

NEW VERSION

917

NEW FEATURES

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DEVELOP 10 TIMES FASTER

917

NEW FEATURES

This new version brings new features to your teams that will make them even more efficient.

New controls, improvements, support for professional iPhone and iPad apps, Uni-code and cloud computing are all part of the 917 new features found in version 17.

Include features useful to your applications via a simple recompile: this is the first benefit provided by version 17.

By switching to version 17, your applications gain new features, speed and quality.

WINDEV and WEBDEV are your work tools. To create version 17, we've analyzed more than 2,000 suggestions and requirements from you, our customers. This insured we implemented the features you wanted, the ones that you'll be able to use right away.

Thanks to you, your work tool is more robust, faster, and performs better.

The constant objective for our team is clear: your satisfaction and your success.

ORDER YOUR COPY OF VERSION 17 TODAY!



Legend
In yellow background boxes, our experts draw your attention to special features.
WD WB WM : the legend shows in which product the new feature is available.

COMMON NEW WINDEV, WEBDEV, WINDEV MOBILE



NEW CONTROLS

001 new feature WD WB WM

NEW ORGANIZATION CHART CONTROL

The first new feature we'll present is the new Organization Chart control. This new control enables you to easily create a new type of process. It lets you automatically display an org chart, a hierarchy of elements, dynamically based on the data found in a database or in variables. An Organization Chart is useful to view an organization. The organization chart can be horizontal or vertical. This direction can be defined independently for each node. Data can be displayed from top to bottom and from bottom to top. Links between elements are automatically deduced, and can be direct or broken.

The Organization Chart control is very powerful. For example, a single organization chart control can contain several roots.

002 new feature WD WB WM

AN ELEMENT'S DEFINITION

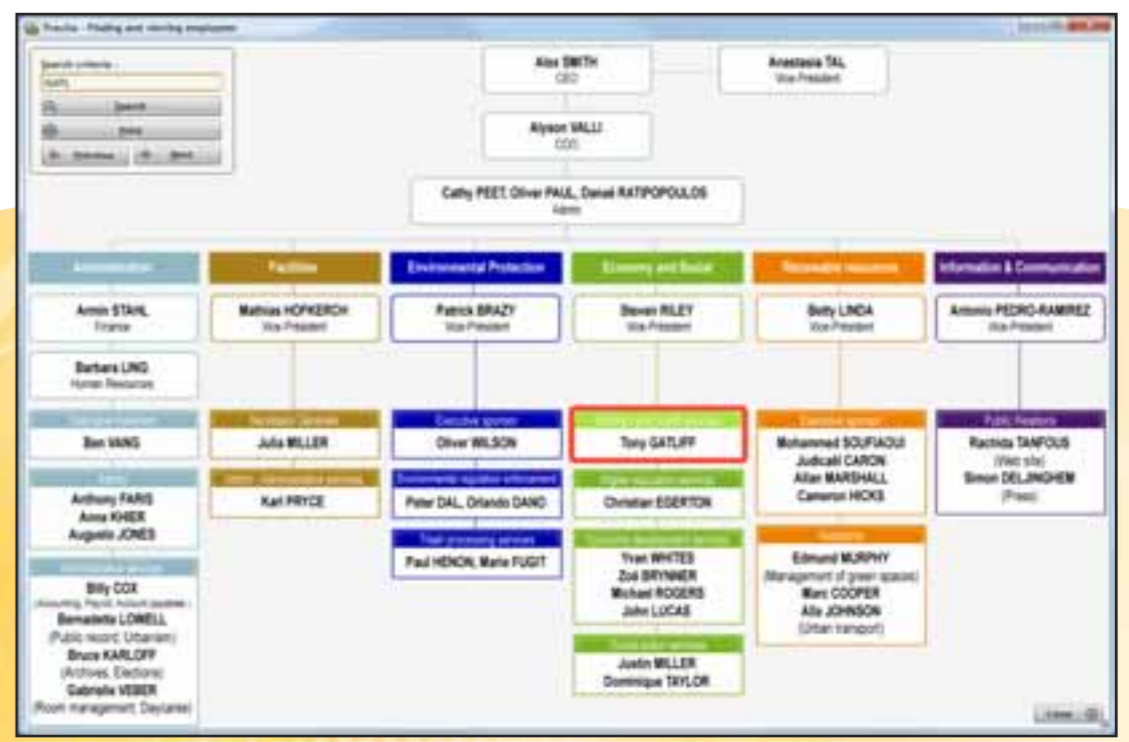
A visual element of the organization chart is made of several parts:

- title (font, size,...), subtitle (font, size,...)
- text (font, size, color), tooltip
- image
- shape (rectangle, rounded rectangle, oval, diamond)
- border (type, thickness, background color)
- link (line) between the shapes (thickness, arrow, color).

The visual aspect of each element is easily defined via the "7-tab" window.



Elements are created visually (here, excerpt from the "7-tab" window)



Here, we're searching for a person («People Finder») and we display the position of the person found in the company's org chart



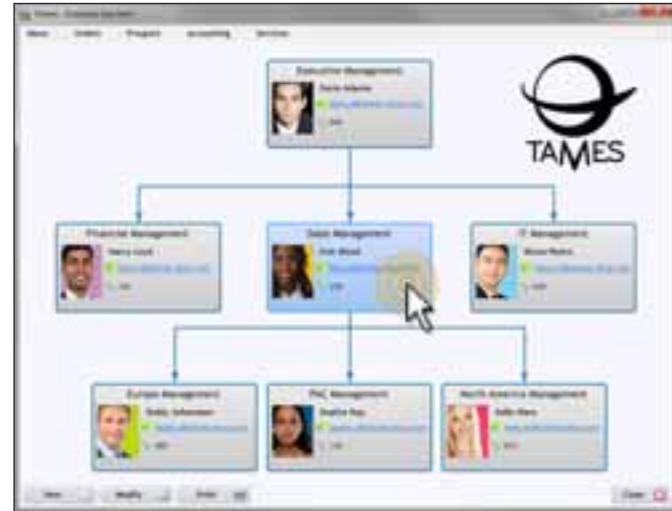
New Feature Documentation. This document is intended for readers who are already familiar with version 16 of WINDEV, WEBDEV and WINDEV Mobile. If you're not familiar with them, don't hesitate to visit our website.

Each element can also be totally and independently customized thanks to an "internal window".

Benefit provided by this version 17 new feature:
An organization chart is fully configurable!

003 new feature W D W B W M

LINKING ELEMENTS



An org chart with text and pictures

The elements are organized in the available space, and linked or not by link lines.

The lines may contain arrows:

- no arrow,
- arrow to parents,
- arrow toward the child,
- arrow toward the parent and the child.

The layout of the lines is automatically deduced by the organization chart control.

You can request right angle lines, or straight lines (slanted).

The thickness of the lines as well as their color is configurable, either via the "7-tab" technology, or via programming



The elements can have all kinds of shapes



Like all the controls, the organization chart control is displayed in the window's background

Benefit provided by this version 17 new feature:
Weeks of programming are avoided thanks to this new control in version 17!

004 new feature W D W B W M

ORGANIZATION CHART: HOW TO FILL IT?

How to fill an Org Chart? Its easy. There are 2 methods: either via programming, or via "file links" (data binding).

By programming.

A new WLanguage structured type, the OrgElement type lets you define all the properties of an element. Here is a code example:

```
EuroManager is OrgaElement
EuroManager..Title = "Europe regional manager"
EuroManager..SubTitle = "John Parker"
EuroManager..Border..Thickness = 2
OrgAddChild(ORG_COMPANY, nSalesExec, EuroManager)
```

By file link (data binding)

The principle for creating the org chart via "file link" is similar to the filling of a treeview table. Simply fill out the various pieces of information in the "7-tab" window.



"7-tab" window for assigning data via "file link" (data binding)

Benefit provided by this version 17 new feature:
Programming an org chart is very easy

005 new feature W D W B W M

ORGANIZATION CHART: AT RUN TIME

The organization chart is built dynamically based on the data to display.

The display is instant.

If needed, scrollbars come up.

The end user can click an element: the element will be visually distinct. A border comes up by default, and can be customized.

A selection programming event lets the program execute the wanted processes when a click occurs.

You can change the color of an element by programming. For example, in a process that searches for a person, you can display the element corresponding to the person sought with a red background, and start a process when clicking the element, like opening its detailed form for instance.



Here the element sought is highlighted. Clicking it opens its form

Benefit provided by this version 17 new feature:
The display of an organization chart offers rich features



Easily create great org charts

006 new feature W D W B W M

ORGANIZATION CHART: HOW TO PRINT IT

The end user can use a popup menu option to save the organization chart in image format. He'll be able to print it.

By programming, the `OrgCopyImage` function lets you copy the organization chart's image on disk.

The application can decide later on the process to execute: print via a report, send by email...

Benefit provided by this version 17 new feature:
An organization chart can easily be printed.

007 new feature W D W B W M

NEW RIBBON CONTROL

The new "Ribbon" control is being introduced in version 17. A Ribbon control offers a menu functionality. It is used to present, in a small section of the screen, an important number of controls arranged logically in order to offer choices.

Benefit provided by this version 17 new feature:
This control displays more choices in less amount of space.



EDITING A RIBBON CONTROL

A ribbon control is made of several panes. Each pane is represented by an icon and a caption. Each pane contains groups separated by a vertical line



This ribbon control pane contains 3 groups (vertical lines separate them)

A group can contain controls of any type icon, button, combo box, static, edit area, looper... In the editor, to add a control to a group, simply copy it or drop it. At run time, each group automatically organizes its controls based on the available width.

Depending how the screen has been resized, based on the available space, the buttons come up in the most optimal shape. You can specify that the size of a button cannot be modified at run time.

A group can display a small icon on the bottom right, which allows you to expand a fully customizable popup window.

Benefit provided by this version 17 new feature:
This control displays more choices in less amount of space.

PROGRAMMING THE RIBBON CONTROL

Programming this control is very easy. Depending on the application's context, each pane can be made invisible, visible or gray. Each control can be accessed by programming (RibbonName.PaneName.ControlName), and all its properties are accessible. A ribbon can be collapsed using the `..Collapse` property. The first pane (on the left) can be shifted. A popup menu can be defined for the ribbon.



Benefit provided by this version 17 new feature:
Programming the Ribbon control is very easy.

NEW RATING CONTROL (RANKING)



This new type of control allows the user to give a rating, and an application or a site to display this rating. By default, the visual symbol used is a star, but this can be modified (smiley, hand, heart, etc.) This rating (or grade, or opinion) is based on a 5-star scale by default, the user giving zero to 5 stars to the element being rated.

When the user is authorized to enter a rating (control in edit mode), he just needs to click the corresponding star. The maximum number of stars can be configured (1 to 100 stars). This control also lets you display stars in a table cell. The number of stars is then set by programming.

The stars can also show decimal ratings.

For example, you can choose to display 3.6 as or as .

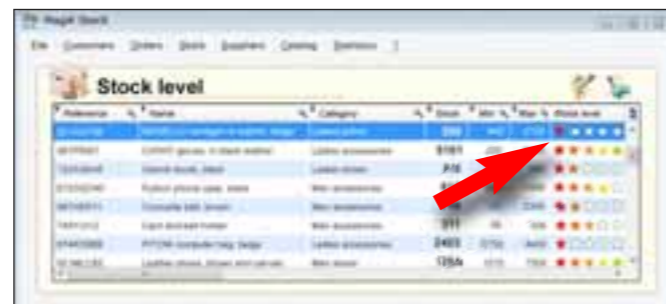
Each star can display a tooltip specific to the star. The provided stars are vector based, which means they can be resized without pixelization.

In addition to stars, several visual symbols are provided.

For example:



Various display and input possibilities



Here the stars indicate the stock level

You can also create your own visuals (images), and use the ones from the clip-art catalog provided with the product.



Example of the control's use in a WINDEV table



An actual rating in an e-commerce site

On the programming side, when the control is in input mode and a user clicks a "star", its position is returned to the program ("3" for the 3rd star for instance). The "file link" (data binding) is enabled on this control: when a user clicks to specify a rating, the

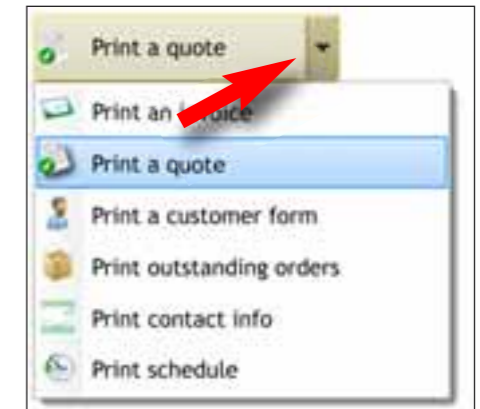
program variable is automatically updated (it just takes a `Screen-ToMemory` command).

Benefit provided by this version 17 new feature:
It is now very easy to ask for a rating and to display it.

NEW CONTROL " BUTTON WITH ARROW "

The "button" type control now allows you to define an "arrow" which can expand a popup menu or a "popup" type window. This type of button is used to propose a set of actions in a single button.

Clicking the button runs the default choice, clicking the arrow expands the menu or the popup.



Clicking an option starts this option

Benefit provided by this version 17 new feature:
Even more power in the button control.

FULLY COMPATIBLE WITH EARLIER VERSIONS



WINDEV 17 respects your existing assets.

No migration is needed between WINDEV 7.5, 8, 9, 10, 11, 12, 14, 15 or 16 and WINDEV 17: all you have to do is recompile the application for it to work in version 17. It is the same for switching from WEBDEV 7, 9, 10, 11, 12, 14, 15 or 16 to WEBDEV 17. Simply recompile.

Existing components (version 8, 9, 10, 11, 12, 14, 15 or 16) work directly (without the need to recompile) with applications in version 17.

A version 17 product directly opens a project in version 7.5, 8, 9, 10, 11, 12, 14, 15 or 16. Older projects (5.5, 4.1 ...) must be migrated.

And of course, different versions of your environments can coexist on your PC; a version 17 license can also run older versions (16, 15, 14, 12, 11, 10, 9, 8, 7.5, 5.5,...).

Version 17 is of course compatible with Windows 7.

SCHEDULER CONTROL: 10 ÉVOLUTIONS

10 evolutions in version 17, the Scheduler control evolves and becomes more sophisticated.

- A schedule can be printed with one click or via a line of code (see new feature # 095).
- The week number can be displayed.
- An option lets you avoid overlapping appointments
- You can move the position of the scroll box via programming.
- The new `SchedulerPositionResource` function enables you to know the resources displayed by the control.
- The new `SchedulerMode` function enables you to find out the control's display mode (day, week, month).
- The new Change display mode programming event lets you program operations when the user changes the display mode (day, week, month).
- It is then possible to modify the display color of the time periods (for example display noon to 2:00 pm or a holiday in red).
- The appointments' look can be configured: presence or not of rounded corners for the border, separate hours via dotted lines,...
- You can modify by programming the granularity (width and height) of a resource, as well as of the breaks.
- An option lets you forbid modifications to the schedule. The value of this option can be modified by programming.

These evolutions let you take special care of the presentation and behavior of each schedule.

Benefit provided by this version 17 new feature:
Schedule management can be even more customized now

ORGANIZER CONTROL: 10 EVOLUTIONS

Changes made to the Organizer control are identical to the ones made to the Scheduler control (see above, new features #012 to 021).

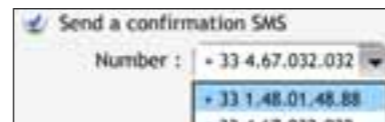
You'll benefit from these 10 evolutions directly in the Organizer control.

Benefit provided by this version 17 new feature:
The organizer control is more powerful.

COMBO BOX CONTROL: 6 EVOLUTIONS

The combo box control evolves in version 17, and automatically brings you even more configuration possibilities:

- An input mask is available for editable combo boxes.



- A new programming event "New Value" is available for editable combo boxes; it allows you to automatically run a process when a new value is entered.
- The edit mode of a combo box can be modified via programming (editable combo box and display combo box).
- Text too long to be displayed in the control can be automatically truncated (either in the middle or at the end).
- When a row from a combo box displays an image via the `gImage` function, when this row is selected, the image is reused in the main row.
- The "automatic erase" option is available.

Benefit provided by this version 17 new feature:
The combo box control is even more customizable.

TABLES: NEW FEATURES

In version 17, tables also evolve:

- Input assistance is available for "text with file mask" type columns.
- A new programming event for displaying a tool box tooltip is being introduced. You can display the text of your choice in the tooltip (customer name, ...).

Benefit provided by this version 17 new feature:
Even more advanced table customization.

CHART

NEW CHART CONTROL "FUNNEL"

A new type of chart is being introduced in version 17: the funnel chart.

The Funnel chart is a type of chart often used to represent steps in a sales process and show the potential revenue or conversion rate for each step.

The Funnel chart is especially well suited for illustrating business opportunities: the opportunities most likely to be signed are found at the bottom of the funnel while the less promising opportunities are found at the top.

This is a very useful solution for assisting business people in their decisions.



Like all charts, the funnel control can be included inside a window

Benefit provided by this version 17 new feature:
New ability to synthesize data and assist decision makers.

IPHONE, IPAD

CREATE APPLICATIONS FOR IOS (IPHONE AND IPAD)

Version 17 of WINDEV Mobile lets you create iPhone and iPad applications.

You know how to develop for iPhone! Your current code can be reused.

Discover this highly anticipated feature by reading the details on the new feature #241.



Benefit provided by this version 17 new feature:
Easily develop apps for iOS, reusing your existing code.



SCHEDULER CONTROL





The AAF (Automatic Application Features) are a set of features benefiting the end users of applications developed with WINDEV, WEBDEV or WINDEV Mobile. Your users certainly appreciate exporting to Word, Excel, sending emails, setting up timers on buttons etc. Without any programming, AAFs instantly add a set of rich features to your applications and make users more efficient. In version 17, new AAFs are added to the already large list of existing AAFs.

The Expert's opinion

“The AAFs bring real added value to your applications. Users of your applications, and by association the company that employs them, are much more efficient thanks to the AAFs without you having to code anything else...”

032 new feature WD WB WM

AUTOMATIC SCHEDULE PRINTING

The automatic schedule printing is being introduced in version 17. A right click and the user prints the schedule he was viewing! A window automatically comes up allowing users to specify the type of printing they want (day, week, month) as well as the date range to print.



The end user chooses the type of printing

This printing can also be achieved via programming (see new feature # 095).



Benefit provided by this version 17 new feature:
Each end user can easily print his schedule, after a simple recompilation with version 17.

033 new feature WD WB WM

NEW AAF: IMAGE THUMBNAIL

When entering or hovering a file path, if this file corresponds to an image or a PDF document, a resizable thumbnail is automatically displayed. Therefore, the user can check whether the proper image or document was selected.



This mechanism can be disabled by the user.
Benefit provided by this version 17 new feature:
The end user automatically views the content of some files.

034 new feature WD WB WM

NEW AAF: POPUP MENU ON FILE NAME INPUT CONTROL

A popup menu is automatically offered for edit controls used to enter a file name or a path. Choices from this popup menu are useful every day: open, print, open with, goto location, send via email, image preview...



Benefit provided by this version 17 new feature:
Operations on files are easier.

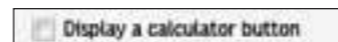
035 new feature WD WB WM

NEW AAF: CALCULATOR ON NUMERIC CONTROL

One click on this button displays a calculator which lets you perform basic operations.



To add the mini-button to the numeric control, simply check the corresponding box in the "7-tab" window.



If the option was not activated via the "7-tab", the end user can open the calculator via the control's popup menu.

Benefit provided by this version 17 new feature:
Calculations are simplified.

036 new feature WD WB WM

NEW AAF: INCREMENTATION OF NUMERIC VALUES VIA THE WHEEL

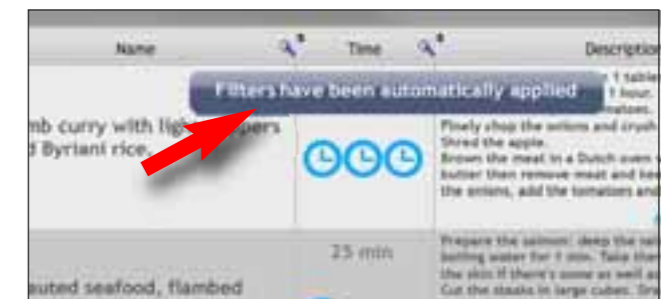
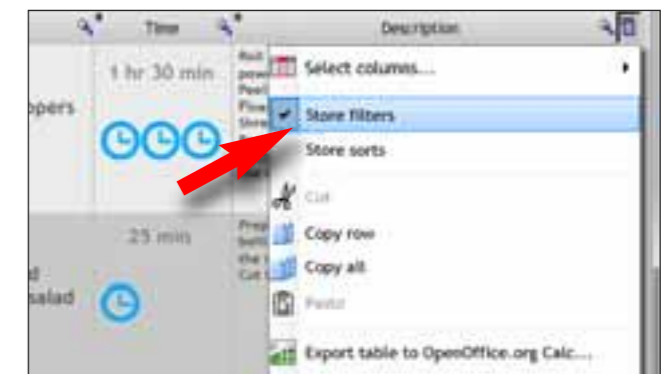
When the cursor is positioned on a numeric control, the mouse wheel can be used to increment or decrement its value. The increment step is set to "1" by default, and can be modified in your program.

Benefit provided by this version 17 new feature:
Improved ease of use for the end user.

037 new feature WD WB WM

NEW AAF: STORING FILTERS

An end user can set a filter on a table to limit the amount of information displayed. The value of a filter entered by the end user can be stored by the table. By default, the filter will be reapplied every time the table is opened. Each time the table is opened from now on, a furtive message (non-intrusive message, that lets you keep on working and closes by itself after a few seconds) will notify the user that a filter has been applied.



Benefit provided by this version 17 new feature:
The user keeps the filters he's created.

038 new feature WD WB WM

NEW AAF: STORING COLUMN SORTING

Once one or more sort operations have been performed by the user on the table columns, they can be stored in order for the table to be presented sorted accordingly by default. From now on, each time the table is opened, a furtive message will display information indicating that the sorts are activated.

Benefit provided by this version 17 new feature:
Less operations to perform.

