

WINDEV®

New
Version

18

INTEGRATED DEVELOPMENT PLATFORM

Windows, .Net, Linux, Java
Windows 8 RT, 7, Vista, XP,
2012, 2008, 2003, 2000

All databases

MULTI-PLATFORM CODE:
Windows, .Net, Linux, Java,
PHP, J2EE, XML, Internet,
Ajax, Tablet, Smartphone,
Android, Windows Phone, iOS
(iPhone, iPad) ...

Free deployment



www.windev.com

DEVELOP 10 TIMES FASTER

WELCOME TO A WORLD OF PERFORMANCE

A COMPLETE INTEGRATED DEVELOPMENT ENVIRONMENT

THE MOST COMPLETE DEVELOPMENT ENVIRONMENT IN THE WORLD.

You are asked to develop Windows, Linux, Java, MAC, .NET, Internet, tablet, Smartphone, Android, iOS applications that are robust, secure, open and high-performance, and you have to do it under always tighter deadlines and budgets.

Taste high performance, increase your team's productivity by using the new version 18 of WINDEV. Regardless of your existing code, you will develop up to **10 times faster**. This is probably why

WINDEV was voted "most productive language" by the readers of "Programmez" (Program) magazine.

All the tools and modules described in this brochure are supplied with the product. Everything is totally integrated. The editors share a common interface, the learning curve is very low - usually one week is all it takes: listen to your logical side, it's cost effective. Of course, you can decide to only use some of the modules that are provided.

Your teams use **agile methods**.

With WINDEV 18, your development teams will build applications that exactly match the requirements of your most demanding users, in **time frames and budgets** you wouldn't have dreamed about.

Join **140,000** professional developers worldwide and pick the #1, choose WINDEV today!

You're already familiar with version 17? There's a (76 page) illustrated technical document dedicated to the 918 New Features in version 18. Printed version available by simple request; PDF version available on www.windev.com.

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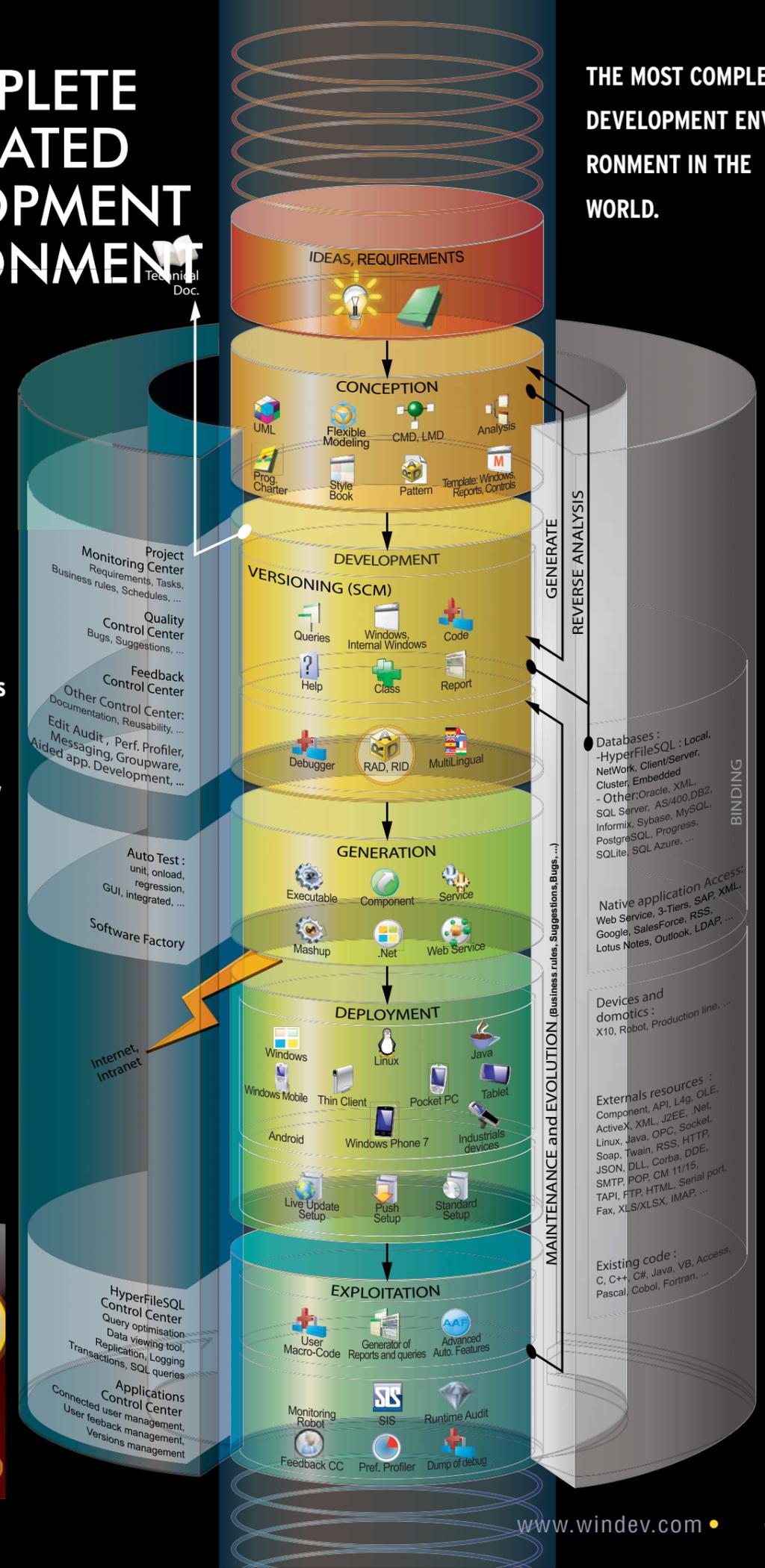
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WINDEV 18: EVERYTHING IS INTEGRATED

- only 1 environment to master: your teams are immediately productive
- a single tool to acquire, it reduces cost
- A single point of technical support, free
- You're a winner

WINDEV #1 FOR MANAGING APPLICATION



WINDEV 18 IS UNIQUE



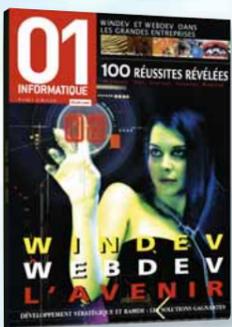
YOUR QUESTIONS ABOUT WINDEV 18

1	Who is WINDEV for?	It is for any developer who wants to create Windows, .NET, Linux, Mac, Internet, Intranet, and Java applications.
2	What type of applications can I develop?	Any type! Payroll, industrial, medical, inventory, EDI, CAE, ERP, CRM, EAI, back and front Office, .NET, Web services, catalogs etc. There is no limit. (See the special issue of "01 Informatique").
3	What do I need to know?	You need to have programmed at least once in your life (in school for instance) The ease of development offered by WINDEV has become legendary.
4	How much time will it take me to come up to speed on WINDEV?	In most cases, one week is enough for self-training. A tutorial guide is supplied with the product.
5	How much time will I save by developing with WINDEV?	Our customers have stated gains of a factor 3 to 10 depending on their previous tool. Maintenance is also much easier and faster. You'll take 1 month to build what used to take you a year...
6	Are all the modules supplied with the product?	Yes, everything is included, from conception to maintenance, and including testing, all using a similar interface.
7	I've heard about a reporting tool that can be freely distributed?	Yes. WINDEV 18 let end users create their own reports and queries. The "Reports and Queries" reporting tool can be deployed freely with your application.
8	I already have an application Will I be able to use it with WinDev?	Yes, most certainly, WINDEV supports all the computer standards (languages, databases, protocols, etc.).
9	I am currently using a 4GL for development. Would these skills be useful?	Yes, and you will appreciate even more the power and ease-of-use of WINDEV and its 5GL.
10	Can I build Client/Server applications with WINDEV?	Yes, of course, using any of the industry databases. HyperFileSQL Client/Server (Linux and Windows) is supplied with the product and it can be freely distributed with your applications (unlimited version).
11	Can I develop n-tier, SOA, SaaS, or Cloud applications with WINDEV?	Yes, of course.
12	Can I use Web services with WINDEV?	Yes, of course, create them, use them and host them.
13	Can I freely distribute the integrated database?	Yes. Regardless of the number of seats, and regardless of the number of servers. For Windows, for Linux and for Mac
14	How powerful is the WINDEV language?	WLanguage is a 5th generation language (5GL), which is simple yet very powerful. The number of code lines you have to write (or generate) is reduced by up to 90% compared to a 4GL.
15	What size development team does WINDEV support?	From one to 100 developers on the same project, on one or several sites. A versioning tool (SCM) is supplied with the product.
16	My application contains 1,500 windows and tables with several million records...	This is common with WINDEV ; see the special testimonial issue of "01 Informatique" to read about real life implementations.
17	How can you offer such a product at such a low price?	Our high volume sales enables us to keep the price low.
18	I've heard that technical support is free. Is this true?	Yes, it's free (15 free custom inquiries). It can be accessed by email and by phone. Custom assistance and consulting are also available.
19	Who uses WINDEV?	All kinds of professional entities: consulting companies, IS department, lab engineers, government offices, city halls, administrations, individual consultants, etc...
20	WINDEV is therefore the "must" have" for professional developers?	Yes, absolutely. More than 140,000 professional developers have already chosen it.

We are going to answer the most frequently asked questions about WINDEV.

97%
97.6% of users are satisfied with their product. Don't wait any longer!

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



WINDEV 18 is unique.

It is the only really integrated development environment.

A single environment addresses **all the development phases**, from proposal to maintenance (Application Lifecycle Management, **ALM**).

The interface is the same for all the modules: training is much **faster**. A developer is operational in just one week.

The Free Technical Support covers all the modules.

There is no environment that can compare to WINDEV.

The speed at which you will develop applications with WINDEV is **legendary**.

So is its ease-of-use. And its power always surprises...

It's the reason for its success, and for your success.



Benefits

- A software developed with WINDEV 18 always offers a **set of advanced features** without any programming or any action from the developer, via our exclusive AAF technology (see page 24).
- Users automatically get a **reporting tool** (Reports and Queries, see p 30 and 31).
- **Industrialization** of the software creation process (Continuous integration): with WINDEV it's automatic.
- Therefore, the **quality of the applications** built is less dependent upon the experience of the development team.
- Your teams are operational in **one week**.
- Your teams don't spend their time "reinventing the wheel": **you deliver faster**.

CREATE WINDOWS EXE

Develop 10 times faster with WINDEV 18.

Create **32 & 64 bit WINDOWS EXEs**.

WINDEV 18 allows you to create sophisticated and robust Windows applications, that automatically come with rich, secure and user-friendly interfaces.

WINDOWS 8, 7, VISTA, XP, 2008, 2000...



Regardless of the Windows version, create beautiful applications, in any field. You'll never be limited. WINDEV is open to all standards, all databases, all languages.

CREATE LINUX APPS

WINDEV 18 lets you create native Linux applications.

The Linux UI is directly created in the editor.

With WINDEV 18, without knowing Linux, you create sophisticated and robust Linux applications.

CREATE NATIVE APPS ON LINUX



More than 1400 WLanguage functions are available. All the environment features are available:

- Dynamic audit
- API functions (used to call .so libraries)
- File links and data binding
- Multilingual
- Debugging
- Debugging dump
- ...

Reports are generated in PDF format.

CREATE JAVA ARCHIVES

Generating Java code may be useful: answer a request for proposal, build an application that needs to run on Mac, or create Applets...

With WINDEV 18, you become a Java specialist, even if you're not familiar with the language.

Simply ask WINDEV 18 to generate the Java code for your project.

BECOME A JAVA SPECIALIST IN ONE CLICK !



With WINDEV 18, Java programs automatically have nice user interfaces: Just use the provided skin templates. WINDEV creates a Java archive (.JAR) directly executable on any platform. Programming is done via the 5GL language of WINDEV (but you can also enter some Java code if you prefer). Over 1,000 WLanguage functions are already supported in Java.

YOUR APPLICATIONS ARE MULTI-PLATFORMS



WINDOWS application with WINDEV

JAVA application with WINDEV

LINUX application on WINDEV Ubuntu

Site with LINUX server on WEBDEV

PHP site with WEBDEV

.NET application with WINDEV

Site on Mobile with WEBDEV

Application on Smartphone and Tablet with WINDEV Mobile

CAPITALIZE ON YOUR EXISTING CODE

THE SAME SOURCE APPLICATION RUNNING ON MULTIPLE PLATFORMS

The multi-target development, i.e. cross-platform, (Windows .Net, Linux, Mac, Internet, Intranet, Tablet, Smartphone, device, Windows or Linux server ...) is now a lot easier thanks to the compatibility between version 18 of WINDEV, WINDEV Mobile and WEBDEV.

WINDEV creates applications intended to run on Windows, Linux and Mac, WEBDEV recompiles them to run on the Internet and WINDEV Mobile to run on a tablet or a smartphone ...

You use the same project, the same code, the same objects and the same elements...

Single source code regardless of the target



MANAGER

Simply recompiling an application when changing target gives you a competitive advantage. It guarantees your future and your ability to respond to changes.

NEW

Support for Windows 8 and RT

AAF TECHNOLOGY

A lot of automatic features are available

MAIN POINTS

Portable code and objects (including for Web browser and Mobile code)

Android
iOS (iPhone, iPad)
Windows Phone 8
Windows Mobile, CE

The number of available functions increases continually. You can consult the list of functions for each operating system on line, in the products user documentation.



A powerful easy to master environment

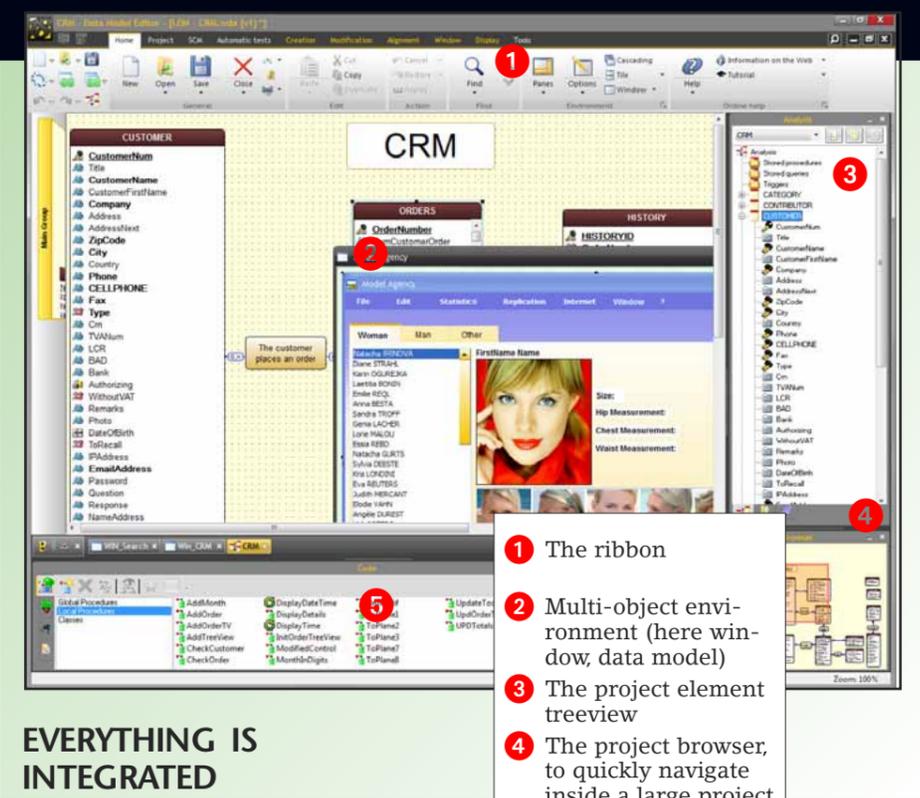
A COMPLETE AND FULLY INTEGRATED ENVIRONMENT

The WINDEV environment's features are all interconnected: data, controls, business rules, test... Everything is integrated, each feature is aware of the others.

For example, the feature that displays a table is aware of all the characteristics for each piece of data in each cell, **the link with the database is always updated, automatically.**

This saves **a lot of time**, reduces the potential for forgetting something or for bugs, avoids unnecessary or redundant programming, increases the application's speed, and makes development a lot easier.

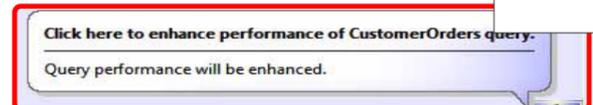
This **integration, which is unique in the market**, provides multiple and immediately profitable benefits.



EVERYTHING IS INTEGRATED

- 1 The ribbon
- 2 Multi-object environment (here window, data model)
- 3 The project element treeview
- 4 The project browser, to quickly navigate inside a large project
- 5 The bottom pane for advanced information

POC: PERFORMANCE OPTIMIZATION CENTER



The environment detects possible improvements to increase your application speed, and suggests them to you. Accept them, and your application takes off... Don't forget that WINDEV comes with a source code profiler (see p 35).

AAD: AIDED APPLICATION DEVELOPMENT

The environment gives you some **tips** on how to optimize its use according to the tasks you are performing!

- Fast Opening of Project Elements**
CTRL+E enables you to quickly open the project elements.
- Click here to automatically correct the anchor of 'IP.Address' (Edit Control).**
This control (green border) and the other window controls (red border) may overlap when using this anchor.

TECHNOLOGIES
Refactoring (intelligent renaming)
Unlimited Undo/Redo
Live data
Zoom
Rulers, snap-on
Customizable style with your images
WYSIWYG
Dual-screen mode
Unlimited backup

MANAGER
A single environment for all the development tasks, resulting in a phenomenal productivity. Since everything is integrated, the security is greatly increased.

NEW
Improved user friendliness
Revamped search
Faster

AAF TECHNOLOGY
A lot of automatic features are available in your applications

MAIN POINTS
Integrated, very intuitive
Unique concept on the market

The IDE that will make you successful



TIME SAVINGS MONEY SAVINGS
With WINDEV 18, you'll reduce your development time. You will save large amount of money.

YOU'RE INSTANTLY OPERATIONAL
The architecture of the editor allows for its total control within a few minutes. Everything is very intuitive and always a keystroke or a mouse click away.
The modules are totally integrated, sharing the same data dictionary: each module (project, database, GUI, setup, queries, reports, ...) shares the information of the other modules,

and can, by default, propose the most logical actions.

SOME EXCLUSIVE TECHNOLOGIES EASE YOUR TASKS

- To improve your ease-of-use and your productivity, the environment proposes an important number of exclusive technologies:
- perfect WYSIWYG (with zoom)
 - "7-tab" technology, to define all the control parameters via a simple click (saving thousands code line)
 - Modifier, to easily access properties
 - Panel, for the list of project elements
 - Permanent popup men
 - AAD and POC
 - Unlimited UNDO and REDO, copy/paste history
 - Immediate "GO" of the project without recompilation, etc.

THE ONLY ONE IN THE WORLD!

The environment is truly unique (which explains its success) in term of integration and richness.

Everything is supplied with the product: **you don't have to buy** any library or add-on for each feature (PDF, images, database management, help, bar codes, OPC, link with SAP R/3, Lotus Notes, Outlook, SNMP, Google Apps ...).

Everything is immediately available and totally integrated, which contributes to the incredible development speed possible with WINDEV 18.

HUNDREDS OF EXAMPLES AND WIZARDS

In addition to the provided tutorial, WINDEV 18 comes with **hundreds of examples** and wizards: this makes being productive easier.



FULLY COMPATIBLE WITH EARLIER VERSIONS

WINDEV 18 respects your existing work.

No migration is needed between WinDev 7.5, 8, 9, 10, 11, 12, 14, 15, 16 or 17 and WinDev 18: all you have to do is recompile the application for it to work in version 18.
Existing components (version 8, 9, 10, 11, 12, 14, 15, 16, 17) work directly (without the need to recompile) with applications in version 18. Version 18 directly opens a project in version 7.5, 8, 9, 10, 11, 12, 14, 15, 16, 17.
Different versions of your environments can coexist on your PC; a version 18 license can also run older versions (17, 16, 15, 14, 12, 11, 10, 9, 8, 7.5, 5.5,...).

