

500

new features

WINDEV® WEBDEV AND WINDEV MOBILE

New version 12

Native access to SAP

JIT Compilation

Remote debugging

Network administration
functions

PDF background

Automatic replication

Hot backup

Template inheritance

New RAD

200 New features

126 New WL functions

120 New Java functions

39 New PHP functions

48 New Linux functions

AWP debugger

PHP debugger

Deployment by page

Web 2.0 & Ajax

XIII



500 NEW FEATURES



You know that, performance is essential!

Versions 12 are coming and they are bringing an immediately noticeable performance gain. New areas of development are now easily accessible.

The constant evolution of WINDEV, WEBDEV and WINDEV Mobile enable your teams to always be on the cutting edge of technology.

You know that,

information systems evolve quickly, relentlessly. Versions 12 let you adapt automatically to this constant evolution.

Pioneer in the field of fast professional development, PC SOFT continues to innovate and with its new versions 12, brings even more power and automations both technically and functionally.

The objective is known: enable everybody to quickly architect and develop better performing applications.

You know that,

PC SOFT stands by you to help you build the best possible applications.

Useful new features, that are easy to implement and immediately at your fingertips, here's what the new versions 12 are all about.

Versions 12 work for YOU.

Cautation. This document is intended for readers that are already familiar with version 11 of WINDEV, WEBDEV and WINDEV Mobile. If you are not familiar with them, do not hesitate to request these products' full documentation.

A technology and automation oriented version 12.

Benefit from the new features by simply recompiling.

Follow your projects closer and automatically.

Don't change operating system, don't change equipment!
WINDEV 12 respects your investments.

All Windows versions are supported, during development and at run time:

- ✓ Windows 98*
- ✓ Windows NT
- ✓ Windows 2000
- ✓ Windows 2003 (32-bit, 64-bit)
- ✓ Windows XP (32-bit, 64-bit)
- ✓ Windows Vista (32-bit, 64-bit)
- ✓ Windows CE
- ✓ Windows Mobile

*: at run time



WD WB WM the legend indicates in which product the new feature is available



NEW FEATURES COMMON TO WINDEV, WEBDEV AND WINDEV MOBILE

Just In Time Compilation

**EXECUTION SPEED:
UP TO 1,500%**

New feature



WD WB WM

JITc technology: up to 1,500% gain

Version 12 introduces Just-In-Time Compilation (JITc) technology. Principle: the WINDEV 5GL code is transformed on the run-time machine into "native assembly" code when executed. The execution speed is increased for all the instructions. Speed can increase up to 15 times for assign type loops, and up to 7 times for integer or real calculations.

For instance: fractal image calculations and the display of the result were jerky in version 11, but are now smooth in version 12 (therefore usable).

Some heavy scientific processes that were hard to imagine in WINDEV 11 are now easy with version 12.

For standard business applications, the gain in speed with version 12 is about 8%.

Some simple rules allow you to maximize the benefits of the JITc technology. All it takes is a few minor changes to the code, such as converting global variables into local variables, passing parameters by value or typecasting variables (specify that a numeric variable is an integer or a real for instance).

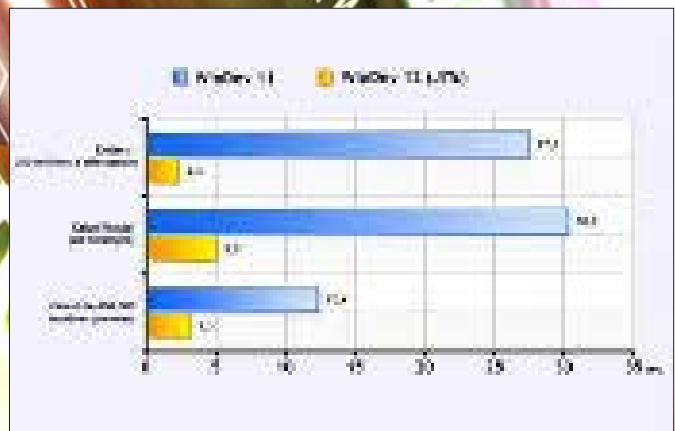
Of course, the list of rules to follow in order to obtain better results is provided.

Recompile using version 12 and observe the result!