039 new feature WD WB WM

MISCELLANEOUS

A validation button timer can now be deleted easily via the popup menu.

Benefit provided by this version 17 new feature:
Various evolutions.

ENVIRONMENT

040 new feature WD WB WM

ENVIRONMENT

In version 17, the development environment evolves for a better ease of use. The visual aspect is refined, and adopts a lighter style. The space taken up for useful information has increased, while the size of the presentation bands has shrunk. Your habits are not altered, but the visual impact lessens for a better daily ease of use.

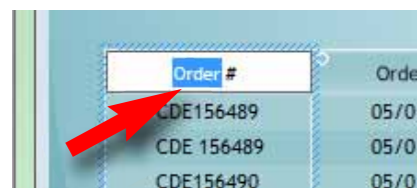


Benefit provided by this version 17 new feature:
Action access is faster.

041 new feature WD WB WM

TABLE: DIRECT EDITING OF THE COLUMN'S HEADER

A column header's label in a table can now be edited simply by clicking the label.



Benefit provided by this version 17 new feature:
Simpler operations.

042 new feature WD WB WM

LINK TO COMMUNICATE WITH THE SALES DEPARTMENT

To easily communicate with PC SOFT sales department, a new choice is introduced in the "?" menu. You'll get a precise answer quickly, without any commitment on your part! Depending on your country of residence, your request may be forwarded to a local distributor.

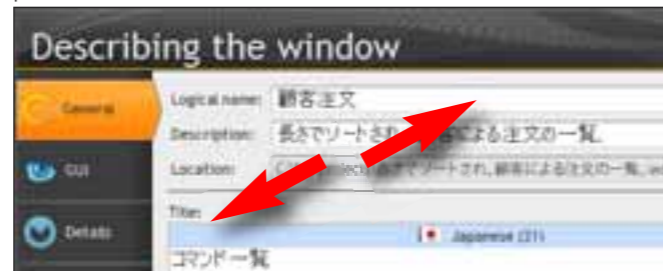
Note that you can still make a call to talk with favorite sales engineer, he or she will certainly be happy to hear your voice!

Benefit provided by this version 17 new feature:
A new way of contacting the sales department, without leaving the work environment.

043 new feature WD WB WM

UNICODE ENVIRONMENT: YOUR VARIABLES IN RUSSIAN!

The development environment supports the Unicode standard. This means that variable names, window names, database names and all the elements used can be written in the language of your choice, using the character set of your choice. WDMMSG also supports the Unicode standard.



Use object names in the character set of your choice

Benefit provided by this version 17 new feature:
Use the language and character set of your choice.

044 new feature WD WB WM

STYLE OVERLOAD FOR CONTROL TEMPLATE

You can overload the style of a control template. This provides opportunities for custom personalization.

Benefit provided by this version 17 new feature:
Discrete customization possible without having to dissociate the style.

045 new feature WD WB WM

STATIC AUDIT: A REMINDER TO START IT

The static audit is a great tool for easily improving the quality and performance of your applications. It automatically detects a set of modifications to apply in order to easily improve the speed and/or security of your projects. To remind you of running this useful

tool, in version 17, the static audit's start up is offered at regular time intervals (according to the activity and to the modifications performed) so you can benefit from its advice.

Benefit provided by this version 17 new feature:
No more developers will forget to start the static audit!

046 new feature WD WB WM

STATIC AUDIT: SELECTING THE ELEMENTS

The static audit now lets you select the elements to audit. You don't need to audit the entire project anymore, which, depending on the project, can save you time.

Benefit provided by this version 17 new feature:
Saves time when auditing large projects.

047 new feature WD WB WM

STATIC AUDIT: OTHER EVOLUTIONS

Among the evolutions of the audit report, the following is noteworthy: edit controls with a "file" mask that don't have an activated "assistance" option are detected, and are offered to add this assistance.

Benefit provided by this version 17 new feature:
The static audit improves in version 17.

ENVIRONMENT DESIGN



Your teams (or yourself) spend a lot of time in the environment. Its user friendliness and efficiency are of primary importance. In version 17, the environment's user friendliness improves even more: operations are reduced, actions are even more intuitive. Here is a list of the 17 improvements made in term of the environment's user friendliness in version 17.

048 new feature WD WB WM

DESIGN #1: COPY/PASTE BETWEEN EDITORS

Version 17 lets you do cut and paste as well as drag and drop operations between the various editors: window editor (WINDEV), report editor, page editor (WEBDEV), mobile window editor (WINDEV Mobile). The code found in the control is copied with the control and its properties.

WINDEV in chinese.

A Chinese version of WINDEV is currently being developed. The environment will be in Chinese as well as the WLanguage.





Easily copy a control (and its code) from one editor to another

Benefit provided by this version 17 new feature:
Easy port between editors.

049 new feature WD WB WM

DESIGN #2: HOME WINDOW

The home window that comes up when starting WINDEV displays the project list in a more visual way. You can pin your favorite projects in order to launch them faster. In the environment, a new pane recalls this list of favorite projects.



Benefit provided by this version 17 new feature:
It is easier to open your projects.

050 new feature WD WB WM

DESIGN #3: RENAMING THE PROJECT

Renaming a project is now available via a menu option. This avoids a lot of operations that were needed with the previous versions.

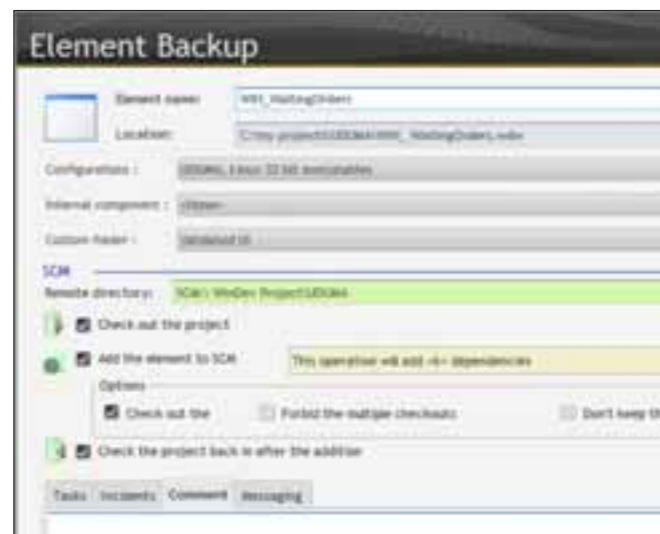
Benefit provided by this version 17 new feature:
Project renaming is easier.

051 new feature WD WB WM

DESIGN #4: ADDING ELEMENTS TO THE PROJECT

In version 17, creating a new element (window, class, etc.) is now done through a lighter interface: one window only is needed now.

The content of this validation window adapts to the project's context (use of SCM, configurations, internal components, etc.) and no other window is needed.



Add one element to SCM (in the correct custom-folder, in the right configuration, etc.) in a single operation

Benefit provided by this version 17 new feature:
The implementation is simplified.

052 new feature WD WB WM

DESIGN #5: FIRST WINDOW OF THE PROJECT

Choosing the first window of the project is now done visually.

Benefit provided by this version 17 new feature:
Simplification of the implementation.

053 new feature WD WB WM

DESIGN #6: TEMPLATES, LIGHTER INTERFACE

When modifying a template, applying the performed modifications to the entire project (template update) is not offered systematically every time the template is saved.

This update request in the entire project is now done once when the template has been finalized: when closing the template... Furthermore, an icon comes up in the template's band when a template update is suggested. Simply click this icon to instantly update the template.

Benefit provided by this version 17 new feature:
The editor doesn't constantly offer a validation window (project update request) every time the template is saved.

054 new feature WD WB WM

DESIGN #7: THE 7-TAB WINDOW CAN REMAIN OPEN

A new implementation is introduced in the use of the "7-tab" technology.

In this new mode, the 7-tab window remains open all the time, at a position you define: for example on the second screen, in a corner of the environment (wide screen)...

Each time you select a new control from the window, the content of the 7-tab is updated without any other operation.

The number of operations is noticeably reduced, there's no need to open and close the 7-tab window all the time.

Benefit provided by this version 17 new feature:
Reduction of the number of operations in the editor.

055 to 061 new feature WD WB WM

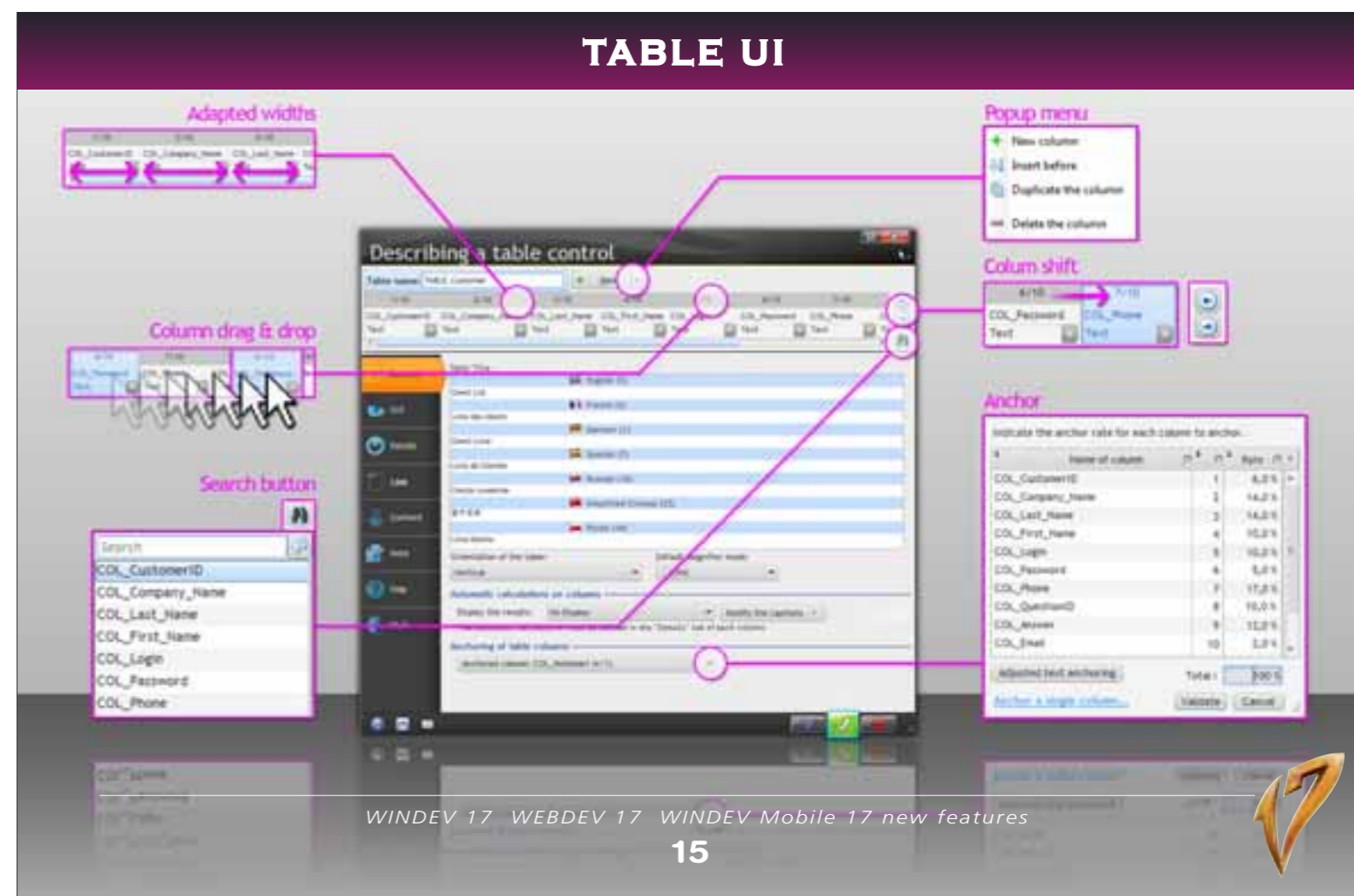
DESIGN #8: TABLE UI

The 7-tab window for tables evolves toward more ease of use and simplicity.

Here's the list of the main evolutions:

- automatic resizing of the column name's width, and storing of these values
- drag and drop columns to move the columns directly in the 7-tab
- window presence of a popup menu to add, insert, delete columns
- a popup window lists all the columns and allows for fast search
- the scrollbar used to move among the columns is more esthetically pleasing
- in the scrollbar, the tooltip displays the column names instead of their number
- the column anchoring interface is more intuitive: anchoring is done via the column name instead of the index, and you can anchor several columns in a single operation.

Benefit provided by this version 17 new feature:
More convenient table editing.



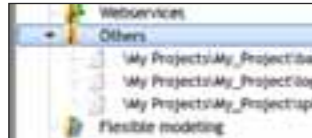
DESIGN #9 : DASHBOARD

The dashboard layout evolves so it becomes even easier to use. Element modifications are even simpler: you can modify the components' description directly in the window opened by the popup menu,...

Benefit provided by this version 17 new feature:
The implementation becomes less intrusive.

DESIGN #10 : ADDITIONAL ELEMENTS INCLUDED IN THE EXECUTABLE

As you know, you can include files (HyperFileSQL data files, image, sound, ...) directly in the generated executable. This is useful for instance to distribute resources that should not be visible on the end users drive. To do so, these resources must be included in the project via the "Other" folder of the project explorer.



To make this inclusion easier, new user-friendly operations are offered in version 17:

- The drag and drop of elements to include in the "Other" folder can be performed from the Windows file explorer
- A popup menu for the "Other" folder lets you add and remove elements
- An "Other" folder is also available in each internal component, allowing you to include elements in the shared internal components
- The project's search function also browse through the project's "Other" folder

Benefit provided by this version 17 new feature:
It is even easier to include files into executables.

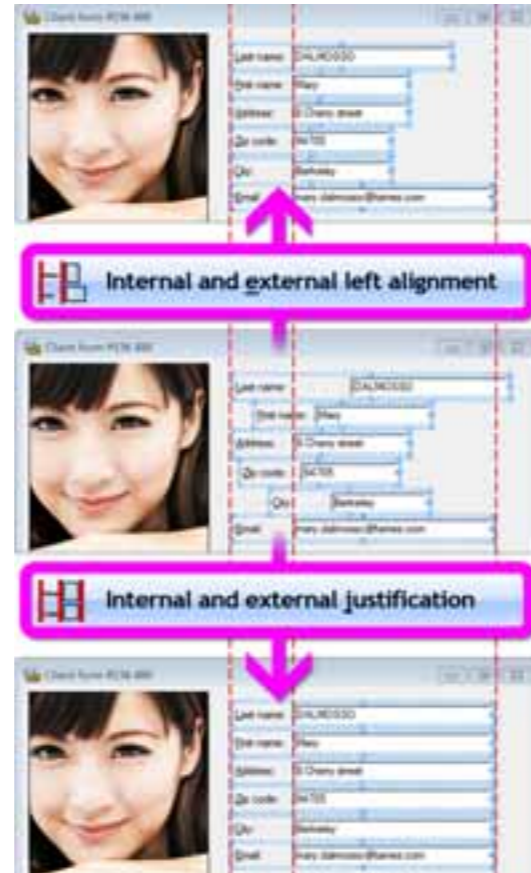
DESIGN #11 : XML IN INTERNAL COMPONENTS

As you know, you can import XML descriptions into a project, which automatically creates a WLanguage type corresponding to this description for the project. In version 17, an internal component can directly import one or more XML file descriptions. The sharing of this "internal component" with other projects will automatically create the corresponding type in the host project.

Benefit provided by this version 17 new feature:
Sharing internal components is made easier.

DESIGN #12 : ALIGNMENT VISUALIZED BEFORE BEING APPLIED

In the window, page and report editor, hovering over an alignment icon shows in real-time the result of a click on this icon. It makes it easy to view the effect of the options offered. The click applies the alignment, exiting the control leaves the window (or the page/report) in its initial state.



When hovering the alignment button, the result is shown; if you like this result, simply validate!

Benefit provided by this version 17 new feature:
Control positioning, after a cut and paste operation for instance, is instant.

DESIGN #13 : WARNING WHEN EDITING AN ELEMENT OUTSIDE THE PROJECT

Nothing is more annoying than modifying an element "outside the project" without noticing! This has happened to all of us, for instance by duplicating an element (such as a report) via Windows explorer.

The code compilation had to be started manually. In version 17, when an element not found in the project is opened,

a window warns you and offers to either include it in the project, or to proceed as is.

Benefit provided by this version 17 new feature:
Better operation security.

DESIGN #14 : SCM, HISTORY

In the SCM (Source Code Manager), access to an element's history is now done easily via a popup menu option of the element in the project explorer.

Benefit provided by this version 17 new feature:
Access to the history is made easier.

DESIGN #15 : PREFIXED CONTROL NAME

The environment allows you to prefix the controls' names (via the programming charter). Small but really useful change: when this charter is activated, positioning the cursor on a control's name selects only the control's name by default, without its prefix. Modifying the control's name is easier then, and prevents typing errors.



Benefit provided by this version 17 new feature:
The loading of a control name is instant.

DESIGN #16 : RESIZING CONTROLS

The resizing of a control and its content via the mouse is WYSI-WYG during the operation itself. This way you can check the result in real time.

Benefit provided by this version 17 new feature:
Some more time saved.

DESIGN #17 : "REOPEN LAST CLOSED"

The new choice, "Reopen last closed" is very useful. Who has never closed a window or a piece of code too quickly to find out they needed it right away? The new "Reopen last closed" feature lets you reopen the last elements that were closed. The last 10 elements closed can be accessed this way.

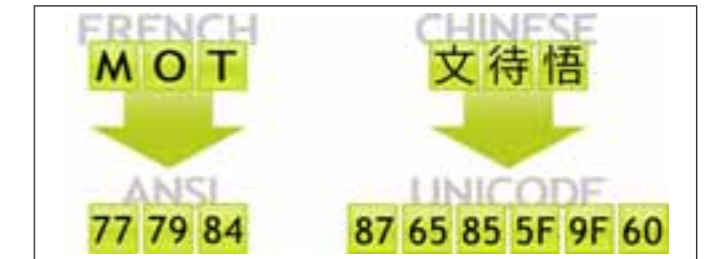
Benefit provided by this version 17 new feature:
Reopen in one click what you closed by mistake.

NATIVE UNICODE

UNICODE STANDARD

Unicode is a character encoding standard. It is an improvement over the ANSI standard.

ANSI is the "historical" coding standard of operating systems. In ANSI format, a character is stored on 1 byte. In Unicode mode, a character is stored on 2 bytes.



The Unicode standard is needed when using "non-western" type character sets, such as Russian or Chinese.

Unicode allows coding of all the country character sets.

In a world where applications are distributed internationally, this feature had become a necessity.

This Unicode standard is already being used by Windows Mobile because mobile devices use Unicode by default.

Benefit provided by this version 17 new feature:

Unicode can code any character set.

OPENING AND SIMPLIFICATION

Today most ERP systems encode data using the Unicode standard: it is easier to interface with these ERP from a native Unicode application. For your programs that communicate with other programs that use the Unicode standard (ERP, mobile app, etc.), your current code can be simplified. In version 17, simply specify that your project uses the Unicode standard. To communicate you don't need to convert strings from ANSI to Unicode anymore. Your source code is clearer.





Benefit provided by this version 17 new feature:
Interaction with third-party software is easier.

The Expert's opinion

“The adoption of the Unicode standard allows for easy interfacing with third-party applications, especially ERP. Unicode also makes it easier to use words written in foreign languages anywhere in the project: object names, labels, variables.”

073 new feature W D W B W M

COMPATIBILITY

Switching to Unicode is easy for your applications. Your applications compiled in version 16 and lower work the same way in version 17.

If you choose to switch your projects to Unicode, the ANSI/Unicode cohabitation generates some constraints: The data needs to be translated when switching from one encoding system to the other. Exchanging text strings outside the application must be adapted to take into account the new memory representation of the strings (in Unicode, 1 character is coded on 2 bytes while in ANSI, it is coded on 1 byte): API calls, read or write to the disk to exchange data, read or write to sockets containing strings... If you choose to switch your projects to Unicode, a wizard measuring the impact of switching to Unicode is triggered on the project during the switch to Unicode.

Benefit provided by this version 17 new feature:
Easier switch to Unicode.



Quick, my version 17!

CLOUD COMPUTING



Computing in the cloud.

074 new feature W D W B W M

THE PC SOFT CLOUD: DEPLOY WITHOUT LIMITATIONS

Starting with version 17, PC SOFT offers a "cloud mode" hosting solution for your applications and your data: You deploy your sites and web services without worrying about hardware and maintenance issues, and you are billed based on your real usage.

Benefit provided by this version 17 new feature:
Deploy your applications without any hardware constraints.

075 new feature W D W B W M

CLOUD

The Expert's opinion

“Cloud computing allows you to free yourself from "hardware" constraints: financial investment, acquisition, installation, configuration, maintenance...”

The principle behind cloud computing is to move applications and data onto remote infrastructure and information systems so you don't have to manage the systems. Resources (storage, memory, compute, bandwidth) are made available to users on demand. The user is usually billed proportionally to his actual usage.

Starting with version 17, PC Soft offers a hosting platform based on this model. In just 1 click, WEBDEV 17 lets you host your web services in the PC Soft Cloud.

This feature will become available during 2012.

Benefit provided by this version 17 new feature:
Deploy your applications in the cloud.

076 new feature W D W B W M

CREATING YOUR PC SOFT CLOUD ACCOUNT

After creating an account, you choose the configuration that will determine the maximum capacity for your use: Number of CPU, memory, disk.

This configuration can be modified at any time. You choose the version of the WEBDEV application server and of the HyperFileSQL Client/Server engine to activate. Then you adjust some parameters: backup schedule, WEBDEV application server update policy, system update policy... Once your choices are validated, you have access to the cloud instantly. You can deploy your WEBDEV site or Web service. Thanks to WEBDEV 17, this deployment is done automatically in a few clicks.

Billing is based on your actual configuration and consumption: CPU, memory, disk space used, data stream, ... The price includes the system license (Microsoft Windows), as well as the license for the WEBDEV application engine.

Benefit provided by this version 17 new feature:
Creating an account is really fast.