FULL DOCUMENTATION IN 1 CLICK

WINDEV can generate a full documentation in just 1 click (printer, PDF, HTML...). The documentation is built by reverse analysis of the project, and therefore it is always up-to-date (see page 62).

COMPARATOR ("DIFF")

Immediately detect all the modifications made to an element (interface, code, analysis, ...) between 2 versions with the integrated versioning tool.

FREE TECHNICAL SUPPORT

We trust our tools: Technical Support is offered for free*, for all the modules included in WINDEV 18!

WINDEV 18, is a complete environment, integrated, user-friendly, which automates tasks, and saves you a lot of time during all the phases of development: state of the art...

LCV	Full application lifecycle management, including maintenance and upgrade
AAD	Aided Application Development, automatic actions to improve your applications
POC	Performance Optimization Center
SCM	Source Code Manager (versioning tool)
AAF	Automatic Application Features
ADU	Automatic Deployment and Upgrades ("Live update" for your applications)
SDD	Synchronization with the data schema
TRAD	"real RAD", automatically generates complete applications
AAA	Automatic Application Architecture: code and window patterns
ASBS	Automatic Style Book Support
EDA	Embedded Database Access
Custom Folder	Organization of your analyzes and projects

INTEGRATED TECHNOLOGIES
These technologies bring standardization, ease of development, sharing of existing code, increased reliability and better overall application quality.

MASTER THE LIFECYCLE (ALM) CONTROL CENTERS

The Control Centers allows you to easily **manage** all aspects of an application's lifecycle.

The Control Centers are **totally integrated** in the environment and they interact among themselves and with the editors: window editor, project editor, source code editor,....

The entire information is **shared**.

WINDEV 18 contains the following control centers:

- Project Monitoring Center
- Quality Control Center
- HyperFileSQL Control Center (see p 43)
- Document and Resource Control Center
- Reusability Center



Overall view of a project

MANAGER

The Control Centers allow you to manage all the organizational tasks required for developing applications.

NEW

Evolution of the CC HyperFileSQL, optimisations

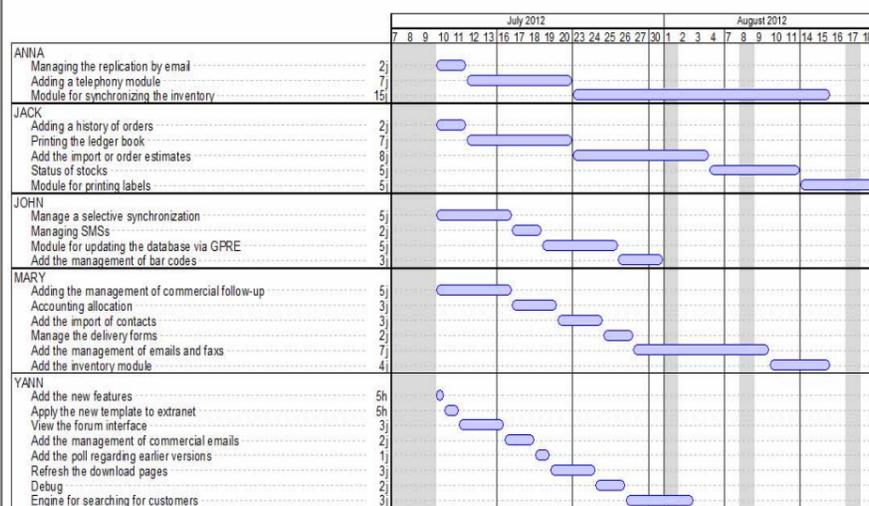
AAF TECHNOLOGY

User feedback can be automatically included

MAIN POINTS

Completely integrated with the environment Industrialization without constraints

MANAGE THE LIFE CYCLE, MANAGE THE SCHEDULES The Control Centers allow you to easily manage the complete life cycle of an application.



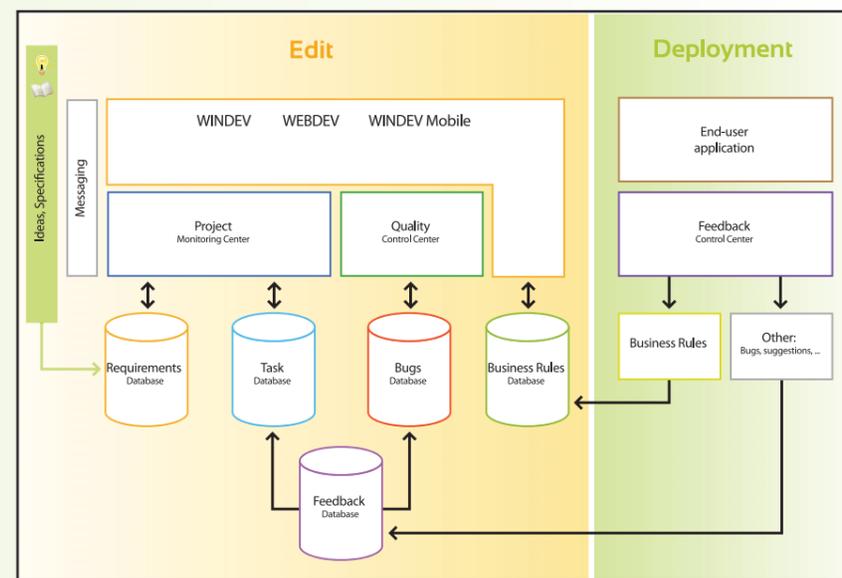
Control centers allow, among other things, to automatically edit at any time, a Gantt diagram of the tasks.

A BENEFICIAL INTEGRATION

Unlike the third-party tools that are heavy to implement, the WINDEV control centers are natively integrated in the

editors. The link with the environments is natural. The use is intuitive and non intrusive.

The development cycle is mastered, the project manager has access in real time to specific information on the project's status and quality.



AGILE METHODS

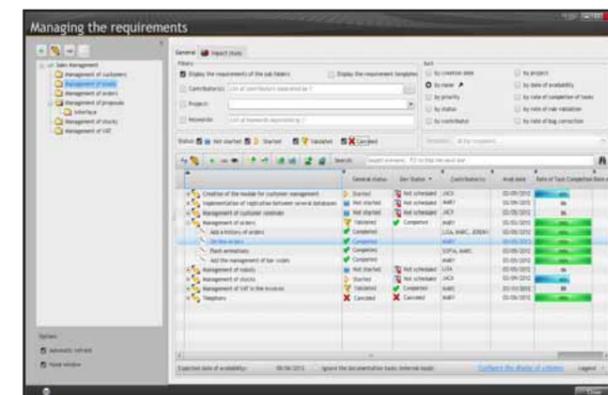
The methods for Agile development are based on an iterative development: instead of delivering all at once a program meant to answer a set of requirements set in stone, development is done through iterative deployments in short time frames.

WINDEV 18 is totally adapted for agile development: Scrum, XP, ...

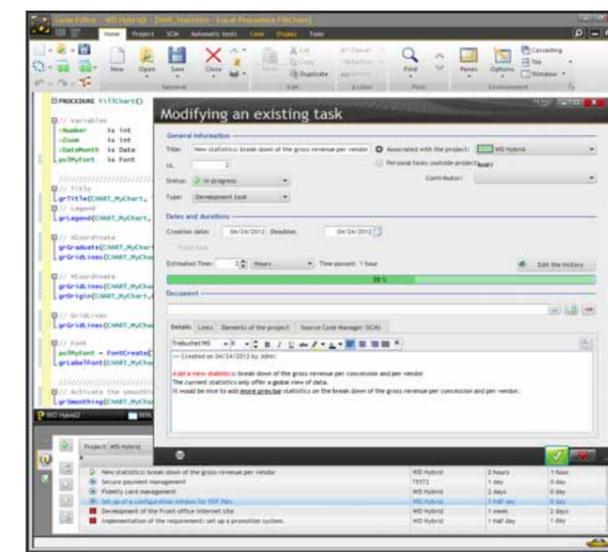
MANAGING THE REQUIREMENTS

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

Each requirement can be linked to several tasks (development task, test task, documentation task, ...), bugs, business rules...



Note the complete integration of the tools with the environment



TASK MANAGEMENT

Each member of the team can access his task list and change the priorities, add comments, see the linked requirements...

The project manager has access to an overview of the team's tasks and their status.

QUALITY CONTROL

The Quality Control Center keeps track of bugs in the application and it can be used to assign them to a developer.

It enables you to centralize the information, to track bugs, to calculate statistics, and prevent oversights (see "Feedback", page 69)



ALM: APPLICATION LIFECYCLE MANAGEMENT

The full lifecycle management of your application by WINDEV is a guarantee of success for your applications. Application governance, software production and their implementation are industrialized by the integrated WINDEV tools.

TIME TRACKING

A time management tool is included with the environment. Based on an intuitive communication method, this tool asks each team member to validate the current task in real time.

The current task is proposed by the tool, which deduces it from the current action

VERSIONING

A powerful versioning tool (see page 46) is included in the environment. For each iteration (version) of the project, the list of elements is generated.

REMOTE ACCESS

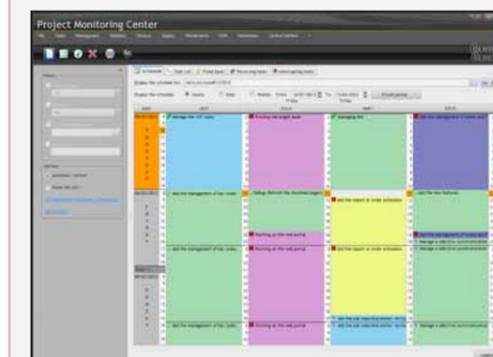
The Control Centers can be used remotely, via Internet or VPN.

EASY MONITORING OF SCHEDULES

The project monitoring center lets you easily manage a team's schedule and analyze where everyone spends their time!

Totally integrated in the development environment, the control center provides vital help in making your projects successful within deadline.

If you invoice by the hour, the control center enables you to easily keep track of your resources.



An overall view is automatically generated in a Gantt diagram



DASHBOARD: DRIVE YOUR PROJECTS

Any project manager would like to have a **global and synthetic view of the status of his projects.**

The project manager would like a high level overview of his projects.

The QA manager wants to know the number of bugs and their priority, as well as follow their status.

The product manager would like to know what new features are requested by the users.

The "Dashboard" concept automatically provides this high-level view of a project's progress, of the overall **quality**, and for the deployed projects, of the needs for maintenance and bug fixes.

The lights switch from green to red whenever a section of the project requires special attention: bug fixing, optimization, ...

MANAGER

The dashboard allows for a high-level view and for an optimization of your projects. Project governance is made easier

NEW

Popup menu evolution

MAIN POINTS

High-level view
Suggested optimizations
Developer mode, Project Manager mode

SYNTHETIC VIEW OF YOUR PROJECTS



The dashboard

DRIVE YOUR PROJECTS

A CONSTANT MONITORING

The dashboard provides a high-level view, even during extremely stressful times such as code complete or deployment phases. The Dashboard alerts you when the tools for project optimization must be run (profiler, query analysis).

An alert is also displayed when the deadlines are missed.

EVERYDAY'S SHORTCUT

The dashboard is also a tool used every day by developers because it gives them the ability to directly access the displayed elements and to create shortcuts to their favorite code sections.



New bugs, tests not run, overall quality: how did we manage before the dashboard?



A red light indicates a potential problem: all you have to do is click it to fix the problem.



Follow the progress status of the project at a glance: tasks to perform, customer requests, bugs, ...

STATIC AUDIT: SECURE YOUR APPLICATIONS

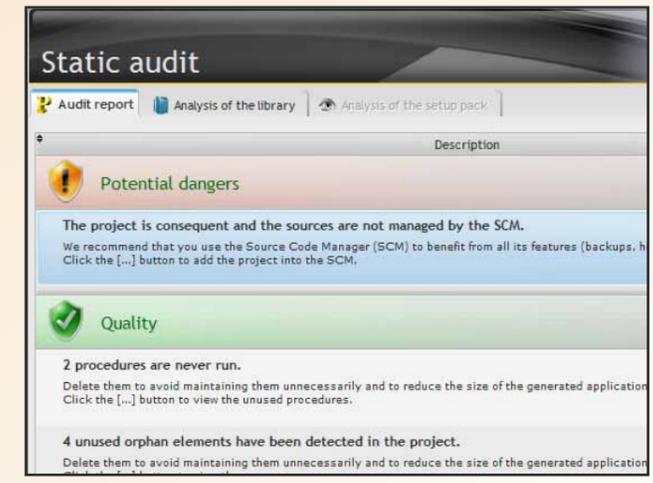


The static audit analyzes the **source code of the project** and its elements. You have the ability to perform an audit of your applications as often as you want.

The **detailed report** that is created indicates: content of the setup, code metrics, potential dangers for the project, unused elements, optimization tips...

You can improve your application's quality this way, reduce their size, improve security ...

AUDIT YOUR CODE IN 1 CLICK



An example of a static audit report: here the potential trouble areas of the project, to correct quickly!!



DYNAMIC AUDIT: INCREASE THE PERFORMANCES

A dynamic audit is performed on a **running application**. The execution is performed on a deployment computer or on a test computer.

The dynamic audit allows you to follow the execution of an application on a computer and **track the memory footprint**.

The audit generates a report containing execution warnings, asserts, memory dump...

Coupled with the profiler, the dynamic audit lets you increase your applications' speed.



When running the application, locally or remotely, the memory footprint can be easily analyzed.

The developer can analyze the elements that take up the most amount of memory and check that this is not caused by a programming error and/or by a design error.

The profiler lets you analyze the processes' speed (see p 25).

The dynamic audit also flags the runtime warnings, the non-fatal errors and the asserts (assertive programming).

RAD AND APPLICATION GENERATOR: INDUSTRIALIZE CODE GENERATION

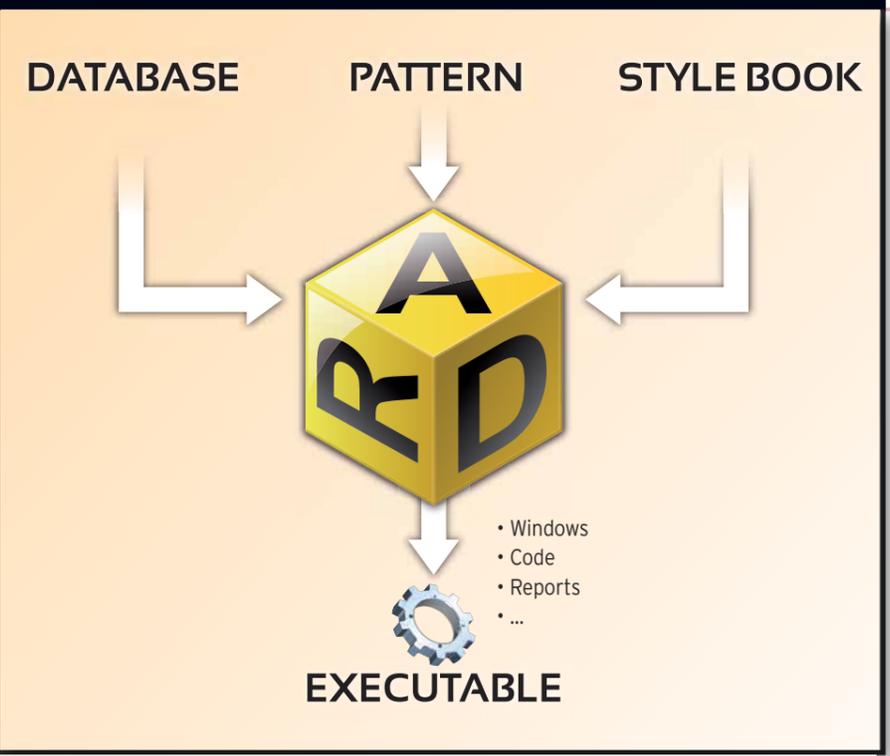
Automatically generating entire applications or subroutines is a standard feature of WINDEV.

There are plenty of preset programming models.

You create a complete application, ready to use, **in just a few clicks**.

This way you can answer a request for proposal really fast or validate a model really quickly. WINDEV 18 also lets you create your own RAD patterns: **you choose the code** to generate, as well as the positioning of the controls!

Time to market is crucial in a competitive world: thanks to WINDEV 18, you can offer **fast** time to market to your company and your customers.



INDUSTRIALIZE THE CODE GENERATION: CREATE PATTERNS

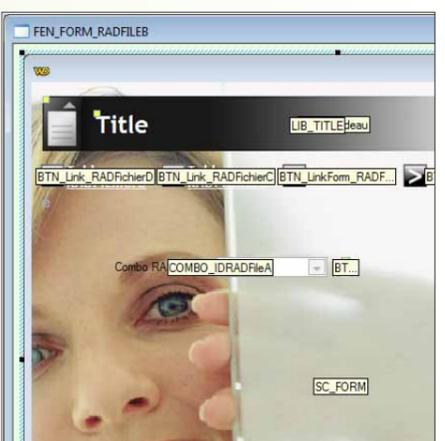
AAA: Automatic Application Architecture ("pattern")

A constant worry for the project manager is to insure that programmers in the development team follow the company standards when developing applications: GUI, code, etc.

The AAA technology (see p 9) lets you create your own RAD generation patterns. You decide what goes into the windows, the control location, what code will be generated by the various RAD options: entire application or partial code.

The increase in productivity and in code security is phenomenal.

For a small investment (pattern creation), each use of the pattern will help standardize the future developments without imposing



(code and UI). And the product code is already tested! Patterns are the answer to your constant needs for quality control and style book enforcement.

Create an application in 6 clicks

With WINDEV 18, you can write your code yourself, or use RAD. The Rapid Application Development gets its full meaning!

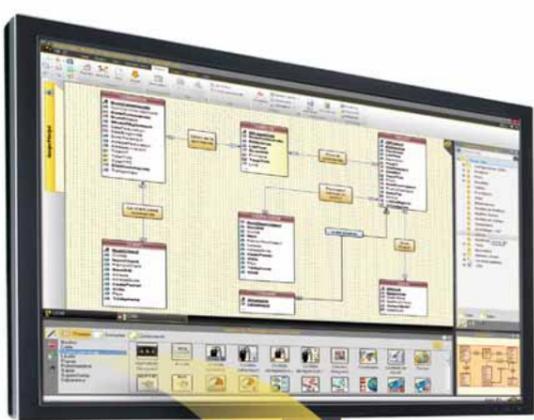
6 STEPS FOR CREATING AN APPLICATION WITH RAD

An application is defined in 6 quick steps via the WINDEV 18 RAD:

1. Define or retrieve the analysis: the tables,

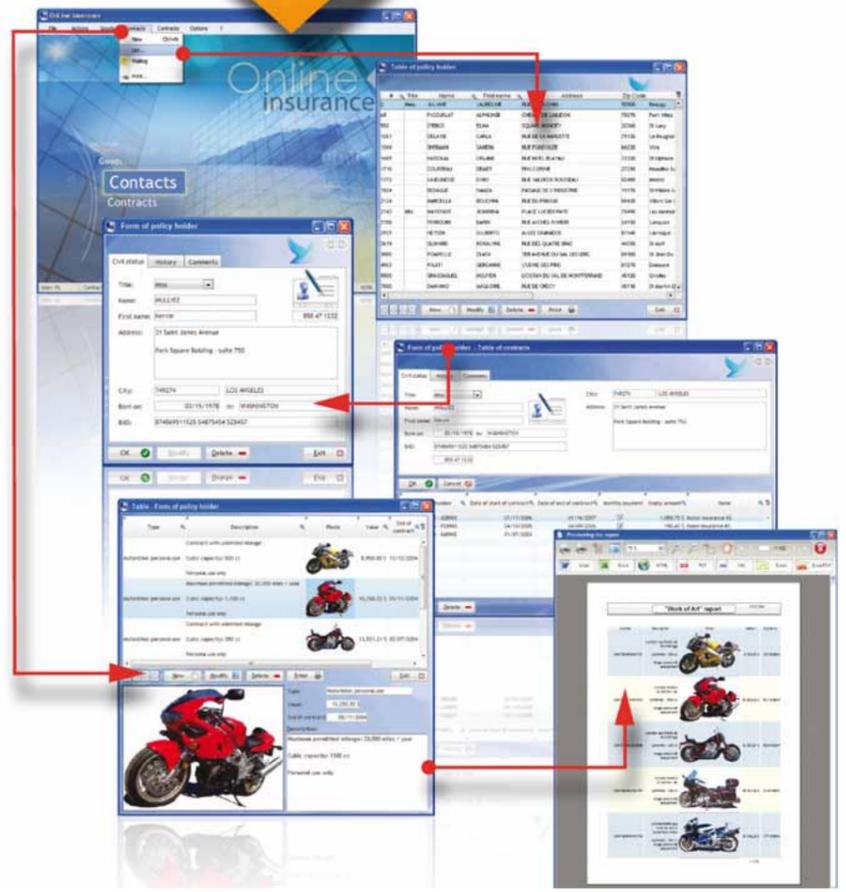
the columns, the keys, the indexes, the links...