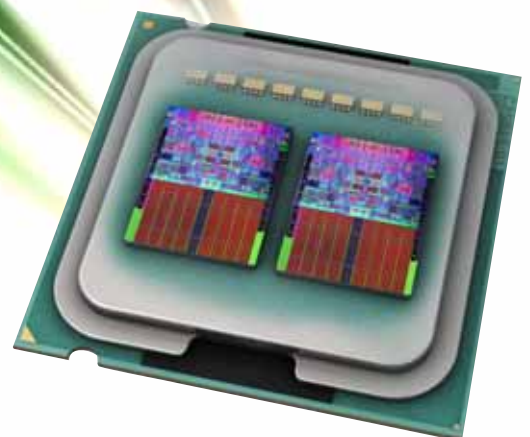
JITc is currently available on 32-bit Windows operating systems.

Benefits provided by this version 12 new feature:

Speed increased by simple recompile. New functional areas available through WLanguage.



The gain in speed is amazing in calculations.



ENVIRONMENT

New feature

0024 WD WB WM

New look for the editors

Editors become even more intuitive.

The editors' look evolve toward even more "understated efficiency": no flashy gimmick, important information stands out... With version 12 every day is a day at the beach; you constantly improve, without any efforts or constraints, your work methods and your output as well as your teams' (of course the wizards' background image can be configured; the "My WINDEV" feature is available in WinDev 12).

Benefits provided by this version 12 new feature:
Better development comfort, better productivity.



The new environment



Faster, more intuitive.

New feature

0031 WD WB WM

Stand-alone email program

The inter-developer messaging program, already available in version 11 of WINDEV, becomes stand alone.

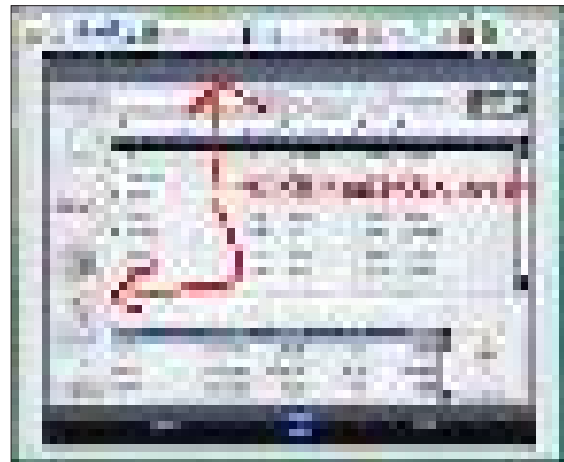
This email application is internal to your company and therefore protected from outside intruders.

It also makes it easy to mark up screen shots and mail them, as well as to send suggestions or bug reports directly to the tracking tool.

This email program nicely complements Internet mail; it is more flexible and allows for better team communication.



The email program



Marking up an image associated with a message is easy

Benefits provided by this version 12 new feature:

*Improves collaboration and communication among teams.
No interference with other email software.*

New feature

0041 WD WB WM

Catalog of context-sensitive images

The clipart catalog automatically becomes context sensitive. When creating or editing a control that may require an image (such as a button), the catalog automatically opens up and displays the corresponding page.

Simply drag the image you want.



Type "Buy" as the button's name and automatically the image catalog comes up showing relevant images

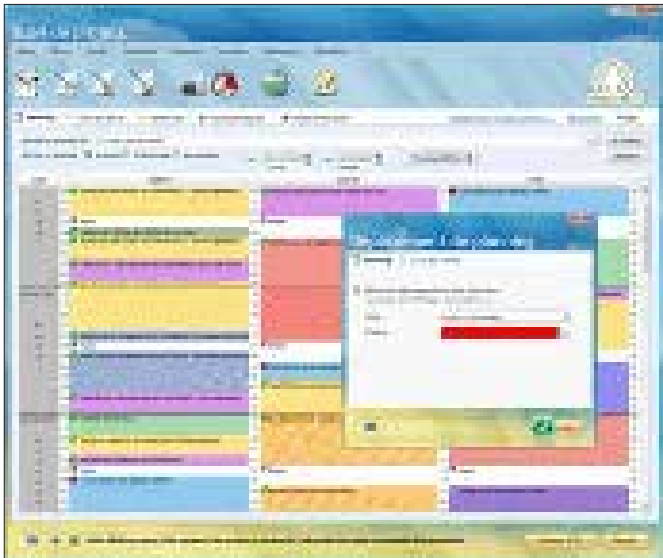
Benefits provided by this version 12 new feature:
More efficient UI tools.