WLANGUAGE



077 new feature W D W B W M

JUST IN TIME (JIT) COMPILATION ON ARRAY

All array accesses using the "bracket" operator (`MyArray[1],...`) in WLanguage are now optimized to compile on the fly. It's rare when a large process doesn't include processing data stored in memory via arrays! The speed gain is in the magnitude of 30% when writing and 50% when reading.



Your applications gain 30% when writing and 50% when reading

Benefit provided by this version 17 new feature:
The speed gain is impressive.

078 new feature W D W B W M

EASIER DYNAMIC COMPILATION

WLanguage allows dynamic compilation, which gives you the ability to generate source code in your application, and to compile it at run time. 2 new functions meant to simplify dynamic code writing are being introduced.

`ExecuteCode` lets you directly execute one or more lines of WLanguage code. `EvaluateExpression` permet lets you evaluate a WLanguage expression.

Benefit provided by this version 17 new feature:
Dynamic compilation is simplified even more.

079 new feature W D W B W M

PROFILER: ANALYZE AND IMPROVE YOUR CODE'S PERFORMANCE

The profiler is a tool provided with the product, allowing you to measure, in a detailed way, the amount of time your code takes to execute.

In version 17, the profiler evolves. On one hand, threads are isolated. Then, the analysis of the time spent in each instruction is even more detailed. For example, property assignments are detailed. Finally, the visual representation of the execution time also evolves: it is now done in treeview fashion. The analysis of the duration of a nested procedures is easier and therefore the chart is easier to read.



The new visualization of execution times by the profiler is more intuitive: you optimize your code better!

Benefit provided by this version 17 new feature:
The analysis of your applications' execution time is refined.

080 new feature WD WB WM

HETEROGENEOUS ARRAY COPY

In version 17, it becomes possible to automatically assign, in a single line of code, an array of one type to an array of another type. For example, an array of strings (containing numbers) can be directly assigned into an array of integers.

All the implicit conversions of WLanguage are applied. The following are supported:

- string to integer
- integer to real
- integer to string
- date to string
- ...

Benefit provided by this version 17 new feature:
The copy of arrays containing different types of data is accomplished in a single line of code.

081 new feature WD WB WM

ANSI STRING

In version 17, Unicode encoding (optional) is being introduced. In a Unicode application, the memory representation of the strings is of course in Unicode.

In an Unicode application, you can easily manage ANSI strings with the new "ANSI string" type of the language.

This function is also very useful to WINDEV Mobile developers, since as you know, by default coding on mobile devices is in Unicode format, and it becomes then easy to export or import data in ANSI format.

Benefit provided by this version 17 new feature:
The ANSI/Unicode compatibility is easier.

082 new feature WD WB WM

ARRAY DECLARATION

Array declaration can now be done via the following, clearer, syntax:

```
T is array [10,20] int
```

The older declaration syntax

```
T is array of 10 by 20 Int
```

is still supported, of course.

Benefit provided by this version 17 new feature:
The source code is even more readable.

083 new feature WD WB WM

CALLING C++ OBJECT INTERFACE

An application written in WLanguage can call modules, coming, for instance, from an SDK that exposes a C++ object interface. The `CallInterface` function supports the "THISCALL" calling convention.

Benefit provided by this version 17 new feature:
The calls are even easier.

084 new feature WD WB WM

WORK ON YOUR IMAGES IN MEMORY

The `Image` type is being introduced in WLanguage. This type of variable lets you perform operations directly on a memory image, without using an image control. A large number of functions let you perform automatic operations on images:

- rotation,
- resizing,
- copies,
- split,
- blend,
- ...
- symmetry,
- shadow effect,



An image...



... and this image after a WLanguage process.

You can save and directly load images from the disk. It is also easy to retrieve information about the image:

- height,
- width,
- number of bits per pixel,
- presence of an alpha layer,
- Exif tags (information included by digital cameras on each picture taken)...

Custom image processing algorithms are made easier. Programming images is also faster; now you can create a process of the following type

```
MyImage[row, column]
```

in read and write (for example for a filtering application,...).

Thanks to the new `Image` type, processes are executed faster.

```
9 // Boolean i True if the image was saved
10
11 PROCEDURE ImageRotation (ImageFile is string,
12
13   MyImage is Image
14   MyRotatedImage is String
15
16 // Load the image
17 MyImage.Image = ImageFile
18
19 // Rotate the image
```

Code example for manipulating an image

Benefit provided by this version 17 new feature:
Programming images stored in memory is simplified, processing speed increases.

085 new feature WD WB WM

FUNCTIONS GOOGLE TRANSLATION

New functions are introduced to download and trigger the translation of documents in GoogleDocuments.

The translation of entire documents (and not just words) is therefore simplified, and can be automated (please consult Google's license).



Benefit provided by this version 17 new feature:

It becomes possible to automate the retrieval of documents and translated documents.

086 new feature WD WB WM

4 NEW DEBUGGING FUNCTIONS

Four new debugging functions are being introduced. These functions are used only during the debugging phase, and have no effect on the deployed application. These functions only have an effect in test mode. In "Automated test" mode, these functions produce a detailed error in the test's status report.

In "Manual test" mode, these functions trigger an Assert. The `dbgCheckEqual` and `dbgCheckDifferent`, functions check whether two variables are equal or different, and `dbgCheckNull` and `dbgCheckNotNull` specify whether a variable holds the Null value or is not Null.

Benefit provided by this version 17 new feature:
The debugging capabilities have been improved again.



HOMONYMIC COPY

The homonymic copy feature allows you to assign the content of a structured variable to another structured variable, for example:

- copy a class to a HyperFileSQL data file,
- copy an advanced type of the language to a class and vice versa,
- copy a class to another class,
- copy a HyperFileSQL file into another HyperFileSQL file...

The copy is based on the name of the members, items, properties, but it is possible to specify which member must be copied to which item or which property (**Mapping** attribute).



Benefit provided by this version 17 new feature:
Removing lines of code.

ARRAYSEEK FUNCTION

The **ArraySeek** function lets you search for an element in a one or n dimensional array.

In version 17, the **ArraySeek** function accepts new parameters for:

- ignore case or take it into account,
- perform a "full word" search,
- pass a procedure that performs the comparison.

Benefit provided by this version 17 new feature:
Searches inside arrays are made easier.

XLS FUNCTIONS

A large number of XLS functions have been optimized in version 17. The new **..RecalculateWhenLoading** property forces the recalculation of the formula when opening a spreadsheet.

The new **..RightLeft** property reverses the columns order. Column "A" is located to the right, column "B" to the left, etc...

Benefit provided by this version 17 new feature:
Support for XLS file is even stronger now.

AUTOMATED TESTS

The new **twrCallingProcess** WLanguage constant allows you to write your own verification procedure for your automated tests. For example:

```
TestWriteResult(twrInfo+twrCallingProcess, "")
```

This constant can be used for instance to write the name of the calling procedure in the log file of the automated test.

Benefit provided by this version 17 new feature:
Even more precision in the automated tests.

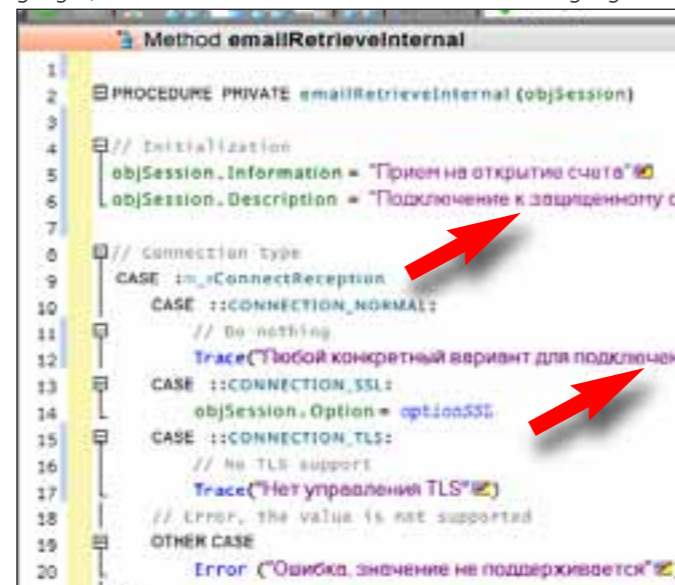
CODE EDITOR

DIRECT INPUT IN ALL LANGUAGES

The environment itself switched to the Unicode standard in version 17.

This allows you, among other things, to directly enter in the editor words containing characters specific to a language.

This is useful for instance for entering messages in various languages, or to use variable names in a non-western language.



Here messages in Russian are entered directly

Benefit provided by this version 17 new feature:
Enter text or variable in any language.

ZOOM USING THE WHEEL

In the code editor, zooming in a code window is easily accomplished by using the [Ctrl] [Wheel] combination.

The font size is modified.

Zooming out provides you with an overview of a longer piece of code.

Zooming in allows you to compensate for temporary visual strain.



Benefit provided by this version 17 new feature:
Zooms in the entire code editor in a single operation.

DISPLAYING WARNINGS

Depending on the quality of the code, the compilation generates errors, warnings and infos.

The display of Warnings and Infos is optional. This display was too often turned off, unfortunately.

The enabling of the Warning display can now be set by project, and not just globally for the environment.

This way you can, for instance, disable this display on older projects in maintenance state, but enable it on projects in development.

Benefit provided by this version 17 new feature:
Now you can keep warnings on the projects you want!

UI ERRORS

Notifications about UI errors are a very useful WINDEV exclusive feature. This feature evolves in version 17.

The presence of several popup menus with different looks ("system" and "non system") in the same window is flagged.

Benefit provided by this version 17 new feature:
Lets you harmonize a window's look.

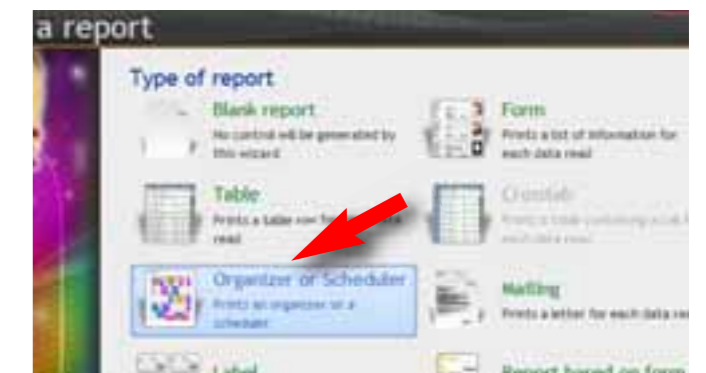
REPORT EDITOR AND PRINTING

PRINTING SCHEDULE (AND CALENDARS)

The Expert's opinion

“Printing a schedule is a highly anticipated feature. This feature is available both for reports and as an AAF for the end user.”

In order to make it easier to print calendars and schedules, a new type of report is being introduced in version 17.



All you have to do is choose the type of report you want (schedule or calendar), select the print mode and assign the data the same way as in the window.



A large number of parameters lets you refine the printing:

- Time period printed
- Number of days printed on a page
- Number of resources printed on a page
- Date mask
- Header block

- Granularity of the appointments (for printing the grid)
- First day of the week
- Type of overlap
- Appointment display mode
- Links with the data: file, query, data binding
- Auto-extensibility
- Etc

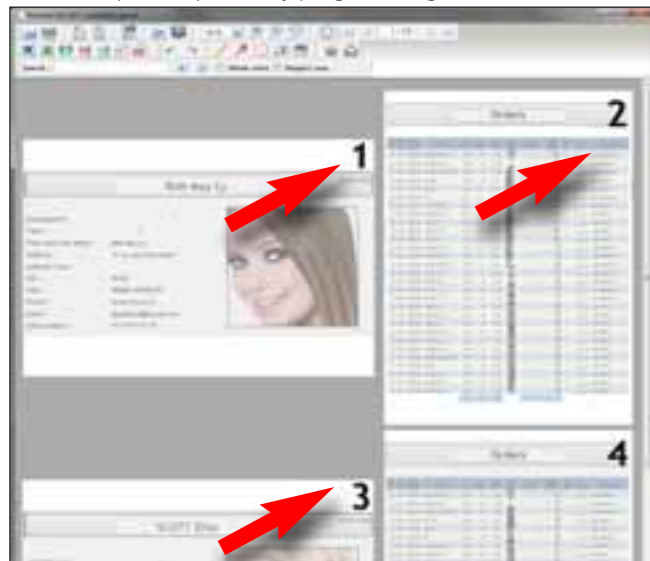
Regarding schedule printing, also check the new AAF (new feature # 032) that allows the end user to directly print a schedule with a simple right click, without having to code anything, nor create any additional report for the application. The application just needs to have been compiled in version 17.

Benefit provided by this version 17 new feature:
Days of programming saved.

096 new feature WD WB WM

REPORT SEQUENCING

In some cases, you may need to print several reports one after another, and view them in the same print preview. The "composite reports" can be used for this purpose when the sequence of reports is known in advance. If the sequence is not known in advance and must be programmed, version 17 offers the new feature, "set report sequence by programming".



Here, 2 different reports are lined up and viewed. Pagination is sequential.

The new `iSequencingStart` and `Identifier` functions make this new feature possible.

The code for stringing reports together is very simple:

```
iSequencingStart
iPrintReport(rpt1)
...
iPrintReport(rptN)
iSequencingEnd
```

The pages of the linked up reports are numbered sequentially. Reports can have different orientations.

Benefit provided by this version 17 new feature:
Linking up different reports is very easy.

new feature WD WB WM

097

THE CHART CONTROL HAS BEEN REVAMPED IN THE REPORT EDITOR

The "Chart" control in the report editor lets you print a chart inside a report.



A chart in version 17 printed in a report

This control evolves a lot in version 17, and gets closer to the control used in the window editor.

- The chart creation wizard and the "7-tab" are similar to the ones in the window editor: thickness choice, line color, point type (round, diamond, triangle, square, x)...
- The data can come from a file independent from the report, or from a WLanguage array.
- A background image can be used.
- To draw bars in a bar chart, you can use a custom image.
- The colors offered by default are analyzed in order to complement each other.
- You can use a time scale or a logarithmic scale, or use 2 different scales in the same chart.
- The graduations' printing is more readable.
- Printing a grid in a report's background is possible now.

To create a report faster, you can copy/paste or drag and drop a chart control from the window (or page) editor into the report editor.

Another evolution that you'll instantly appreciate is that the chart control is now "WYSIWYG" in edit mode.

Handles let you move and resize the chart's areas (title, legend, chart drawing).

The "bubble" type chart as well as most 3D type charts are available.

Extruding pie or donut sections is offered.

The printing of the chart itself evolves slightly, and automatically smooths the lines.

In order to insure compatibility with existing assets, the existing chart controls are not modified.

When opening a report containing charts from a previous version, the report editor asks whether you want the chart control to switch to the new format: we can't strongly enough suggest you answer yes!

Benefit provided by this version 17 new feature:
The report editor's chart control is metamorphosed!

098 new feature WD WB WM

DUPLICATE COPY: VIEWER

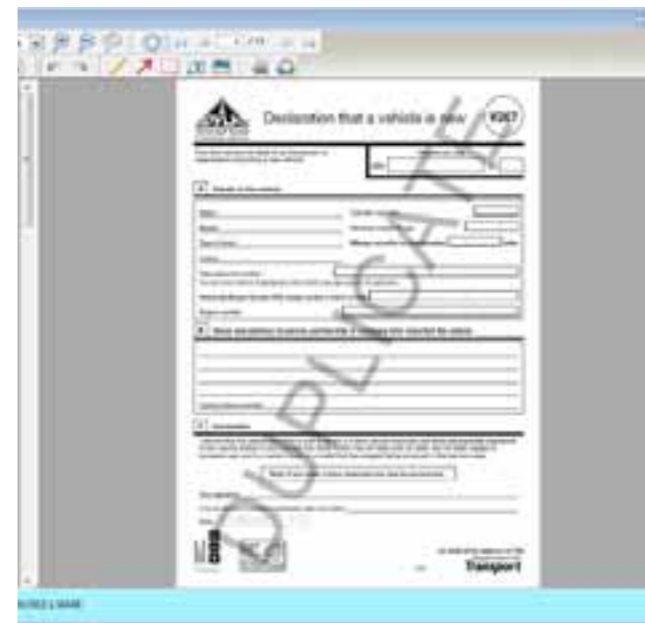
When printing, a copy can be generated. This is a copy of the print preview, which can't be modified or altered. Version 17 offers a duplicate copy viewer.

This viewer allows an end user to easily view and print the content of a duplicate copy file.

Benefit provided by this version 17 new feature:
Viewing a duplicate copy is easy.

099 new feature WD WB WM

WATERMARK TEXT



Adding a watermark to a report is easy

A report (and a duplicate copy) can include an additional text in watermark format, such as "Confidential" or "Duplicate" printed across the report!

This addition is performed in your code via the `iParameterWatermark` function.

The text can be configured: the text itself, font, size, color, text angle, position (on the current page or on all the pages), background or foreground printing.

The `..Watermark` property is also introduced.

Benefit provided by this version 17 new feature:
Add a comment on a report without modifying the reports source.

100 new feature WD WB WM

PRINT PREVIEW: BOOKMARK MANAGEMENT

A bookmark allows the end user to instantly access a set position on the screen.

New WLanguage functions let you generate bookmarks in a preview document.

A new "Bookmark" control also allows you to manage bookmarks.

Bookmarks are ignored, of course, when printing on paper. When printing to PDF format, the bookmarks are exported as "native PDF bookmarks".

Benefit provided by this version 17 new feature:
Quick access to a location in the document to print.

PDF REPORTS

Please note that these new features for PDF reports work both for reports created via the report editor and reports created via programming.

101 new feature WD WB WM

MERGING PDFs

Version 17 lets you concatenate several PDF files. For example, if 3 invoices must be sent via email to the same recipient, you can concatenate them in a single PDF document.

This function can also be used on PDFs that were not created with WINDEV or WEBDEV.

The WLanguage function is simply named `PDFMerge` and accepts the name of the PDF files to merge as parameters.



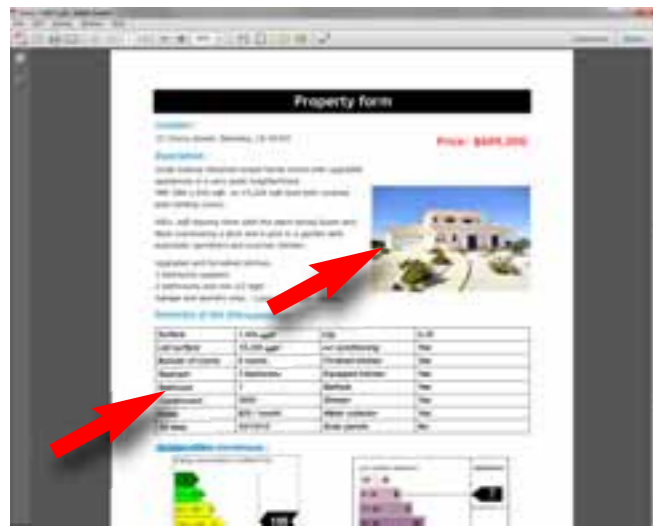
Benefit provided by this version 17 new feature:
Grouping PDFs is easy.

102 new feature WD WB WM

IMAGE INSIDE RTF

A report may contain one or more RTF controls. The RTF content can contain images itself.

When generating the PDF from this report, images are now generated in the PDF.



Benefit provided by this version 17 new feature:
PDF reports are more representative.

103 new feature WD WB WM

ARRAY IN RTF

As we mentioned before, a report can contain one or more RTF controls. The RTF content can itself include arrays. When generating the PDF from this report, tables are now generated in the PDF.

Benefit provided by this version 17 new feature:
PDF reports are more sophisticated.

CONTINUOUS INTEGRATION

The integration consists in automatically compiling (up to the setup procedure creation) one or more projects at regular time intervals (usually everyday) in order to instantly detect potential defects in the project: compilation errors, errors detected by the automated tests, missing files, missing resources...

The setup of the integration continues to be very simple with WINDEV and WEBDEV and saves you a lot of time and organizational headaches.

The larger your teams and projects are, the larger the gains.

104 new feature WD WB WM

NEW ACTION FOR CREATING A COMBINED 32/64 BIT SETUP

A new action is being introduced for creating a combined 32-bit and 64-bit setup.

Benefit provided by this version 17 new feature:
Saves time.

105 new feature WD WB WM

ACTION DELETION

An action may use parameters. It can be a "hard" entered value, or a value passed as parameter of the action plan.

Deleting an action now offers to delete the parameters of the action plan it was using.

This avoids the proliferation of useless parameters.

Benefit provided by this version 17 new feature:
Better visibility of the action plan.

106 new feature WD WB WM

"RUN WLANGUAGE CODE" ACTION: F2

When editing an action plan, to easily access the code of the "Run WLanguage code" type actions, the F2 shortcut key is now available.

Benefit provided by this version 17 new feature:
Faster operations.

107 new feature WD WB WM

AUTOMATIC CREATION OF LOCAL PROCEDURE

When creating a "Run WLanguage" type action, you can create the local procedure which will be directly called from the action's interface.

Benefit provided by this version 17 new feature:
Simplified operations.

HYPERFILESQL

HYPERFILESQL

108 new feature WD WB WM

"AUTO MODIF"» (SYNCHRONIZATION WITH THE DATA SCHEMA): TRIGGERING POSSIBLE BY PROGRAMMING

The new `HModifyStructure` WLanguage function lets you start a data "auto modif" via programming.

This can be useful in special cases, which used to require that this operation be started via command line, which could be heavy to support.

Benefit provided by this version 17 new feature:

The automatic data update can be started directly within the application.

109 new feature WD WB WM

SQL: OUTER JOINS

The combination of several outer joins in the same SQL query has been optimized.

You can now mix `LEFT`, `RIGHT` and `FULL` joins and define priority rules between these joins (using parentheses). Conditions on joins ("`ON`") are also optimized.

Benefit provided by this version 17 new feature:
Optimized SQL joins.

110 new feature WD WB WM

UNICODE COMPOSITE KEY

In version 17, composite keys can natively contain Unicode items.

Benefit provided by this version 17 new feature:
Better link with third party software using the Unicode standard (CRM, ASI400,...).

111 new feature WD WB WM

"QUICK" INDEXING ON UNICODE ITEMS

HyperFileSQL lets you, of course, define indexes on items coded using the Unicode standard.