2. Click the "RAD" icon ...
3. Select the tables that will be used by the application
4. Choose your application's style book (skin template) and pattern.
5. Choose the additional features to include: automatic backup, help, report generator...
6. Validate: the application is generated.



Example of automatically generated application

Here are some of the windows generated by the "Application RAD": the entire application can be used right away. Everything can be modified and customized.



It's that simple. The entire application (code, menus, windows, reports, etc.) is generated in a few seconds.

EVERYTHING CAN BE CUSTOMIZED

The application created is ready to run. You can modify it and customize it as you wish.

AUTOMATIC DEPLOYMENT

Deploying the application (CD, network, HTTP, ...) is automatic via the setup procedure generator supplied with the product.

ANSWERING A REQUEST FOR PROPOSAL? A PROTOTYPE!

You can also use a RAD application as an answer to a request for proposal: the prospect will directly use the future application, rather than read a document describing it (WINDEV automatically generates this document as well, see page 62).

You're a consulting company? You'll win bids thanks to WINDEV 18!

INSTALL A READY-TO-USE APPLICATION IN RECORD TIMES

An urgent application must be created and deployed as quickly as possible? Create this application using RAD, and release it instantly.

You can customize it and develop additional features while users can already use this first version.

Time to market is crucial in a competitive world.

Thanks to WINDEV, you can offer fast time to market to your company and your customers.

"WINDOW" RAD: RID

RAD can also manage only specific windows, or just the interface (RID: Rapid Interface Design).

EASILY CREATE YOUR OWN PATTERNS

Version 18 allows you to create your own RAD patterns: see opposite.

MANAGER

RAD (whose use is optional) can generate entire applications or specific processes. RAD also enables you to create prototypes. The time saving is really noticeable.

NEW

Support for new controls in patterns

AAF TECHNOLOGY

The generated applications automatically benefit from all the AAF

MAIN POINTS

- Immediately usable application
- A prototype in a few minutes
- Patterns
- Customization

THE MOST ATTRACTIVE INTERFACES WITHOUT WRITING ANY CODE

CREATE FABULOUS INTERFACES

The user interface generator provided with WINDEV 18 is certainly **the most powerful and easiest to use in the world!**

You easily create stunning custom interfaces.

No knowledge of GUI design is required.

GUIs are built visually (**WYSIWYG**), using the mouse.

Better designed GUIs greatly benefit the companies using them: fast training, reduction in data entry errors, ...



MANAGER

An attractive, efficient interface insures a better productivity for the users. And it makes your applications stand out. WINDEV 18 is the only tool in the world to offer this concept of integrated interface

NEW

- Pivot Table control (rOlap cube)
- Timeline control
- Windows 8 support

AAF TECHNOLOGY

- Automatic & assisted input
- Input masks
- Spelling checker
- Persistence of the content of controls
- Resizing combo boxes
- export to Word, Excel, XML...

MAIN POINTS

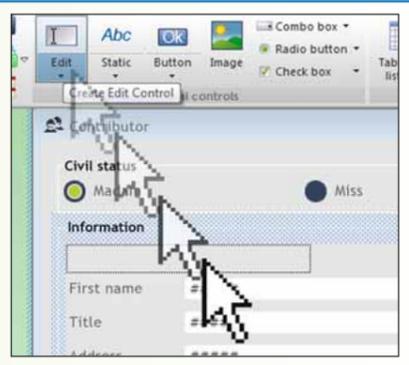
Arguably the best interface generator in the world (and the easiest to use)

VISUAL CREATION

Creating windows is very intuitive: all you have to do is Drag/Drop the controls from the ribbon with the mouse.

Still with the mouse:

- select a control, resize it, move it,
- then edit its properties ("7-tab" technology, see p 21 to 23),
- and lastly enter the code (p 34 to 36) in the relevant events: everything is WYSIWYG. Click the "GO" icon to run an instant test of the window.



CREATE FABULOUS INTERFACES

Too often, on PCs, the interfaces created are dull, ordinary, and lacking in character.

The WinDev UI generator will enable you to easily create great-looking windows that respect the Windows standard but are custom designed.

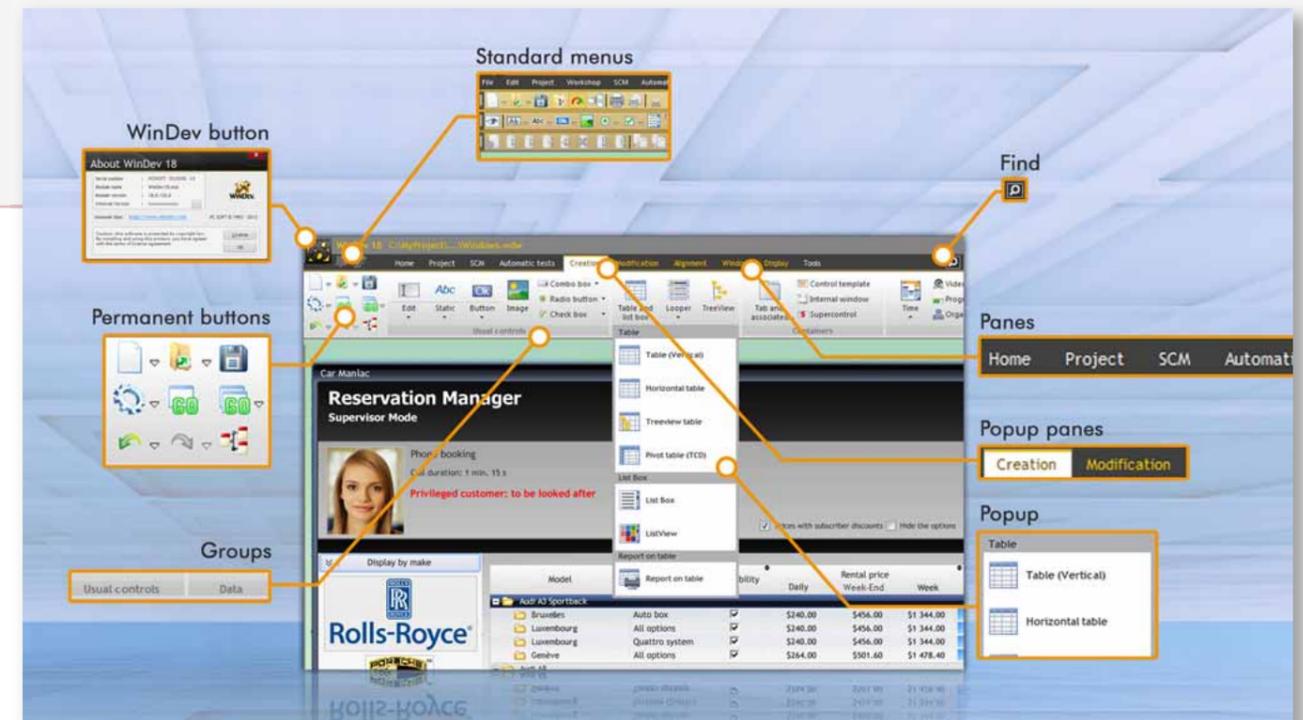
The use of style sheets and skin templates will help you standardize the entire look of

your application (style book).

NON-RECTANGULAR AND TRANSPARENT WINDOWS

WINDEV 18 enables you to automatically create windows of any shape and to manage the opacity of the controls and background.

A turbo-charged window editor



FULLY CONFIGURABLE WINDOW

The windows can be fully customized: title, icon, initial position and size, animation at opening, resizing and storing, automatic adaptation to the content size, scrollbars, DDW, popup menu, independent HyperFileSQL context, background image, opacity, message bar, movable menu bar + custom color, toolbar, grip, MDI, border type, splitter and anchoring, plane and tab management, ...

A window can support up to 10,000 controls.

AN EXTENSIVE "CLIPART"

WinDev comes with over 10,000 clipart items (buttons, images...).



RICHNESS EXAMPLE

Controls offer unlimited richness and configuration.

Here's an example from the progress bar settings window:



And the various types of progress bars available



YOU'LL NEVER BE LIMITED

The windows themselves offer a powerful setting, without having to enter a single code line:

- automatic style book (skin template, see page 26)
- customizable menu bar/ribbon
- background color, background image
- type of border
- icon
- resizable or not
- multilingual (see page 65)
- automatically store

the size and position

- animation at opening or closing
- presence (or not) of system buttons
- configurable sizing handles
- clipping (free shape)
- popup menu
- management of plane
- MDI, modal window, non-modal window
- toolbar
- inheritance (win-

down templates, see page 29)

- internal windows
- dim disabled windows (DDW)
- initial and maximum width/height
- automatic closing
- AAF (see page 24)
- automatic creation of the window's documentation (see p 62)
- database context linked to the window
- Unicode

Windows are multi-platform windows.

They run on Windows, Linux, Java and they are compatible with Mobile and Internet.

The controls found in the windows (up to 10,000 per window) offer even more parameters (see next pages).

The created win-

...continued

THE AUTOMATIC SOPHISTICATED CONTROLS

The creation and maintenance of controls, as well as their look which can easily be configured (they are created and configured in **WYSIWYG** mode), are a real asset that you won't be able to do without as soon as you've had a taste of it!

IN JUST A FEW CLICKS, CREATE SOPHISTICATED CONTROLS, SECURED VIA INPUT MASKS

- | | | | |
|--|---|--|---|
| <p>Sophisticated controls, ready to use and to be customized:</p> <ul style="list-style-type: none"> • formatted edit controls • display control (formatted text) • tabs • drop-down list boxes • combo boxes • auto-filled combo boxes • images • animated images • scrollbars | <ul style="list-style-type: none"> • graphic buttons (icons) • animated graphic buttons • text buttons • On/Off buttons • time-delayed button • check boxes • single and multi-columns radio buttons • arrays • graphic lists • treeview lists • treeview tables • HideShow | <p>controls</p> <ul style="list-style-type: none"> • OLE controls • ActiveX controls • map areas • spin buttons • controls with soft shadow • sliders, progress bars • HTML controls • icon bars • geometric shapes • splitter • graphic lists • status bars • Web camera | <ul style="list-style-type: none"> • RTF • loopers • progress bars • sidebars • charts • bar codes • carousel • calendar • organizers • schedulers • organizational charts • rating • ribbons • Crosstab • Timeline • ... |
|--|---|--|---|

EDIT CONTROLS: SETTINGS EXAMPLE

The "edit" control of WINDEV 18 offers **incredible power**. Here are some settings possibilities (via the "7-tab" or via programming) of the edit control (each type of control has its own specificities):

Input mask:

- **Text**, single line or multiline (automatic management of scrollbars, scrolling), RTF, HTML, Unicode management, ...
 - Several preset **masks** are available: text (uppercase characters, first letter uppercase), numeric, currency, date, time, duration, password, file path, IP address, zip code, ...
- The mask can be customized with a regular expression.

The input can be defined as being mandatory or not, it can allow a maximum number of characters, check the numeric bounds (min and max)

- **Are also proposed:** associated caption, alignment, spelling checker, assisted input according to the values found in the database, popup menu, automatic storage of previously entered values, ellipse, automatic drag and drop, context-sensitive help (information text, tooltip, link with the help editor...), spell checking, visi-

ble or hidden control, edit control, display only or grayed out, control accessible via the TAB key, format by eYe magnet, left indent (in pixels), centering of the control's content (left, right, center), right click action, hovering cursor, presence of a standard or custom popup menu, keyboard shortcut for accessing the control, plane where the control is located, group of control to which the control belongs, position, size, behavior of the control when the window's size is modified (anchor), control's opacity, automatically move to the next control when reach the max number of characters, selection of the entire text when the cursor enters the control, ability to select the control's content in display only mode, return the NULL value if no value is entered, truncation mode for the caption if it is too long (ellipse),...

Mandatory input Store the value

The **style** of each elements is inferred from the current style book and can be modified. police, color, size, presence and position of a shadow, attributes (bold, underlined, italic, truck-out), shadow's color, position, background color, border type, border color, ... Etc.

Configuring this feature rich attributes is easy, it's done visually and intuitively with the 7-tab technology (see pages 21 to 23)

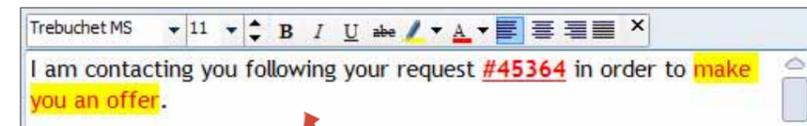
Control toolbar



Creating a control is easy: simply slide it into the position you want using the bar or the ribbon, then configure it using the "7-tab" window (see page 21). A control can have over 200 features (presentation, security, data link etc...).

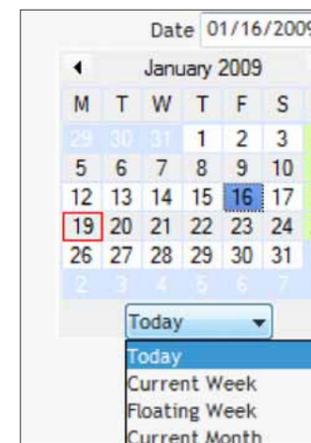
The windows are advanced objects that contain the description of their controls. Therefore, each window knows how to display its controls and manage the input without any programming.

The window editor lets you create and modify objects independently from the application's source code.



THE "RTF" AND "HTML" CONTROLS

The "RTF" and "HTML" standards are universal standards for text formatting. This RTF and HTML control automatically displays a formatting toolbar to the end user. The spelling checker is enabled.

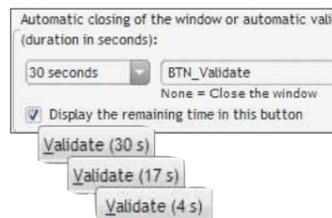


THE "DATE" CONTROL WITH AUTOMATIC CALENDAR

This control is used to enter and display a date. The integrated input mask prevents from entering invalid dates.

Even more sophisticated, the control proposes on its right a mini icon that displays a calendar (fully customizable) in order to simplify the input.

The calendar can also be displayed by programming.



TIME-DELAYED VALIDATION BUTTON

This type of button is used to display a countdown stopwatch and to validate the window if no action is performed by the user. Very useful to prevent locking a batch process for example!

YOUR 2D AND 3D CHARTS

A powerful chart control is available. It offers 2D charts and a spatial 3D view of charts

The user can move the chart at run time, make it turn, change the view angle, change its type, etc...

Chart creation is also offered to the end user via the user menu (AAF feature), allowing all the users of your applica-

tions to graphically view the requested data. And these charts can even be printed: imagine how your reports will look!



LOTS OF IMMEDIATE BENEFITS

- No code writing is required to create objects,
- The supported objects are more evolved than the base objects (input mask, color, fonts, styles, images, tooltip...),
- The codes for initializing and checking the objects can be associated with the object and stored in the window.

The control properties can be modified by programming: size, color, visibility, position, caption...

This approach for working with controls will save you a great amount of time when maintaining your applications, and will make your programs more robust.

CREATE CONTROLS FROM YOUR PROGRAM

The **ControlClone** and **ControlDelete** functions let you create and delete controls directly from your program: this can be useful sometimes!

WYSIWYG MENU GENERATOR

The menu editor allows you to create menus that follow the Windows standard, with the Office XP or Vista look, and that will work regardless of the Windows version.

DRAG & DROP

Drag & drop operations can be easily implemented in your applications.

Don't get left behind. With WINDEV 18 you'll easily create the most sophisticated interfaces!



Only a few clicks away from fantastic tables

POWERFUL VISUALIZATION TABLES

...continued

WINDEV 18. makes it easy to view the table contents You can easily and quickly create great looking and easy to use visualization windows, that contain all the features expected by the users.



SOME COMMENTED EXAMPLES OF EFFICIENT "VISUALIZATION TABLE" UI

- 1 Search included in the control
 - 2 Automatic search magnifier
 - 3 Different fonts, sizes and colors within a cell (RTF)
 - 4 Multiline cells
 - 5 Proportional scrollbar boxes (also displays the record number)
 - 6 Bar code display
 - 7 Automatic menu for exporting to XML, EXCEL, WORD, OpenOffice, for creating charts, for selecting columns to view, for printing...
 - 8 Image
 - 9 Merge cells
 - 10 Automatic column total (users have the ability to add total themselves with the AAF)
 - 11 Resizable arrays
- Also:
- Automatic fill via a query
 - Store custom configuration
 - Column moved by the user
 - Horizontal tables



- 1 Icon bars
 - 2 Assisted input (if the value entered is already found in the database, it is automatically filled as soon as the first characters are entered)
 - 3 On/Off button
 - 4 Treeview table
 - 5 Listview
 - 6 Splitter allowing the user to resize the inside areas of the window (up to 16 per window)
 - 7 Image
- Also:
- "Container" type column
 - Breaks
 - ...

The end user can add totals, averages, hide columns, print a table, export a table to Excel or Word, ... See page 24

DETAILS OF COLUMN TITLES

The user can sort a column by clicking its title.



You can search for a value in a column by clicking the magnifier icon in the title bar.



- 1 Mix a table with edit section
- 2 All table elements can have their own style: color, size, font...
- 3 The grip's image is customizable
- 4 All the controls can have an opacity ratio



The selection bar can be fully customized



The search in a table is automatic



...continued

You know how to click: you know how to create controls!

With WINDEV 18, the characteristics of each control can easily be defined via an exclusive interactive dialog, which is very simple yet very powerful: the "7-tab" technology.

Each tab is used to define the different characteristics of a control, a window, a report...

"7 TABS"

The content of the tabs depends on the control type; we are only detailing three of the tabs for a control (see the next pages). The 7 tabs of a control are:

- general aspect
- UI
- details
- file links
- auto fill
- notes
- associated help
- style.

(see next page)

You also have the ability to create and modify controls via the traditional method of the "modifier" or by programming.