New feature
[0105] WD WB WM

Project Monitoring Center

Several new features in version 12 make using this center easier:

- Highlight missed deadlines
- New, more complete statistics window
- Assign requests to contributors/teams
- Maintenance tool for the integrated centers
- On demand statistics



Here: missed deadline spotted!

Benefits provided by this version 12 new feature:
Better project management, both at the technical and staff level.

New feature
[0106] WD WB WM

Voice commands



The development environments now respond to voice commands. It can be a menu choice that you say, or a macro command that you've defined.

For instance, "Open Customer window" or "Transform this application into a Web site".

Note that this feature is also available for the applications you develop (see new feature #254).

Requires Windows Vista or a voice recognition software.

Benefits provided by this version 12 new feature:
"Hands free"!

New feature
[0107] WD WB WM

Data model editor

The data model editor lets you work with groups of files in your code. For instance, you can perform a "hChangeConnection" command on 50 data files in one line.

Benefits provided by this version 12 new feature:
A set of files can be handled all together.

New feature
[0108] WD WB WM

Useful detail

Each icon now shows its keyboard shortcut.



Here the shortcut is [Ctrl] [O]

Benefits provided by this version 12 new feature:
Faster feature access for keyboard junkies.

DASHBOARD

New feature

[0]09] WD WB WM

“Project Manager” dashboard

The Project Manager mode of the dashboard is changing. Graphic information about the state and the quality of the project is now offered (see new features # 29 and 31). Statistics are also calculated for each developer, which make spotting potential delays and taking the right decision easier. Project management is easier with version 12.

Benefits provided by this version 12 new feature:
*Global view of the project and its completion state.
Finer decision making assistance.*



Requirement progress status, assigned tasks and status for each developer

New feature

[0]00] WD WB WM

Code statistics in the dashboard

Detailed information about the source code is available in the dashboard: total number of lines of code and lines per developer, number of lines per functions, comment percentages...

New feature

[0]01] WD WB WM

PDF as page background

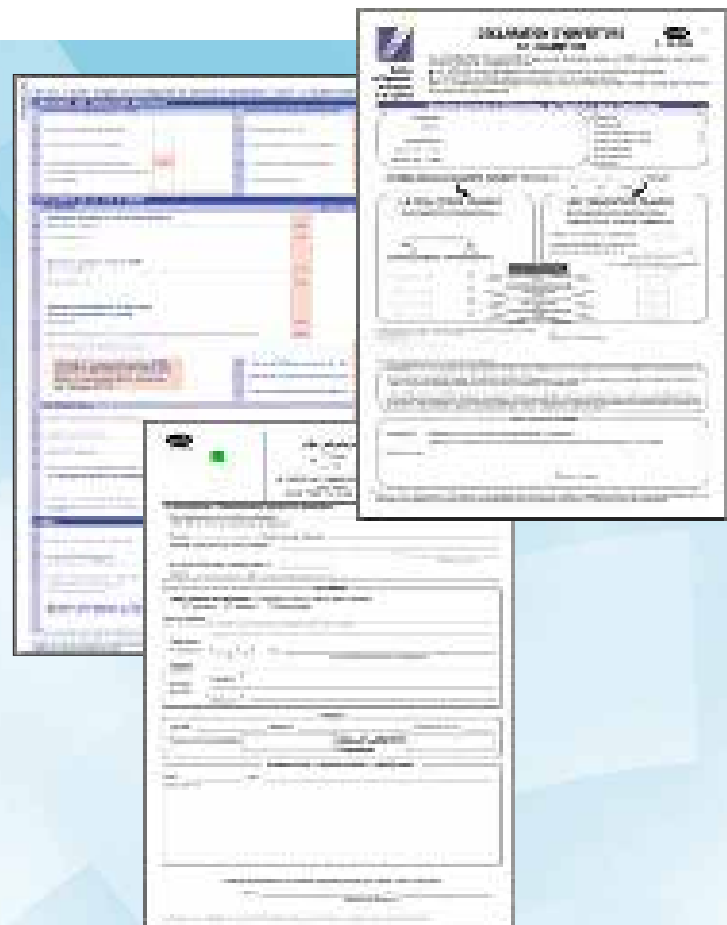
As you know, the “Reports and Queries” report generator (provided with the product and freely distributable with your applications) lets you create reports in PDF format.

