications and windows save you a lot of time when going from a Windows application to an Internet application and vice versa.



Here: a window in WINDEV ...



... and the result of its import into WEBDEV 16. The source code is also imported!

IMPORTING AND SHARING A WINDEV APPLICATION

Windows created with WINDEV are directly changed into pages. Projects are shared. The controls, code, reports

are brought over. Going from Windows to the Internet (and from the Internet to Windows) has never been easier! You can share classes, procedures, reports, queries between WINDEV, WEBDEV and WINDEV Mobile projects.

FRONT OFFICE BACK OFFICE



WEBDEV 16 sites can easily work with existing applications, regardless of the tool used to create them.

But the compatibility and integration between WEBDEV and WINDEV make them the ideal package for developing Front and Back Office applications very quickly!

FRONT AND BACK OFFICE

Front Office is the customer-facing part: usually the interactive Internet site.

In business terms, the Front Office manages requests for information and order taking.

The Back Office deals with the internal company processes: order processing, inventory management, statistics, production orders,...

In short, the Back Office processes the orders.

THE WINDEV 16 & WEBDEV 16 DUO IS THE IDEAL PLATFORM IF YOU'RE STARTING A GLOBAL PROJECT

To create Internet and Intranet sites that manage data (Front Office), PC SOFT offers the WEBDEV 16 integrated environment.

It is the only integrated environment (from modeling to setup, including database support and maintenance) that

allows you to easily develop robust sites managing data in real-time. For all internal business applications (Back Office), PC SOFT offers a developer's dream, a professional development environment and application life cycle management for Windows: WINDEV. And if you want to use your applications on mobile devices, just recompile them using WINDEV Mobile 16. WINDEV lets you create in record time the most complete, high-performance applications, for local or network environment. You'll use the powerful integrated database or any database on the market. WINDEV, WINDEV Mobile and WEBDEV are compatible; their development environment is similar. They share projects, objects, code, classes, reports, analysis...

LEGACY APPLICATIONS?

WEBDEV is totally open, which allows it to interface with any existing database, through ODBC, OLE DB or native access.

You will easily reach your objectives with WEBDEV 16.

WEBDEV 16 and WINDEV 16 are compatible:

- project
- analysis
- tables
- components
- reports
- code
- classes
- windows, pages
- ...

64 LANGUAGES AUTOMATICALLY

A Web site has a worldwide audience: any web user in the world can take a look at it! Therefore, developing multilingual sites is often a requirement.

There are of course countries that use several official languages: Belgium, Switzerland, Luxembourg, Canada, etc.

WEBDEV offers an innovative and powerful solution for supporting foreign languages.

64 LANGUAGES PER SITE

Up to 64 different languages supported by the sites you develop. All you need to do is pick the languages in the configuration screen (these can be modified at any time, even for an existing site).



Example of a text entered in different languages

WEBDEV takes care of everything, all you need is to enter the labels in the different languages selected (Western and non-Western character sets: Chinese, Russian, ...).

To dynamically change language in the site, use the **Nation** function.

Note that even the text of image buttons will be translated!

PLAN FOR THE FUTURE

Imagine how much simpler it'll be to develop multilingual sites (or to make an existing site multilingual since translations can be added later).

AUTOMATIC TEXT EXTRACTION

The WDMMSG tool, available separately, lets you extract all the "text" in a project, and reintegrate it after translating it. Useful if you want your site translated by a translation agency!



EASY DEPLOYMENT

Once a Web site is built, it needs to be installed on the server. WEBDEV 16 comes with a very powerful installer and administrator tool.

INCLUDED IN THE PRODUCT

As with all the other modules, this module comes with WEBDEV.

ASSISTED CREATION

To create an installation program, you only need to answer some simple questions.



You can install the entire site or just some specific pages.

SETUP ON AN INTRANET SERVER

If the machine is not already configured (rented from a provider for instance), simply install your site on the server computer as well as a WEBDEV application server or a PHP engine depending on the type of site you've created; and that's it...

A Web server software (IIS, Apache, and so on) must be installed on the server.... The main Web server software are directly recognized by the installation procedure.