MANAGER

No knowledge of Windows API or OOP is required to create extraordinarily original interfaces, that are powerful, efficient and secure

NEW

Open the "7-tab" window directly from your code

AAF TECHNOLOGY

Automatic input checks
Visualization of areas
Automatic help

MAIN POINTS

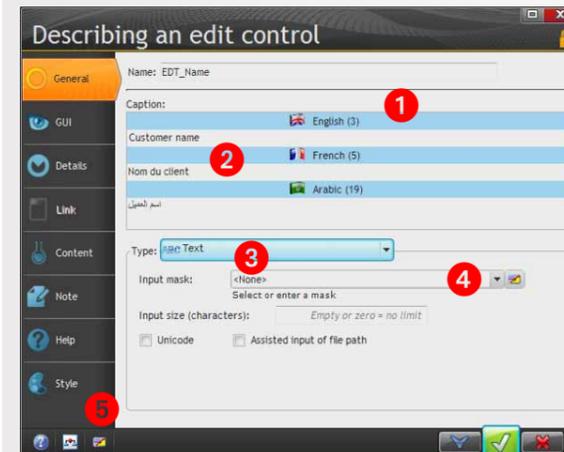
A few clicks replace thousands code lines
Fewer risks of bugs

Click to create, no coding required

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

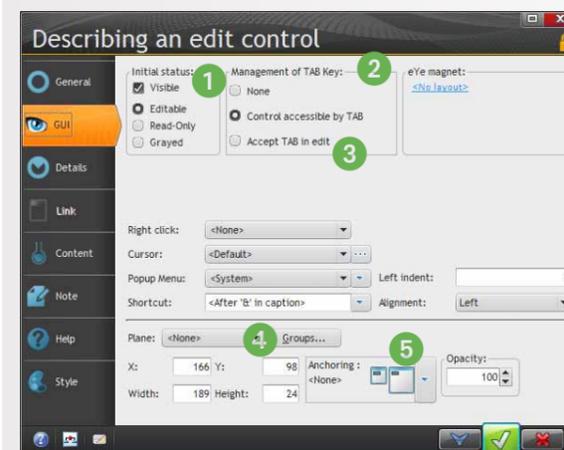
THE "7-TAB" CONCEPT ELIMINATES 95% OF THE CODE NEEDED FOR THE UI!

Via the 7-tab technology, you can just click to define what would take hundreds of code lines in other environments.



The 1st tab: "General". The main control information is defined here: type, input mask,...

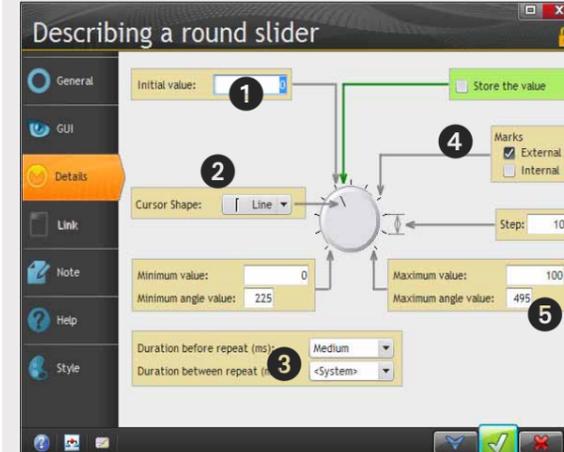
- 1 Caption in all the project's languages
- 2 Spelling checker
- 3 Control type
- 4 Display/input mask
- 5 Call the automatic translation tool



The 2nd tab: "GUI". The interface elements of the control are defined. Remember that any choice can be modified later in your program.

- 1 Control's initial state
- 2 Tab key behavior
- 3 Miscellaneous information: alignment, popup menu to open, shortcut letter...
- 4 Plane and group of controls management
- 5 Automatic anchors when resizing a window

Etc...



Here the "Details" tab of a "slider" control. The presentation elements of the control are defined

- 1 Initial value
- 2 Cursor shape
- 3 Durations
- 4 Graduations
- 5 Bounds...

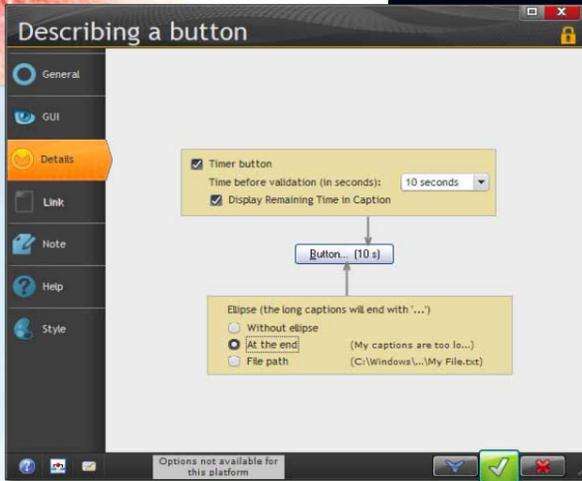
Etc...

Complete details on the "7-tab" functionalities can be consulted on the windev.com site, in the "Functionality book" (325 pages, free).

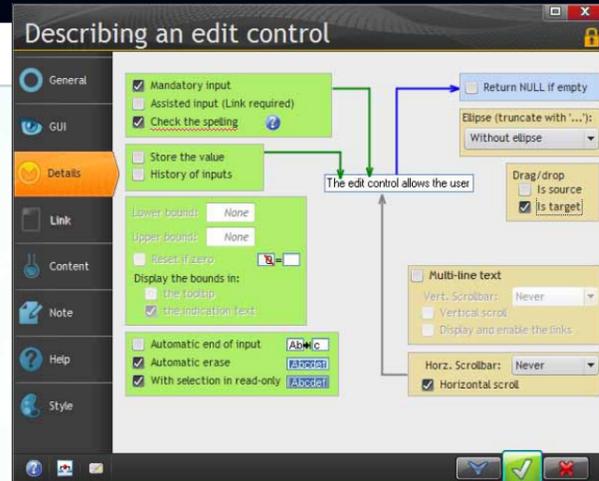
"7-TAB" TECHNOLOGY AND POWER

You save millions of code lines with the "7 tabs".
Great time savings!
What power, security, efficiency for your interfaces!

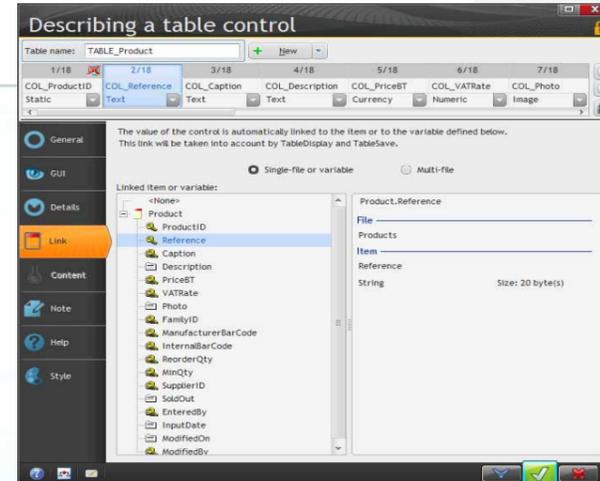
The "7 tabs" make it easy to configure all the parameters available for the controls by proposing visual choices whenever possible.
This makes it easy to find out what options are available, to understand what they affect, and to implement them. Let's see some examples of the "7-tab" windows.
Complete details on the "7-tab" can be consulted on the windev.com site, in the "Feature book" (325 pages, free).



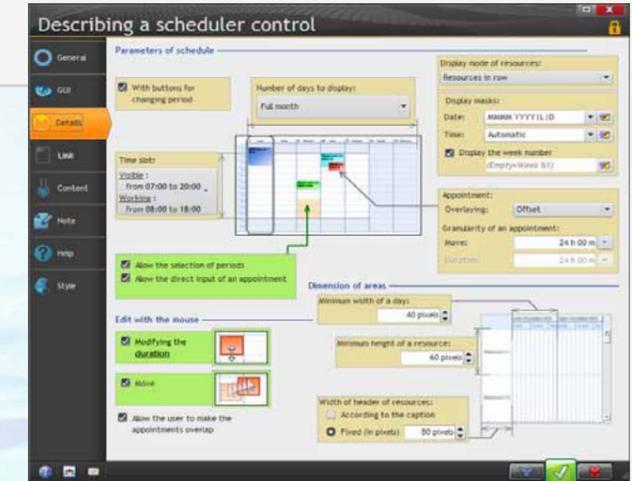
"Button" control



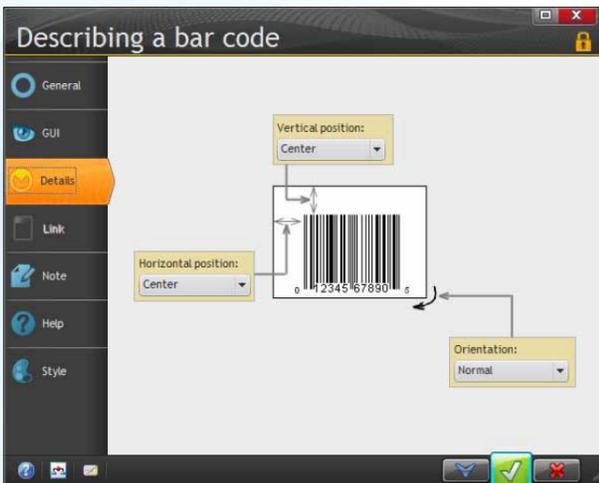
"Edit control" control



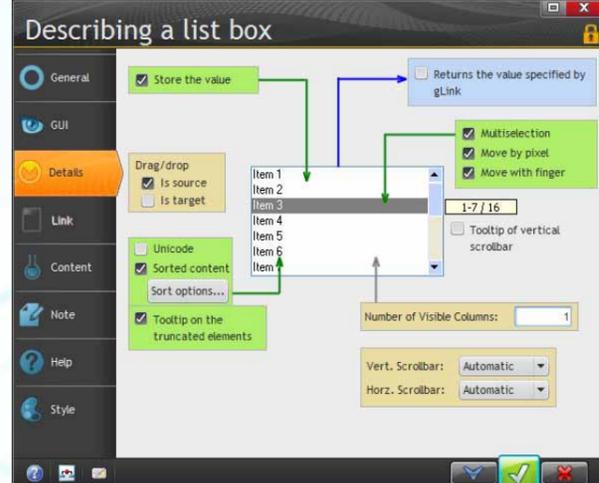
"Automatic link with table column" control



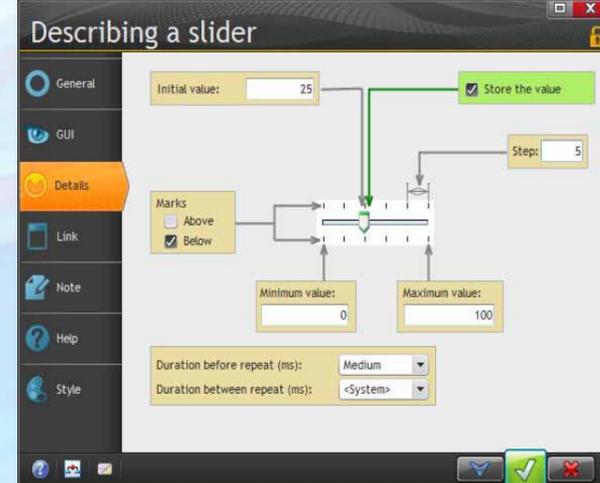
"Scheduler" control



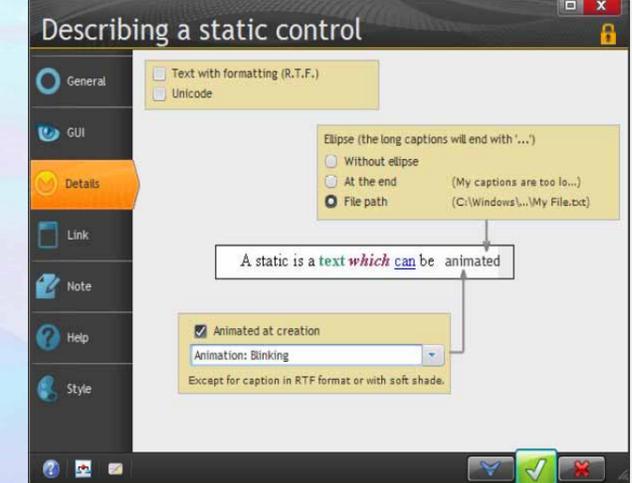
"Bar code" control



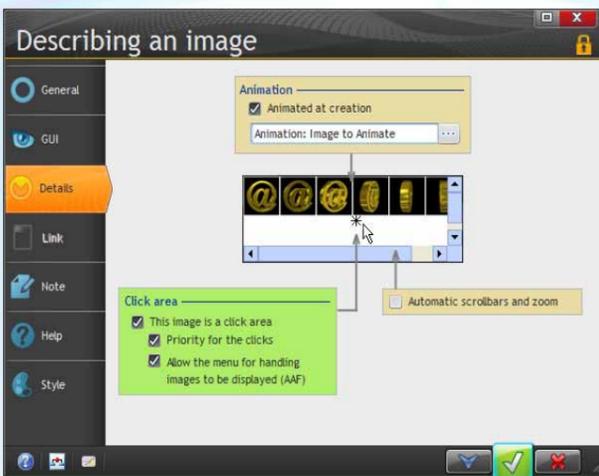
"List box" control



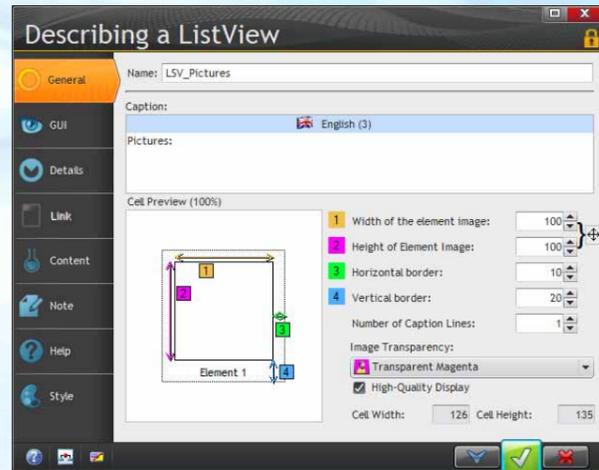
"Slider" control



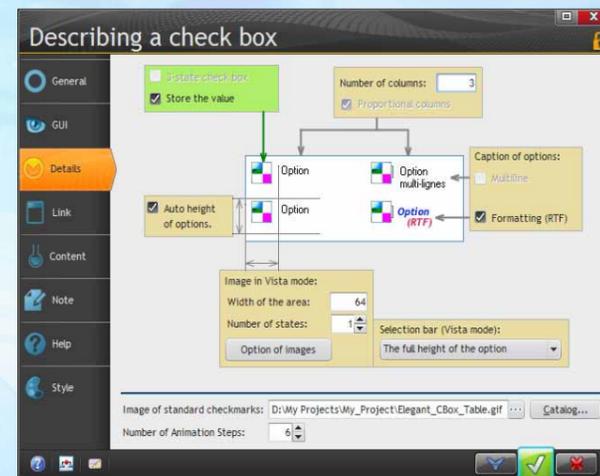
"Static control" control



"Image" control



"ListView" control



"Check box" control

MODIFYING THE PROPERTIES BY PROGRAMMING
Most of the properties defined in the "7 tabs" can be modified by programming.
But what is the name of the property to use?
The name of the property is intuitive and the "7-tab" tooltip indicates the name of the WLanguage property. This doesn't seem like much, but you won't be able to live without it!

Text with formatting (R.T.F.)

Input Area in RTF
In WLanguage : MySelf..RichEdit

Did you know it? You have the ability to define a text input area in "RTF" (Rich Edit) by programming. A tooltip reminds you of it...

AAF: AUTOMATIC FEATURES FOR YOUR USERS

Regardless of the development team's skills, the user will always want to do something that hasn't been planned, or modify the behavior of a window!

The UMC (User Macro Code) allows the user to create macros. The "Reports and Queries" reporting tool can be freely distributed with your applications (see page 30 and 31).

And the **AAFs** (Automatic Application Features), **present by default in all the applications developed with WINDEV 18**, allow each user to optimize the applications via rich features without your teams having to code anything!

AUTOMATIC EXPORT TO WORDS, EXCEL AND OPENOFFICE

A right click in your applications automatically opens the AAF menu

AUTOMATIC LINK TO WORD, EXCEL AND OPEN OFFICE

Linking to Office applications (Word and Excel) is simple: a popup menu is automatically present in your applications (accessed by the user via a right click) and it is used to export data from the tables without programming. By programming, clear commands are used: TableToExcel, TableToWord...

USER FREEDOM AND EFFICIENCY

AAF: IT CHANGES THE LIFE OF THE USERS

Imagine: a user must perform an inventory at the last minute that wasn't planned for in the application? How to get the product list, simulate unit costs?

With WINDEV, it's automatic. Each table benefits from an automatic export feature to Excel (and Open OfficeCalc). one click, the export is done...

RICH AND POWERFUL AAF

The AAFs are accessible in each application via a right click in the relevant control

Dim disabled windows (DDW): the inaccessible windows (in which no click can be done) are grayed. Convenient!

or window. The user can enable the storage of a control or the history of inputs, add a total or an average into a table column, create display filters. The user can also increase

the size of the combo boxes displayed (did you notice: they're often too small!). Via the AAFs, the user is more effective without adding any work to the development team.

Get the list and details for each AAF on www.windev.com

AMONG THE AVAILABLE AAFS...

Let's see a list of the main AAFs available by default in an application developed with WINDEV 18.

Each user benefits from these features without the developer having to code anything.

- With "Reports and Queries", which can be

CONTROL PERSISTENCE

To avoid having to re-enter a common value, the user can enable the persistence of controls via a right click: store a fixed value or store the last value entered.

Very useful for date ranges for instance! By combining control persistence and a button with automatic validation, you can easily start recurring processes.

ADD TOTAL, AVERAGE...

Forgetting to total a column is unfortunately a common oversight. With the AAFs, no worries for the end-user!

Users can add a total via a simple click, whenever they want (total, average, counter).

ENLARGING A COMBO BOX

Each combo box can be resized by the user ("grip" at the bottom right). Useful since the developer does not necessarily know the number of elements that will be offered in a combo box that displays data, or the width...

TIMER BUTTON

Adding an automatic validation timer to a button is useful for the long processes that display not so useful confirmation messages ...

Instead of having the process locked, the user gets results without wasting time. End users can add this timer themselves via the AAF

- freely distributed with your applications: it allows users to create their reports, queries, pdf, send e-mails, bar codes (see p30).
- Export the content of tables to Word, Excel and OpenOffice, XML,...
- Search in the database via any table, move and modify the table columns that are not locked
- Search in all the controls found in the window (Ctrl F)
- Automatically create charts based on a range of data
- Add totals, counter and average into the tables
- Add an automatic validation timer to buttons (in order to prevent batch locking)
- The combo boxes can be resized by the user (avoid "postage stamp" size combo boxes, see opposite)
- The persistence of a control can be defined by the user (fixed value or last value entered)
- The history of values entered in a control is proposed to the user
- Spelling checker in edit controls
- A popup menu for environment configuration is proposed on the windows ; the user can enable or disable the DDW feature and the window animations, or reinitialize the persistence parameters...

Users of applications developed with WINDEV 18 automatically benefit from features that allow them to better use their applications, and be more efficient in their jobs.

The companies that use WINDEV 18 applications perform better.



Any UI, automatically

PIVOT TABLE CONTROL (OLAP CUBE)

...continued

The **Pivot Table control** (also called "**Olap cube**") dynamically displays data coming from the crosscheck of different files found in a database. For example: the volume of sales according to product families, products, regions, over time, with or without details.

Everything is displayed dynamically, including row and column headers.

The pivot table performs all the calculation by itself.

DECISION MAKERS LOVE IT

This pivot table contains several dimensions: countries **1**, families **2**, years **3**. The family and year dimensions have "hierarchies": sub-families **4**

and products, quarters and months.

Here the end user has expanded the details of the product family by clicking "+". All the data and dates that have a "+" symbol can expose their details.

Everything is automatic, no programming is needed to fill it.