Version 12 also lets you use a PDF document as the background for a report: great for building forms.

Download a form from the relevant web site, use it as the background for your report, and you can easily automate the printing of a large number of business and tax documents without having to handle an inventory of all the possible blank forms.

You can, of course, control where the form is inserted and specify a zoom ratio. If the report contains several pages, a different background can be used for each page.

Benefits provided by this version 12 new feature:
Easy form creation, especially for administrative forms. Reduces the number of forms to stock. Imagine applications that automatically print all the forms needed by your users on standard white paper!



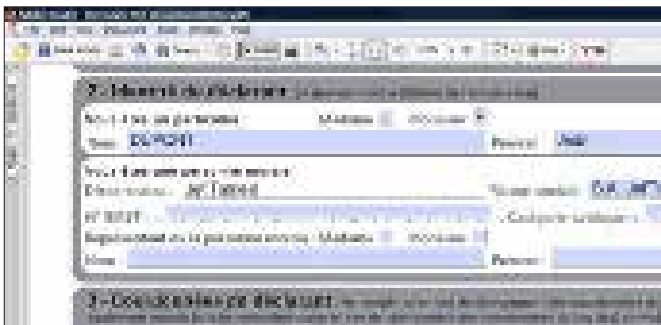
Benefits provided by this version 12 new feature:
Global QA view of the code.

REPORT GENERATOR

New feature
[012] WD WB WM

Reports with edit controls: regular reports, PDF,

In version 12 "Reports and Queries" lets you create reports that include data entry controls. These reports can be generated in PDF format. This way you can provide reports, in PDF format if needed, that accept direct user input in special fields such as administrative forms (tax returns, miscellaneous tax forms, quotes, etc.) The data can just be printed or stored in a database. The report looks like a data entry form with its usual layout.



Section of a report where the user can enter data directly.

Benefits provided by this version 12 new feature:
*Easy to create data entry forms.
PDF format data entry forms.
Intuitive for the end user.*

New feature
[013] WD WB WM

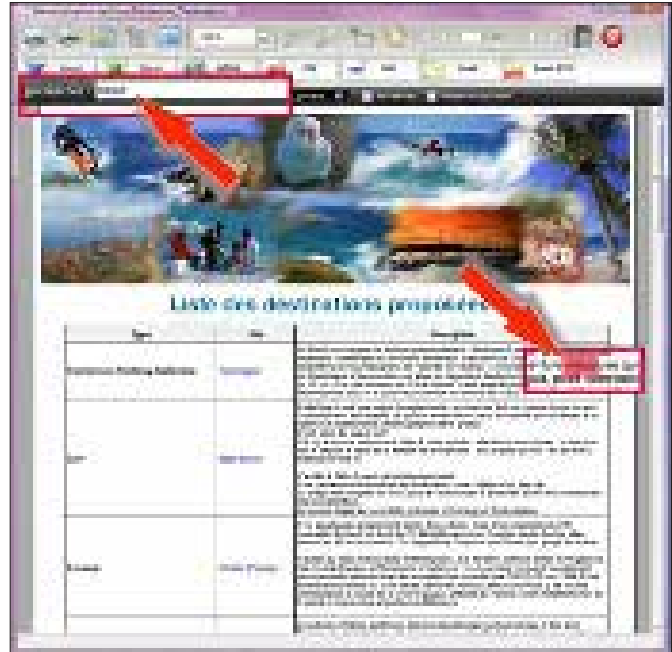
Image control: PDF image

You can now display a PDF document in an "image" control of a report. This is also available for image controls that belong to a window (see new feature # 99)
Benefits provided by this version 12 new feature:
*Use PDF document as illustration or image.
Custom view of the PDF document..*

New feature
[014] WD WB WM

Search in preview mode

When previewing a report a search feature is available in version 12. No coding is needed to benefit from this feature (AAF). This feature is also available when printing through manual coding (printing done through WLanguage, without using Reports and Queries – See new feature # 248).



Search menu, automatically available

Benefits provided by this version 12 new feature:
Search available in coded reports and printouts.

FULL COMPATIBILITY WITH PREVIOUS VERSIONS

WINDEV 12 preserves your existing code.