Example of an installation setup screen: selecting the Web server software

FTP INSTALLATION AT A SERVICE PROVIDER

The installation can be performed remotely (through FTP) or through a CD or DVD provided to the ISP. Secure HTTPS deployment is possible. Several sites can be hosted on the same server. If a site is a strategic site, it is better to use a dedicated server.

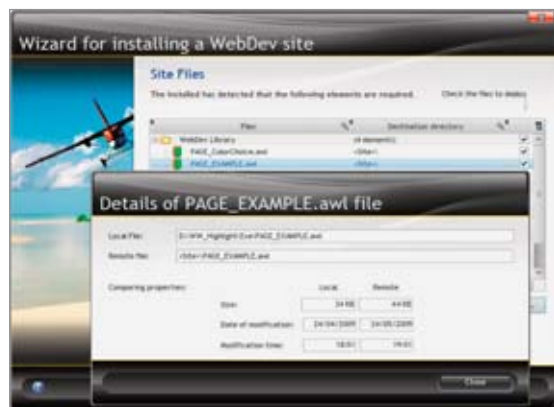


STANDALONE SITE INSTALLATION

The ideal installation mode for distributing demo versions of a site exists: it's the standalone mode. In this mode, the installation includes the WEBDEV application server and a Web server.

SITE COMPARISON TOOL

Once a Web site is installed, it usually evolves. When the site changes, only the modified files need to be updated, which limits the transfer volume. WEBDEV will compare the files on the live site with the ones on the development computer, and will preselect the files that have been modified. Of course, you can also manually define the file you want to install.



SCHEDULED UPDATES: AT NIGHT...

It's usually more convenient to perform site updates at night.

WEBDEV offers an option to perform the installation at a given date and time. The physical copy is performed immediately, but the new site will only go live at the date and time you've specified.

PAGE EXPIRATION DATE

When creating a page, you can now specify an expiration date for the page.

For example, if a page is related to a specific event (a tradeshow, a promotion), this page must not be displayed anymore after a given date!
 So you won't forget, WEBDEV 16 will alert the developer when opening the project, with a configurable frequency (7 days before and 1 day before by default).
 You can also request that the application server sends an email to a given address, with a configurable message.
 Risks of an oversight are limited this way.

MULTIPLE INSTALLATIONS OF THE SAME SITE ON THE SAME SERVER

It is possible to automatically install on the same server several copies of the same site, without having to rename the project.
 This allows a consultant that installs the same site for different customers to install them on the same server.
 The tables can be shared for all the sites or separated.
 The WEBDEV account can be common or different, with



also common or specific configuration (time-out, number of connections, etc.).

TESTS: STRESS TESTS, REGRESSION TESTS...

The quality of your site requires a set of appropriate tests. WEBDEV 16 comes with a test tool that will enable you to check that the parameters of your server allow the maximum number of simultaneous connections you want. The test tool also lets you execute a set of scenarios to check regressions for instance.