Country :	Period				2011	Total
	2010					
France 1	Products	1st trimester	2nd trimester	3rd trimester	1th trimester	
	eBooks 4	\$11 401 020 Qty : 250 051	\$18 985 617 Qty : 285 029	\$15 746 638 Qty : 255 883	\$14 984 142 Qty : 241 325	\$13 236 757 Qty : 226 729
	Books 2	\$16 512 800 Qty : 320 051	\$15 974 741 Qty : 315 038	\$15 446 54 Qty : 315 810	\$16 249 210 Qty : 330 211	\$14 286 321 Qty : 286 582
	Paper books	\$26 432 074 Qty : 512 890	\$24 287 453 Qty : 489 031	\$23 747 988 Qty : 412 700	\$22 018 055 Qty : 408 214	\$23 745 963 Qty : 410 520
	High-Tech	\$35 471 615 Qty : 198 003	\$27 859 634 Qty : 185 209	\$29 451 102 Qty : 120 817	\$28 014 999 Qty : 118 820	\$32 320 984 Qty : 156 729
	Sports and Leisure	\$9 503 178 Qty : 120 020	\$10 214 987 Qty : 285 028	\$11 124 832 Qty : 315 883	\$10 187 210 Qty : 298 012	\$8 129 823 Qty : 286 729
	Games	\$56 954 850 Qty : 812 015	\$51 875 327 Qty : 785 011	\$50 871 039 Qty : 775 712	\$49 012 444 Qty : 721 543	\$49 238 981 Qty : 699 341
	Music & DVD	\$34 123 198 Qty : 513 052	\$29 875 602 Qty : 465 027	\$31 954 214 Qty : 315 883	\$31 987 871 Qty : 310 140	\$30 017 985 Qty : 286 757
	Jewellery	\$19 421 144 Qty : 90 051	\$18 987 325 Qty : 84 029	\$18 786 147 Qty : 86 541	\$19 120 014 Qty : 88 141	\$18 951 051 Qty : 75 721
	Kitchen and House	\$65 867 602 Qty : 482 911	\$64 875 621 Qty : 475 214	\$59 526 749 Qty : 478 880	\$58 140 798 Qty : 471 741	\$63 146 847 Qty : 546 774
	Total	\$275 687 481 Qty : 3 299 044	\$262 936 307 Qty : 3 368 616	\$256 655 256 Qty : 3 078 109	\$249 714 743 Qty : 2 988 147	\$253 074 712 Qty : 2 976 082



...continued

Choose the skin template of your application, or create it. And **your entire application** benefits from the **style book** defined this way regardless of the version of Windows: XP, 2000, 2003, 2008, Vista, 7, 8...

STYLES

A style defines the different attributes of a control: color, border type, font and size of the label, font of the editable area, ...

All the elements of a style can be customized. Styles can be defined for any type of control.

Benefit: when a style is modified, all the controls that refer to it are immediately and automatically modified, in all project windows.

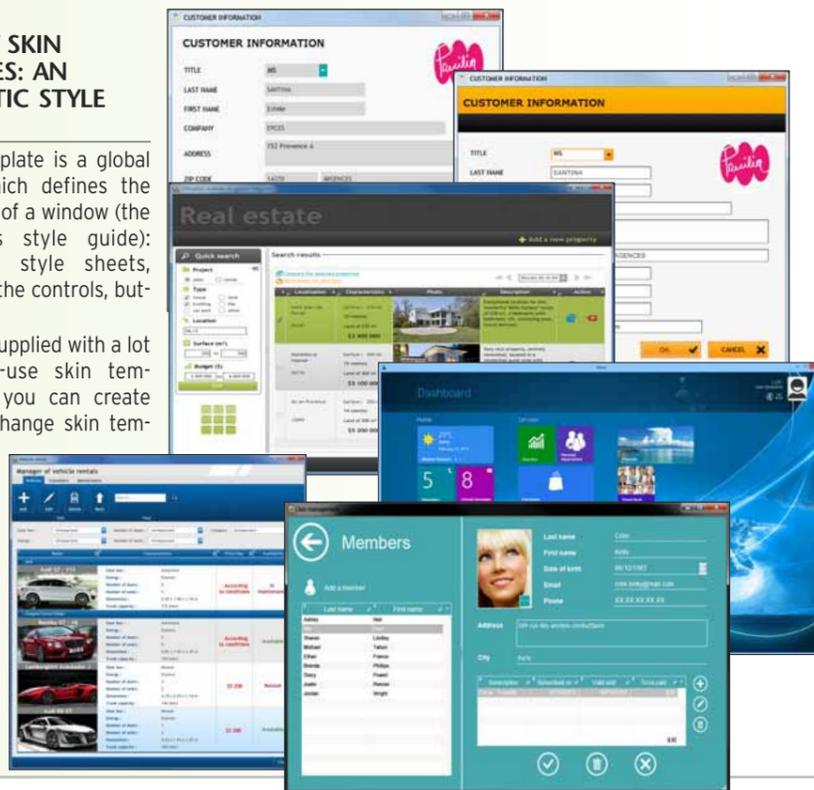
APPLY A STYLE BOOK IN ONE CLICK

WINDOW SKIN TEMPLATES: AN AUTOMATIC STYLE BOOK

A skin template is a global concept, which defines the general look of a window (the application's style guide): background, style sheets, locations of the controls, buttons,...

WinDev is supplied with a lot of ready-to-use skin templates, and you can create your own. Change skin template, and the window or the application changes style!

The end user can change the skin template.



...continued

THE INTERFACE CHECKER WORKS IN THE BACKGROUND

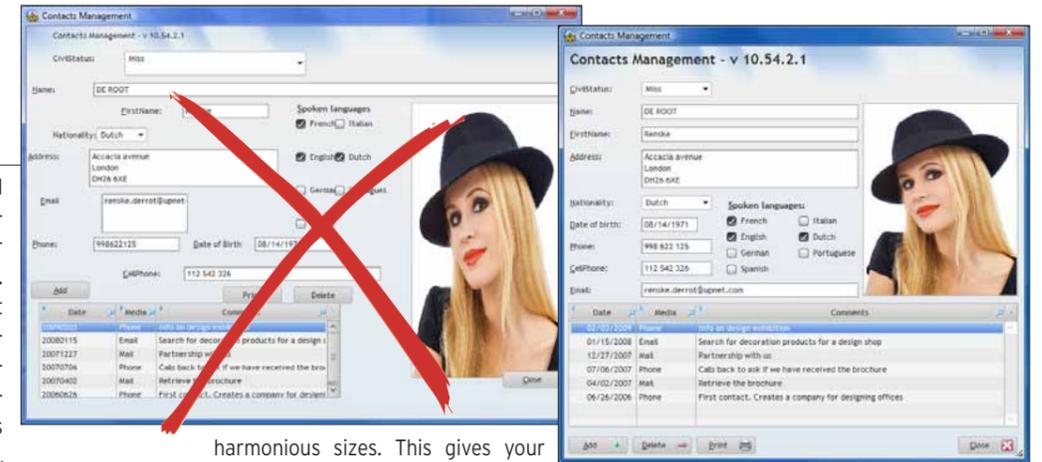
The real-time UI checker lets you immediately arrange your controls with precision. From the time you start developing your application, controls are perfectly aligned, respecting user-interface rules and Windows standards.

The controls are positioned in real time by a smart snap-on feature that deduces their position based on all the other controls' position.

You automatically deliver well-designed windows, with perfectly aligned controls and

Say no to ugly, hard-to-use windows

AUTOMATIC INTERFACE CHECKER



harmonious sizes. This gives your application a professional look from the onset.

Combined with style and templates, the UI checker lets you create stunning interfaces.

UI COMPILER

When compiling a project, the windows'

content is analyzed.

Errors are flagged during compilation: control too small, missing image...

Deliver clean and stunning windows from the get go with WINDEV 18.



...continued



CONTROL ACCESS TO YOUR APPLICATIONS' PROCESSES

Adding access control to your applications is easily done in the editor.

No programming is needed to insure secured access to your applications, simply activate the "Groupware" option.

Don't hesitate to limit access to your applications' sensitive data (personal salary,

numbers, ...)

The password input windows are automatically generated, using your project's skin template.

GRANULAR ACCESS CONTROL

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

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

THE SUPERVISOR MODE

The supervisor of the application will be able to configure the rights granted to the users at any time. A friendly editor lets you define and manage these rights.

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

LDAP

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

Automatically make your applications secure, without coding anything!

INHERITANCE AND OVERLOADING OF UI (WINDOWS, CONTROLS) AND CODE

Your projects' size has increased with time and with the breadth of WINDEV.

Your main projects now often count 700 to 800 windows (according to the latest poll, the average number of windows per project is 278).

Inheritance and overloading enable you to perform **"overall" modifications** on some control properties and source code for a set of windows: WINDEV 18 offers templates, inheritance and overloading.

EASY CHANGES

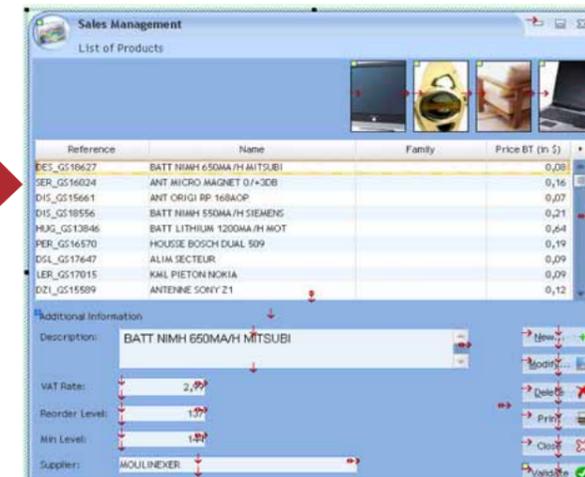


Window template



A first window derived from the template with overload.

Note that the little yellow square represents the inheritance link with the template's controls.



A second window derived from the template with overload of the template's "size" property: the size of the window has been modified.

Control properties (UI and code) can also be overloaded.

create a new window, it can be based on one or more templates.

Window creation becomes standardized. You can also apply a template to an existing window.

When a template is modified, WINDEV 18 offers to modify all the windows that use this template.

If some windows should not follow the template any more, you can dissociate them from the template.

If in some other windows you may wish to only dissociate some controls from the template, or some parameters of these controls (the control location for instance), you can also do it.

INHERITANCE, OVERLOADING

The window and control templates allow you to share and re-use a set of controls and to overload them in order to modify them.

You easily can take advantage of the inheritance and overloading concepts, at the code level but also and mainly for the controls' other properties (position etc.).

These new concepts allow for an optimized and easily modified UI.

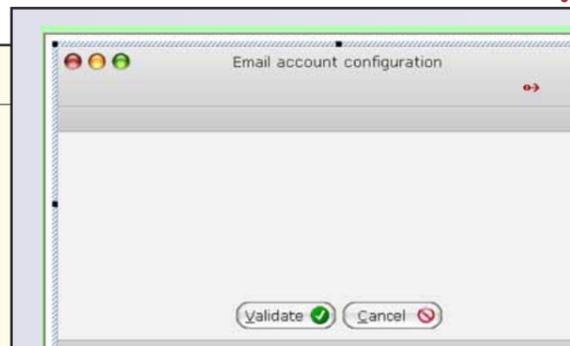
CONTROL TEMPLATE

This technology can also be used with controls. You can define a control template or a set of control templates, that can be reused in several windows or several times inside the same window.

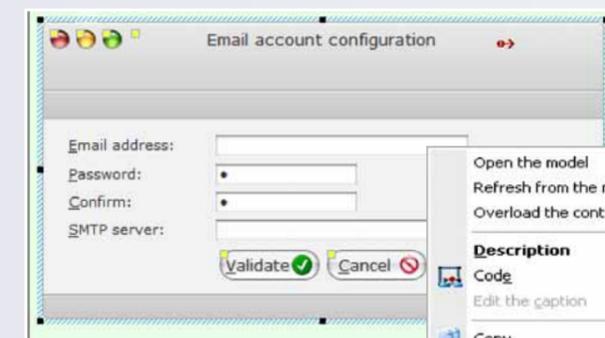
These controls can be overloaded for the GUI properties and/or for the code.

OPERATING MODE

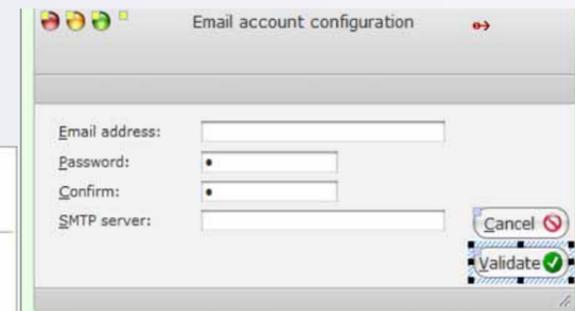
1. The first step consists in creating the template (window template). You simply create the window as you would normally do. All the properties and code defined for this window will be applied to the window derived from this template.
2. Controls are usually added to the template then. Properties and code are entered.
3. When creating a new window, you can specify that it derives from a template.
4. You can also apply the template to an existing window, or create a template of template.



Simple window template: only 2 buttons... Note the skin template used here (comes with the product). No coding is needed to benefit from this feature.



The template was used to create a window. The yellow squares identifies the controls coming from a template.



A button has been grayed out, the "validate" button has been customized (size and position), and inherits the other properties of the button (code, style, etc...) The blue square indicates these modifications.

5. In the "derived" window (which inherits the properties and the controls), you can overload the window's properties: change its size, make it non-resizable, add a background image, etc. The same is true for the code
6. The implementation is the same for controls. You can move them, make them invisible, change their size, overload their code. You can for example run some verification code before executing the click code defined in the template.



REMINDER

You're already familiar with version 17? Please note that there is a 76-page technical document dedicated to the 918 new features in version 18. Available in PDF format upon request at www.windev.com.

MANAGER

The very powerful concept of templates, inheritance and overloading let you easily manage the future modifications of the entire UI of an application, without having to retool each single window.

NEW

Various new features

AAF TECHNOLOGY

Windows and controls inherit from AAF

MAIN POINTS

Easy modifications of a set of windows
Customize modifications for each control setting



Easily create sophisticated reports

A POWERFUL REPORT GENERATOR (PDF, BAR-CODES...)

Creating reports with WINDEV 18 is easy, either via coding or using the report generator **provided with the product**.

The PDF standard is supported, as well as **page background, bar codes, labels...** and everything you need

And you can **distribute** the report generator itself **for free** with your applications.



Print preview example; note that you can totally customize this preview

MANAGER

Drawing your reports instead of coding them saves a lot of time. Integrated PDF printing is also an appreciated touch. The distribution of the report editor is free.

NEW

Copy within preview
Positioning by zoom
Switch from portrait to landscape
Printing the HTML content

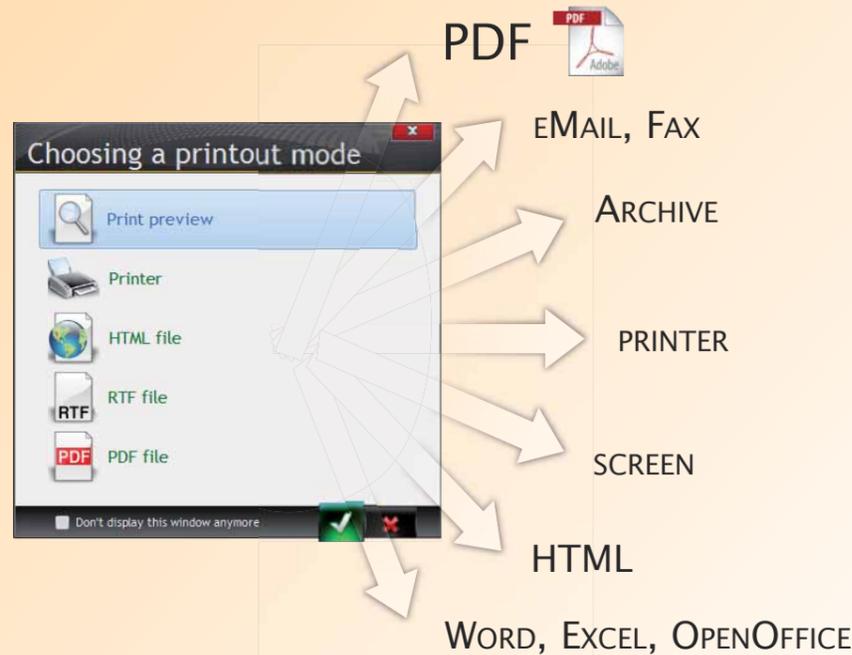
AAF TECHNOLOGY

Print preview
Export to Word, Excel, PDF, fax, email

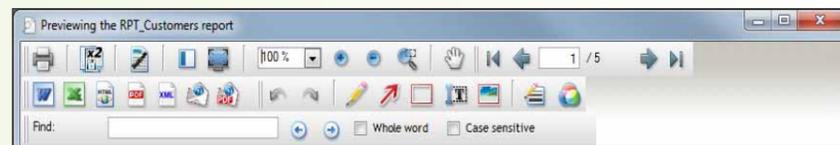
MAIN POINTS

Create reports using drag and drop
Automatic bar codes
Source code can be added to the report
Free distribution

ONE REPORT, ANY TARGET...



ANY TYPE OF APPLICATIONS



Preview menu: export the result to Excel or Word, create PDF with a single click... or send the report by e-mail.



TARGETS

- Laser printer
- Thermal printer
- Ink jet printer
- Dot-matrix printer
- Sublimation printer
- Page background
- Form
- Labels
- Mailing
- Fax
- Archive (Duplicate)
- Images and photos
- Business charts

Easy reports

CREATING A REPORT: EASY

A wizard helps you create reports; it asks questions so you won't forget anything! You can of course print reports by using traditional programming commands.

SOURCE CODE WHEREVER YOU WANT IN THE REPORT

WinDev also lets you include any executable

source code anywhere in a report: this way you can create your most custom reports without any problems.

ANY DATA SOURCE

The data used for a report can come from any source: Hyper File, Oracle, Access query, text file, memory, table,...

DISTRIBUTE THIS REPORT GENERATOR FOR FREE WITH YOUR APPLICATION



PROVIDE A REPORT GENERATOR TO YOUR END USERS

The distribution of the report generator ("Reports and Queries") to your user can be done freely and at no cost!

Make your users autonomous, while freeing the I.S. department from time consuming tasks!

CLICKABLE CONTROLS

In print preview, report controls can be clickable (and therefore start processes), or even be Internet links. Skin templates apply to print preview.

PRINTING LABELS

WinDev enables you to print labels, page by page or on continuous form.

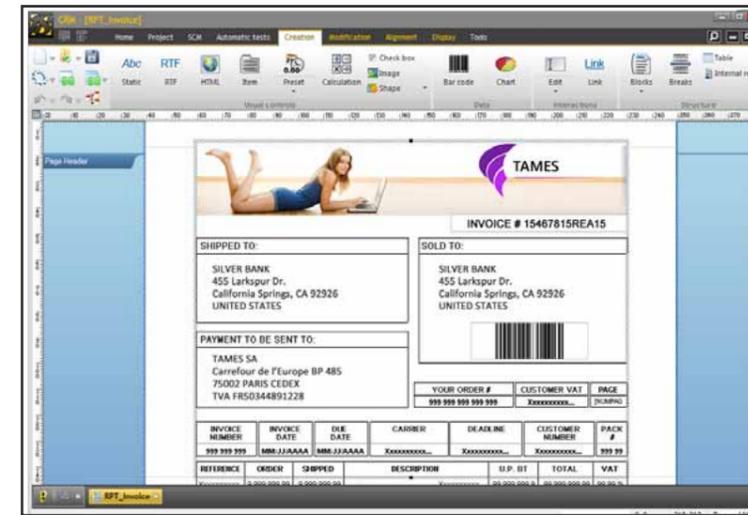
PDF AND FORM BACKGROUND

The report editor supports PDF page background (form image printed on blank paper) and preprinted forms, and allow display and input in these forms.

IMAGES: AUTOMATIC

Including images - BMP, TIFF, PCX, GIF, JPEG, etc.- in a report is extremely simple. The image can be preset (logo, for example), or come from your program (photo of the product, ...).

Reports are made easy with WINDEV!



Easily create sophisticated reports.