No migration step is required between WinDev 7.5, 8, 9, 10 or 11 and WinDev 12: simply recompile the application and it will work in version 12.

It is the same for switching from WebDev 7, 9, 10 or 11 to WebDev 12, as well as for WinDev Mobile. Just recompile.

The existing components (version 8, 9, 10 or 11) work directly (without needing to be recompiled) with applications built using version 12.

Version 12 can directly open a version 7.5, 8, 9, 10 or 11 project. Older projects (5.5, 4.1, etc.) need to be migrated.

And of course, several different versions of your environment can coexist on your PC; a version 12 license also runs older versions (11, 10, 9, 8, 7.5, 5.5, etc.).

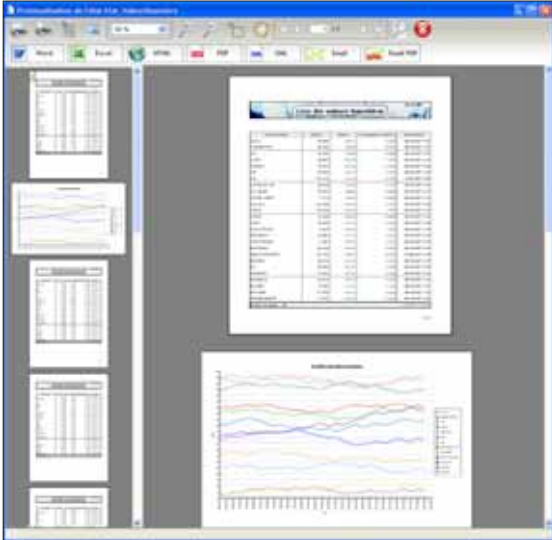
Version 12 is of course compatible with Windows Vista.

Multi-orientation reports

A user's favorite is the ability to change the paper's orientation (landscape, portrait) when printing.

Now with version 12 it is possible.

This feature is supported when printing, previewing and in PDF and RTF formats.



A report with pages in landscape format and pages in portrait format

Benefits provided by this version 12 new feature:

Better report customization.

Translation of item names

You're distributing "Reports and Queries" in many countries (it is available in French and English). The languages used are different: Spanish, Romanian, Chinese, Swedish, etc.

If end users want to create reports or queries, they need to use the file names and item names defined in the data model and these names are usually in English!

This is not very convenient for a Romanian or Chinese user! Thanks to a new feature in version 12, now you can specify translations for file names and item names, like you can for the interface controls.

Benefits provided by this version 12 new feature:

Easier deployment of Reports and Queries internationally.

Print in PCL mode on PC

Now printing in PCL mode is available from Windows.

The PCL standard enables you to use a network printer without having to install its driver.

The PCL standard also enables you to generate a print file compatible with a computer's printer from any other machine.

The print format is similar to printing from a mobile device.

Benefits provided by this version 12 new feature:

Printing similar to mobile. Easier in some cases.

SCM (SOURCE CODE MANAGER)

Rights management in SCM: increased security

The management of access rights for the elements stored in SCM is more granular. A "SCM groupware" is available in version 12. Access to each element (window, code, etc.) can be restricted based on the developer's rights (connection account) or on the group's rights.

A developer has access only to the elements that have been authorized by the project manager.

The following rights can be set:

- read only,
- write/check out,
- reversible deletion,
- permanent deletion,
- rename.

An account is defined by an account name and an account password.

The account name can be an email address.

Benefits provided by this version 12 new feature:

Better database security.

Better intellectual property protection of the chosen elements.

Modification impossible on protected elements.

Enables the sharing of a project with external developers; great for "open source" type project management via Internet ("forge" for instance)...

Automatic element checkout at the first modification

When working with an element that is not checked out yet, as soon as the element is modified (moved, changed settings, etc.) the editor offers to check it out.

This was already available for code modifications, but is now available for all the other elements. The ease of use increases noticeably.

Benefits provided by this version 12 new feature:

Saves time during development.

Sharing element directly from the search environment

Importing and sharing SCM elements can now be done directly from the environment: window, class, query, and so on. When you create a new project, you can directly add elements that are shared with another project.

Benefits provided by this version 12 new feature:

*Save time during development.
Find an element.*

Share "Project code"

The project's initialization code can be shared like the other elements of the application.