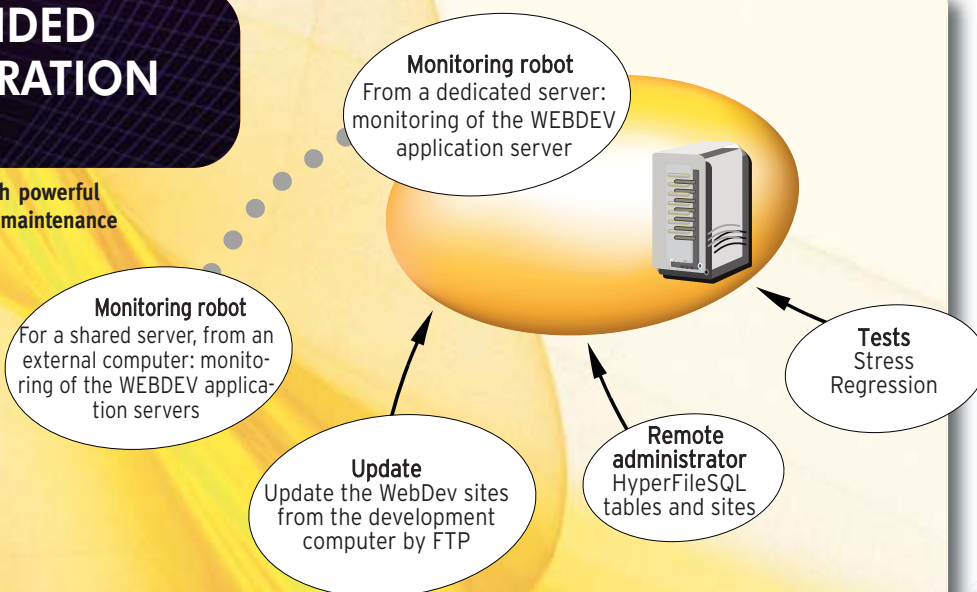
ARCHIVING

This feature backs up all the object descriptions in a work directory: analyses, pages, but also images, sound, and so on.
 Compacting is automatic.
 You can keep the different versions of a site.

Installing and administering a site: easy with WEBDEV 16!

THE PROVIDED ADMINISTRATION TOOLS

WEBDEV comes with powerful administration and maintenance tools.



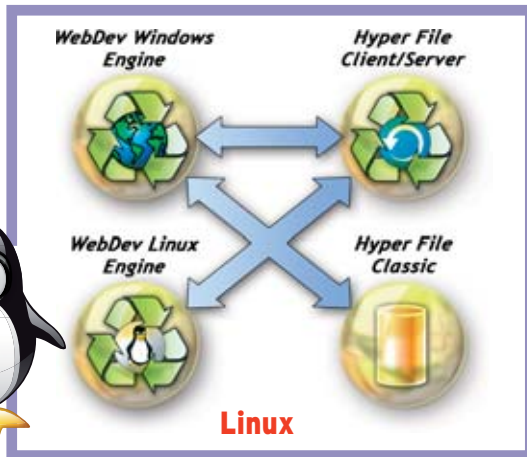


EASY HOSTING

WEBDEV 16 allows for easy hosting. You can choose to drive your site with the WEBDEV application server or with a PHP engine.

THE WEB SERVER SOFTWARE

WEBDEV automatically configures Apache, as well as IIS. The server can run on (32 or 64-bit) Windows or Linux (currently over 1,000 functions supported on Linux).



STATIC SITE

Installing a static site is straight forward.

DYNAMIC INTRANET SITES

In most cases, the site is installed on a company server. All the machines connected to the server will be able to consult the site. Simple.

DYNAMIC INTERNET SITES

Usually the site is installed at a "service provider", separate from your company. There are two types of hosts: dedicated or shared.

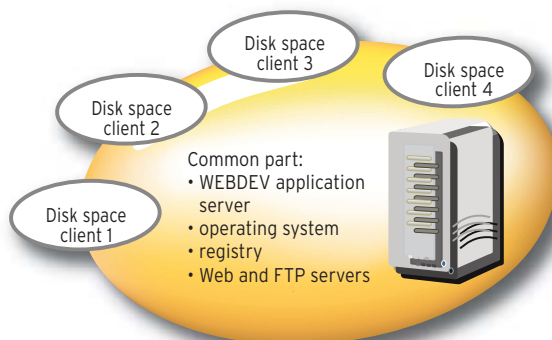
DEDICATED SERVER

The site is hosted on a computer dedicated to your company.

You are the only one who can install sites on this machine. You can usually administer the site remotely (using the tools provided with WEBDEV for example). With a dedicated machine you have total control, performance is under control.

SHARED SERVER

In this case, your site is hosted along other sites from other companies.



On a shared server, the control is shared and the perfor-

HOST YOUR SITES (FOR FREE) AND TEST THEM IN 1 CLICK

PC SOFT offers to host your test sites. Installation is done easily in one click from the environment. Once your site is done, deploy it in 1-click and test it "for real" instantly. You simply need to have or to create a developer account on the PC SOFT site.

mance also depends on the activity of the other sites, but the hosting costs are lower.