Labels

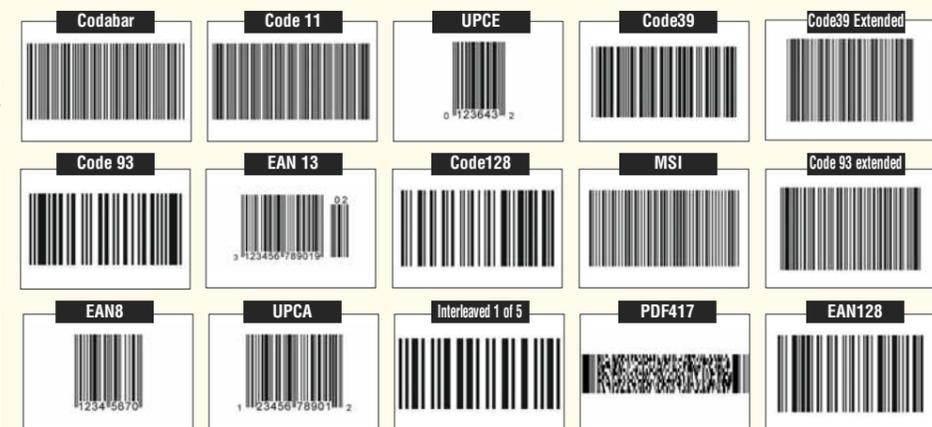
Watermark

Form

AUTOMATIC BAR CODES

WINDEV 18 automatically prints and displays the bar-codes (horizontally or vertically).

The supported formats are: QR, UPCA, EAN13, EAN8, CODE128, CODE39, CODE93, CODE11, CODE28, Intervaled 2 of 5, CODABAR, CB_MSI, Datamatrix, PDF417,...





WLANGUAGE: 5TH GENERATION, EASY, POWERFUL, EVOLVING

The integrated WINDEV language, WLanguage, is powerful, simple and intuitive.

It's a **fifth generation language** (5GL), which means that its commands are highly sophisticated. A WLanguage command can replace dozens or even hundreds of 4GL commands, making programming easier and more reliable.

No more unnecessary complexity, no more incomprehensible APIs, no more out of bound pointers, no more useless programming!

```
FOR EACH Customer
    Email.Recipient = Customer.EmailAddress
    Email.SendMessage("CustomSuggestion")
END
```

Take the test: do you understand this code?
Yes, because WLanguage is so readable.
Here, an e-mailing.

MANAGER

A 5th generation language means up to 90% less code: which means faster coding, less chances for bugs, easier maintenance. And you choose your runtime target.

NEW

More than 100 new WLanguage functions secure FTP, Wi-Fi functions
JIT inference on OOP and structures
ArrayReverse
New types: Enumeration, Combination
Spell out numbers

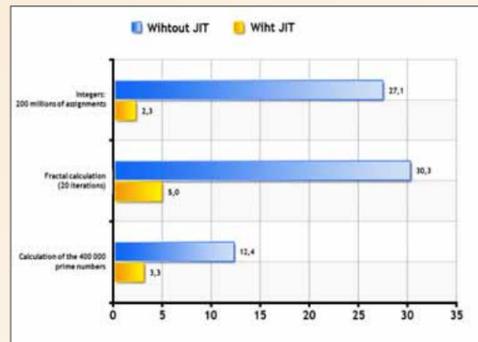
AAF TECHNOLOGY

User Macro-Code (UMC)
Automatic Language Security

MAIN POINTS

Fast learning: it's a 5GL
Easy to use, powerful, fast and reliable
Easy maintenance

JIT COMPILATION



JUST IN TIME COMPILATION (JIT)

The principle behind "Just in Time Compilation" -JIT- is as follows: the WINDEV 5GL code is converted on the runtime machine into "native assembly" code when executed.

The execution speed is faster for all instructions, and especially for integer calculations and real number calculations.

A POWERFUL AND INTUITIVE LANGUAGE

WLANGUAGE TYPES

WLanguage offers 3 categories of types: simple type, structured type, heterogeneous structured type.

Simple type example: integer, system integer, integer on 8 bytes, unsigned integer, boolean, string, decimal on 38 significant digits.....

Structured type example:

array, associative arrays, stack, file, list, structure, class, ...

Heterogeneous structured type example: XLSDocument, gglCalendar, rssStream,...

THE STRING TYPE: INCREDIBLY POWERFUL

No "buffer overflow" type error is possible with strings.

Memory allocation for string management is automatic (automatic concatenation).

Strings accept binary content.

The "[]" operator lets you easily access a piece of the string.

A lot of high level functions are available: find, replace, uppercase, left, right, middle, string extraction, automatic extraction of directory name or file name from a full path, conversion from/to numeric/date/time, etc.

Regular expressions are supported.

Optional concatenation allows for automatic management of the CRs at the end of lines or of the / in a path... Formatted strings are supported.

MULTITHREAD

WLanguage is multithreaded. You can define and use semaphores, critical sections, signals as well as Mutex.

INDIRECTION

Indirection in WLanguage lets you access variables or controls from a string corresponding to their name.

"DEFENSIVE" PROGRAMMING

WLanguage offers a safe programming language.

EASY OOP

The Object Oriented Programming (OOP) is fully supported (see below).

The legendary simplicity of WINDEV makes object oriented programming a lot easier than with the older generation, traditional programming languages.

OOP (OPTIONAL USE)

- Classes
- Inheritance, multiple inheritance
- Reflection
- Overloading
- Virtual methods (polymorphism)
- Constructor
- Destructor
- Data encapsulation: public, private, protected
- Easy programming in 5GL
- Automatic freeing

32 or 64 bits: the source code is 32-bit and 64-bit compatible, you choose at compilation time.



The source code is compatible with Windows 32, Windows 64, Linux (server and console mode), ARM 32 and 64.

COMPILER

The WLanguage compiler is integrated into the environment. A simple GO command on a window does not require a full project recompile: the potential errors and warnings are immediately detected.

INTEGRATED DATABASE ACCESS

WLanguage is optimized for all aspects of database management (see p 38 and hReadSeek p 41). The database structure is automatically recognized by the compiler.

They're easy to handle: `customer.name` for instance.

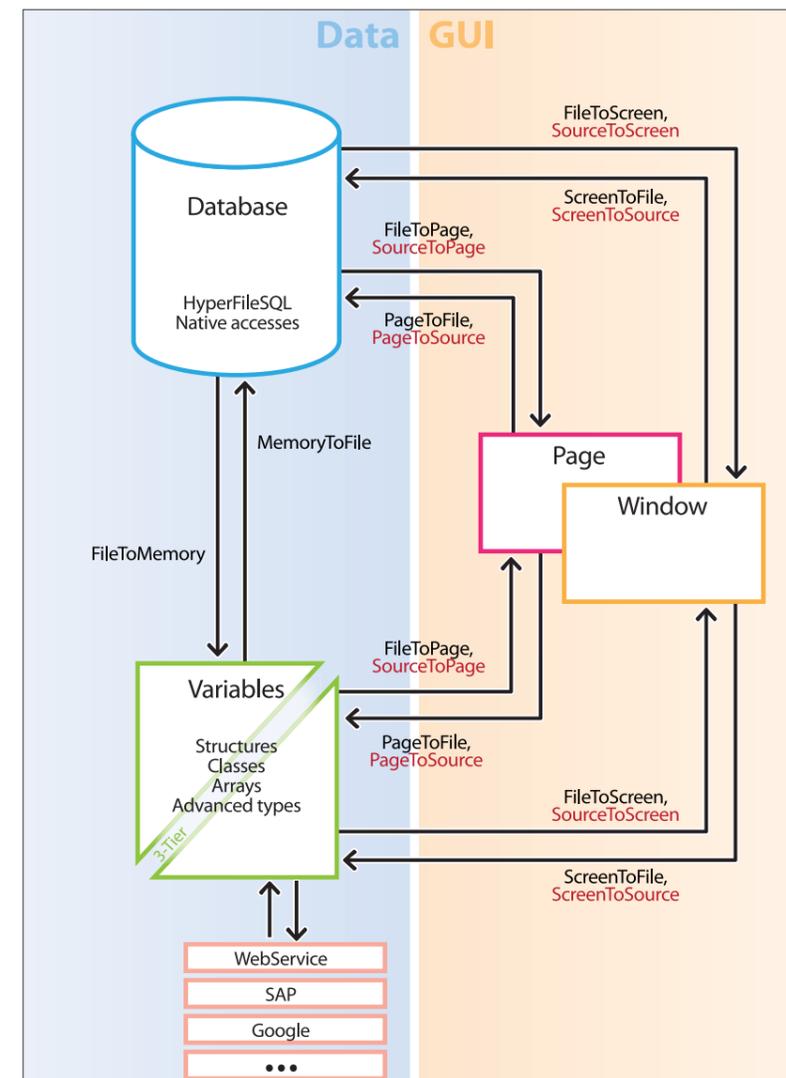
It is very easy to program secure database accesses thanks to a revolutionary concept.

DATA BINDING

Data binding allows you to link variables in memory with controls (in a window). These variables in memory can be: simple variables, a class, a structured element of the language (Google Calendar, XLS worksheet, RSS feed, etc.).

One line of code (`SourceToScreen`) fills all the controls with the class members for instance.

A table's content can be filled automati-



WLANGUAGE: THE 5TH GENERATION

WLanguage is a 5th generation language: commands are short, precise and easy to understand. A WLanguage command usually corresponds to dozens of 4GL commands!

SELF-COMMENTED CODE

WLanguage is in English by default.

This means that when you read code, you can understand it immediately.

WLanguage is also available in French, translation from one language to the other is automatic.

RECURSIVITY

WLanguage totally supports recursive operations, with call stack, result unstack, call context, ...

PROCEDURES

WLanguage lets you create and use procedures. These procedures can be grouped into sets of procedures, which can be shared among several projects (WINDEV, WEBDEV, ...)

You can choose to type or not the parameters (duck typing).

WLanguage supports procedures with a variable number of parameters.

SECURITY

WLanguage offers security against buffer overflow errors.

You cannot write outside a string or access an element outside an array.

This limits the number of bugs and reduces the potential for security breaches.

TOTAL OPENNESS

You have access to all the Windows features and all the standards: API, DLL calls, ActiveX, .NET, J2EE, events... (see p 52 and 53).

NO MORE COMPLEX APIS

With WINDEV 18, you don't need to manage APIs in your code for all the programming operations. But when required, for special cases, they are available.

Programming is simpler, clearer, and safer with the WinDev 5GL.

The same program will work in Windows 2000, 2003, 2008, XP, Vista, 7, 8...

DYNAMIC COMPILATION

WLanguage supports dynamic compilation. You can create (or configure) by programming the code to execute!

EXCEPTION MANAGEMENT

Exceptions are supported in WLanguage.

WLanguage is an intuitive yet powerful language which helps write quality code fast.

THE CODE EDITOR: THE DEVELOPER'S FRIEND

The code editor is **totally integrated** with the environment.

It is intuitive to use for both novice users and accomplished developers.

Constant assistance is offered at each step (can be configured or turned off).

Powerful **formatting and coloring** features make it easy to type and read code.

Your source code can be managed by SCM, the integrated versioning tool (see p46).



MANAGER

The WINDEV 18 code editor assists the code writing process. It is fully integrated with the environment, which improves its performance.

NEW

- Revamped search
- Pre-filled Switch statement
- Instant access to a procedure
- Open the "7-tab" window directly for current

AAF TECHNOLOGY

User Macro-Code (UMC)

MAIN POINTS

- Complete integration
- Constant assistance
- Extreme user friendliness

A REVOLUTIONARY CODE EDITOR

Process executed when:

- Control initialization
- Entry in the control
- Control exit
- Whenever modified

```

1 Initialization of EDT_END_TIME
2 IF EDT_END_TIME = "" THEN
3   EDT_END_TIME = Now()
4
5 Exit of EDT_END_TIME
6
7 // Check whether the end time is after the start time
8 IF EDT_END_TIME > EDT_START_TIME THEN
9   duDuration = TimeDifference(EDT_START_TIME, EDT_END_TIME)
10  // Transmit the data to the robot via Sockets
11  SocketWrite("RobotConnection", duDuration)
12 ELSE
13  Error("Enter an end time greater than the start time.")
14
15 Whenever Modified of EDT_END_TIME
    
```

Coding is intuitive, all you have to do is enter the process to run in the corresponding event (in an edit control in this case). Note the row of icons at the bottom of the page which lets you add events.

HReadSeekFirst(CUSTOMER, Item Name, Sought Value, Options)

CELLPHONE
City
Company
Customer
Customer
EmailAdre
EnteredBy
Fax

<Item Name> : Character string (with or without quotes) ...

Name of the item on which the search must be performed. This item can be a search in HyperFile SQL 5.5: The search can only be performed on a key item.

The assisted input proposes a help for each parameter, as well as possible values according to the project data (variables, global variables, data structures).

A VERY POWERFUL DEBUGGER

The user-friendly debugger offers advanced features:

- break points
- step-by-step execution
- variable visualization
- "edit & continue": modification of the running code
- real-time call stack
- thread and component debugging
- formatted display of HTML data, image, RTF...
- "set next statement"...

```

Exit of EDT_Name - Debugging...
//Search by name
HReadSeek(CUSTOMER, CustomerName, EDT_Name)
IF HFound(CUSTOMER) THEN
  FileToScreen()
ELSE
  Info("This customer doesn't exist")
END
    
```



The profiler displays the recorded execution time for the processes

Among the dozens of wizards, here's the RS 232 serial link code generator

Feature wizard

Parameters for opening the port

Specify the type and the port to open

Serial port: COM1

Rate (baud): 9600

Parity: Even parity

Data bits: 8

Number of Stop Bits: 1

Specify the size of the buffers and the wait duration

Size of Input Buffer (in bytes): 4096 oct

Size of Output Buffer (in bytes): 4096 oct

Waiting time in milliseconds: 100

The RS 232 serial link wizard...

```

//Begin of generated code
GLOBAL
Port is int
LOCAL
Rate is int
Parity is int
DataBits is int
StopBits is int
Port = 1
Rate = 9600
Parity = 1
DataBits = 4
StopBits = 1
// Open the specified port
sOpen(1, 5000, 5000)
// Initializes the settings of the serial port
sParameter(Port, Rate, Parity, DataBits, StopBits)
    
```

... and the generated code

ENTERING CODE

The code is directly entered in the appropriate "event". It's simple and intuitive: you feel like you're just entering comments!

PROGRAMMING CHARTER

The code editor lets you activate a programming charter (prefix variable names), and even lets you define your own prefixes. These prefixes are colored and can be hidden.

The editor even adds the prefixes while you're typing if you've activated this option

The prefix is set based on the variable's type: local, global, according to the control's type...

SOPHISTICATED ASSISTED CODE ENTRY

The self-complete code feature is powerful for entering commands, variable or control names. Whenever required, a wizard proposes to generate the code for you (150 wizards).

PROFILER

The profiler is used to optimize performance: you can analyze the time used by each instruction in your program, detect functions that are called x numbers of time ... Results are presented clearly, you can act immediately.

INTELLIGENT RENAMING

When a variable is renamed, WINDEV offers to rename this variable everywhere it's used (either one at a time or globally).

AUTOMATICALLY GENERATE A CLASS DIAGRAM

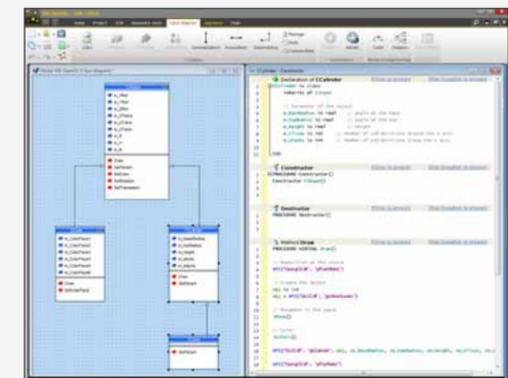
Starting from existing classes (project reuse), WINDEV automatically builds a UML class diagram with its relationships (inheritance, aggregation). This provides a global view of the architecture.

UML CLASS DIAGRAM: AUTOMATIC SYNCHRONIZATION

When you modify the code of a class or a structure (add a new member for instance), your UML diagram is automatically updated with your changes.

No more out-of-sync UML diagrams!

Conversely, if you'd rather like to modify your classes or structures from the UML diagram to benefit from a more global view, your modifications will be automatically



applied to the source code of classes and structures.

EASY TEAM WORK

The versioning tool is fully integrated with the environment, and makes working in team a breeze (up to 100 developers); it makes comparing versions and backups easy as well. Each version of your application is automatically backed up.

COMPARE CODE, WINDOWS, UI...

A window that used to work three weeks ago has been modified by an intern, and does not work anymore. How do you find the differences? Simply use the "element comparison" feature: the two elements are analyzed, and their differences (code, UI, etc.) are displayed on the screen.

OPEN TO OTHER LANGUAGES

The code editor also lets you enter SQL code, Java code (in a Java WINDEV project), PHP code (in a PHP WEBDEV project), ...

A developer spends a lot of time in the code editor. Therefore it is important that this editor be the most efficient possible: the WINDEV 18 code editor will be his pal!

REMOTE DEBUGGING

You can debug an application that is running on another machine, connected via the network or Internet. From your office in London, you have the ability to debug an application running in Taiwan! You can also debug dump and then debug offline.



Get the list and details about thousands of functions on windev.com

THE WLANGUAGE FUNCTION FAMILIES



...continued

In addition to the traditional commands of a programming language (For, If Then Else, If Then Else, While, ...) WLanguage offers 5th generation type function families.

Here are the "function families":

- Managing the windows
- Window control management
- Mathematical functions
- View table management
- String management
- Popup menus, scroll-down menu, ribbons
- Dates and times
- Calendar functions
- Organization Chart function
- Scheduler functions
- Organizer functions
- Treeview
- Pivot Table functions Dynamic OLAP (TCD)
- Timeline functions
- Multiline Zone functions
- Internal Window functions
- Functions for managing radio buttons and check boxes
- WiFi functions
- The toolbars
- Functions for managing the messages and the dialog boxes
- Drag and drop
- Drawing functions
- Business charts (line chart, bar chart, pie chart...)
- Net functions
- J2EE, SOAP functions
- HTTP functions
- Domotics functions
- Emails
- Telephony (TAPI)
- General exception mechanism
- Software Management
- Fax
- User groupware
- SQL functions on HyperFileSQL
- ODBC specific functions
- Database management functions (HyperFileSQL and others)
- Assignments
- Read commands, modification with or without automatic reading of the record...
- Useful commands
- Remote access
- Describe a connection (not described in the data model) on a third-party database Oracle, MYSQL, etc.
- Temporary table description
- Custom error management
- View management (temporarily load part of the table in memory)
- Filter management (temporarily store part of the table on disk)
- Trigger management
- Logs
- Replication
- Transactions
- Other functions
- Print functions
- Font management
- Java functions
- Third-party language: Java, C++, C#, VB, Cobol, Fortran etc...
- List and combo box control management
- Binary value management functions
- Financial functions
- Matrix management
- Statistical functions
- Image animation
- Multimedia function (video, sound, ...)
- TWAIN device management: scanners, camera, ...
- MDI functions (non modal multi-windowing)
- Memory zone management functions
- Multilingual functions
- FTP & secure FTP functions
- RPC
- Control an application via OLE automation
- ActiveX
- DDE management functions
- Miscellaneous Windows functions (API call, DLL)
- Windows certificates
- Windows events
- Miscellaneous WinDev functions
- XML native functions
- Excel native function
- Serial and parallel ports
- Clipboard and recycle bin
- Project management
- Action plans (Continuous integration)
- The registry
- Socket functions (SSL,...)
- The mouse
- System functions
- The threads
- OPC
- Disks, files and directories
- Network management
- File archiving and compressing (ZIP, ...)
- USB
- CD and DVD burning
- EXIF (digital images)
- 3-tier
- LDAP functions
- SAP functions
- Bluetooth functions
- SNMP functions
- Lotus Notes functions
- Google functions
- RSS functions
- OBEX functions
- Service functions
- Task scheduler
- Application update functions (Live Update)
- Debugging functions
- Array functions
- UMC functions
- Automatic test functions
- Lock functions
- DNS functions
- Xaml functions
- ...

THIRD-PARTY LANGUAGE: JAVA, C++, C#, VB, PASCAL, COBOL, FORTRAN...

...continued

You have "existing" code ». WINDEV lets you use this code. You can enhance your legacy applications or migrate them smoothly.