By default, the organization of the index (data sort) takes into account possible character grouping.

For example, in Spanish when a word contains the letters "ch", these 2 letters are considered as a single letter located between "c" and "d" (linguistic sorting).

Version 17 offers the ability to easily sort "letter by letter" without taking into account the "linguistic sort", which noticeably improves performance.

This option should be used in languages for which no impact is noticeable.

Similarly, if an index is only used to check for equality, this option can be beneficial for Unicode items.

Benefit provided by this version 17 new feature:
Better read performance.

112 new feature WD WB WM

HYPERFILESQL ON IOS (IPHONE, IPAD)

HyperFileSQL is available on iPhone and iPad (see new feature # 821).

Access to HyperFileSQL Client/Server is also ensured from an iPhone or iPad.

It is important to note that the ".fic" data files can be moved directly among several devices (for example from a PC to an iPhone), without any conversion or operation having to take

place.

The internal format of the data files is identical regardless of the runtime device.

Benefit provided by this version 17 new feature:
Data portability is easier.

113 new feature WD WB WM

NEW FUNCTIONS

Two new functions are offered for handling data schema via programming:

<code>HListCustomFolder</code>	lists the custom folders of an analysis
<code>hInfoAnalysis</code>	returns the GUID of the analysis (data schema) and its generation number.

Benefit provided by this version 17 new feature:
Information about the analysis via programming.

114 new feature WD WB WM

7 NEW SQL COMMANDS

SQL support is even more refined in version 17. 7 new SQL commands are supported.

<code>cast</code>	conversion of a type into another
<code>string_agg(expression)</code>	aggregation function that concatenates the non-null strings of a group
<code>stddev_pop(expression)</code>	standard deviation aggregation function of a distribution
<code>stddev_samp(expression)</code>	standard deviation aggregation function of a sample
<code>stddev(expression)</code>	standard deviation aggregation function of a sample
<code>var_pop(expression)</code>	function aggregating the calculation of a distribution's variance
<code>var_samp(expression)</code>	function aggregating the calculation of a sample's variance
<code>variance(expression)</code>	function aggregating the calculation of a sample's variance

Benefit provided by this version 17 new feature:
Extended SQL support.

CONTROL CENTER HYPERFILESQL

115 new feature WD WB WM

NEW START MENU

The HyperFileSQL Control Center becomes more user friendly. A new menu lets you quickly access the tasks you want:

- connecting to a HyperFileSQL server,
- opening an analysis (data model),
- opening a .fic data file
- or connecting to a third-party database.

Starting these tasks is therefore easier.



Benefit provided by this version 17 new feature:
Easy access.

116 new feature WD WB WM

HANDLING OF ANALYSES AND DATA FILES

The ease of use for handling the data model and the data files has been totally revamped. Data file access and direct data modification are made easier. Now you can start an "auto modif" from the Control Center.

Benefit provided by this version 17 new feature:
Easy data management.

117 new feature WD WB WM

HANDLING THIRD-PARTY DATABASES: ORACLE, SQL SERVER, MYSQL,...

The HyperFileSQL Control Center opens up to third-party databases. Now it allows you to connect to a third-party database (Oracle, SQL Server, Informix, MySQL,...) as easily as to a HyperFileSQL database.

Benefit provided by this version 17 new feature:
Open to third-party databases.native access.

NATIVE ACCESS



118 new feature WD WB WM

MYSQL 64 BITS

Native access to the MySQL database was already available in 32 bit mode.

Version 17 adds support for the 64-bit mode.

Benefit provided by this version 17 new feature:
Better performance in 64 bits.

MONITORING ROBOT

119 new feature WD WB WM

EXTENSIVE CONFIGURATION

The monitoring robot lets you monitor the availability of one or more resources: checking that a Web site is accessible, that an application has not stopped, that the emails have been sent, etc... Depending on the robot's configuration, failing a test can trigger an email to a set of addresses. Each test's execution that fails sends an email, which can represent a large number of mails for the same error. These outgoing mails can now be sent with the "Breakdown/Resume" mode: a single email is sent when there's an error in one of the tests, and another single mail is sent when this same test passes again.

Benefit provided by this version 17 new feature:
The number of messages received is limited to the essential ones.

IPV6 : INTERNET'S FUTURE



120 new feature WD WB WM

IPV6 SUPPORT

The current Internet addressing standard is IPV4. The address is coded on 4 bytes.

This standard can address 4.3 billion addresses, which are almost all used up today.

To allow new devices to connect, the IPV6 standard increases the address's size from 4 to 16 bytes, which allows for the addressing of several billions of billion of devices (3.4 to the power of 38, exactly).

This new IPV6 standard allows us to serenely envision a future with a lot of new devices (mainly mobile) that will be addressable!

Applications developed in version 17 support the new IPV6 addressing standard in all the features that use the TCP/IP Layer: sockets, FTP, http, emails, network access ...

Benefit provided by this version 17 new feature:
Both the IPV4 and IPV6 standards are supported.

CONTROLS

122 WD WB WM

NEW CONTROL ORGANIZATION CHART

The new Organization Chart control (see new feature # 001 to 006) is being introduced in version 17.

This very powerful control dynamically creates Organization Charts; it opens up new presentation possibilities.



Benefit provided by this version 17 new feature:
Easily create org charts from data

123 new feature WD WB WM

NEW RIBBON CONTROL

The new Ribbon control (see new feature # 007 to 009) is being introduced in version 17.

It lets you organize "menus" differently, and offer richer choices in a small space.



Benefit provided by this version 17 new feature:
Lets you present menus differently

124 WD WB WM

AND THE OTHER CONTROLS...

WINDEV 17 benefits from the evolution of several controls, Schedule (printing, automatic printing, evolutions), Calendar control, loop control, combo box, table, chart and the new control, "scrolling button" (button with arrow) as well as the new rating control (stars).

WINDEV®



Category	Stock	Min	Max	Stock level
Ladies jacket	300	440	2150	★ ★ ★ ★ ★
Ladies accessories	5161	220	5200	★ ★ ★ ★ ★

Benefit provided by this version 17 new feature:
Possibilities increase for your windows

125 new feature WD WB WM

CLONING A TAB PANE

In version 17, the `ControlClone` function is active for tab panes. This allows you to dynamically create additional tabs via programming.

Benefit provided by this version 17 new feature:
Ability to create new tabs by programming.

126 new feature WD WB WM

NUMERIC EDIT CONTROL: CALCULATOR

Each numeric control can offer a mini calculator button». One click on this button displays a calculator which lets you perform basic operations.

This calculator is also automatically available via AAF (see new feature #035).

Benefit provided by this version 17 new feature:
Make some numeric inputs easier.

127 new feature WD WB WM

TREEVIEW TABLES: NEW FEATURES

In version 17, treeview tables allow the definition of "Container" type columns. This new feature lets you easily display controls inside a column of the treeview table.



A cell contains various controls

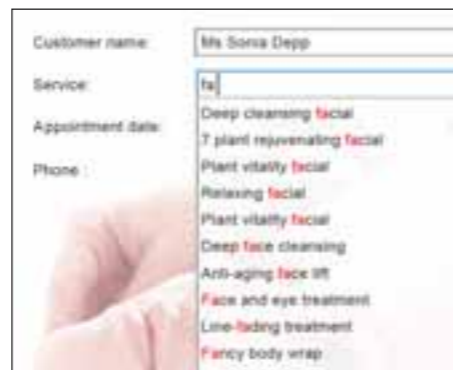
Benefit provided by this version 17 new feature:
Easier sophisticated display.

128 new feature WD WB WM

ASSISTED INPUT: EVOLUTIONS

The edit control has been offering an input history for several versions now. This way the end user can enter data offered faster, based on previous input.

In version 17, you can fill (or offer) a list of this type by programming.



A "history" built by programming

Benefit provided by this version 17 new feature:
Advanced display customization.

129 new feature WD WB WM

LOOPERS: BREAKS

In version 17, at run time, the editor offers an option so the end user can automatically collapse (and expand) a break in a looper control.

You don't need to program this feature, nor add a control to the break!

This process is automatic, simply request it in the looper control's "7-tab".



The end user can collapse or expand information

Benefit provided by this version 17 new feature:
The end user can collapse or expand the viewed information.

130 new feature WD WB WM

LOOPERS: LIVE DATA

In edit mode, in the window editor, the live data feature (visualization of the test data based on the application's real data) is now available for looper controls; this allows for easier resizing of controls inside cells.

Benefit provided by this version 17 new feature:
Looper controls have become even easier to create.

131 new feature WD WB WM

NEW CONTROL PROPERTIES

Control programming now benefits from 2 added properties:

- ..Grayed
- ..InputEnabled.

Benefit provided by this version 17 new feature:
The possibilities for customization are increased even more.

132 new feature WD WB WM

AAF SHORTCUT KEY: DISPLAY INSIDE THE BUTTON

As you know, there's an AAF allowing the end user to specify a function key as a shortcut for a button. In version 17, this function key is displayed inside the button.

End users are reminded of the shortcuts they've created!



Here the end user has chosen F8 as the shortcut to get the statistics

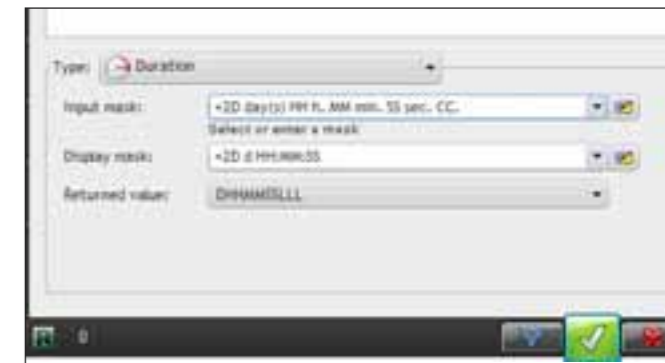
Benefit provided by this version 17 new feature:
End users are faster in their operations.

133 new feature WD WB WM

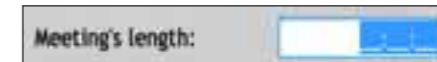
ONE CONTROL, 2 MASKS! A DISPLAY MASK AND AN INPUT MASK

In version 17, an edit control can support 2 different masks. The first mask will be used for input, the second mask will be used for display.

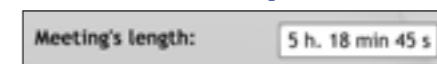
For example, a date control displays "Wednesday June 20 2012", but when the user enters a date "--/--/----" is displayed.



Definition of the masks for a control (7-tab window)



The mask in input mode



The mask in display mode

Benefit provided by this version 17 new feature:
Better control customization.

134 new feature WD WB WM

CURRENCY MASK: OVERLOADING

The currency mask defined at the project level can be overloaded at an edit controls level.

For example, the number of decimal can be modified individually in a window.

Benefit provided by this version 17 new feature:
More precise values in some parts of the application.

135 WD WB WM

MASKS: NEW CONSTANTS AND FUNCTIONS

In version 17, the formatting of numeric values can be done by programming.



No need to use a hiddend control.

The `maskSystemNumber` constant can be passed to the "NumericToString" function.

The `maskSystemCurrency` constant can be passed to the "CurrencyToString" function...

Benefit provided by this version 17 new feature:
Easy formatting.

136 new feature WD WB WM

URL INPUT MASK (SITE ADDRESS)

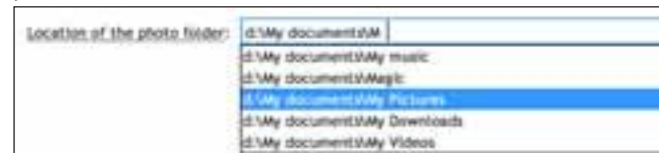
A URL input mask is now offered for input controls. It automatically performs a set of syntactic checks.

Benefit provided by this version 17 new feature:
URL syntax automatically checked.

137 new feature WD WB WM

DIRECTORY MASK

A mask that checks a directory name is now available and completes the file name's mask.



Benefit provided by this version 17 new feature:
Syntax automatically verified.

138 new feature WD WB WM

NON MODAL FURTIVE MESSAGE (TOAST)

The `ToastDisplay` function lets you display a non-intrusive furtive message.

The message is displayed for the specified amount of time, but it doesn't prevent the end user to keep on using the application, then it automatically disappears, without any action required from the user.

This way the application can display messages without distracting the user from its regular way of working.



Benefit provided by this version 17 new feature:
Allows the display of temporary messages.

139 new feature WD WB WM

MISCELLANEOUS

The UI "diff" lets you compare 2 versions of a window to display their interface differences.

The UI diff now takes the menus into account.

Benefit provided by this version 17 new feature:
Refining the features.

INSTALLER



ENVIRONMENTAL POLICIES

When PC SOFT prints "paper" documents, PC SOFT, the paper supplier or the printer, (FSC - Forest Stewardship Council - certified and PEFC - Program for the Endorsement of Forest Certification - certified) replants as many trees as used for the printing. The FSC label was created by the FSC NGO, which includes among others Greenpeace, Friends of the Earth and the WWF. For example printing 100,000 copies of a 68-page documentation

on glossy paper consumes 10 trees: PC SOFT or the printer has 10 trees replanted immediately. Also, we favor pulp coming mainly from recycled wood (from furniture mills for instance) and from controlled forest clearing. Also our products are available without packaging or paper documentation on request. A license for 10 developers can be supplied upon request with only 2 sets of paper documentation for instance.

The Expert's opinion

“Securing application installations is a constant issue. It is important to limit the ability to install some applications to authorized users only.”

140 new feature WD WB WM

INSTALL NEW LOOK

The look of the default setup application (for the end user) has been modernized.

It looks better with current style interfaces.



Default setup window

Benefit provided by this version 17 new feature:
The look of the setup windows for the end user has been modernized.

141 new feature WD WB WM

SETUP PROGRAM USING THE APPLICATION'S TEMPLATE (OR YOUR CHOSEN TEMPLATE)

Version 17 now makes choosing the look of the windows in a setup program easy.

You can apply a template to the installer.

It can be the application's template or any other template of your choice.

The skin template must be a skin template supplied from version 14 (included).



Applying a skin template to the setup program

Note that you can fully configure a setup program and the installed windows using the WDSSetup project provided with the products

Benefit provided by this version 17 new feature:
Easy customization of the setup windows look.

142 new feature WD WB WM

NETWORK UPDATE: VERIFICATION AND OFFLINE MACHINE

"Network" installation lets you create a reference setup on one or more reference servers (for example on a reference server per branch)

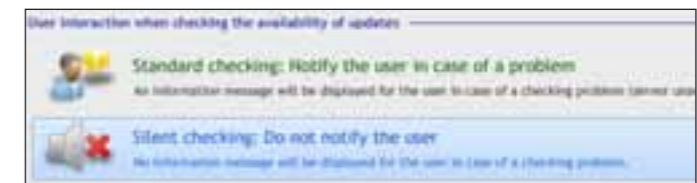
Users will then install their application from the reference server. The end user machines will automatically detect new updates on the reference server, and will trigger if needed an update request. Each time it's launched, an application installed via a network setup checks whether an update is available on the reference server.

If during the verification a more recent version is found on the server, the application update is offered to the end user.

If the network connection is not found when opening the application, the default process is to display a warning message.

This message can be useless for an application used on a mobile device, connected intermittently.

In version 17, you can delete this message which could be annoying for the end user.



Benefit provided by this version 17 new feature:
The end user is not disturbed by messages.

NETWORK UPDATE: VERIFICATION SCHEDULE

You can now configure the schedule for checking for updates (see above):

- each time the application is opened (default choice),
 - the first time of the day its opened,
 - Every X days,
 - only if the machine is connected to the network.
- You can check the verification schedule this way, to avoid useless processes and connections.



Benefit provided by this version 17 new feature:
Better performance when starting the application.

NETWORK UPDATE: HISTORY OF VERSIONS

Configuring the setup version history allows you to make several versions of the same application available to the end users. The configuration of the install history can now be defined when creating the setup program, or when setting up the reference installation. This allows you to configure the setup program when you make your choice.

Benefit provided by this version 17 new feature:
You control the resources installed on each end user machine.

INSTALL HTTP: PROXY SUPPORTED



In version 17, it is now possible to deploy an Http type installation on a network using a proxy.

The installation and updates of the application on the client machines will automatically use the proxy, without having to configure anything else.

Benefit provided by this version 17 new feature:
Proxy support.

INSTALL HTTP: MANAGING THE HTTPS SECURE MODE

For installation via http, the https secure protocol is now supported.

This protocol guarantees the authenticity of the install to the end user.



Benefit provided by this version 17 new feature:
Installations are protected.

INSTALL HTTP: AUTHENTICATION

An http server may request a login and password. You can specify a connection login and password for the http server when installing on the client machine.

Benefit provided by this version 17 new feature:
Your installations are secure.

INSTALL HTTP: CONFIGURING THE SERVER ADDRESS

You can specify the address of the http server when creating the installation.

You can now specify that the http server address will be entered during the reference installation on the http server. This new feature also allows you to deploy the same reference install program on several different servers.

Benefit provided by this version 17 new feature:
Large scale and multi-site deployments made easier.

JAVA



FRAMEWORK OPTIMIZATION (UP TO 50% SIZE REDUCTION)

In version 17, the application's compilation phase generates an optimized framework, which contains only the modules needed for running the application. The framework's size is therefore reduced, which in turn reduces the size of the application installed on the target machine. This size reduction is especially useful for Applets and "Java Web Start" type applications, which are downloaded from the Internet: the loading time is shortened, the consumed bandwidth is smaller. A 20 to 50% saving is noted.

Benefit provided by this version 17 new feature:
Applications are more compact. The downloads are faster.

SUPERCONTROL AND INTERNAL WINDOW WITH SCROLL BARS

You can now create supercontrols and internal windows with scollbars in Java.

Benefit provided by this version 17 new feature:
New customization abilities.

XML

The advanced "XML" type is available in Java. Importing an XML file into the environment declares all the corresponding types needed for easily handling the XML file via programming. There are 4 new advanced types available for XML management: `XMLDocument`, `XMLNode`, `XMLAttribute` and `XMLNamespace`

Benefit provided by this version 17 new feature:
Easy XML management.

USING THIRD-PARTY WEB SERVICES

Version 17 offers integrated support for web services in Java. The web service used is imported into the project, and the environment recognizes it after that: types declared by the web service, procedures to call,... Development is simplified.

Benefit provided by this version 17 new feature:
Easy Web service management.

EVOLUTIONS OF OOP

OOP (Object Oriented Programming) evolves for Java applications. The main new features of OOP for Java are:

- Support for the reference operator "<-" and copy operator "<=".
- Support of advanced "dynamic" types and advanced array types, dynamic or not.



- Support the following syntax:

```
IF MyInstance is ParentClass THEN...
```
- Referencing a dynamic object doesn't trigger a fatal error but it returns "null" if the referencing is invalid:

```
pClass2 is class2 <- pClass1
IF pClass2 = null THEN
...
END
```
- The simplified syntax for freeing a reference (0=null) is available on non-dynamic objects.

These new features make OOP in Java more pleasant, and insure a better code compatibility with existing WINDEV and WEBDEV assets.

Benefit provided by this version 17 new feature:
More powerful and more compatible OOP.

154 new feature WD WB WM

SUPPORT FOR TYPECASTING PROCEDURE PARAMETERS

In version 17, if the parameters have a type, the checking of the type is performed when calling the procedure, and the potential conversions are automatically performed.

Benefit provided by this version 17 new feature:
Better security for procedure calls, better compatibility with WINDEV and WEBDEV.

155 new feature WD WB WM

SUPPORT FOR NON-WESTERN LANGUAGES

Non-Western languages (Russian, Chinese ...) are now fully supported by Java applications.

Benefit provided by this version 17 new feature:
Easy internationalization.

156 new feature WD WB WM

OPTIONAL QUERY PARAMETER

You don't need to specify the value of each of the query's parameters anymore.
 If a parameter is not specified, the condition containing this parameter is automatically ignored. Development is simplified.

Benefit provided by this version 17 new feature:
Programming is simplified

157 new feature WD WB WM

27 NEW FUNCTIONS AVAILABLE IN JAVA

Java gets 27 new WLanguage functions:

Abandon	CurrentYear	StringStartsWith	StringEndsWith
ChangeSeparator	ChronoPause	ChronoResume	SysDateTime
IniOSEmulatorMode	IniOSMode	IniOSSimulatorMode	IntToHexa
ErrorBuild	Factorial	fLoadBuffer	WinInitialized
fSaveBuffer	fSeparator	HexaToInt	HTTPProgressBar
InfoBuild	CurrentMonth	FirstDayOfMonth	XMLFindNamespaceByName
XMLFindNamespaceByURI	XMLOpen	XMLSave	



SOLARIS



158 new feature WD WB WM

SOLARIS UNIX

The creation of applications for Solaris Unix is possible in version 17. Simply generate the application in Java.

Benefit provided by this version 17 new feature:
Increased portability of your existing assets.

MAC

159 new feature WD WB WM

HYPERFILESQL 64 BITS

WINDEV 17 enables you to create Mac applications by generating them in Java.

These applications can use the HyperFileSQL Classic and/or Client/Server database.

Depending on the Mac model and its configuration, the execution can be in 32-bit or 64-bit mode. HyperFileSQL accesses are performed in native 32-bit or 64-bit mode depending on the Mac model.

No configuration is needed anymore.

Benefit provided by this version 17 new feature:
It becomes useless to configure the Mac to use the 64-bit version.



NATIVE LINUX

160 WD WB WM

UI PORTABILITY

In version 17, in a Linux application, it is now possible to open windows containing non-standard controls in Linux. The actual control will be ignored, it won't be displayed. This allows for better portability of existing applications toward other system, since you don't need to remove these controls from

the interface any more.

Benefit provided by this version 17 new feature:
Better support for existing assets in another system.

161 new feature WD WB WM

MISCELLANEOUS

Version 17 offers support for negative values as parameter of the `MultiTask` function

You can now user `MultiTask(-1)` in a Linux application.

Benefit provided by this version 17 new feature:
Improved Linux support.