FINDING AN ISP FOR A DYNAMIC WEBDEV SITE

PC SOFT offers a list of ISPs (worldwide) that supports WEBDEV dynamic sites. You can also contact your existing hosting company.

EASYPHP (WAMP, LAMP): AUTOMATIC CONFIGURATION AND SETUP



When installing the WEBDEV 16 application server (by itself or with the environment), the Apache Web servers (notably used by EasyPHP) are automatically detected and configured, like standalone Apache servers. However you can modify this configuration.

AUTOMATIC CONFIGURATION OF VIRTUAL SITES IN APACHE

The Apache Web server lets you use virtual sites, which enables you to isolate the hosting. A WEBDEV account can be defined for each virtual site. The configuration of these virtual servers is now done automatically when installing a site and the WEBDEV 16 environment.

SUPPORTED WINDOWS VERSIONS

The WEBDEV application server can be installed on a WINDOWS server: WINDOWS 7, Vista, 2000, XP, 2008... It also works on "non server" versions of Windows, within the limit of the Windows authorized connections in this case.

SUPPORTED LINUX DISTRIBUTIONS

Linux distributions evolve often. Some evolutions are minor, others are major. Version 16 of WEBDEV supports both the older distributions and the new distributions. At the time this document was created, the following distributions have been tested:

- Debian 4.0 (Etch)
- OpenSuse 10.3
- Ubuntu 10.04
- Mandriva 2010

Support for higher version is usually ensured if these distributions are compatible. Do not hesitate to ask PC SOFT to find out about the latest changes.

More than
3,000
simultaneous
connections
per server

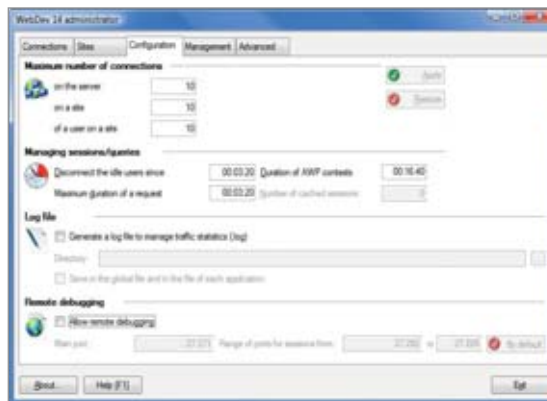
Connexions en cours 3119

EASY ADMINISTRATION

ADMINISTRATION: LOCAL OR REMOTE

The WEBDEV application server is provided with an administration tool accessible remotely, which lets you set up the server and monitor its activity. Several parameters can be specified: maximum number of connections authorized by the server, maximum number of connections for a given site, maximum number of instances per Web user, and so on... Note that the administrator can also be installed as a service, without any interface, on the server computer. A monitoring robot (provided) can be enabled to continuously check that the application server is operating properly.

You also have the ability to specify the rights for each user.



The local administrator tool on the server machine

WEBDEV

Deploy and administer your sites easily.



The remote administrator

MONITORING ROBOT

A very sophisticated monitoring engine is provided with WEBDEV 16. It can be used to monitor the availability of WEBDEV sites, http servers, NMTP servers, SNMP servers, file servers, mail servers, WEBDEV application servers, HyperFileSQL server...

Based on your choice, the server sends a warning by email message, by message sent to a specific application (internal messaging application, etc.), to a control screen (visual warning and/or sound warning), by starting a WLanguage procedure, to a third-party programming (this third-party program can send a configurable SMS for instance). Of course, you can choose a combination of these warnings.

You can also configure the frequency and repetition of the tests to perform.



EASY REFERENCE

REFERENCE YOUR SITES

A wizard analyzes the composition of the site's pages and highlights modifications to perform in order to maximize the positioning of the pages in search engines (Google, Yahoo,...)

The wizard also checks that the links among pages can be detected and used by the engines' spiders.

A lot of other rules are also checked.

Your sites will get more exposure with search engines.

REFERENCE EACH DYNAMIC PAGE (URL REWRITING)

Thanks to its "AWP" technology, WEBDEV 16 allows every dynamic page to be referenced.