WINDEV 18 is open to third-party languages and interfaces with your existing code regardless of the language!

You can call a third-party language from WINDEV. From your third-party language, you can call WINDEV (source code, windows, and so on). Your legacy code is preserved. From WINDEV you can also call programs written in another language (compiled as DLLs or assemblies).

C and C++ language

```
void Display_Customer(void) {
    nWDEExecute("hReadSeek(Customer,Name,\"SMITH\")");
    nWDEExecute("hFound");
    if (bWdGetReturnValue())
    {
        nWDEExecute("FileToScreen");
    }
}
```

COBOL

```
* Opening the window
CALLWD using
by reference "Open,find" & x"00"
* Find customer
call CALLWD using
by reference "hReadSeek(Customer,Name,"Smith'" & x"00"
call CALLWD using
by reference "HFound" & x"00"
call CALLWD using
"FileToScreen" & x"00"
call CALLWD using
"ValidateButton..Color=iLightGreen" & x"00"
```

JAVA

```
JAVA void Display_Customer(void)
{
    CALLWD("hReadSeek(Customer,Name,\"Smith\");
    CALLWD("hFound");
    if (WdInt() != 0)
    {
        CALLWD("FileToScreen");
        CALLWD("ValidateButton..Color = iLightGreen");
    }
}
```

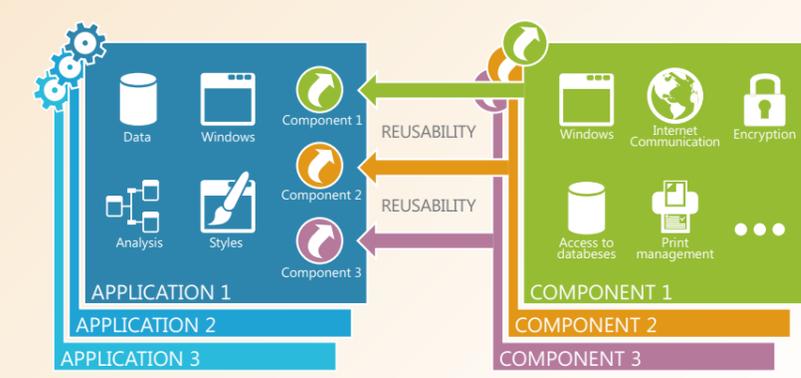
VB

```
Sub DisplayCustomer()
    Call callwd("hReadSeek(Customer,Name,"SMITH")")
    Call callwd("hFound")
    If WdEntier = 1 Then
        Call callwd("FileToScreen")
        Call callwd("ValidateButton..Color=iLightGreen")
    End If
End Sub
```

CREATE COMPONENTS: REUSE YOUR CODE!



DON'T KEEP REINVENTING THE WHEEL

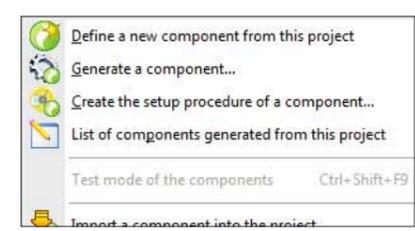


For years development teams have been looking for ways to **reuse** their legacy code instead of constantly reinventing the wheel.

WINDEV 18 innovates by offering the "automatic component" concept.

A "component" is simply a **piece of code** (with or without windows, files, etc.) **encapsulated, secure**, that several applications (written with WINDEV, WEBDEV or WINDEV Mobile) can **share**.

Professional development just became easier.



Creating a component only requires one click

MANAGER

A component is a building block that can be reused. A WINDEV component prevents you from reinventing an existing routine. A WINDEV component is as easy to create as an application.

NEW

Groupware on component elements
Order by folder, search by component

AAF TECHNOLOGY

Automatically adapt to the skin template of the host application

MAIN POINTS

- Easy creation
- Hot update
- Protected source code
- Shared with WebDev and WinDev Mobile

MAKE REUSING CODE EASIER, MAKE YOUR APPLICATIONS MORE RELIABLE

A component is a black box, created by a developer who can then reuse it; a component is also available to other developers. Only the entry points and the type of information returned are made public. Once a component has been tested, each program that uses it benefits from its reliability. Without any additional work the quality of your applications automatically improves.

A COMPONENT: A REUSABLE PROGRAM

A component may be very simple or very sophisticated.

A component can include an analysis, tables, windows, source code, classes, queries, procedures, reports, etc...

A component can itself use other components, or external data: database, Internet access...

CREATE A COMPONENT, THEN REUSE IT ENDLESSLY

A component can be used simultaneously by several applications.

SECURE YOUR COMPONENTS

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

AUTO DOCUMENTATION

When saving the component, WINDEV analyses it and generates a documentation outline.

AUTOMATIC SETUP

The installation of a component is automatic.

SECURE TEAMWORK

The benefit of using components when working in teams within a company for instance is the productivity gain for the whole team (see also SCM p 46) the component is always up to date, shared by all the developers:

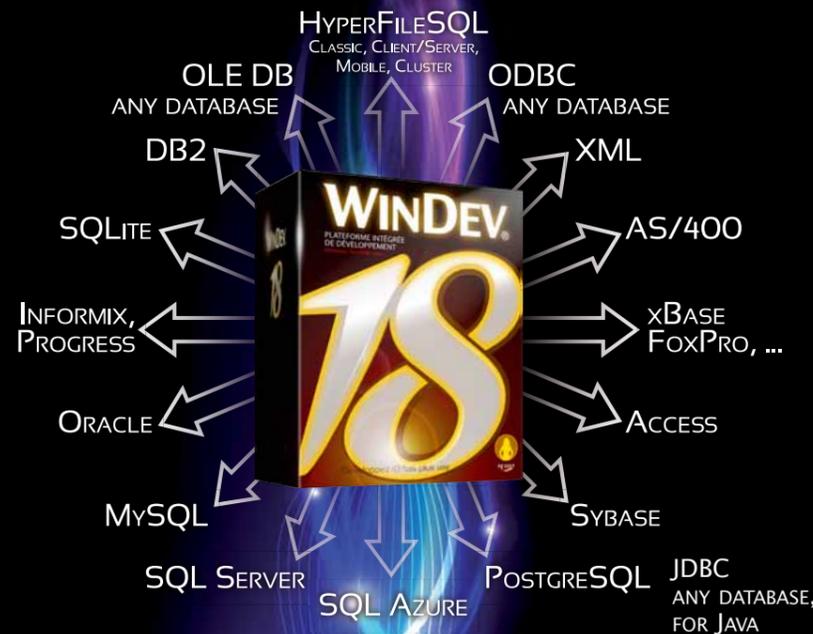
- only one version is used. There is no more risk of using an old class, obsolete code, etc..
- no end user can modify the source code or the analysis, as it too frequently happens with other methods (shared procedures or classes).
- the access to the database can be totally encapsulated into a component, that will be made available to other developers. This way you can secure access to the database.

Create component for each building-block of your applications. You'll make your applications more robust, and you'll save some time.

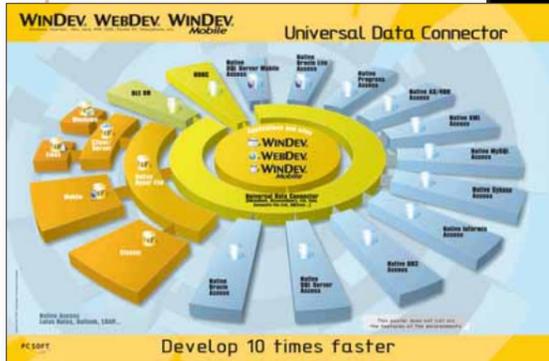
ALL THE DATABASES ARE SUPPORTED

WINDEV 18 lets you use the databases of your choice: HyperFileSQL of course, the powerful database that comes with the product, but also all the other databases on the market through Native Access (additional module), ODBC or OLE DB. This **total openness** insures that you'll be able to interface with any existing code.

PICK THE DATABASE YOU WANT TO USE

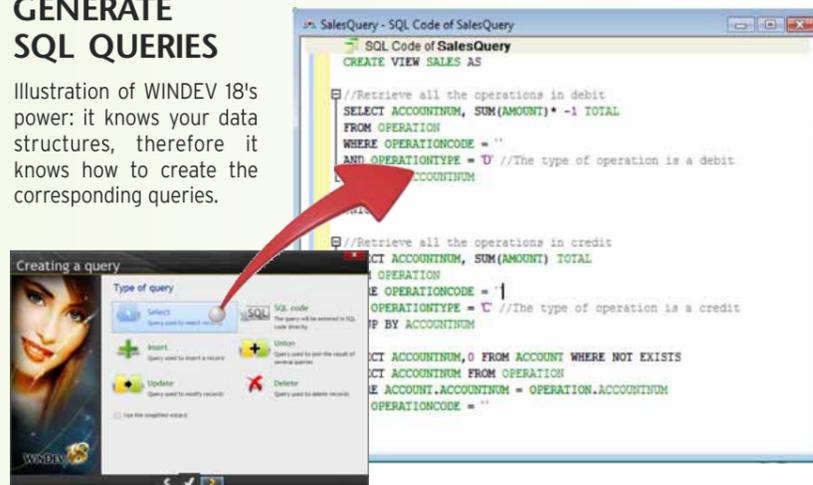


This poster explains universal access to WINDEV 18. data You can download it from the PC SOFT's site, or request a copy from us.



GENERATE SQL QUERIES

Illustration of WINDEV 18's power: it knows your data structures, therefore it knows how to create the corresponding queries.



MANAGER

WINDEV is open to all the databases on the market. The same code is used regardless of the database.

NEW

HyperFileSQL Android

AAF TECHNOLOGY

A lot of automatic features are available

MAIN POINTS

Same programming regardless of the database
Use the existing IS databases

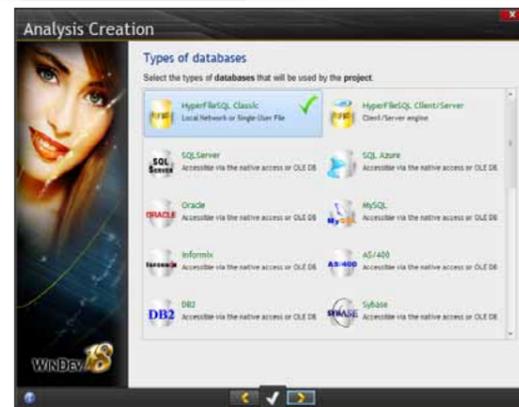
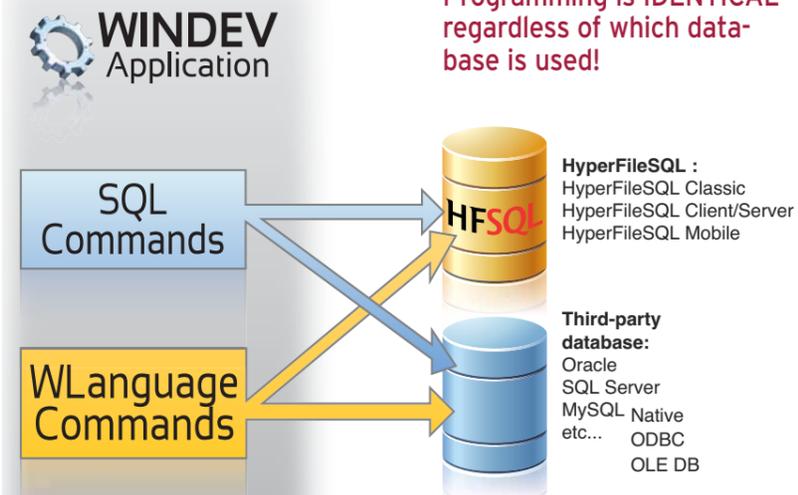
ALL THE DATABASES ARE SUPPORTED

WINDEV can read and write in all the databases, using native access, OLE DB or ODBC (JDBC in Java).

WINDEV 18 INTEGRATES WITH YOUR I.S

WINDEV 18 is open, and integrates perfectly with your existing Information System, to

Programming is IDENTICAL regardless of which database is used!



Defining or reusing a database is very simple with WINDEV

energize it!

THE STORED PROCEDURES

WINDEV applications support database stored procedures.

EASY CLIENT/SERVER

Client/Server development is very simple with WINDEV 18, because on top of the SQL commands, the 5GL commands from the "HRead" WLanguage family are also supported.

This makes your source code more independent from the database, and programming more flexible.

A REVOLUTIONARY PROGRAMMING MODEL

WINDEV 18 offers a 5th generation language totally suited for managing databases

A command such as **ScreenToFile** corresponds to hundreds of lines of traditional code!

ScreenToFile assigns all the window controls' content into the right database columns without having to program anything. No risk of oversight from the developer, no maintenance needed if the window or database evolve. That's how data should be managed: without any risk.

WINDEV 18: THE IDEAL TOOL FOR MANAGING DATA

WINDEV 18 is the ideal tool for accessing all kind of data.

The complete integration of the database structure in the development environment allows for incredibly fast development: each module knows the data you're working with.

PERFORMANCE

The WinDev 18 Client/Server mode is implemented in the WINDEV kernel, and therefore is extremely fast.

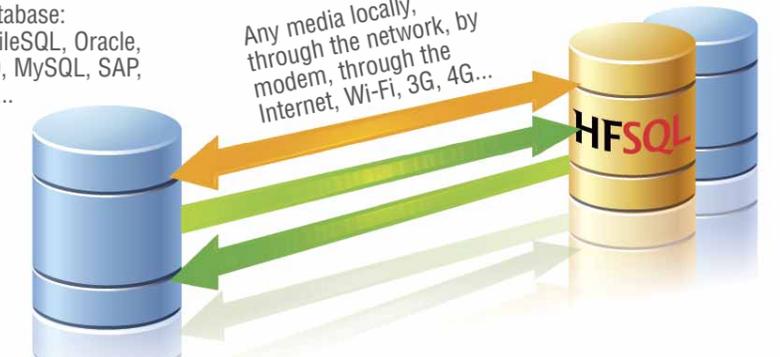
WinDev 18 supports all the databases of the market, using the same programming.

REPLICATION BETWEEN HETEROGENEOUS DATABASES

WinDev 18 gives you the ability to replicate different databases: this makes it easy to mix data from different databases. You can easily replicate an Oracle database with a HyperFileSQL database for instance.

Any database: HyperFileSQL, Oracle, AS/400, MySQL, SAP, mobile...

Any media locally, through the network, by modem, through the Internet, Wi-Fi, 3G, 4G...



Any database: HyperFileSQL, Oracle, AS/400, MySQL, SAP, mobile...



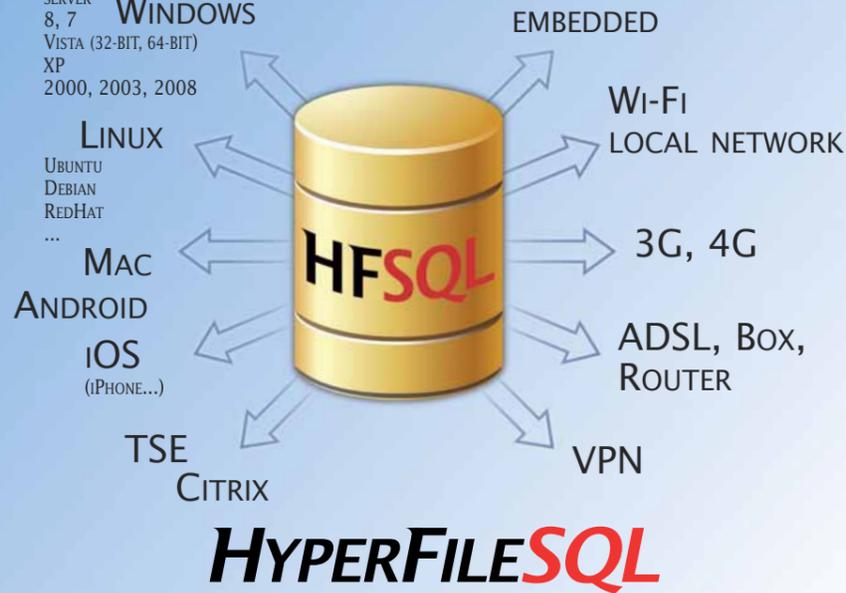
HYPERFILESQL: SQL DATABASE FREE, UNLIMITED

- 100% **Windows**
- 100% **Linux**
- 100% **Mobile**

iOS, Android, Windows RT...

POWERFUL DATABASE

MOBILE SERVER
8, 7
VISTA (32-BIT, 64-BIT)
XP
2000, 2003, 2008



HYPERFILESQL

WINDEV comes with a database, **HyperFileSQL**, which is very powerful, very fast and very reliable.

HyperFileSQL is already used on **millions** of computers.

HyperFileSQL works with Windows and Linux, on Mobiles (iOS, Android, Windows), and with networks of any size and any type, and automatically manages hundreds of concurrent accesses.

You can **freely** distribute the HyperFileSQL engine with your WINDEV applications.

MAXIMUM CAPACITY	
Columns per table	65,535
Index per table	65,535
Rows per table	329 millions of billions
Table size	4 millions of tera
Row size	2 GB
Column size	65,535 bytes

MANAGER

HyperFileSQL is a major asset of WINDEV. Its reliability, its capacity, its speed and its free deployment make it indispensable

NEW

HyperFileSQL on Android
New SQL commands

AAF TECHNOLOGY

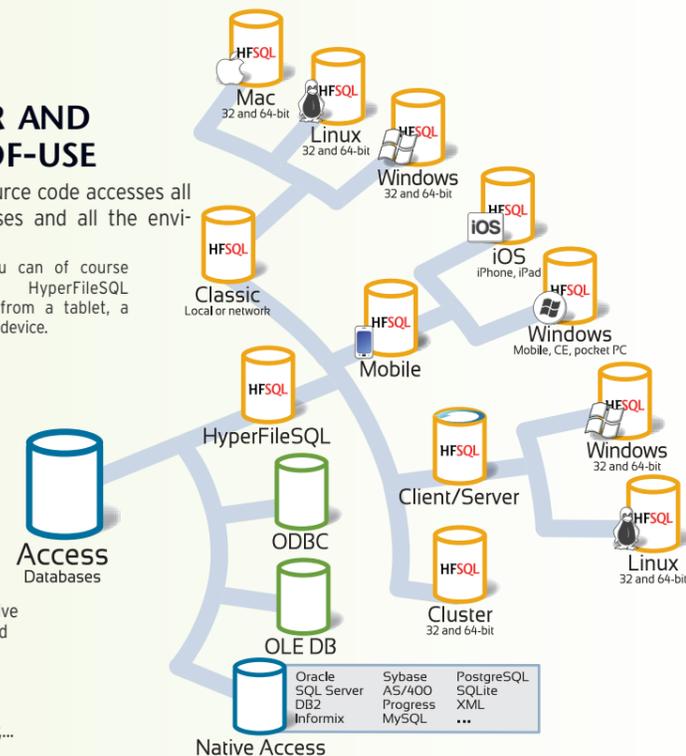
Automatic management of concurrent access
Automatic reindex after hardware failure
History of modifications viewable

MAIN POINTS

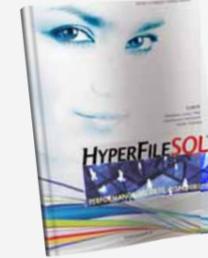
Truly free deployment
Speed and reliability
Windows and Linux
C/S compatibility, Network, Local, Mobile
Automatic administration
Automatic structure change management

POWER AND EASE-OF-USE

A single source code accesses all the databases and all the environments.
Note that you can of course access HyperFileSQL Client/Server from a tablet, a Smartphone, a device.



Reminder: native access included for SAP R/3, Lotus Notes, Google, Salesforce, Outlook, LDAP,...



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

ALL THE TYPES OF DATA ARE SUPPORTED

HyperFileSQL supports all the types of data in tables:

- character strings (phonetic find is available) and binary string
- numeric (integer, real, currency, etc.)
- dates, times, durations
- text and binary memo (BLOB, LOB, image, sound, video etc.)
- the "NULL" value is also supported

All types of keys are supported: automatic identifier, text, numeric, date, time, composite key.