162 new feature WD WB WM

57 NEW FEATURES AVAILABLE IN LINUX

Linux gains 57 new WLanguage functions:

ArcTan2	Returns the arc tangent 2.
BufferToUnicode	Converts a buffer into a Unicode string
CharactTypeOccurrence	Returns the number of occurrences of a given type of character
CharactType	Returns a character's type
BCCalculateControlCharacter	Returns the control code of a bar code.
StringReverse	Reverses the characters of a string
StringDelete	Deletes a substring from a string
Contains	Checks whether a substring is found inside a string
dbgCheckDifferent	Checks whether two expressions are different in test mode.
dbgCheckEqual	Checks the equality between two expressions in test mode.
dbgCheckFalse	Checks whether an expression is false in test mode.
dbgCheckNotNull	Checks whether an expression is not Null in test mode
dbgCheckNull	Checks whether an expression is Null in test mode
dbgCheckTrue	Checks whether an expression is true in test mode
dLoadImage	Loads an image from a memo, a file or a binary buffer
dCrop	Cuts an image and returns the cut section.
LastDayOfWeek	Returns the date of the last day of the week for a given date
dAlphaBlend	Blends an image inside another image.
dHalo	Adds a halo effect to an image
dEncrustColor	Encrusts a color in an image
dShadow	Adds a shadow effect to an image
EmailCopy	Copies an email.
IniOSEmulatorMode	Identifies whether the code is running in the iOS emulator (iPhone, iPad).
IniOSMode	Identifies whether the code being run is in iOS mode
IniOSSimulatorMode	Identifies whether the code is executed in the iOS simulator
EvaluateExpression	Evaluates the value of an expression built in a character string
ExecuteCode	Executes the code found in a character string
fBuildPath	Builds a complete file path from the directory and short name of the filer
WinAdaptHeight	Adapts the window height to the content of the controls.
WinAdaptWidth	Adapts the window width to the content of the controls.
WinGiveSuitableHeight	Returns the right height for a window.
WinGiveSuitableWidth	Returns the right width for a window.
HInfoAnalysis	Returns information about an analysis (WDD file).
HListCustomFolder	Lists the groups of data files defined in the analysis.
iSequencingStart	Declares the beginning of a report print sequence
iSequencingEnd	Marks the end of the declaration for a sequence of reports and starts the printing
LineToPosition	Returns the position of the first character of a known line by its number
WordOccurrence	Returns the number of words in a string
WordToArray	Fills an array with the words from a string
Mean	Calculates the mean of several elements
NetListIPAddress	Returns the list of IP addresses (Internet Protocol) for a computer.
DayNumberToAlpha	Returns the name of the day of the week according to its

MonthNumberToAlpha	number.
PositionToLine	Returns the name of the month according to its number.
FirstDayOfWeek	Returns the line number in a string containing the character at the given position
RegistryListkey	Returns the date of the first day of the week for a given date
RestartProgram	Lists the registry keys of a key
SaaSAdminWriteSiteParameter	Restarts the application
SaaSAdminReadSiteParameter	Saves a piece of information specific to the client site.
Sum	Reads a piece of information specific to the client site. Calculates the sum of several elements.

WLANGUAGE 77 NEW FEATURES

163 to 239 new feature W D W B

THE NEW FUNCTIONS AVAILABLE IN WINDEV

WLanguage gains 77 new functions:

ArcTan2	Returns the arc tangent 2.
BufferToHexa	Converts a buffer into a displayable hexadecimal string.
BufferToUnicode	Converts a buffer into a Unicode string
CharactTypeOccurrence	Returns the number of occurrences of a given type of character
CharactType	Returns a character's type
BCCalculateControlCharacter	Returns the control code of a bar code.
StringReverse	Reverses the characters of a string
StringDelete	Deletes a substring from a string
COMQueryInterface	Returns a COM object of a specified interface
Contains	Checks whether a substring is found inside a string
dbgCheckDifferent	Checks whether two expressions are different in test mode.
dbgCheckEqual	Checks the equality between two expressions in test mode.
dbgCheckFalse	Checks whether an expression is false in test mode.
dbgCheckNotNull	Checks whether an expression is not Null in test mode
dbgCheckNull	Checks whether an expression is Null in test mode
dbgCheckTrue	Checks whether an expression is true in test mode
dLoadImage	Loads an image from a memo, a file or a binary buffer
dCopyScreenImage	Copies the screen's image into an image control
dCopyWindowImage	Copies a window's image into an image control
dCrop	Cuts an image and returns the cut section.
LastDayOfWeek	Returns the date of the last day of the week for a given date
dAlphaBlend	Blends an image inside another image.
dHalo	Adds a halo effect to an image
dEncrustColor	Encrusts a color in an image
dShadow	Adds a shadow effect to an imagee
EmailCopy	Copies an email.
IniOSEmulatorMode	Identifies whether the code is running in the iOS emulator (iPhone, iPad).
IniOSMode	Identifies whether the code being run is in iOS mode
IniOSSimulatorMode	Identifies whether the code is executed in the iOS simulator
EvaluateExpression	Evaluates the value of an expression built in a character string
ExecuteCode	Runs the WLanguage code found in a character string
fBuildPath	Builds a complete file path from the directory and short name of the file

WinAdaptHeight	Adapts the window height to the content of the controls.
WinAdaptWidth	Adapts the window width to the content of the controls.
WinGiveSuitableHeight	Returns the right height for a window.
WinGiveSuitableWidth	Returns the right width for a window.
WinForceDDW	Forces the DDW (Dim Disabled Windows) feature on a window even if this window is not accessible.
fListDisk	Returns the list of disks installed on the computer.
fReadLineRegExp	Reads a line from an external file and retrieves in variables sections of this line based on a regular expression.
GgGetDocument	Downloads a document from Google Docs
BurnerMediaFound	Returns the drive's status: full, empty, open, closed, etc...
HexaToBuffer	Converts a string representing bytes in hexadecimal format to a binary buffer.
HInfoAnalysis	Returns information about an analysis (WDD file).
HListCustomFolder	Lists the groups of data files defined in the analysis.
iSequencingStart	Declares the start of a report print sequence
iSequencingEnd	Marks the end of the declaration for a sequence of reports and starts the printing
iPrintWatermark	Prints a text as a watermark for a report's background.
LineToPosition	Returns the position of the first character of a known line by its number
WordOccurrence	Returns the number of words in a string
WordToArray	Fills an array with the words from a string
Mean	Calculates the mean of several elements
NetListIPAddress	Returns the list of IP addresses (Internet Protocol) for a computer.
DayNumberToAlpha	Returns the name of the day of the week according to its number.
MonthNumberToAlpha	Returns the name of the month according to its number.
OrgDisplay	Reinitializes the content of an Organization Chart control from its data source.
OrgAdd	Adds a new root element into an Organization Chart control.
OrgAddChild	Adds a child element into an Organization Chart control.
OrgInfoXY	Returns the index of the element located at a given position inside an Organization chart control.
OrgModify	Modifies an element in an Organization Chart control.
OrgSelect	Returns the index of the element selected in an Organization chart control.
OrgSelectMinus	Deselects an element from an Organization chart control.
OrgSelectPlus	Selects an element in an Organization chart control.
OrgDelete	Deletes an element and all its children from an Organization chart control.
OrgDeleteAll	Deletes all the elements from an Organization Chart control.
PDFMerge	Merges several existing PDF files into a single PDF file.
PositionToLine	Returns the line number of the line containing the character at the given position
FirstDayOfWeek	Returns the date of the first day of the week for a given date
RegistryListkey	Lists the registry keys of a key
RestartProgram	Restarts the application
SaaSAdminWriteSiteParameter	Saves a piece of information specific to the client site.
SaaSAdminReadSiteParameter	Reads a piece of information specific to the client site.
Sum	Calculates the sum of several elements.
ToastDisplay	Displays a "Toast" message.
LooperExpand	Expands a looper break on a given row
LooperExpandAll	Expands all the breaks of a looper control
LooperCollapse	Collapses a looper break on a given row
LooperCollapseAll	Collapses all the expanded breaks of a looper control



WINDEV[®] Mobile



240 new feature W D W B W M

117 COMMON NEW FEATURES

WINDEV Mobile 17 benefits from all the common new features of version 17. You benefit from all the new controls, from the evolution of the controls, from the evolution of WLanguage, ... The environment is more productive, more efficient and more pleasant to use.

NATIVE IOS : IPHONE, IPAD

A new feature that everybody has been asking for, WINDEV MOBILE 17 now knows how to create professional native apps for iPhone, iPad and iPod Touch. You develop in a familiar way, using WLanguage, with the added benefit of the efficient environment you know, and reusing your existing code if appropriate. Version 17 is intended for "professional apps", distributed on a number of mobile devices.



Easily create
iOS apps
(iPhone, iPad, ...)
with version 17



Window for iPhone being developed with WINDEV Mobile 17; the test is done directly on the PC

The Expert's opinion

“Development on iOS (iPhone, iPad, etc.) with the legendary simplicity of WINDEV opens new horizons to all developers. Existing assets become even more valuable.”

241 new feature W D W B W M

CONTROLS SUPPORTED ON IOS IN VERSION 17

Version 17 of WINDEV Mobile offers the controls needed for developing professional applications on iOS:

- Static control
- Edit control
- Button
- Image
- Radio button
- Check box
- Looper
- Chart
- Supercontrol
- Control template, window template.

Each control supports the templates provided with WINDEV Mobile.

All the available styles are also supported, and freely customizable: background image, icon image, border, color, size...

Benefit provided by this version 17 new feature:

You have the controls you need, and the ability to customize.

242 to 818 new feature W D W B

577 WLANGUAGE FUNCTIONS SUPPORTED FOR IOS (IPHONE, IPAD, IPOD TOUCH)

More than 500 WLanguage functions are available for developing iPhone, iPad and iPod Touch applications.

These functions enable you to develop the professional applications you need.

Manage the regular camera and video camera, the GPS, emails, HTTP requests, databases, drawings, XML and more with version 17 of WINDEV Mobile.

OOP is supported, multilingual support is available. Data binding is also available.

Non exhaustive list of supported WLanguage functions:

Abs	Age	Add	CurrentYear
AnsiToUnicode	ArcCos	ArcSin	ArcTan
Rounded	RoundDown	RoundUp	Asc
Warning	Charact	CharactUnicode	StringCompare
StringBuild	StringFormat	StringCount	StringToDate
StringToDuration	StringToArray	StringToUTF8	ControlClone
ControlExist	PreviousField	ControlFirst	Seek
SeekProcedure	ChronoStart	ChronoEnd	ChronoPause

ChronoResume	ChronoValue	Complete	CompleteDir
Confirm	MakeInteger	Contains	Cos
CoTan	ColorLightness	ColorSaturation	ColorHue
Crypt	CSVToArray	dArc	DateDifference
Today	DateTimeDifference	DateTimeLocalToUTC	DateTimeByDefault
SysDateTime	DateTimeUTCToLocal	DateSys	DateValid
DateToString	DateToInteger	DateToDay	DateToDayInAlpha
DateToMonthInAlpha	DateToWeekNumber	dbgInfo	dCircle
dChord	dStartDrawing	UncompleteDir	Uncrypt
LastDayOfWeek	LastDayOfMonth	Deserialize	dEndDrawing
dBackground	Dialog	Dimension	dLine
GetColor	SetFocus	GetIdentifier	dPixelOpacity
dPoint	dFont	dPolygon	dSlice
dRectangle	dRectangleGradient	Right	dSaveImageJPEG
dSaveImagePNG	dPen	dText	DurationToString
ScreenFirst	ScreenToFile	EmailAddFolder	EmailChangeFolder
EmailChangeStatus	EmailSetTimeout	EmailLoadAttachment	EmailBuildSource
EmailCopy	EmailCurrentFolder	EmailSend	EmailSendMessage
EmailCloseSession	EmailImportHTML	EmailImportSource	EmailListFolder
EmailReadLast	EmailReadLastHeader	EmailReadMessageHeader	EmailReadPreviousHeader
EmailReadFirstHeader	EmailReadNextHeader	EmailReadMessage	EmailReadPrevious
EmailReadFirst	EmailReadNext	EmailMsgError	EmailNbMessage
EmailStartSession	EmailStartIMAPSession	EmailStartPOP3Session	EmailStartSMTPSession
EmailReset	EmailSaveAttachment	EmailGetAll	EmailRemoveFolder
EmailDeleteMessage	EmailMessageLength	EmailCheckAddress	In64bitMode
InAJAXMode	InAndroidMode	InAWPMode	InComponentMode
InAndroidEmulatorMode	InAndroidEmulatorMode	InReportsAndQueriesMode	InLinuxMode
InFactoryMode	IniOSMode	InJavaMode	InStoredProcedureMode
InUMCMode	InPHPMode	InPocketMode	InOSSimulatorMode
InServiceMode	InSimulatorMode	InAndroidSimulatorMode	InTestMode
InPHPSimulatorMode	InPocketSimulatorMode	InWindowsPhoneSimulatorMode	InWebServiceMode
InAutomaticTestMode	InTSEMode	InWebMode	IntegerToDate
InWindowsMode	InWindowsPhoneMode	IntegerToDay	IntegerToMonthInAlpha
IntToHexa	IntegerToDayInAlpha	EnumControl	EnumMenu
IntegerToWeekNumber	EnumElement	ErrorThrow	IsOdd
Error	ErrorInfo	IsEven	ExceptionThrow
IsNumeric	BinaryAND	ExecuteProcess	Exp
ExceptionInfo	ExeInfo	fAttribute	fChangeSize
ExtractString	fAttributeReadOnly	fCompare	fCreate
fLoadtext	fCopyFile	fDate	fUncrypt
fCrypt	fDateTime	fWriteLine	WinInput
fWrite	CurrentWin	fExtractPath	fFileExist
Close	fClose	fTime	FileToMemory
fGraphicFilter	FileToScreen	flistFile	flistDirectory
EndProgram	EndTimerSys	fNameOfFile	fOpen
fRead	fReadLine	Dir	fDirAttribut
fSeek	fRename	fDirectoryExist	fDirSize
fMakeDir	fDataDir	fRemoveDir	fSize
fExeDir	fParentDir	fDelete	GPSStopDetection
fSaveText	gLinkActivate	gLink	GPSInfo
gLink	GPSStatus	GPSDetectPosition	GPSEnd
GPSToPosition	GPSPosition	GPSToGetPosition	grColor
grStockAddData	grStockAddData	grCreate	grDrawGradient
grCreate	grCreateFont	grDestinationBMP	grDonutHolePercentage
grDestinationBMP	grDestinationControl	grLineThickness	grCategoryLabel
grLineThickness	grSeriesLabel	grGraduate	grIncreaseData
grGraduate	grColumnSpacing	ggrInfoXY	grLabel
ggrInfoXY	grLegend	grAutoRefreshCategoryLabel	grMask
grAutoRefreshCategoryLabel	AutoRefreshSeries	rScatterSeriesLabel	grScatterPointSize
rScatterSeriesLabel	grScatterLinkPoint	grOrigin	grLabelFont
grOrigin	grParameter	grFontTitle	grGridlines
grFontTitle	grAxisTitleFont	grSaveBMP	grPieStartAngle
grSaveBMP	grSaveParameter	grSeriesSecondaryAxis	grPiePullOut
grSeriesSecondaryAxis	grSourceCategoryLabel	grDeleteSeries	grOverlayChart
grDeleteSeries	grDeleteAll	grAxisTitle	grTitle
grAxisTitle	HActivateFilter	HAlias	HAdd
HAlias	HCancelAlias	Random	HCancelSeek
Random	HashString	HashCheckFile	HashCheckString
HashCheckFile	HLinkMemo	HChangeConnection	HChangeKey
HChangeConnection	HChangeLocation	HCopyRecord	HBuildKeyValue
HCopyRecord	HCreation	HLast	HDescribeConnection
HLast	HDeactivateFilter	HErrorInfo	HError
HErrorInfo	TimeDifference	TimeToString	TimeValid
TimeToString	TimeToInteger	HExecuteSQLQuery	HExecuteQuery
HExecuteSQLQuery	HExtractMemo	HFilter	HCloseConnection
HFilter	HFilterStartsWith	HListConnection	HFreePosition
HListConnection	HListItem	HReadPrevious	HReadLast
HReadPrevious	HReadFirst	HReadSeekFirst	HReadSeekLast
HReadSeekFirst	HReadNext	HOpen	HNbRec
HOpen	HOpenConnection	HGetCurrentPosition	HPrevious

HFirst	HRESET	HSeek	HSeekLast
HSeekFirst	HBackward	HRetrieveRecord	HRestorePosition
HSavePosition	HNext	HDelete	HTMLToRGB
HFound	HTTPDestination	HTTPGetResult	HTTPRequest
Info	INIWrite	INIRead	InitWindow
InitRandom	Insert	Reverse	LanguageToNation
LanguageToName	Ln	Log	Now
Upper	MatAdd	MatCopy	MatCreate
MatDeterminant	MatWrite	MatError	MatExist
MatInvert	MatRead	MatReadColumn	MatReadLine
MatMultiply	MatNbColumn	MatNbLine	MatFloatAdd
MatFloatMultiply	MatFill	MatDelete	MatTranspose
Max	MemAdd	MemCreate	MemLast
MemCurrent	MemOut	MemExist	MemModify
MemCount	MemoryToFile	MemSetPosition	MemPrevious
MemFirst	MemSeek	MemRetrieve	MemNext
MemDelete	MemDeleteAll	MemSort	MemFound
MemKeyVal	Middle	Min	Lower
CurrentMonth	Nation	NationToLanguage	WindowCount
BinaryNOT	NumToString	DayNumberToAlpha	MonthNumberToAlpha
WeekNumber	OKCancel	BinaryOR	BinaryXOR
YesNo	OpenChild	OpenSister	Easter
ParentObject	DecimalPart	IntegerPart	LoWord
HiWord	Position	PositionOccurrence	FirstDayOfWeek
FirstDayOfMonth	Clipboard	ProjectInfo	Power
Root	RESET	Replace	RepeatString
ReturnToCapture	RGB	RGBBlue	RGBRed
RGBToHTML	RGBGreen	Hourglass	Input
NoAccent	NoCharacter	NoSpace	sComputeCrc16
SocketConnect	Serialize	Sin	SocketChangeTransmissionMode
SocketExist	SocketCreate	SocketCreateUDP	SocketWrite
Delete	SocketClose	SocketRead	SocketDeny
ArraySeek	DeleteAll	SysWindowsVersion	ArrayAdd
ArrayCount	ArrayCopy	ArrayInfo	ArrayInsert
ArraySort	ArrayDelete	ArrayDeleteDuplicate	ArrayDeleteAll
ArrayLength	ArrayToString	ArrayToCSV	Size
TextWidth	LengthToString	Tangent	TextHeight
CurrentTitle	NextTitle	ThreadPause	TimerSys
TypeVar	DataType	Sort	HSL
URLEncode	UTF8ToString	UnicodeToAnsi	URLDecode
VariableReset	MatchRegularExpression	Use	Val
VideoStartApp	XMLCancelSearch	WinDevVersion	ToClipboard
XMLBuildString	XMLLast	XMLFindNamespaceByName	XMLFindNamespaceByURI
XMLOut	XMLExtractString	XMLDocument	XMLData
XMLChildExist	XMLNamespace	XMLExtractDocument	XMLChild
XMLParentName	XMLOpen	XMLNamespaceURI	XMLElementName
XMLPrevious	XMLFirst	XMLRoot	XMLPath
XMLRestorePosition	XMLSave	XMLSavePosition	XMLFind
XMLClose	XMLFound	XMLElementType	XMLNext
LooperDisplay	LooperAdd	LooperAddLine	XMLToText
LooperMoveLine	LooperInfoXY	LooperInsert	LooperSeek
LooperModify	LooperModifyLine	LooperCount	LooperInsertLine
LooperDelete	LooperDeleteAll	LooperSort	LooperPosition

819 new feature W D W B W M

PORTABILITY

An application's windows can be specific to the iPhone, iPad, iPod Touch or common to all 3 devices, thanks to the use of anchors.

You can choose to develop for a specific device.

Also note that your windows are compatible with Android, Windows Mobile, Windows CE and Windows Phone.

Benefit provided by this version 17 new feature:

UI portability.

820 new feature W D W B W M

FILE SHARING VIA ITUNES

An iOS application can be authorized to share files with a PC or a Mac.

At generation time, WINDEV Mobile 17 offers an option that can activate file sharing.

The end user can work with his data on the hardware of his choice.

It is often easier to enter data on a PC than on a phone! You can also copy HyperFileSQL data files this way.



File sharing via iTunes

Benefit provided by this version 17 new feature:
Better interoperability.

821 new feature W D W B W M

HYPERFILESQL CLASSIC

HYPERFILESQL

The HyperFileSQL database can be installed on iPhone and iPad. Your applications benefit from the power of HyperFileSQL. More than 50 HyperFileSQL functions are supported.

Benefit provided by this version 17 new feature:

The power of HyperFileSQL Classic on iPhone and iPad.

822 new feature W D W B W M

HYPERFILESQL CLIENT/SERVER

The HyperFileSQL Client/Server database (installed on a Windows or Linux server, in 64-bit or 32-bit) is accessible from an iPhone or iPad.

Each device can easily access the enterprises data.

Access is done via Wi-Fi or via a 3G connection.

Benefit provided by this version 17 new feature:

You easily access your enterprise's data from an iPhone or an iPad.

APPLICATION DEPLOYMENT

WINDEV Mobile 17 lets you choose one of 3 ways to deploy your applications:

- AppStore
- Ad Hoc Distribution
- InHouse Distribution.

The distribution of an application via the AppStore depends upon approval from Apple (your application must go through and pass a validation process).

An application distributed via the AppStore is visible and accessible by the public.

"Ad Hoc" and "In House" type distributions (see below) let you distribute applications without validation from Apple, and without having to make them available publicly.

Your professional applications are protected this way from any unwanted publicity, and from download by third-parties. You master your applications' distribution, and you don't need to pay any commissions.

Note that application distribution methods can change based on the evolutions of the conditions dictated by Apple.

Benefit provided by this version 17 new feature:
Choose the type of deployment for your applications.

"AD HOC" DEPLOYMENT

(The "ad Hoc" and "In-House" terms are the ones used by Apple). The Ad Hoc deployment mode lets you deploy your application on a maximum of 100 devices. The installation is done manually from each device. The application does not need to go through Apple's validation process, and is not publicly available.

These conditions only depend on Apple and may change at any time. You may need to have a license or a subscription with Apple, or to have special hardware from Apple.