A URL rewriting mode lets you define several addresses for the same page based on its content. This page and its dynamic content will be better referenced by search engines.

For example, the address of the page can include the object name (bike, scooter, oak dresser, etc.), which will allow the page to be referenced better.



TRAFFIC STATISTICS

A statistics module is also provided with WEBDEV so you can find out which Web sites your Web users are coming from (see page 45).



SSL SECURITY

SECURITY

As you know security and confidentiality are of the utmost importance on the Internet. By default, when using an Internet site, data traveling between the user's computer and the Web server are not protected: the data can be accessed by any eavesdropper. The confidentiality and the authentication of the data source are not insured by default.

SECURE SSL CONNECTION

The most efficient way to protect the user's information today is to use a secure SSL (Secure Socket Layer) type connection.

This SSL connection insures the encryption of the data that travels between the user's computer and the Web server that is hosting the site.

This protocol also allows the web user to authenticate the site's owner.

To secure a site or part of a site by SSL, you need to buy an SSL certificate from a known entity (VeriSign, Thawte, GeoTrust, etc.)

Once you have an SSL certificate, simply install it on the server that is hosting the site.

Please note that there are several levels of certification, from simple encryption to the "SSL Extended Validation" authentication which allows the display of a green address bar in some browsers.



HTTP, HTTPS

The URL used then for the secure connection to the site will start with "https://" instead of the classic "http://".

The web user can also check the presence of a padlock in the browser's status bar, proof of the secure transaction, as well as the identity of the site visited.

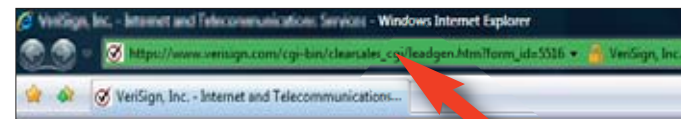
SECURITY: EASY WITH WEBDEV 16



The secure mode is supported by sites created with WEBDEV 16 of course.

Thanks to the `SSLActive()` function, it is easy to combine a non secure information section (product catalog) with a secure area (customer account, payment). The same site can switch between non secure mode and SSL secure mode.

"Client" certificates are also available.



SECURED PAYMENT



SECURED PAYMENT

Online payment by credit card is now common place. There are two main methods for receiving the credit card payment.

Directly collect the customer's payment information (credit card number, expiration date, code) and then perform the transaction with the bank. This method can be heavy and create risks by storing sensitive data. The most common method consists in switching to a specialized payment page provided by a financial institution (bank, ...)

Typically, the user fills a basket or a cart and after validating the order, he or she is redirected to a third-party payment site that takes care of the banking transaction. In this implementation, there is no payment form to manage, no credit card number to store. Only the payment's approval needs to be managed.



FINANCIAL INSTITUTIONS

You can directly choose a bank as an operator that will offer you an online payment service (Atos, Cybermut, Cyberplus, PPlus, ...), with which you will interface. You can also use a multi-bank operator such as PayBox or PayPal. This method makes it easy to choose and change the bank account number that will be credited. Implementing this solution is very easy with WEBDEV 16,



just use the "PayBox" or "PayPal" component that is provided with the product.

TRAFFIC STATISTICS

It is very important to have exact statistics on visits to your sites.

GETTING A SITE'S TRAFFIC INFORMATION

In the non-Internet world, it is fairly easy to figure out how much activity your business generates: mail received, telephone calls, people in the store, etc. On the Internet how do you know how many people came to your site, what pages they looked at, what applications they used, where were they coming from? This is why you need site statistics.

TOTALLY CUSTOMIZABLE TOOL IS PROVIDED

WEBDEV comes with a statistics tool for dynamic pages. This tool is ready-to-use. Statistics are accessed over the Internet.

THE STATISTICS

Some of the information provided:

- number of pages viewed
- number of unique visitors
- number of visitors per page
- Web user incoming site

- country of origin
- browser used
- and even a list of pages that encountered technical problems!