The "Master/Subscriber" mode is not required anymore.

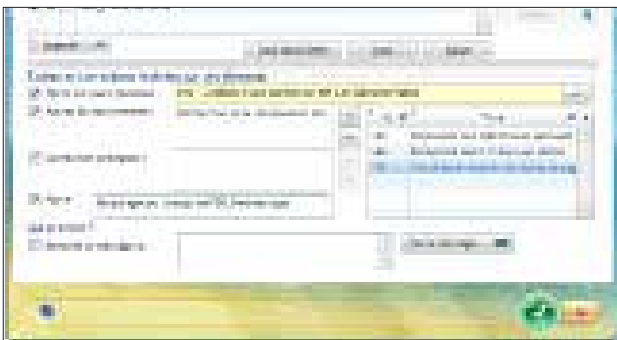
Benefits provided by this version 12 new feature:

More flexible project use, possible sharing of project code.

Interaction with the "Project Monitoring Center" and "Quality and Version Monitoring" Control Centers: task management

When checking in an element into SCM, by default SCM offers to associate the text and identifier of the current task, and/or of a bug correction with the modifications.

This way the development history is automatically updated, without any constraints or risk of oversight and it doesn't require any action.



Check-in with update of the tasks performed.

Benefits provided by this version 12 new feature:

*Makes it easy to find out "who" coded a correction or new feature and "what" was done.
Semi-automatic documenting of the actions performed.*

Check-in policy: improved quality

The project manager can define an element check-in policy. For example, a module that does not compile cleanly cannot be checked in.

Here are some of the possible criteria:

- the module must compile
- at least one "GO" test must have been performed
- "n" automated tests, validated or not, must have been run
- minimum level of comments...

These rules may be mandatory or just suggested.

By default a developer can check in an element that does not meet the defined criteria, but will have to document this action in SCM.



Configuring the check-in policy.

Benefits provided by this version 12 new feature:

*Automatically increases the project overall quality
Reduces the work of the Quality Assurance team.
Establishes good habits!*

Assisted branch copy

To copy bug fixes and suggestions from one branch to another (from the patch branch to the main branch for instance) you don't have to manually select all the elements involved. With version 12 you only need to select the bugs and change requests to copy from a wizard.

SCM will automatically figure out what elements to import and will offer them for validation.

(illustration next page)



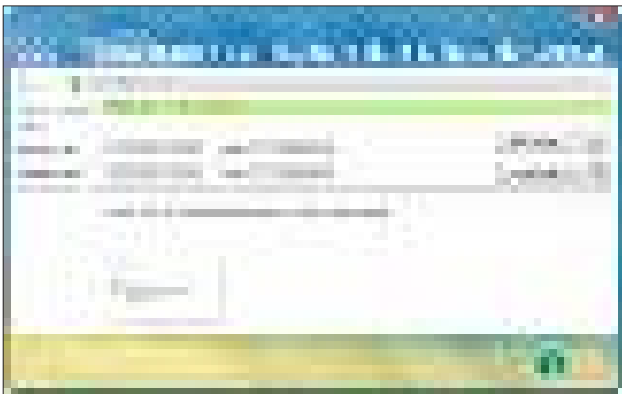
Assisted branch copy.

Benefits provided by this version 12 new feature:
Copying branch is made easier.

New feature
[0245] WD WB WM

Hiding “system files” found in the data model

By default SCM displays all the files of an application. A data model can contain a lot of “internal” definition files that make it hard to read a file list. In version 12, these internal files can be hidden by SCM. This provides a cleaner view.



Checking in an element: concise UI.

Benefits provided by this version 12 new feature:
Better readability of the elements, only view important elements.

New feature
[0246] WD WB WM

Miscellaneous improvements

- Get an older version without closing the element.
- Support for physical computer changes (the developer changes development machine).
- Each element viewed shows the version number of the WINDEV product used to save it.
- Ability to share the same database between version 11 and version 12.
- Speed optimization.

REQUIREMENT MANAGEMENT

New feature
[0247] WD WB WM

General points

“Requirements” is a very common word in project management! It is simply one of the formal steps of the development cycle. What features need to be developed? What are the business processes to implement? Who set those processes? Who requested this modification? Who implemented this fix? WINDEV, since its first version, has been managing project requirements: automatic documentation, business rules, data model diagram, UML diagram, reverse engineering, etc. Version 12 improves on the tracking and the definition of requirements.