Please visit the Apple's web site to check the accuracy of the information and the special conditions at the time you're reading this information.

Benefit provided by this version 17 new feature:
Deployment on less than 100 devices, you freely define your applications' features, no validation is required.



IN-HOUSE DEPLOYMENT

The "In-house" deployment mode remove the constraints on the maximum number of devices: the application can be deployed on as many devices as you want.

This type of deployment also removes the constraints of the physical installation. The deployment is performed via a web server, which eliminates manual operations on each device.

The application does not need to go through Apple's validation process.

This type of deployment requires acquiring a special license from Apple.

These conditions only depend on Apple and may change at any time. You may need to have a license or a subscription with Apple, or to have special hardware from Apple. Please visit the Apple's web site to check the accuracy of the information and the special conditions at the time you're reading this information.

Benefit provided by this version 17 new feature:
Large scale deployment within your enterprise. You freely define your applications' features, no validation is required.

DEPLOYMENT ON THE APPSTORE

Deployment via the AppStore, Apple's online store, is possible for some applications.

Note that any application you intend to distribute via the AppStore must first be validated and accepted by Apple.

These conditions only depend on Apple and may change at any time. You may need to have a license or a subscription with Apple, or to have special hardware from Apple. Please visit the Apple's web site to check the accuracy of the information and the special conditions at the time you're reading this information.

Benefit provided by this version 17 new feature:
Deployment via the store.

APPLICATION PORTABILITY



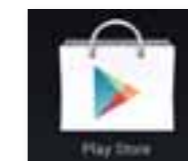
The same code for all the mobile devices and tablets

Your code is unique: Windows, Internet, Linux, Mobile, Java, .Net, PHP, J2EE, Mac, Web service, XML, Ajax, Android, iOS (iPhone), Windows Phone, Windows Mobile, Cloud,...

ANDROID



In version 17, WINDEV Mobile adds increased support for Android. You can create powerful applications easily. Your applications are freely deployed, via direct installation or via the Play Store (formerly Android Market).



The Expert's opinion

"Android's market share keeps on increasing. Found on an increasing number of smartphones and tablets, its advanced support by WINDEV Mobile is a major asset for your development work."

SIZE REDUCED UP TO 50% & SPEED INCREASED (FRAMEWORK SPLITTING)

In version 17, the application's compilation phase generates an optimized framework, which contains only the modules needed for running the application.

The framework's size is therefore reduced, which in turns reduces the size of the final application. A 20 to 50% size decrease is usually noted just by recompiling an application with version 17. The application is generated much faster and the "GO" operation in the test environment is also faster.

Benefit provided by this version 17 new feature:
Applications are more compact. Downloads are now faster for the users.

MULTITOUCH SUPPORT

The "multitouch" is recognizing finger movements on the screen's surface: scrolling, zooming (pinch»),... Applications compiled with version 17 automatically recognize these movements on image controls. In your programs, additional events are available in order to refine processes:

- **Scroll** : vertical or horizontal movement using one or more fingers and keeping them in contact with the screen.
 - **Fling** : small quick movement with one or more fingers on the screen
 - **Scale** : pinching in or out two fingers on the screen.
- The new **Gesture** function family is being introduced.



Benefit provided by this version 17 new feature:
Better application user friendliness.

LOOPERS: EVOLUTIONS

Breaks are supported in looper controls. Multi-column looper controls are supported.

Benefit provided by this version 17 new feature:
More powerful looper controls.

SUPERCONTROL AND INTERNAL WINDOW WITH SCROLL BAR

It is now possible to create supercontrols and internal windows with scollbars.

Benefit provided by this version 17 new feature:
New customization abilities.

NEW CONTROL: MAP

The new Map control lets you display a Google Map in order to find a location, to create an itinerary, to display Points of Interest

(P.O.I.)

The map displayed is interactive: you have the ability to zoom, to move.

Two new advanced types have been created to make map management easier.

The **Address** type lets you specify a geographical address.

The **Marker** type lets you position P.O.I. on a map.

The symbol representing these P.O.I. is customized by the `..image` property.



A Google Maps map where markers (P.O.I.) are displayed



P.O.I markers example supplied.

Benefit provided by this version 17 new feature:
Easy management of a map's advanced functionalities.

CONTROL EVOLUTION

Among the functionality evolutions for controls under Android, the following are noteworthy:

- Support for ON/OFF buttons
- The presence of zoom options in the HTML control.

Benefit provided by this version 17 new feature:
Miscellaneous evolutions

NEW EVENT: SCREEN ROTATION

The screen rotation is supported by default in an application written with WINDEV Mobile.

In order to allow for a better customization of the windows by programming, the new **orientation** change event is introduced for window description.

It allows the application to be notified when the user rotates the screen.

This allows you, for instance, to layout the controls differently depending on the orientation (portrait or landscape).

Benefit provided by this version 17 new feature:
Further customization.

LONG PRESS

The Android operating system (and phones in general) don't have the concept of "right click".

This concept is replaced by a prolonged pressing of the finger on the screen. Usually, a popup menu comes up following this action.

For an easy support by programming of this extending screen pressing, a new element is introduced in most controls. The programming of a long press is made easier.

Benefit provided by this version 17 new feature:
Easy management of long press on the screen.

YOUR APPS GENERATE AD REVENUES: NEW AD CONTROL

The new "Ad" control uses the Google "AdMob" protocol. Your applications can display ads served by Google and generate revenues. Graphical and text formats are supported (banner ads and text ads).



Display ads in your mobile apps and generate revenues!

Benefit provided by this version 17 new feature:
Your applications display ads.

DATE AND TIME CONTROL TACTILE MODE

Date and time can be entered and displayed in "roll" mode.



Benefit provided by this version 17 new feature:
Easier date entry.

ADDRESS BOOK: MANAGEMENT OF CONTACTS

Contact management has been improved in version 17 of WINDEV Mobile.

Data access is done via a new, more powerful syntax. The advanced **contact** type is being introduced to WLanguage. The Gmail, Facebook, and so on, type contacts, ... can easily be managed.

Benefit provided by this version 17 new feature:
Powerful address book management.

PLAYING VIDEO

The "multimedia" control is supported in Android. This control allows you to read video files as well as music files. The popular audio and video formats are supported: Wav, mp3, AVI, ...



Benefit provided by this version 17 new feature:
Video and music in your applications!

FRONT CAMERA SUPPORT

Devices often offer 2 cameras: one in the front, one in the back. Now you can specify on which camera (front or back) the com-

mands from the "Video" family apply (VideoCapture, etc.) and therefore refine your processes.



The front camera is supported

Benefit provided by this version 17 new feature:
Better equipment management.

840 new feature WD WB WM

NEW EVENT "CLICK CAMERA"

The camera control lets you display the image captured by the camera. The new "click on camera control" event lets you execute a process when this control is clicked.

Usually it is for triggering the shutter for taking a picture or starting to record a video clip (and then stopping) by clicking the preview.

Benefit provided by this version 17 new feature:
Video and music in your applications!

841 new feature WD WB WM

PHOTO: AUTOMATIC THUMBNAIL

When a photo is taken in the "Camera" control, the version 17 application saves by default both the photo itself, as well as its "thumbnail" (in the optimum format for the device). These thumbnails can then be used directly by the looper control for instance.

Benefit provided by this version 17 new feature:
The display of the thumbnail is very quick.

842 new feature WD WB WM

FINDING OUT THE CONNECTION TYPE AND THE NETWORK STATUS

New WLanguage functions (`SysNetworkInfo`) are being introduced in order to get the type of network connection and the qua-

lity of the reception signal. It can be useful for an application to know whether it is connected to the Internet via Wi-Fi or 3G. For example, if the signal is spotty, a data transfer can be forbidden, while if a good quality Wi-Fi signal is available, downloads can be allowed.



Benefit provided by this version 17 new feature:
New ability to refine applications.

843 new feature WD WB WM

FINDING OUT ANDROID'S VERSION NUMBER

The new `SysAndroidVersion` function lets you, as its name suggests, find out the version number of the installed Android system.

For example, the Bluetooth features are only available starting with version 2.0 of Android: your applications will only be able to offer this feature if it's supported by the device.

Benefit provided by this version 17 new feature:
Precise programming.

844 new feature WD WB WM

SUPPORT FOR NON-WESTERN LANGUAGES

Non-Western languages (Russian, ...) are now fully supported on Android.

Benefit provided by this version 17 new feature:
Easy internationalization.

845 new feature WD WB WM

RECORDER

The functions from the `Recorder` family let you manage a recorder: start and stop the recording. The playing is done using the Sound family functions or via a multimedia control.

Benefit provided by this version 17 new feature:
Transform smartphones into recorders!

846 new feature WD WB WM

SPEECH SYNTHESIS

Android phones can talk! Thanks to version 17, simply pass a text to the `SpeechSynthesisReadText` function for this text to be read out loud by the phone!

Benefit provided by this version 17 new feature:
Your phone speaks.

847 new feature WD WB WM

SPEECH RECOGNITION

Android phones are also good listeners! Thanks to version 17, simply pass a text to the `SpeechSynthesisStart` function for this text to be converted into character strings!

Benefit provided by this version 17 new feature:
Your phone listens.

848 new feature WD WB WM

BRIGHTNESS

The `BrightnessGet` and `BrightnessModify` functions lets you adjust the screen's brightness. A special use of this function consists in creating a "flashlight" mode, by displaying a blank screen with maximum brightness!

Benefit provided by this version 17 new feature:
Automatic intervention on the device.

849 new feature WD WB WM

VOLUME

The `VolumeGet`, `VolumeModify` and `VolumeConfigure` functions allow you to:

- to adjust the phone's volume: speaker, ring,...
- assign the physical volume setting buttons to a given action, in the current application.

Benefit provided by this version 17 new feature:
Your applications automatically manage the volume.

850 new feature WD WB WM

ANDROID 3



Among the supported Android versions, version 3 comes up. New concepts, specific to tablets, are being introduced: holographic themes, action bar,...

Benefit provided by this version 17 new feature:

All the Android versions are supported.

851 new feature WD WB WM

ADDITIONAL STYLES

A large number of additional control styles are being introduced in version 17: customization of the edit control background image, modification of the radio button and check box image, customization of the selection band for looper controls and list boxes, customization of the combo box display, support for simple and rounded borders...

Benefit provided by this version 17 new feature:
Better UI customization ability.

852 new feature WD WB WM

XML

The advanced "XML" type is now available on Android. Importing an XML file into the environment automatically declares all the corresponding types needed for easy handling of the XML file via programming. There are 4 new advanced types available for XML management: `XMLDocument`, `XMLNode`, `XMLAttribute`, `XMLNamespace`.

Benefit provided by this version 17 new feature:
Easy XML support on Android.

853 new feature WD WB WM

OOP'S EVOLUTION: 5 EVOLUTIONS

OOP (Object Oriented Programming) is not required for developing Android applications. "Regular" programming is enough for building great and performing applications. However support for OOP is useful, on one hand if you're an



adept of this method, on the other hand if you have existing OOP code in WINDEV or WEBDEV. The 5 main new features for OOP on Android are:

- Support for the reference operator "<-" and copy operator "<="
- Support of advanced "dynamic" types and advanced array types, dynamic or not
- Support the following syntax:
IF o is BaseClass THEN...
- Referencing a dynamic object doesn't trigger a fatal error but it returns "null" if the referencing is invalid:
pInterface2 is Interface2 <- pInterface1
IF pInterface2 = null THEN
...
END
- The simplified syntax for freeing a reference (0=null) is available on non-dynamic objects.

These new features make OOP more pleasant, and insure a better code compatibility with existing WINDEV and WEBDEV code as-sets.

Benefit provided by this version 17 new feature:
More powerful and more compatible OOP.

854 new feature W D W B W M

SUPPORT FOR TYPECASTING PROCEDURE PARAMETERS

A procedure uses parameters. In version 17, if the parameters have a type, the checking of the type is performed when calling the procedure, and the potential conversions are automatically performed.

Benefit provided by this version 17 new feature:
Better security for procedure calls, better compatibility with WINDEV and WEBDEV.

855 new feature W D W B W M

USING THIRD-PARTY WEB SERVICES

Version 17 offers integrated support for web services. The web service used is imported into the project, and the environment recognizes it after that: types declared by the web service, procedures to call,... Development is simplified.

Benefit provided by this version 17 new feature:
Easy support for web services on Android.

856 new feature W D W B W M

OPTIONAL QUERY PARAMETER

You don't need to specify the value of each of the query's parameters anymore. If a parameter is not specified, the condition containing this parameter is automatically ignored. Development is simplified.

Benefit provided by this version 17 new feature:
Programming is simplified

857 new feature W D W B W M

PLAY STORE

Applications created with WINDEV Mobile 17 can be distributed for free or can be sold on the Play Store. If you charge for your applications, you generate revenue for each sale.

During the application's generation phase, version 17 lets you limit the devices authorized to download the application. For example, if an application is specifically designed for tablets, you can forbid to have it downloaded to a phone.

Benefit provided by this version 17 new feature:
Improved access to Play Store.

858 new feature W D W B W M

77 NEW WLANGUAGE FUNCTIONS FOR ANDROID

Android gains 77 new WLanguage functions:

Abandon	Closes the current window by running the code of the CANCEL button.
CurrentYear	Returns the current year in integer format.
MapDisplayPosition	Positions the map displayed in a Map control at a given geographical position.
MapAddMarker	Adds a marker onto a map displayed in a Map control
MapChangeMode	Modifies the view mode of the map displayed in a map control (satellite, traffic, etc.)
MapChangeZoom	Modifies the value of the zoom applied to a Map control.
MapModifyMarker	Modifies a marker in a map displayed via a Map control
MapGetPosition	Retrieves the position on the map.
MapDeleteMarker	Deletes a marker from a map displayed by a Map control
StringStartsWith	Checks whether a character string starts with a specific character string.
StringEndsWith	Checks whether a character string ends with a specific character string.
ChangeSeparator	Changes the value of the separators (decimal separator or thousand separator) used in the numeric masks.
ChronoPause	Pauses a stopwatch in order to measure the time spent on a process.
ChronoResume	Restarts a stopwatch that was previously stopped.
SpeechRecognitionAddCommand	Adds a voice command into the current window.
SpeechRecognitionTrigger	Triggers the service for speech recognition on the device
SpeechRecognitionDeleteCommand	Deletes a voice command that was added by AddVoiceCommand.
DateTimeOpenSelector	Opens the system date and/or time picker.
SysDateTime	Returns or modifies the system date (date and time of the day defined for the current computer).
dbgStandardOutput	Writes a piece of information in the standard output stream "stdout" (also called "console").
IniOSEmulatorMode	Identifies whether the code is running in the iOS emulator (iPhone, iPad).
IniOSMode	Identifies whether the code being run is in iOS mode
IniOSSimulatorMode	Identifies whether the code is executed in the iOS simulator
IntToHexa	Returns the hexadecimal string of a numeric value.
ErrorBuild	Displays a custom error message in a system error window.
ExecuteProcessMainThread	Triggers the execution of the specified process by the application's main thread.
Factorial	Returns the factorial of an integer number.
fLoadBuffer	Loads the content of a text file in a buffer variable.
WinInitialized	Enables you to find out whether the code of end of initialization has been run for a window.

fSaveBuffer	Creates and fills a text file with the content of a string or buffer variable.
fSeparator	Returns a file path with standardized separators
geoGetAddress	Returns a list of addresses corresponding to a geographical position or to the description of a location.
GestureNbPointer	Returns the number of pointers in contact with the screen.
GestureCurrentPointer	Returns the subscript of the pointer (finger or stylus) that triggered the call to a "Pressed" or "Released" process in a control.
GesturePosX	Returns the horizontal position of the pointer (finger or stylus)
GesturePosY	Returns the vertical position of the pointer (finger or stylus)
HexaToInt	Returns the numeric value of an hexadecimal string.
HTTPProgressBar	Displays a progress bar when receiving the response to an HTTP request.
BitmapInfo	Retrieves the characteristics of an image file or the characteristics of a PDF file
InfoBuild	Displays a custom message in a system information window.
BrightnessAdjust	Modifies the value of the device's brightness for a given window.
LightnessRetrieve	Returns the current value of the screen's brightness for the device.
RecorderStop	Stops the recorder
RecorderStart	Starts the recorder to be able to record sound via the device's microphone.
CurrentMonth	Returns the current month.
MultimediaStop	Stops playing a multimedia file found in a multimedia control.
MultimediaBeginning	Positions at the beginning of the multimedia file played in the multimedia control.
MultimediaDuration	Returns the size of the multimedia file currently playing (in milliseconds) in the multimedia control.
MultimediaStatus	Specifies the status of the multimedia file played in the multimedia control.
MultimediaClose	Closes the multimedia file currently playing in the multimedia control
MultimediaEnd	Positions at the end of the multimedia file played in the multimedia control.
MultimediaHeight	Returns the height in pixels of the source image of the multimedia file played in the multimedia control.
MultimediaPlay	Plays a multimedia file in a multimedia control.
MultimediaWidth	Returns the width in pixels of the source image of the multimedia file played in the multimedia control.
MultimediaOpen	Opens a multimedia file in a multimedia control.
MultimediaPause	Pauses a multimedia file played in a multimedia control.
MultimediaPosition	Returns or modifies the current position of the multimedia file currently playing in the multimedia control.
MultimediaVolume	Returns or modifies the sound volume of the multimedia file played in a multimedia control.
FirstDayOfMonth	Returns the first day of the month.
SQLTransaction	Enables you to start, validate or cancel a transaction.
SpeechSynthesisReadText	Reads the specified text
SpeechSynthesisToFile	Creates a sound file from the specified text.
SysNetworkInfo	Deletes a marker from a map displayed by a Map control
SysAndroidVersion	Returns the version number for the Android OS on which the application is running.
Trace	Displays the requested information in a window open in parallel of the current window.
VideoListParameter	Lists the values supported by the camera of the device for a given parameter.
VideoParameter	Returns or modifies the value of a parameter for the device camera.
VolumeAdjust	Modifies the sound volume of the device.
VolumeConfigure	Specifies the type of sound (music, alarm, calls, etc.) to assign to the device's keys.
VolumeRetrieve	Returns the actual sound volume of the device.
XMLFindNamespaceByName	Searches for an XML namespace based on its XML node and in the parents of the node.
XMLFindNamespaceByURI	Searches for an XML namespace from its URI (Universal Resource Identifier) in a node and in the parents of this node.
XMLExtractString	Extracts the content of a tag found in an XML document.
XMLOpen	Loads an XML document from a file, a URL or a string in an xmlDocument variable.
XMLSave	Saves an XML document in a file.

WINDOWS PHONE



WINDEV Mobile 17 supports versions 7 and 7.5 ("Mango") Windows Phone.

859 new feature W D W B W M

GPS SUPPORT

The functions from the Gps family let you manage the GPS feature included in Windows Phone devices. You can for example, retrieve the position, the movements etc...

Benefit provided by this version 17 new feature:
GPS support.

860 new feature W D W B W M

SUPPORT OF THE ACCELEROMETER IN WINDOWS PHONE

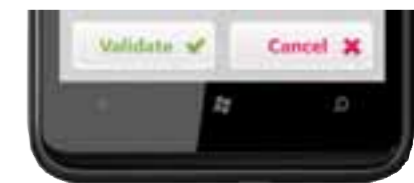
The Windows Phone applications can be controlled by the phone's movement. The sensor functions allow you to propose this type of interface.

Benefit provided by this version 17 new feature:
Accelerometer support.

861 new feature W D W B W M

GRAPHIC BUTTONS

Styles on buttons are supported in version 17: background image, symbol image,...



Benefit provided by this version 17 new feature:
More pleasant UIs.

862 new feature W D W B W M

OOP SUPPORT

OOP programming is not required at all to develop applications for Windows Phone. However, OOP is now supported on Windows Phone.

Benefit provided by this version 17 new feature:
Object architecture possible.

863 new feature W D W B W M

MANAGING THE SOCKETS

Sockets are supported on Windows Phone. Setting up communications with specific servers is easier.

Benefit provided by this version 17 new feature:
Added openness.

864 new feature W D W B W M

77 NEW FUNCTIONS FOR WINDOWS PHONE

Windows Phone gets 77 new WLanguage functions:

ArcTanz	BufferToHexa	SensorDetectChangeAcceleration	SensorDetectChangeOrientation
SensorDetectBeginningBumps	SensorDetectEndBumps	SensorGetOrientation	SensorEndLoadParameter
StringCompare	StringFormat	StringDelete	Contains
ChronoStart	ChronoEnd	ChronoValue	Contains
dModifyLightness	dModifySaturation	dModifyHue	dModifyHSL
GetColor	GetIdentifier	DotNetDelegate	EmailRunApp
IniOSEmulatorMode	IniOSMode	IniOSSimulatorMode	IsOdd
IsEven	ExecuteProcessMainThread	ExeInfo	Factorial
fCopyFile	fMoveFile	WinInput	WinInitialized
fRename	GPSStopDetection	GPSDetectPosition	GPSInfo
GPSInitParameter	HexaToBuffer	Mean	ProjectInfo
RestartProgram	NoCharacter	NoSpace	SaveParameter
EventWait	EventCreate	EventDestroy	EventChange
SocketChangeTransmissionMode	SocketConnect	SocketCreateUDP	SocketWrite
SocketExist	SocketClose	SocketRead	Sum
DeleteParameter	SysScreenOrientation	SysXRes	SysYRes
LengthToString	ThreadWait	ThreadWaitSignal	ThreadCurrent
ThreadSendSignal	ThreadState	ThreadMode	ThreadPause
ThreadPriority	ThreadResume	ThreadSuspend	Trace
VariableReset			

WINDOWS CE & MOBILE

865 new feature W D W B W M

ANSI STRING

In version 17, the new "ANSI String" type is introduced in the language.

This function is very useful because, as you know, by default coding on mobile devices is in Unicode format, and it becomes then easy to export or import data in ANSI format (see new feature # 081).

Benefit provided by this version 17 new feature:
Data exchange with other devices simplified.