WEBDEV
Follow your sites' traffic



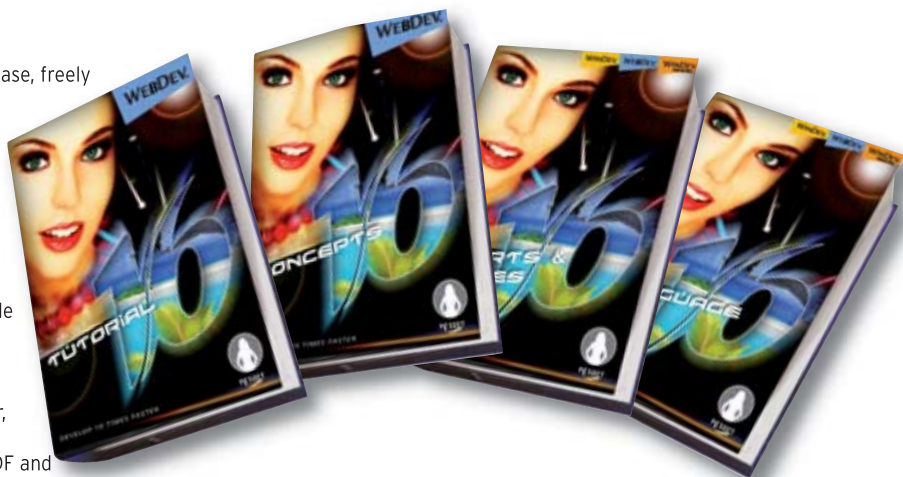
Useful statistics!

EVERYTHING COMES WITH THE PRODUCT

WEBDEV IS MADE OF THE FOLLOWING MODULES, ALL INCLUDED IN THE PRODUCT

- WYSIWYG page editor
- Support for Ajax, DHTML, XML, Applet Java, Flash, PHP...
- Application RAD, for creating sites by answering questions
- RAD for pages; to create a site's pages in just a few clicks
- PHP generation
- HTML page import, WinDev windows and applications import
- HTML page import, WinDev windows and applications import Code Editor, supporting the 5GL and direct coding in Javascript, HTML and PHP
- Modeling (UML, Merise), for describing tables, operations, relationships...
- Business rule manager
- Control Centers
- Dashboard
- Analysis and program documentation generator

- Multiple access database, freely distributable
- Access any database via ODBC or OLE DB
- Access MySQL, SQLite, PostgreSQL, Oracle*, SQLServer*, AS/400*, Informix*, DB2*, SyBase*, Progress* and MS-Access in native mode
- 5GL, automatically manages HTML and JavaScript code
- Source code manager, Profiler
- Report editor with PDF and bar codes
- Installation procedure generator and local and remote administration
- Ready-to-use sites
- Interactive testing engine, to directly test with data the sites created
- Load testing and unit testing center
- Complete set of manuals
- Free Hot Line...



WEBDEV COMES WITH A COMPLETE DOCUMENTATION.

4 manuals are provided: getting acquainted with the product, conceptual guide to understand the product, programming guide for the commands, report editor and query editor guide.

Getting up to speed with WEBDEV usually requires a week for a regular developer.

A developer who already knows WINDEV becomes productive in 2 days.

PC SOFT also organizes training seminars.



PC SOFT: DEDICATED TO DEVELOPERS

PC SOFT is at your service
With over 25 years in business, PC SOFT has accumulated a vast experience in the world of professional software development.

SERVING DEVELOPERS FOR OVER 25 YEARS

PC SOFT has been creating development tools since 1984. Several millions of applications developed using PC SOFT tools are running worldwide, in all kinds of fields.

HOW TO QUICKLY LEARN TO USE WEBDEV?

Many simple, efficient, and accessible ways are available to get you trained quickly on WEBDEV:

- Tutorial (500 pages, included with the product)
- PC SOFT training seminars
- Consultants available

TECHNICAL SUPPORT: FREE

Development tools, more than any other type of software, require that qualified technical support be available. A simple email or phone call can save you hours or days!

We are so confident about our products that we offer 15 free technical support inquiries. The hot lines of most of our competitors are more expensive than the cost of WEBDEV itself.