Benefits provided by this version 12 new feature:
The steps that come before the coding phase take an added and justified importance without any additional constraints since everything is fully integrated.

New feature
[0248] WD WB WM

Managing rights when entering business rules

Entering and modifying business rules require proper authorization. Each business rule must be validated by the project manager or a designated manager. The modification history is kept in the business rule database (can be traced fully).

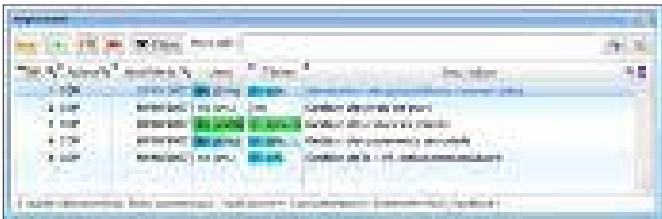
Benefits provided by this version 12 new feature:
Better business rules validation.

Link between tasks and business rules

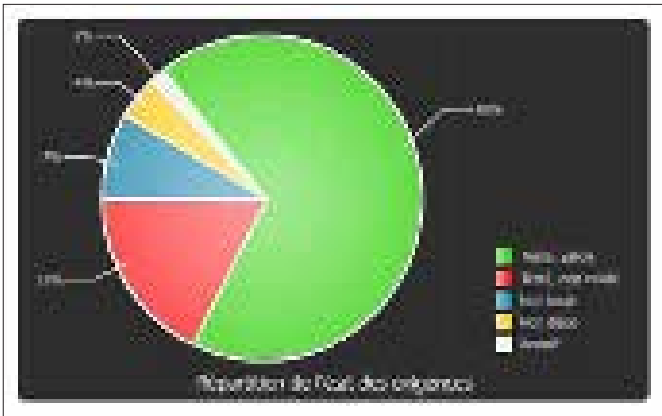
Once the requirements (business rules) have been set, it is easy to define and enter all the tasks the various project members need to accomplish for implementing these requirements. Note that the Project Monitoring Center provides access to the requirements (business rules) linked to tasks.

Benefits provided by this version 12 new feature:

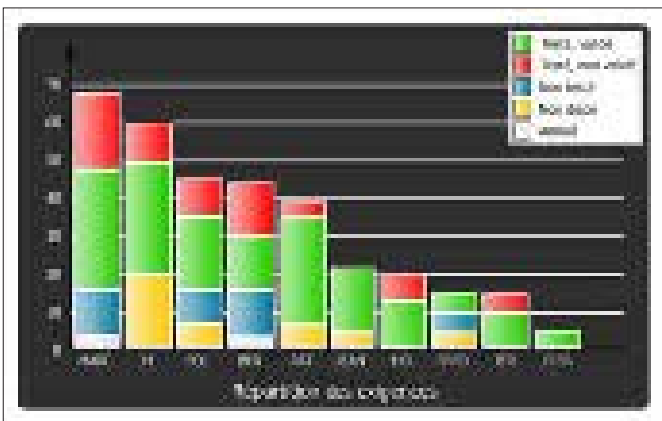
High-level view of the requirements and of the project for the whole project and for each developer.



For each requirement, list of project elements involved



Project progress status.



Progress status per developer.

Each state is represented by a different color.

Green = tested and validated; Red = tested and not validated; Blue = not tested; Yellow = not available; White = canceled

Benefits provided by this version 12 new feature:

Project management made easier for the Project Manager.

A "strict" method (optional) for better follow up

Version 12 lets you link as many elements (windows, reports, classes, diagrams, documentation, etc.) as you want to a task (see new feature #22).

A strict mode (optional) is introduced. In this strict mode, a developer cannot modify an element (code, class, window, etc.) without specifying the tasks affected by these modifications. The task is also linked to a requirement (business rule). This mode lets you gently enforce strict development practices.

Benefits provided by this version 12 new feature:

Strict task management, directly in the environment.

Requirement impact analysis

When a requirement is modified, the impact analysis lets you evaluate all the elements that are affected.



Tree view of the requirements and their links to the project elements, with progress status

Benefits provided by this version 12 new feature:

Better support of the life cycle management: CMMI (Capability Maturity Model Integration), UP (Unified Process), MDA (Model Driven Architecture) ...