866 new feature W D W B W M

15 NEW WLANGUAGE FUNCTIONS FOR WINDOWS MOBILE & WINDOWS CE

Windows Mobile gains 15 new WLanguage functions:

BufferToUnicode	Converts a buffer into a Unicode string
COMQueryInterface	Returns a COM object of a specified interface
Contains	Checks whether a substring is found inside a string
dbgCheckDifferent	Checks whether two expressions are different in test mode.
dbgCheckEqual	Checks the equality between two expressions in test mode.
dbgCheckFalse	Checks whether an expression is false in test mode.
dbgCheckNotNull	Checks whether an expression is not Null in test mode
dbgCheckNull	Checks whether an expression is Null in test mode
dbgCheckTrue	Checks whether an expression is true in test mode
IniOSEmulatorMode	Identifies whether the code is running in the iOS emulator (iPhone, iPad).
IniOSMode	Identifies whether the code being run is in iOS mode
IniOSSimulatorMode	Identifies whether the code is executed in the iOS simulator
EvaluateExpression	Evaluates the value of an expression built in a character string
ExecuteCode	Executes the code found in a character string
NetListIPAddress	Returns the list of IP addresses (Internet Protocol) for a computer.

ANY SYSTEM: ENVIRONMENT

867 new feature W D W B W M

DEVICE OPTIONS

The choice of the editing platform determines the screen size in the environment, its resolution and the shell's image for the simulator.

This device can be automatically detected (Windows Mobile and Android), or can be defined from a list of choices, which can be updated independently from WINDEV Mobile.

Thanks to the anchoring technology of WINDEV Mobile 17, your application's windows automatically adapt to bigger screen (in pixels and DPI).

Benefit provided by this version 17 new feature:
Even more devices available.

868 new feature W D W B W M

MULTI-PLATFORM WINDOWS

A window created in WINDEV Mobile 17 works with iPhone, iPad, Android, Windows Mobile, Windows CE, Windows Phone. In version 17 you can select the editing platform.

This allows you for instance to edit the window on the platform that will be used the most, or on the most constraining platform (size and anchors).

Benefit provided by this version 17 new feature:
Editing in the mode you want.

WEBDEV



117 COMMON NEW FEATURES

869 new feature W D W B W M

117 COMMON NEW FEATURES

WEBDEV 17 benefits from all the common new features of version 17. You benefit from all the new controls (see below), from the evolution of the controls, from JIT compilation on arrays, from the evolution of WLanguage, from native Unicode, from the evolution of the reports, ...

The environment is more productive, more efficient and more pleasant to use.

NEW CONTROLS

870 W D W B W M

RATING CONTROL

(See the details in new feature # 010) This control can easily accept the user's opinion in a site, store it and display it. This control allows you for instance to easily display a rating (1 to 5 stars for instance) for a product. This type of control is widely used today in Internet sites, its insertion in a WEBDEV 17 site is automatic. Its management and the storing of the rating are really easy to accomplish thanks to version 17 of WEBDEV.



Benefit provided by this version 17 new feature:
Sharing one's opinion (and reading other's) has never been easier.

871 W D W B W M

CODE CONTROL: DISPLAY QR CODE LIVE

Version 17 lets you display a bar code directly inside a page.

All the types of bar codes can be used. It can be a bar code intended to be printed (seats for a performance for instance), or it can be a QR code meant to be scanned directly from the user's

screen via a mobile phone. This allows for instance a site's address to be retrieved directly on a mobile phone.

Benefit provided by this version 17 new feature:
Improved interactivity with the user.



CONTROLS : EVOLUTIONS

872 new feature W D W B W M

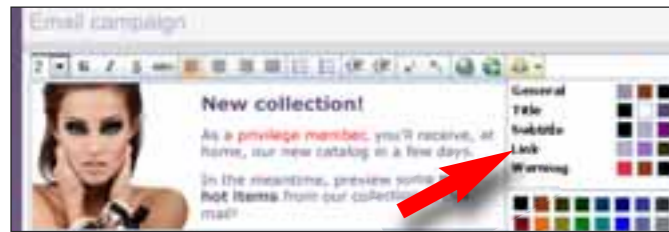
HTML EDIT CONTROL

The HTML edit control allows the user to enter rich text (with fonts, colors, bold, links, images, ...) that will be stored in HTML format.

A toolbar automatically appears in the edit control, when the cursor enters it.

This is very useful for online modification of text published on a site: CMS, blogs,...

New in version 17, colors and styles offered by default are the ones used in the sites skin. This allows you to insure the graphic coherence of the site.



Version 17 also lets you insert HTML semantic tags in the text entered, so users can define themselves title and sub-title levels. This is very useful of course for organizing text but also for improving the text referencing by search engines.

Benefit provided by this version 17 new feature:
It is even simpler for the user to enter rich text, still without any programming for the developer.

873 new feature W D W B W M

HTML STATIC

In the WEBDEV editor, the editing of HTML text evolves also; the palettes and CSS style of the site are offered by default when entering text.

A new "non-breaking word" option is being introduced, which prevents cutting words when displayed.

The HTML code generated automatically from the HTML static control is W3C compatible.

Benefit provided by this version 17 new feature:
Static controls are easier to edit and automatically adapt to the site's graphical charter.

874 new feature W D W B W M

LOOPER: DOUBLE SPEED

The behavior of the Looper control is optimized in version 17: the

first time the Ajax Looper control is filled, it is on average twice as fast.

Benefit provided by this version 17 new feature:
Initial display twice faster.

875 new feature W D W B W M

ADAPTABLE LOOPER CONTROL

The Looper control is a WEBDEV control allowing you to display in an iterative way a set of controls whose content varies according to data.

In the editor, the area taken on the page by a Looper control can be set.

In version 17, this control's behavior evolves: if the area originally planned is not completely used by the data to view, instead of displaying blank lines, the space is used to display the rest of the page. This avoid having "blank space" in your page.

Benefit provided by this version 17 new feature:
No wasted space in the page.

876 new feature W D W B W M

LOOPER CONTROL WITH COLLAPSIBLE BREAK

In version 17, the user can collapse or expand a break in a Looper control (see new feature # 129).

A process can also expand or collapse a break.

Benefit provided by this version 17 new feature:
The information can be presented in a more structured way.

877 new feature W D W B W M

LOOPER IN CODE BROWSER (WEBAPP)

The "Looper" control can now be handled from browser code. A Looper control can work in stand-alone mode, without accessing the server.

This allows you to build applications that work in offline mode, or to create "WebApps" (see new feature # 927).

Benefit provided by this version 17 new feature:
New possible program architectures.

878 new feature W D W B W M

MULTI-FILE UPLOAD CONTROL

The "Multi-file upload" control lets you automatically manage asynchronous upload (sending a file from the browser to the server) of one or more files.

During the upload, the control displays a progress bar in the browser. It works in Ajax mode, using the Flash technique.

In version 17, a new browser programming element is introduced: **After receiving the uploaded files.**

This event allows you to run a browser process when the upload's

process is done, without having to go back to the server.

Also, the "Reception of the uploaded files" server process now works in Ajax mode as well.

At the end of the upload, this allows, for instance, to update the page without any additional round trips to the server.

Benefit provided by this version 17 new feature:
Automatic page refresh, simplifies the control's use, and brings even more granularity to upload management.

879 new feature W D W B W M

IMAGE WITH AUTOMATIC ZOOM

A new effect is being introduced in version 17. When this effect is enabled, hovering over the image with the mouse cursor automatically opens an area next to the image where the section of the original image pointed by the cursor is enlarged, which shows the details of this section. The size of the zoomed popup is configurable, as well as the zoom ratio in a range from 1 to 100. This effect can be applied to image or thumbnail controls. There's nothing to program to benefit from this effect, simply click the "Automatic zoom" choice in the "7-tab" control description.



When the cursor passes over an image section, this section is automatically zoomed in and displayed

Benefit provided by this version 17 new feature:
Automatic zoom without any programming needed.

880 new feature W D W B W M

AUTOMATIC IMAGE MOVEMENT EFFECT

This effect makes your page more lively!

The "automatic movement" effect simulates the small movement of a camera over an image: without having to program anything, the displayed image comes to life and slightly moves, slowly and smoothly in its section.

3 effects are combined:

- sweep in random directions,
- light zoom,

- fade out for transitioning these effects.

This automatic movement effect is ideal to automatically highlight product pictures: real estate, luxury goods, jewelry...

This effect works on a unique image, or on a set of images.



Benefit provided by this version 17 new feature:
The site is automatically embellished.

881 new feature W D W B W M

TRANSITION EFFECTS

WEBDEV offers more than 10 transition effects for displaying different images or photos in the same control.

A new feature of version 17 is the ability to randomly link these transition effects on the same control.

This provides the ideal dynamism to view a series of images, or for an ad banner with changing content.

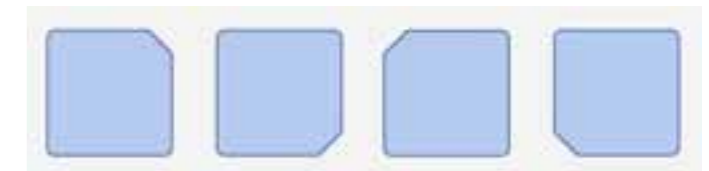
Benefit provided by this version 17 new feature:
These effects bring automatic sophistication to your pages.

882 new feature W D W B W M

ROUNDED BORDERS

All the existing rounded borders are now offered in any possible symmetrical configurations.

Each available border is made available in all the possible configurations.



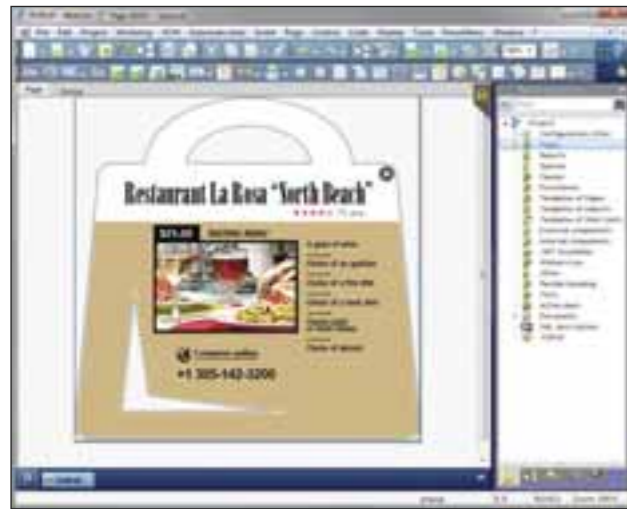
Benefit provided by this version 17 new feature:
Possibilities are multiplied.

PAGE CREATION

883 new feature WD WB WM

EASY POPUPS

The browser Popups become elements in their own right. A Popup is now created like a page. It can be rectangular or free form. A Popup is named, and it is handled freely in each hosting home. In version 17, you don't need to include cells in the host page to show a Popup. Therefore sharing the same popup among several pages is noticeably simpler! The `PopupDisplay` and `PopupClose` WLanguage functions are being introduced for opening and closing a popup on a page.



A popup window being edited in WEBDEV 17 ...



... and the same popup used in a site

Benefit provided by this version 17 new feature:
Popups are easy to create, manage and reuse.

884 new feature WD WB WM

HTML IMPORT

The import of existing HTML pages evolves noticeably in version 17. Identical styles found in an HTML page to import are identified by the import tool, and only one style is created in the resulting WEBDEV 17 page. The weight of the WEBDEV 17 page is therefore reduced, and its future editing made easier. If a style used in an already imported HTML Page is detected in a new HTML page to import, this same style will be reused in WEBDEV.



Benefit provided by this version 17 new feature:
The number of imported styles is optimized, the page's size decreases.

885 new feature WD WB WM

FULL CUSTOMIZATION OF THE PAGE BACKGROUND IMAGE

Version 17 lets you configure the page background image's display. Specifically, you can manage the type of alignment: left, centered, right, tiled image or not. This offers granular presentation capabilities.



Here the same background image is positioned: on the left, on the right

Benefit provided by this version 17 new feature:
The background image's management is fully customizable.

886 new feature WD WB WM

NEW "ZONING" EDIT MODE

For creating and modifying pages in the editor, a new editing mode, both simpler and more powerful, is being introduced in version 17: editing by zone.

Areas allow you to define the page's architecture: header, footer, insert,...

An area contains the controls located in it. If the area is moved, its controls will automatically be moved with the area.

The new editing mode drastically simplify the operations for creating and modifying pages.

Simply split the page into logical "areas".

A new "pencil" tool lets you split a page in a visual way.



Enlarging an area automatically shifts all the other areas. Editing is made much easier.

These zones are materialized and they can be easily handled in the editor.

This is a much simpler technology than the one relying on cells. For example enlarging the height of the header area automatically moves the areas below: the body area and footer area.

When printing, the relative position of the controls found in each zone is respected as well as their anchoring (new feature # 891) Editing is WYSIWYG.

A semantic HTML 5 information can be associated with each zone, which improves the relevance of the referencing with some search engines (SEO, Search Engine Optimization). This information can also be used to improve the accessibility of a site (for example, a site will know the title of the page and it will be able to enlarge it in "accessibility" mode).

For backward compatibility, the old page creation mode is still supported.

Benefit provided by this version 17 new feature:
The design of the page architecture is much more intuitive.



SKINS AND PALETTES

The Expert's opinion

“Skin and palettes allow any team to instantly create.”

887 new feature WD WB WM

NEW SKINS

Three new sophisticated skins are offered in version 17. Your choice of graphic charter increases!

Benefit provided by this version 17 new feature:
New customization possibilities for your sites.

888 new feature WD WB WM

SKIN UPDATE

If the skin used by a project was updated, i.e. modified, when the project is opened, WEBDEV 17 offers to update the project. You have the ability not to select this new version of the skin, the previous skin being directly stored in each project.



Benefit provided by this version 17 new feature:
No risk of forgetting to update.

889 new feature WD WB WM

ENRICHED PALETTES AND STYLES

A skin is a set of graphic resources (styles, images, textures, etc.) allowing you to define a site's graphic charter. Each skin uses a palette of colors that work well together. In order to help you customize your sites, a large number of palettes with different color sets are provided with each skin.

The number of colors found in a skin palette increases from 20 to 88, which considerably increases the graphic settings possibilities for your pages. The role of each color is defined with more precision and it becomes easier to identify during editing.

Skins also gain a large number of styles.

Benefit provided by this version 17 new feature:
Your sites are more refined in terms of color nuances.

890 new feature WD WB WM

PALETTE COLORS WHEN PROGRAMMING

The color of the skin palettes is now accessible via programming. This new feature allows you to write generic code, independent from the skin and palette used. The `ColorPalette` function is introduced.

Benefit provided by this version 17 new feature:
New harmonious customization capabilities by program.

EASY ANCHOR

should increase based on its content.

Benefit provided by this version 17 new feature:
Anchoring controls in the page is much easier.

891 new feature WD WB WM

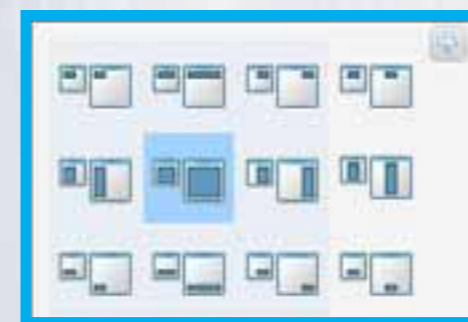
EASY ANCHORS: AT RUN TIME, IN THE BROWSER

The anchors define how the content of a page will behave when the page is enlarged by the Web user. Anchor management is simplified in WEBDEV 17. Anchoring is now defined directly on the control and not via extensible areas (no need to define extensible areas anymore).

The controls can be anchored in position and in size (height and width). Anchoring also lets you specify whether the control's size

The Expert's opinion

“The new intuitive implementation for handling pages and the areas that make them revolutionizes the way you create pages with WEBDEV. The new anchor management, also simplified, is part of this revolution.”



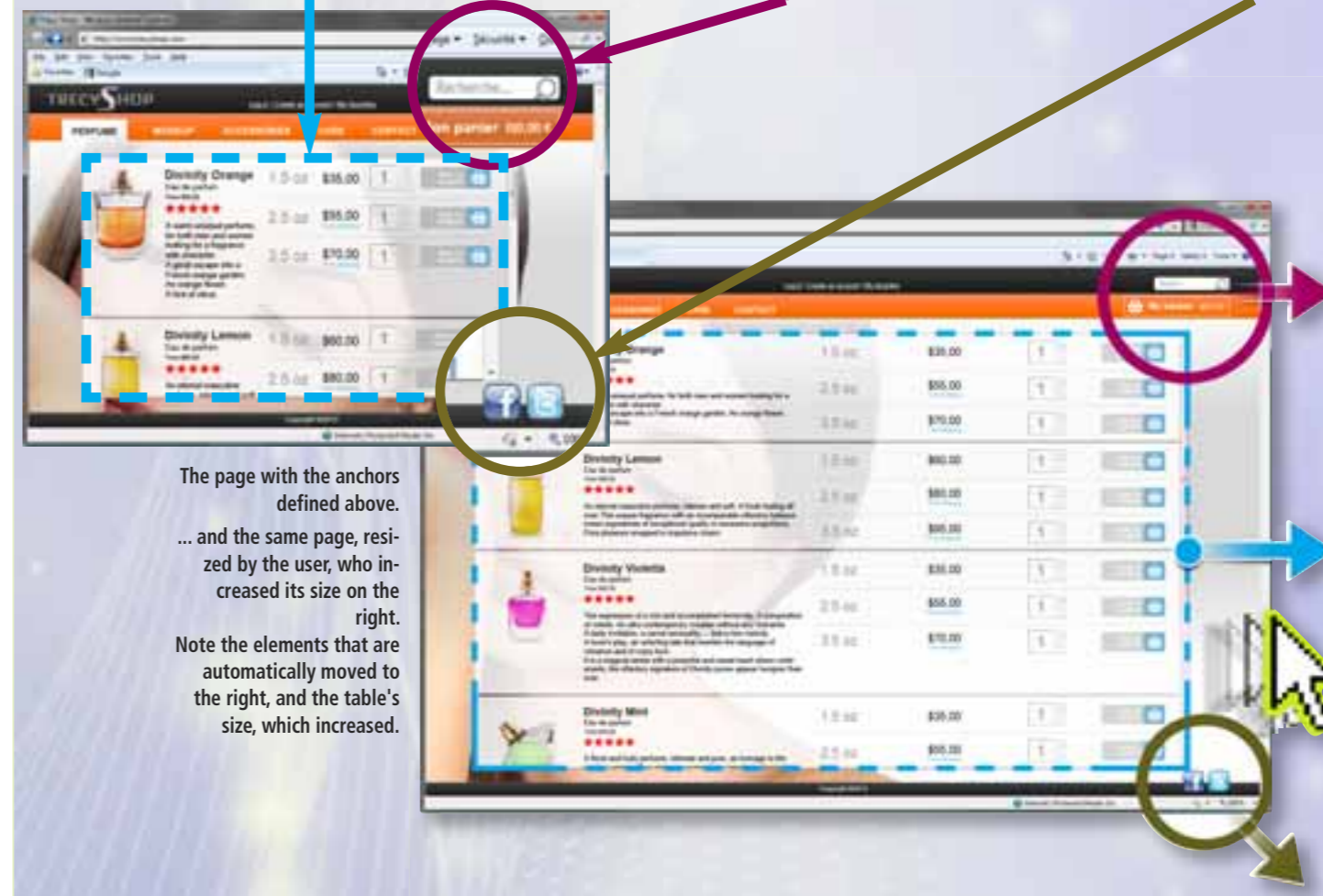
The anchoring of the table control is defined in fixed position with enlargement in width and in height



The Search control is defined with a top right anchoring, while keeping its size



The Facebook and Twitter icons are defined with a bottom right anchoring, while keeping their size



The page with the anchors defined above. ... and the same page, resized by the user, who increased its size on the right. Note the elements that are automatically moved to the right, and the table's size, which increased.

SAAS

892 new feature WD WB WM

UNLIMITED PRICE LISTS

In version 17, you can create an unlimited number of price lists directly from the interface of the WEBDEV SaaS administrator. This is useful to diversify the offers presented to your customers.

Benefit provided by this version 17 new feature:
Improved possible pricing range.

893 new feature WD WB WM

IMPROVED DISPLAY SPEED

The functions for reading the parameters specific to each client account have been improved. All the elements are read in a single access.

Benefit provided by this version 17 new feature:
The display speed for SaaS sites has improved.

894 new feature WD WB WM

NEW ADMINISTRATION FUNCTIONS

The `SaaSAdminWriteSiteParameter` and `SaaSAdminReadSiteParameter` administration API are being introduced. They allow you to act in your code on the parameters specific to each SaaS client account.

Benefit provided by this version 17 new feature:
Possible configuration automation.

AWP

AWP

895 new feature WD WB WM

LIFE SPAN OF AN AWP SESSION (TIMEOUT) BY SITE

For security reasons and to not unnecessarily overload the server, an AWP session has a limited life span on the server that you set (for example, 15 minutes). The life span of an AWP session (also called timeout) is now a parameter specific to each site and not global to the application server anymore. You can now host on the same server sites requiring different timeout values.

Benefit provided by this version 17 new feature:
The configuration of each hosted site is totally adjusted and re-

duces the server's load.

896 new feature WD WB WM

IMPROVEMENT OF REFERENCING

To display, a page may make several http requests to the server if there're images, thumbnails, a chart control etc. In version 17, the AWP mode automatically sends the page's parameters via the URL, even when the page makes several http request to the server.

The parameters found in the URL are directly accessible by search engines.

Benefit provided by this version 17 new feature:
The page's parameters automatically participate in the referencing, without any coding needed.

897 new feature WD WB WM

SECURITY: BETTER INDEPENDENCE FOR AWP CONTEXTS

The internal WEBDEV 17 architecture evolves to bring even added security to the independence of the AWP contexts found on the same domain.

Benefit provided by this version 17 new feature:
Improved protection of internal contexts.

PHP



898 new feature WD WB WM

DEPLOYING A PHP SITE IN THE AZURE CLOUD



Version 17 of WEBDEV lets you deploy a WEBDEV PHP site to the Microsoft Azure Cloud. WEBDEV 17 offers a new menu option that lets you generate a special package containing the WEBDEV PHP site. This package can then be directly uploaded into the Azure cloud from the dedicated portal.

Benefit provided by this version 17 new feature:
Deploy in just a few click your WEBDEV PHP site into the Azure Cloud.