WEBDEV: LARGE INSTALLED BASE

By using a product with a large installed base, you benefit from the experience of other developers!

Our large installed base also enables us to offer WEBDEV very inexpensively given its extensive set of features.

And remember, it only takes on average 5 days for a programmer to be productive; and WEBDEV supports the entire development life cycle...

For all your Internet and Intranet development, PC SOFT will be there to provide you with the quality service you expect.

With WEBDEV 16 your projects will be successful.

DON'T PASS BY THE INTERNET REVOLUTION



YOU'RE A MANAGER

You need a solution that allows your teams to quickly develop the powerful internet and intranet applications your enterprise needs: webdev 16 is a must have. WEBDEV 16 ensures that you'll stay within budget, have great performance and remain within schedule.

YOU'RE A DEVELOPER

You know how to develop today. With WEBDEV 16 you'll know how to create static, semi-dynamic and dynamic sites instantaneously. WEBDEV 16 allows for a natural, methodical way of developing, resulting in your projects' success.

YOU'RE AN INTERNET SPECIALIST

WEBDEV 16 brings the solution to your problems: use side by side with existing sites, import sites, create limitless dynamic sites. you can fully reuse your existing code.

COMPATIBILITY WITH WINDEV

WINDEV is a very successful IDE. WEBDEV 16 is compatible with WINDEV and WINDEV Mobile. The products' operating mode is the same. It is very easy to convert a WINDEV application into an Internet or Intranet site, and vice versa.

MANAGE THE LIFE CYCLE OF YOUR SITES

WEBDEV 16 is a complete development platform that integrates all the modules required for development. This ensures your projects' success. WEBDEV 16 is known for being easy to learn (which is true of all the tools built by PC SOFT).

ORDER WEBDEV 16 TODAY!

Each day that goes by, you and your team are wasting precious time. WEBDEV 16 allows you to become productive quickly when developing high performance interactive Web sites, which are a requirement for most companies today. Don't let your competition beat you; you too take advantage of the most powerful and easiest professional development environment for creating state-of-the-art Internet and Intranet sites.

WEBDEV 16 is a very complete and powerful environment, yet very simple to use.

The ROI is very quick: you'll quickly save money with WEBDEV 16.

ACT NOW: ORDER YOUR COPY OF WEBDEV 16 TODAY!

Develop any type of site

Here are some examples of sites and applications that you can easily create with WEBDEV (non-exhaustive list).

Some sites are Intranet sites, other are Extranet sites and other Internet sites.



- E-commerce site with secure payment
- Bill pay through Internet
- Order management for your established customers
- General order taking
- Consultation by your customers of their order's status (order received, entered, processed, shipped, etc...)
- Real-time inventory
- Dynamic image creation based on parameters entered:
 - virtually try clothes
 - presentation of a car with the color and options chosen
 - customize a T-shirt according to the image uploaded by the customer
- Online definition of a software's options, calculation of the package price, and instant download after payment

- Reservation of airplane seat or boat cabin on an up-to-date map
- Executive dashboard in real time, with company revenues, estimated margins, stock inventory...
- Shared schedule of a geographically distributed team
- Appointment schedule for traveling sales people
- Job schedule of a maintenance team
- For a mail-order company, put all the technical documentation of all the products offered online
- Natural language search engine for a text database (FAQ, knowledge base, etc.)
- Scanning and archiving all the accounting documents received (invoice, packing slip, etc.) in order to be able to view them, even years later (archiving)
- Event reservation: seminar, dinner, show, etc....
- Management of a shared directory: company directory, students in a school, alumni, club members, etc....
- Ads: real-estate, cars, auctions ...
- Equipment inventory management
- Dating site
- Wiki management
- B2B portal
- Discussion forum
- RSS stream
- Package tracking
- Mailing list management
- Management of the "bonus" points linked to a reward card: current number of points, maturity, automatic display of available rewards, management of reward's cashing, etc....
- EDM
- Remotely monitor a production line
- Company Intranet Portal

And all the other sites you can think of!

WEBDEV 16 lets you develop any type of site.



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