Document import

Often, in real life, business rules are written in a word processor, on a piece of paper or even on a restaurant napkin!

These documents, regardless of their form, can automatically be included in your business rule database.

Benefits provided by this version 12 new feature:

Better import of your requirements and business rules



PROGRAM ARCHITECTURE

The notion of components in WINDEV lets teams easily create their own development framework, suited for their own constraints and requirements.

New feature

[033] WD WB WM

“Internal” components: included in each project

A new type of component is introduced: component “internal” to the project. The code and the elements of an internal component are provided when it is distributed.

The code and the elements may be modifiable or not, depending on the rights assigned in SCM.

There are now three component modes:

- hidden elements (standard component)
- visible but not modifiable elements (internal component)
- visible and modifiable elements (internal component).

The advantage of an internal component is that it can be traced (for debugging) by any developer who uses it.

With the proper authorization its code, UI, and so on, can even be modified.

Benefits provided by this version 12 new feature:

Better debugging. More flexibility.

New feature

[034] WD WB WM

Template-based template: code and UI inheritance

Page, window and control templates are a very powerful concept that allows inheritance and overloading for both the UI and the code.

Version 12 introduces a great improvement by allowing the creation of templates based on other templates.

You can now easily create several levels of inheritance.

Benefits provided by this version 12 new feature:

The ability to reuse UI elements and code has greatly improved.

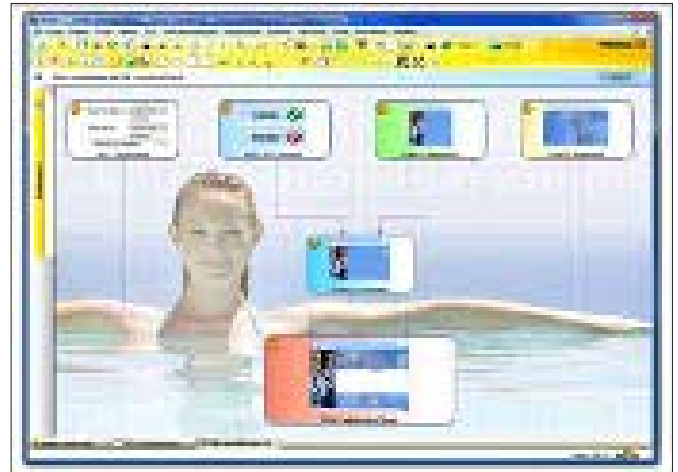
New feature

[035] WD WB WM

Reverse-engineered inheritances

When selecting a template (or even a window, page or control), WINDEV builds the inheritance diagram of all the parent or child templates of the selected element.

It makes it easy to view and analyze the reusability structure.



Reverse-engineered template.

Benefits provided by this version 12 new feature:

Graphical summary representation of inheritances and derivations. Invest in your code.

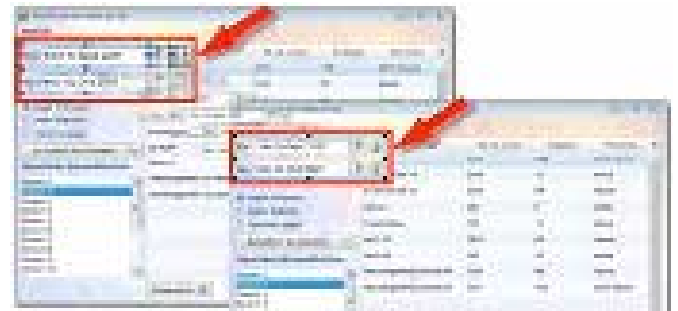
New feature

[036] WD WB WM

Refactoring of template controls

To reuse a group of controls, and therefore automatically transform it into a template (and include this template instead of the original group of controls) a refactoring function has been introduced in the window and page editors.

This way you can set up inheritance through a simple click.



Instead of working with several controls, use a template.

Benefits provided by this version 12 new feature:

Eliminate a large number of operations! No need to create a new template, copy/paste controls, delete them, insert the template, etc.

New feature

[037] WD WB WM

Component class derivation

A component may include classes in its interface.

You can derive these classes in the host project, overload the virtual methods and implement polymorphism.

Inheritance among several levels of components is available now.

Benefits provided by this version 12 new feature:

Polymorphism among components.