899 new feature WD WB WM

PHP : UNICODE AND SUPPORT FOR NON-WESTERN LANGUAGES

A WEBDEV 17 project, which was set up using Unicode format storage generates Unicode PHP code (UTF-8). Developing PHP sites is now possible in all languages, including non-Western languages.

Benefit provided by this version 17 new feature:
Automatic Unicode support.

900 new feature WD WB WM

NEW CONTROLS AND PHP EVOLUTIONS IN VERSION 17

The following new controls, as well as the following new features, are available in PHP:

- Rating control
- Adaptable looper controls
- Looper control with collapsible break
- Browser adaptable looper
- Evolutions of the HTML edit control and the HTML
- Evolutions on the multi-file upload control
- Automatic zoom effect
- Automatic image movement effect
- Random transition effects.

Editing areas as well as independent popups are also available in PHP.

Benefit provided by this version 17 new feature:
PHP development is even more powerful.

901 new feature WD WB WM

PHP: NEW FUNCTIONS

8 new WLanguage functions have been added for PHP:

AddLine	Adds a row at the end of a one or two dimensional WLanguage array, of an array property, of a two dimensional variable type.
IniOSEmulatorMode	Identifies whether the code is running in the iOS emulator (iPhone, iPad).
IniOSMode	Identifies whether the code being run is in iOS mode
IniOSSimulatorMode	Identifies whether the code is executed in the iOS simulator
LooperExpand	Expands a looper break on a given row
LooperExpandAll	Expands all the breaks of a looper control
LooperCollapse	Collapses a looper break on a given row
LooperCollapseAll	Collapses all the expanded breaks of a looper control

HTML GENERATION

902 new feature WD WB WM

INTERNAL HTML STRUCTURE OF THE SITE

WEBDEV automatically generates the HTML code needed by your site. You don't have to do anything to this code, which is maintained automatically.

The HTML code generated by WEBDEV evolves in version 17. The structure of the HTML pages is modified. The positioning of the controls is insured by a nesting of the areas (div) and by positioning information specified in the CSS style sheet.

This new generation mode allows for better respect of the standards, therefore for better inter-browser compatibility. It improves the interpretation and display flexibility by browsers. This also allows the browser to adapt the page display to accessibility constraints or to specific equipment (mobile devices).

Benefit provided by this version 17 new feature:
The generated pages are better structured.

903 new feature WD WB WM

POSITIONING USING DIV BY DEFAULT

The generated code is architected using nested areas, and not using tables anymore.

Benefit provided by this version 17 new feature:
The generated code is better architected.

904 new feature WD WB WM

PAGE GENERATION: OPTIMIZATION

Thanks to the new page architecture, the time it takes to generate HTML pages from the WEBDEV editor has been improved.

Benefit provided by this version 17 new feature:
The generation speed of a site is faster.

905 new feature WD WB WM

PAGE DISPLAY: FASTER

Thanks to the new page internal architecture, the time it takes recent browsers to interpret pages is reduced. The same page from a site displays faster if the site has been recompiled with version 17.

Benefit provided by this version 17 new feature:
Your sites automatically display faster.

EASE OF GENERATION

The new internal page architecture in WEBDEV version 17 drastically simplifies the generation options in the editor. The new page generation mode insures compatible and optimized code, which allows you to do away with the parameters that needed to be specified in older versions. The window for manually selecting the older versions generation options is not needed anymore, and disappears. The pages are automatically generated with the right parameters.

Benefit provided by this version 17 new feature:
Simplification of the generation parameters.

W3C COMPATIBLE CODE

You can choose the type of HTML code generated by WEBDEV 17:

- "Transitional W3C" or
- "W3C HTML 5".

By default, WEBDEV 17 generates HTML pages following the "Transitional W3C" standard».

For Internet sites that must run on a large number of browsers, this standard currently represents the best compromise to insure a consistent look. Regardless of the browser used, the page display will be correct. By using this standard, your sites are compatible with all the browsers, in all the versions.

It is also possible to generate HTML in the "W3C HTML 5" standard. This HTML 5 standard is more powerful, but is not supported by the recent versions of the browsers: Internet Explorer from version 9, Chrome from version 3.0, Firefox from version 3, Opera from version 9.0, Safari 3.

Benefit provided by this version 17 new feature:
Respect of the W3C standard.

HTML HEADER CUSTOMIZATION

Version 17 of WEBDEV lets you customize the HTML code generated for the header and footer.

This is useful for inserting HTML code intended for statistical analysis tools (Google Analytics for instance), or to insert specific tags.

Benefit provided by this version 17 new feature:
Better customization of the HTML code generated.



HTML 5 INPUT MASK (CONTROL TYPE)

One of the benefits of the HTML 5 standard is control types, which has for consequence the direct support by the browser of input masks for controls.

By choosing this type of mask, the site leaves input management and checks up to the browser. It is not the page (the site) that performs the controls, but the browser itself. The presentation is standardized in a given browser: for example the calendar that is open on an iPhone is the iPhone's calendar!

In addition to the WEBDEV input masks which are still offered, WEBDEV 17 offers for each edit control the input masks available in HTML 5.

Note that it is possible in all cases to execute some WLanguage code when exiting a control, which allows additional controls to be performed on the data entered.

HTML 5 features are available for some recent browsers, starting from the following versions: Firefox 5, Chrome 12, Opera 11, Safari 5, Internet Explorer 10.

Benefit provided by this version 17 new feature:
Standardized input in the same browser.

HTML 5 INPUT MASKS

EMAIL

With email type controls, the browser automatically controls the syntax of the email address entered.

URL

The browser automatically controls the syntax of the email address (URL) entered. Some browsers automatically prefix the address with "http://".

DATE, HOUR, DATEHOUR

- Date, Time
DateTime Date control Date input mask in the AAAA-MM-JJ format
- Control Time
The Time input mask is in the HH:MM format
- Control Date-Time

The Date-Time input mask uses the YYYY-MM-DDTHH:MM format.

Depending on the browser, the input is done via a spin control or via a calendar and a spin control. You can fix the minimum value, the maximum value and the variation step for clicking the spin button.

MONTH, WEEK MONTH

- Control Month
The input mask uses the YYYY-MM type
- Control Week
The input mask uses the YYYY-W99 format
The browser automatically offers a spin control. You can set a minimum value, a maximum value as well as the step when clicking the spin button.

NUMBER

With a number control, the browser checks that the value entered is a number, and offers a "spin" control to make the input easier. A minimum and maximum values can be specified.

INTERVAL

Note that the HTML 5 type called "Interval" only returns one value. This control lets you enter a value found within an interval using a slider.



SEARCH

If a control is tagged as a "search field", the browser displays it in a special style, and a button representing an "x" is automatically added to easily clear its content.



PHONE NUMBER

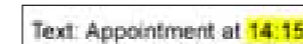
When displaying a telephone number, on some mobile phones the browser brings up a special keyboard.

COLOR

The "color picker" type edit control opens a color picker, and returns the value of the selected color in hexadecimal (for example: #999999).

HIGHLIGHTED

In HTML 5, a new style of static control (text and HTML) is introduced: the underlined type.



Benefit provided by this version 17 new feature:
The browser itself does the checking.

AUTOMATIC AUTO-COMPLETE

Recent browsers automatically offer to complete form fields inside pages. When the user starts entering information in a form (a delivery address for instance), all the controls in the page are being filled instantly and "automatically". The browser had stored the data previously entered on the computer. This feature is dangerous for confidential data, such as account number, identifiers, etc. In version 17, you can disable this feature control by control (without intervention from the user) via the new option called "Disable autocomplete". This security is also extremely important on shared computers.

Benefit provided by this version 17 new feature:
The protection of your confidential data is guaranteed.

DRAG & DROP MANAGEMENT

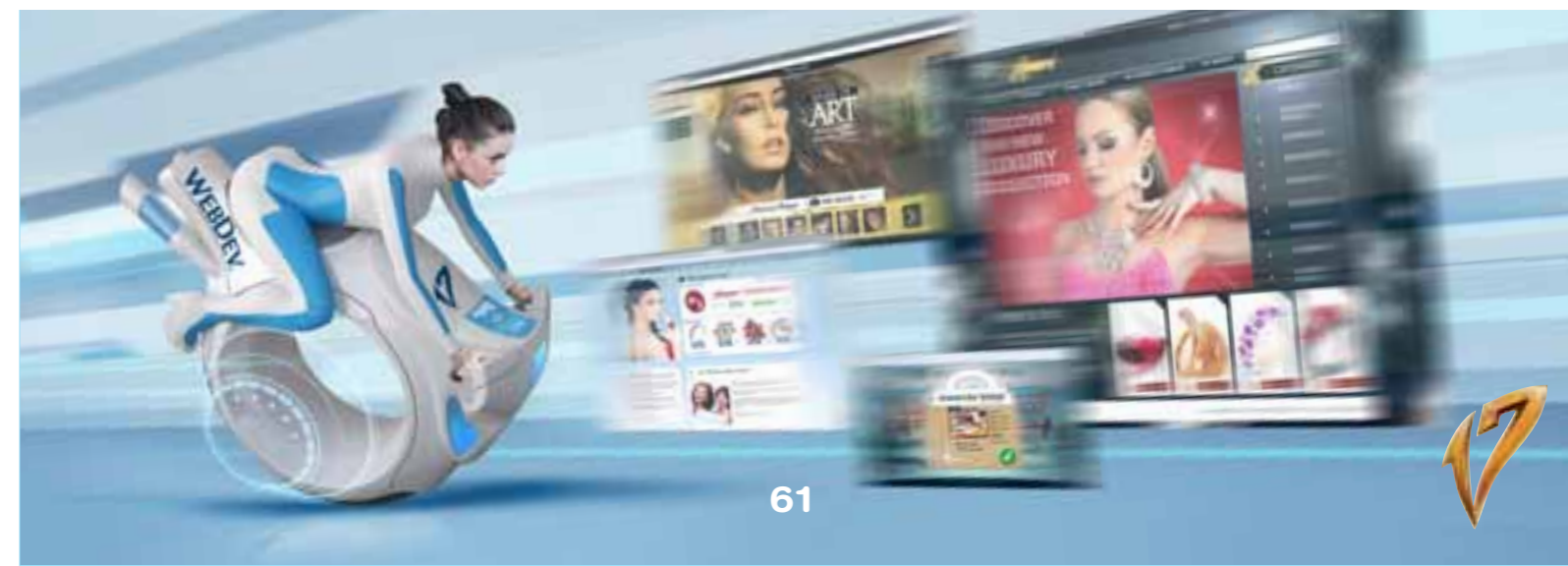
WEBDEV 17 allows for automatic management of drag and drop operations in pages of a site compiled with version 17 of WEBDEV. Drag and drop is useful:

- between the controls of the same WEBDEV page
- between the controls of a WEBDEV page and the ones from another application (site, explorer, desktop, application, etc.).

You can for instance drop a file from Windows explorer into an upload control found in a site developed with WEBDEV 17.

Drag and drop operations can be managed automatically by defining what are the authorized source and target controls, or via programming, using the `DnDEvent` function. The following types of programming elements are available: `StartDrag`, `EndDrag`, `EnterControl`, `Hover`, `Drop`, `ExitControl`.

Benefit provided by this version 17 new feature:
Site's ease of use.





LINUX 44 NEW FUNCTIONS

913 new feature W D W B W M

THE NEW FUNCTIONS AVAILABLE FOR WEBDEV ON LINUX

ArcTan2	BufferToUnicode	CharactTypeOccurrence	CharactType
StringReverse	StringDelete	Contains	ColorPalette
dbgCheckDifferent	dbgCheckEqual	dbgCheckFalse	dbgCheckNotNull
dbgCheckNull	dbgCheckTrue	dLoadImage	dCrop
dAlphaBlend	dHalo	dEncrustColor	dShadow
EmailCopy	IniOSEmulatorMode	IniOSMode	IniOSSimulatorMode
EvaluateExpression	ExecuteCode	HInfoAnalysis	HListCustomFolder
iSequencingStart	iSequencingEnd	LineToPosition	WordOccurrence
WordToArray	Mean	NetListIPAddress	PositionToLine
RestartProgram	SaaSAdminWriteSiteParameter	SaaSAdminReadSiteParameter	Sum
LooperExpand	LooperExpandAll	LooperCollapse	LooperCollapseAll

WLANGUAGE 64 NEW FUNCTIONS

914 new feature W D W B W M

WLANGUAGE: 44 NEW SERVER FUNCTIONS

44 new WLanguage functions are being introduced in "server" mode:

ArcTan2	Returns the arc tangent 2
BufferToUnicode	Converts a buffer into a Unicode string
CharactTypeOccurrence	Returns the number of occurrences of a given type of character
CharactType	Returns a character's type
StringReverse	Reverses the characters of a string
StringDelete	Deletes a substring from a string
Contains	Checks that a substring is found inside another string
ColorPalette	Checks whether two expressions are different in test mode
dbgCheckDifferent	Checks whether the specified expressions are different in assertive programming and in automatic test mode.
dbgCheckEqual	Checks the equality between two expressions in test mode.
dbgCheckFalse	Checks whether an expression is false in test mode.
dbgCheckNotNull	Checks whether an expression is not Null in test mode
dbgCheckNull	Checks whether an expression is Null in test mode
dbgCheckTrue	Checks whether an expression is true in test mode
dLoadImage	Loads an image from a memo, a file or a binary buffer
dCrop	Cuts an image and returns the cut section.
dAlphaBlend	Blends an image inside another image.
dHalo	Adds a halo effect to an image
dEncrustColor	Encrusts a color in an image
dShadow	Adds a shadow effect to an image
EmailCopy	Copies an email.

IniOSEmulatorMode	Identifies whether the code is running in the iOS emulator (iPhone, iPad).
IniOSMode	Identifies whether the code being run is in iOS mode
IniOSSimulatorMode	Identifies whether the code is executed in the iOS simulator
EvaluateExpression	Evaluates the value of an expression built in a character string
ExecuteCode	Execute the code found in a character string
HInfoAnalysis	Returns information about an analysis (WDD file).
HListCustomFolder	Lists the groups of data files defined in the analysis.
iSequencingStart	Declares the beginning of a report print sequence
iSequencingEnd	Marks the end of the declaration for a sequence of reports and starts the printing
LineToPosition	Returns the position of the first character of a known line by its number
WordOccurrence	Returns the number of words in a string
WordToArray	Fills an array with the words from a string
Mean	Calculates the mean of several elements
NetListIPAddress	Returns the list of IP addresses of a machine.
PositionToLine	Returns the line number in a string containing the character at the given position
RestartProgram	Restarts the application
SaaSAdminWriteSiteParameter	Saves a piece of information specific to the client site.
SaaSAdminReadSiteParameter	Reads a piece of information specific to the client site.
Sum	Calculates the sum of several elements.
LooperExpand	Expands a looper break on a given row.
LooperExpandAll	Expands all the breaks of a looper control
LooperCollapse	Collapses a looper break on a given row
LooperCollapseAll	Collapses all the expanded breaks of a looper control

915 new feature W D W B W M

WLANGUAGE: 20 NEW BROWSER FEATURES

20 new WLanguage functions are being introduced in "browser" mode (JavaScript):

PopupDisplay	PopupClose	LooperAdd	LooperAddLine
LooperSeek	LooperMoveLine	LooperExpand	LooperExpandAll
LooperCollapse	LooperCollapseAll	LooperBreakSubscript	LooperInsert
LooperInsertLine	LooperModify	LooperModifyLine	LooperCount
LooperPosition	LooperDelete	LooperDeleteAll	LooperSort

DEPLOYMENT

Remember that the application server in version 17 also lets you run sites built with version 11 to 16. For example to run a site built with version 15 of WEBDEV, the application server of version 17 is totally appropriate. Compatibility is ensured, which really makes hosting easier.

916 new feature W D W B W M

PHYSICAL MEDIA INSTALLATION: EASY MODIFI- CATION OF THE SITES NAME

It becomes possible to modify the name of the site when deploying via physical media. This enables you to deploy the same project several times on the same server under different site names.

Benefit provided by this version 17 new feature:
Installing the same site multiple times is made easier.

917 new feature W D W B W M

PHYSICAL MEDIA INSTALLATION: CONTROLS

Version 17 performs new verifications when performing a setup via physical media.

Specifically, the compatibility between the installed site and the version of the WEBDEV applications server found is checked.

Benefit provided by this version 17 new feature:
The compatibility control of the versions is automatic.

APPLICATION SERVER

918 new feature W D W B W M

LIGHTER RESOURCE CONSUMPTION

The memory consumption of the WEBDEV application server diminishes slightly in version 17.

The number of simultaneous sessions supported by the same hardware configuration increases automatically. Site robustness is also improved.

Benefit provided by this version 17 new feature:
Faster application server and better capacity management.

919 new feature W D W B W M

SHARED HOSTING: BETTER SITE ISOLATION

Version 17 offers better partitioning of sites hosted on a shared server, on different WEBDEV accounts. Masks are systematically insulated.

Access restrictions to the resources of the various sites hosted on the same server are more granular. Security is tighter.

Benefit provided by this version 17 new feature:
Better site partitioning for sites on the same physical server.

920 new feature W D W B W M

MORE GRANULAR ERROR MANAGEMENT

Managing the errors that can occur on the application server is split in 2 categories:

- low level errors attributable to the application server,
- high level errors attributable to the site's implementation.

High level error pages are now customizable by site, and not only at the server level.



Benefit provided by this version 17 new feature:
The site is more customized.

921 new feature W D W B W M

BETTER SECURITY

Internal architecture changes have been made in version 17. The communication method between the internal processes of the WEBDEV application server has been modified, on one hand to improve the response times, but also to better protect internal information exchanges.

Benefit provided by this version 17 new feature:
Response times are improved, information exchanged on the same server is even more secure.

922 new feature W D W B W M

HTTP REQUESTS: UNLIMITED SIZE

Post type requests are not limited in size anymore. Get type requests go up to the operating systems limit. It becomes possible to send a large quantity of data to the server in a single request.

The `DisplayFile` WLanguage function lets you send back files up to 4GB (this is the limit set by IIS). This allows you to retrieve several pieces of information from a site.

Benefit provided by this version 17 new feature:
It becomes possible to send and receive larger quantity of data via an HTTP request.



SIMPLIFICATION: REGISTRY AUTOMATICALLY CONFIGURED

During the setup, the registry is automatically configured. Registry entries specific to WEBDEV are created. Rights are modified automatically, granularly, without human intervention. The configuration becomes simpler, and is automatically secure because the rights apply only to the necessary keys.

Benefit provided by this version 17 new feature:
Rights are automatically assigned, without any risk of error.

ADMINISTRATION

SILENT SETUP

Useful for hosting companies and developers that manage their own hosting, the automatic host server configuration has a "silent" mode, i.e. without any manual intervention. The setup is fully configurable, and it becomes possible to set servers in batches (create instances of the WEBDEV application server automatically).



Benefit provided by this version 17 new feature:
No human intervention is needed to install an application server.

HOSTING

A special example site is provided with the WEBDEV 17 application server: it allows hosting companies to instantly test the right configuration of the server in version 17.

Benefit provided by this version 17 new feature:
The configuration test is simplified.

APPLICATIVE RAD: CREATE A MODERN SITE IN JUST A FEW CLICKS



As you know, the "Applicative RAD" lets you develop a fully functional site in a few clicks, in a given field: online sale site, forum, blog... All the needed elements are generated by the applicative RAD of WEBDEV 17: data analysis, pages, source code,... The generated site can then be customized and modified without limitations.

APPLICATIVE RAD: E-COMMERCE SITE ADMINISTRABLE ON-LINE



In version 17, WEBDEV offers a new Applicative RAD pattern: a e-commerce site with online back office as well.

This new Applicative RAD site includes the following in the site:

- client account
- management basket
- management order
- management online payment
- management product catalog
- management online management of back-office: the site is managed online.

It is a complete e-commerce site.



The presentation of the products is generated by default with this pleasing presentation



The electronic payment's processing is also managed automatically



The back-office of this e-commerce RAD runs totally on the Internet, which enables limitless access

Benefit provided by this version 17 new feature:
Your entire e-commerce in 1 clic!

APPLICATIVE RAD: MOBILE WEB APP (IOS, ANDROID, WINDOWS PHONE)

A Web App is a special site that looks like a native application on a given platform. The new Applicative RAD pattern called "WebApp for mobile" offers you a special site architecture that allows you to easily build a Web App for iPhone, Android and Windows Phone from the same project.

Benefit provided by this version 17 new feature:
Mobile Web App in 1 click.

CLOUD



HOSTING IN THE CLOUD

The deployment of your sites in the PC SOFT Cloud is automatic thanks to a new editor choice.



(see the details in new feature # 074 to 076). You deploy without worrying about hardware constraints and you are billed based on your applications' real usage!

Benefit provided by this version 17 new feature:
Easy cloud!

AND MANY OTHER FEATURES

...And many other features, that you'll discover when you'll receive your version 17.



**TECHNOLOGY DOESN'T WAIT:
ORDER YOUR COPY OF VERSION 17
TODAY**

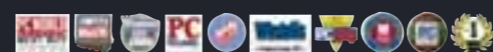


Your code is the same: Windows, Internet, Linux, Mobile, Java, .Net, PHP, J2EE, Mac, Web service, XML, Ajax, Android, iOS (iPhone), Windows Phone, Windows Mobile, Cloud,...

Order today! Version 17 has been announced. Any purchase of WINDEV 16 or WEBDEV 16 or WINDEV Mobile 16 (except updates) from 10/15/2011 entitles you to a free upgrade (product, manuals, and DVD) to the corresponding version 17 as soon as available. Any purchase of an upgrade to version 16 after 10/15/2011 entitles you to version 17 (product, manuals, and DVD) for the difference in upgrade prices (except shipping cost). New versions are being announced now so you can plan on them when developing, and so you don't spend time developing features that will be included in the product. Some functions may not be available right away when the version is shipping, but will be offered later as downloads. Also note that additional improvements and new features other than the ones described in this document may be available in the new version. WINDEV, WEBDEV and WINDEV Mobile are professional software. Despite the care taken in creating this document, it is not contractual. The screen shots and lists are given for information purposes only. Don't hesitate to contact us if you need any additional information or to get confirmation of a feature. All the trademarks mentioned in this publication are registered trademarks of their respective owners.



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