FEATURES
128-bit encryption
Referential integrity
Logs
Multi-server replication
Transactions
Triggers
Import Export
Cluster
Stored procedures
TECHNOLOGIES
Automatic maintenance (SDD)
Concurrent access management
Zero administration
Resume automatically after incident
Automatic Deployment

"CONCURRENT ACCESSES": AUTOMATIC

HyperFileSQL 18 automatically supports concurrent accesses to a row, without any coding (also manages integrity and duplicates). In case of access conflicts, a (customizable) window automatically comes up.

This automated process insures the security and reliability of your applications.

You can also handle concurrent access in your program for special cases.

A PROVEN ENGINE COMES WITH THE PRODUCT: HYPERFILESQL

The HyperFileSQL database engine comes with WinDev.

It is a reliable, robust engine, already used on millions of computers.

HIGH SPEED

HyperFileSQL is extremely fast.

329 MILLIONS OF BILLIONS OF ROWS (RECORDS)...

HyperFileSQL lets you work easily and securely with large volumes of data (up to 329 millions of billions of rows), which allows you to confidently manage the natural increase in data volume of your applications.

TOTAL INTEGRATION

The engine is totally integrated with the development environment.

At any time, in any editor, you have access to the references and to the data dictionary.

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

SQL PROGRAMMING

Of course, you can program SQL queries to access data, such as:

```
SELECT * from CUSTOMER where NAME= 'DOE'
```

WLANGUAGE PROGRAMMING

The power and the simplicity with which WLanguage manages databases is amazing.

For example, searching a table row (record), and all the associated processes (opening the table, assigning data, etc.) is done in one simple, powerful line of code:

```
HReadSeek (CUSTOMER, NAME, "DOE")
```

The source programs are clear, easy to write and especially easy to maintain; this reduces the chance for errors, and makes the applications you develop more reliable, and faster.

Plain English commands makes it easier to

use: the code is self commented!

The **HReadSeek** command can be understood by any developer, even rookies!

You can also program in French: the command becomes **HLitRecherche**.

AND THE CODE IS GENERATED!

This very simple, very fast and very reliable routine is generated upon request by RAD or by the different wizards during window or report creation!

OPEN TO OTHER APPLICATIONS

The ODBC and ole db drivers, which can be distributed freely with your WINDEV applications, let you read and write HyperFileSQL data from third-party programs.

TOOLBOX INCLUDED

A toolbox including a set of useful tools comes with the product: import data, check database, view data, performance optimizer, and more...

AUTOMATIC SETUP, "ZERO ADMINISTRATION"

HyperFileSQL installs immediately, without requiring any other software. For example, if following a physical problem with the database it should be reindexed, it is done automatically. Database administration is automatic: no need to involve engineering resources!

IMPORT/EXPORT DATA

The WDCONVER module, provided with WINDEV, lets you import data in various format: Access, dBase, Text, Oracle...

HyperFileSQL, which is included with WINDEV 18, is an undeniable asset. Reliable, fast, secure, free.....

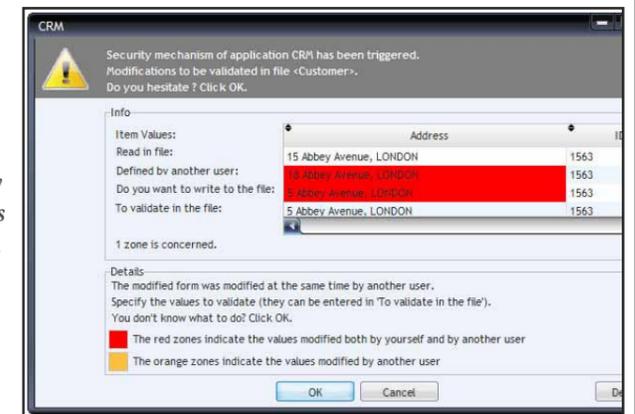
continues page 42...

Here, 2 users are trying to modify the same table row at the same time!

A customizable window is automatically displayed and it asks for the correct value.

No programming is required.

Data integrity is automatically insured.





HYPERFILESQL, CLIENT/SERVER WINDOWS, LINUX, CLOUD

Essential to version 18, HyperFileSQL **Client/Server**.

Compatible with the "Classic" and Mobile versions, the Client/Server version brings the benefits of remote processing in Windows and Linux, as well as cloud hosting.

32-BIT, 64-BIT

HyperFileSQL works both in 32-bit and 64-bit modes. Servers and clients can be mixed.



- Some of the supported Windows servers:
- Windows Server 2012
 - Windows Server 2008
 - Windows Server 2003
 - Windows 2000
 - Windows XP, Vista, 7 and 8 in all their editions.

MANAGER
The Client/Server version of HyperFileSQL enables easy and fast remote access. This version is also free.

NEW
New SQL commands
Replication of servers
Restricted access by IP address
Evolution of the cluster, Cloud

AAF TECHNOLOGY
Secure access

MAIN POINTS
Remote access 100% free and unlimited
Compatible with HyperFileSQL Classic and Mobile
High level of security
Cluster

LINUX OR WINDOWS: YOUR CHOICE

Some of the supported Linux distributions:

- RedHat
- Debian
- OpenSuse
- Ubuntu
- Fedora
- Mandriva

AUTOMATICALLY RESTORE CONNECTION

AUTOMATICALLY RESTORE CONNECTION

This feature automatically takes care of dropped connections. Usually, this problem occurs with hardware whose connection with the server is not always on: mobile devices (Wi-Fi, 3G, 4G) notably. In a Wi-Fi connection for example, the link between a remote device and the server can be interrupted briefly. This can also happen on regular wired networks. When the application is reconnected, we need to resume the application at the point where the connection was interrupted, and make

sure the buffers are accurate. With the automatic resuming of the connection, all the buffers and positions are stored and reassigned. The application can resume without any error, as if the connection never was interrupted. Automatically, your applications are more reliable, faster and you have less to code. You can also manage the connection interruptions by programming, or execute additional processes if you want.



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

HYPERFILESQL



CLUSTER (SERVER FARM)

Thanks to the cluster feature, a set of physical servers appears as a single server to the clients. The potential failure of a physical server does not prevent access to the database (high availability, fault tolerance). The read load charge is distributed on all the servers (load balancing for reading). When a user is connected to a server that fails, the application won't be disconnected but automatically reconnected to a valid server (automatic fall over).

Module	Extension	Internal version
Manta	ene	90F170069F
winFileSQL	db	90F170069F
winFileSQL	db	90F170069F
inlogger	ene	90F170069F
MantaManager	ene	90F170069F

HYPERFILESQL CONTROL CENTER

The Control Center lets you monitor all the servers and databases installed on your company's network or remote through the Internet. This center also allows you to:

- view and edit data
- directly execute queries
- manage user accounts (groups), rights, list of current connections

- print precise statistics about server use: computers, queries, logs, parameters...
- user disconnection
- transaction management: view, cancel, ...
- backup management (hot backup)
- view record locks
- scheduled tasks
- replication of servers
- display the number of rows processed
- ...

CLIENT/SERVER

The engine for the Client/Server version is available for Windows and for Linux. The compatibility with HyperFileSQL Classic and Network is complete. The HyperFileSQL engines can be distributed freely with your applications.

IMPROVE THE SPEED OF YOUR APPLICATIONS

The HyperFileSQL Client/Server engine allows for fast execution speed of queries. The multithreaded server performs automatic load balancing in order to optimize the response times.

REMOTE ACCESS

The communication layer is integrated with the multithreaded engine, which allows access through IP addresses, and very good response times.

CLOUD

HyperFileSQL databases can be hosted in the PCSCloud.net cloud.

COMPRESSING FRAMES (ADSL, 3G, EDGE, VPN...)

Frame compression enables you to reduce the size of the packets (up to 95%) traveling on the network. The speed for remote connection is improved. The volume of data traveling over the transmission media is reduced.

SECURITY

The HyperFileSQL Client/Server engine is not affected by untimely client machine shutdowns. Communications are encrypted. You can create configurable queries, which prevents server attacks through "sql injection".

RIGHT MANAGEMENT

User account management is automatic and very rich: password, read write access rights,

to a database or some tables, right to start a backup, groups...

DETAILED STATISTICS

The Control Center lets you display precise statistics about server access: computer, SQL query's content, execution time. Studying this data enables you to better organize your applications.

STORED PROCEDURES

Stored procedures and triggers are available. Programming is done simply in WLanguage.

UNICODE AND INDEX SORTING BY LANGUAGE

HyperFileSQL supports Unicode text and memo columns. Indexes can be sorted by the alphabetical order corresponding to each language (Russian from Russia or Ukraine, Chinese from Singapore, Taiwan, Hong Kong, Macao,...).

FULL TEXT SEARCH

The "full text" search allows for very fast string searches inside your data. The index supports rich text (RTF, HTML), ignoring their tags during the indexing process. Results are offered according to a relevance order (ranking).

HOT BACKUP

You can trigger a database backup while the database is being used. There can be read, write and query database accesses happening. Data integrity of the saved data is insured. The backup can be triggered by programming (at a certain time for instance) or through an action of the DBA.

MULTI-DATABASE, MULTI-SERVER

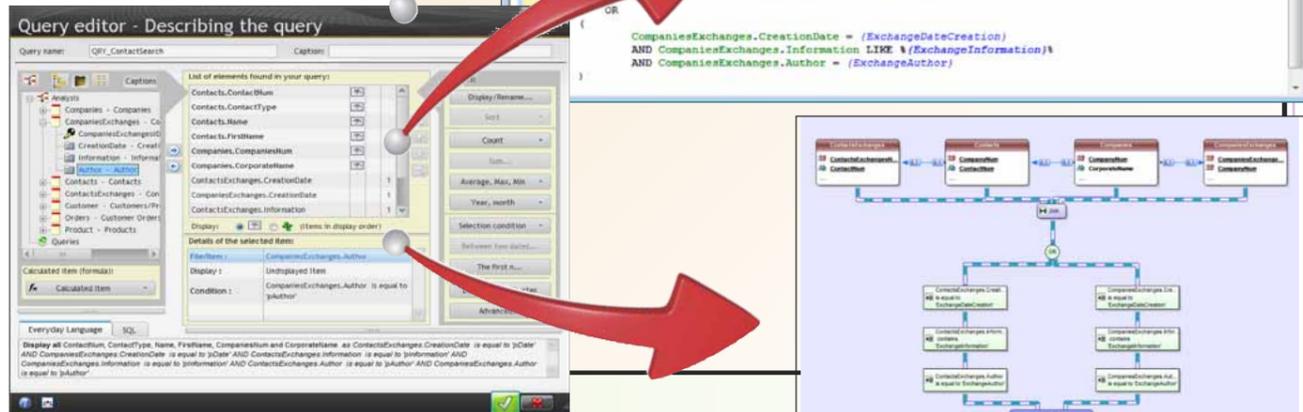
The same machine can host several HyperFileSQL servers, and each server can contain several databases.

SQL QUERIES AND NATURAL LANGUAGES

Display all OrderNumber, OrderNumberCustomer, OrderDate, CustomerNum, PaymentMethod and InvoiceDate such as InvoiceDate is equal to 'InvoiceDate' AND ORDERS.Total is greater than or equal to Amount AND HYSTORY.AdminAssistant is equal to 'AdminAssistant' OR PRODUCT.MinQty is equal to MinQuantity AND PaymentMethod contains 'PaymentMethod' AND ORDERS.Observations contains 'Observation'.

The visual query editor lets you generate the SQL queries that will be used in your programs.

The query will be generated in natural language as well, so you can verify that it corresponds to what you intended! There's no risk of error.



A few clicks are enough to create a query, and to check it in natural language.

NO NEED TO KNOW SQL TO CREATE POWERFUL SQL QUERIES

Choose the columns to include, specify the selection conditions using the wizard, and the query is built (in optimized SQL code): The editor automatically creates queries on any database, even the most complex queries.

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

VISUAL QUERIES

The query is also generated both in natural language and in SQL as you make your choices in the editor.

OPTIMUM SPEED

WINDEV 18 detects missing keys in order to provide optimal speed.

QUERIES BASED ON QUERIES

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

REVERSE ENGINEER EXISTING QUERIES

You already have an existing SQL query? WINDEV 18 presents it graphically!

If you have Access queries, these are automatically imported (see page 45).

QUERIES ON ALL DATABASES...

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

DISTRIBUTE THE QUERY EDITOR FOR FREE

The end users will be able to create their own queries. To prevent errors, deleting and modifying data is not possible with the end-user product (see page 30 and 31).

MANAGER

The WINDEV query editor lets you "draw" your queries for any database. You can distribute it for free.

NEW

Explain command for analysing the query's execution

AAF TECHNOLOGY

Free distribution. "Reports and Queries" lets end users create their own queries.

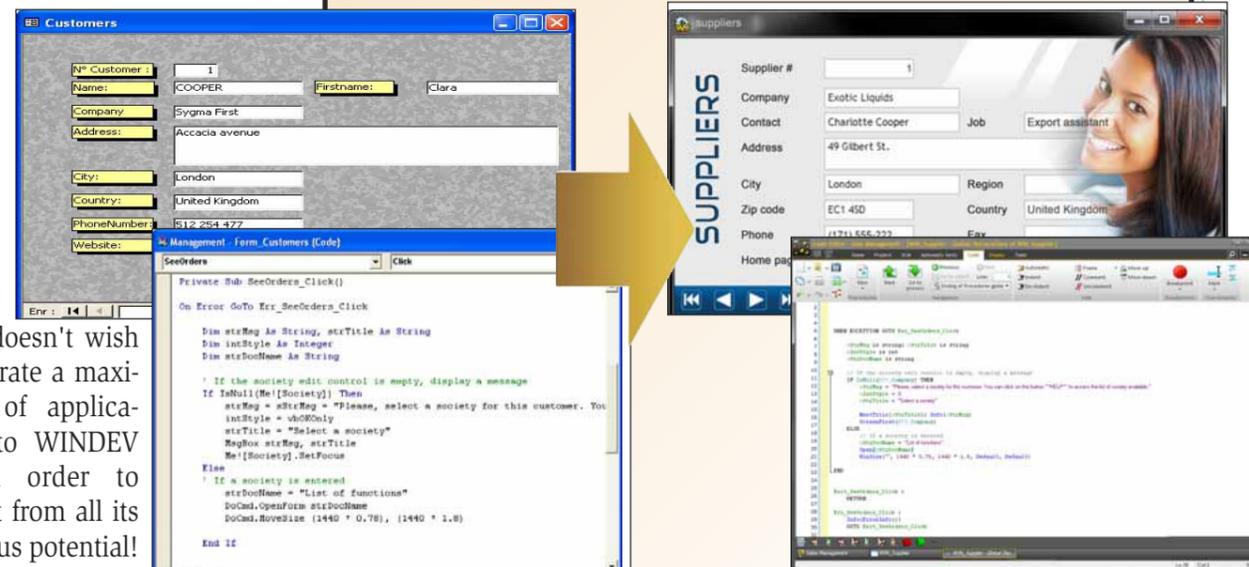
MAIN POINTS

No knowledge of SQL is required
Distribute it for free with your applications

VB ACCESS: RETRIEVE LEGACY CODE

Who doesn't have any legacy code?

EASILY BENEFIT FROM THE POWER OF WINDEV



Who doesn't wish to migrate a maximum of applications to WINDEV 18 in order to benefit from all its fabulous potential!

WINDEV 18 assists you with bringing legacy applications and UIs over.

WINDEV 18 knows how to retrieve VB and Access applications.

WINDEV 18 even offers to retrieve windows from applications in C++, C# and other languages.

Here, an Access application...

... and this application retrieved in WINDEV 18

IMPORTING APPLICATIONS FROM VB AND ACCESS

MS Access and VB applications can be imported into WinDev 18. The UI and the code come over in the most part; only minor tweaks are needed. The time saving is really noticeable.

IMPORTING A GUI FROM A THIRD-PARTY LANGUAGE

For other languages (C++, C#, and most other ones), WINDEV 18 imports a window

and its "controls", in order to transform them into a WINDEV window.

This is very useful when you want to rewrite an application in WinDev!

The window should simply be opened under MS Windows for the module to retrieve it.

Link to third-party languages, legacy import, WINDEV 18 acknowledges your legacy applications!

MANAGER

Retrieving VB and Access applications in WINDEV 18 is made easier by this import feature.

NEW

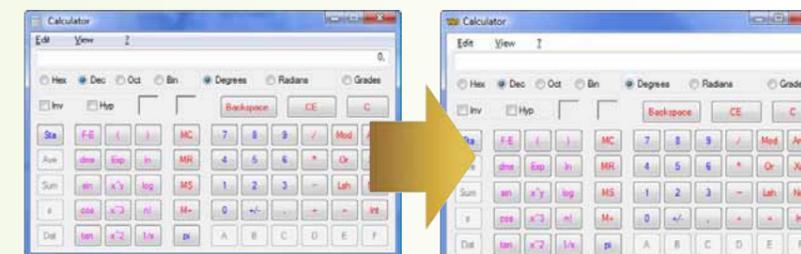
New commands are supported

AAF TECHNOLOGY

The end user benefits from all the AAF of the WINDEV application

MAIN POINTS

Retrieve a large number of existing elements



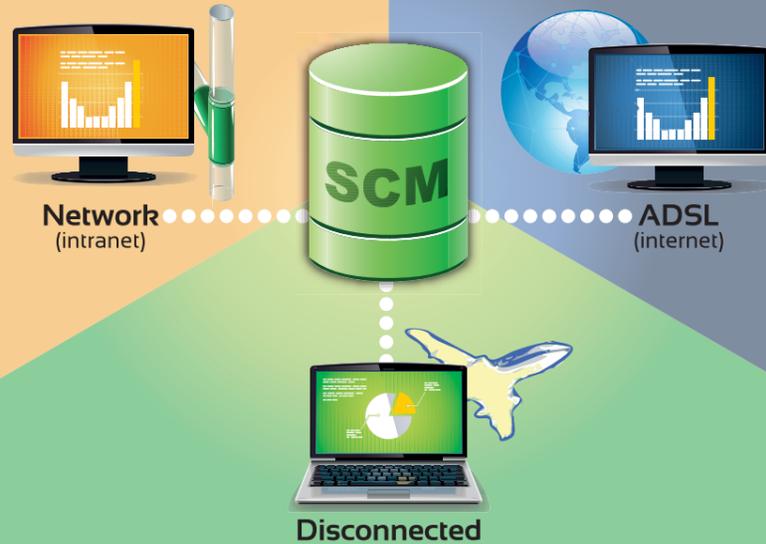
Example of UI import: a C++ window recovered in WINDEV

TEAMWORK: INTEGRATED VERSIONING TOOL (SCM)

Totally integrated with the environment, the versioning tool (named SCM: Source Code Manager) provides better **team** work, modification and version history, management for concurrent versions of an application, and **automates** the **backup** of the development team's source code and assets (code, windows, reports, etc.)

The versioning tool brings security to team developments.

MANAGE DIFFERENT VERSIONS, ALONE OR IN A TEAM, LOCALLY OR REMOTELY



MANAGE YOUR SOURCE CODE SOURCE DATABASE

With SCM (Source Code Manager), the project's elements are grouped in a database. Before being used an element is checked out, once it has been modified it is checked back in. Therefore team members use up-to-date elements.

SCM stores all the project's elements: procedures, sets, classes, pages, reports, components, queries, analyses, dependencies (images, ...), ...

The database is installed either on a dedicated server or on a network machine, in a share directory.

POWERFUL FEATURES

- SCM is totally integrated in the development environment; for instance, SCM offers to check out an element when you try to modify it.
- The database supports several projects; an element can be shared.
- A history of all elements, since their creation, is stored in the repository (a purge can be performed).
- The project is available on all the development machines; therefore you can work on an offline machine.

- Branches are supported: you manage several different versions of the same application at the same time.

1 TO 100 DEVELOPERS

SCM is meant to accommodate teams of 1 to 100 developers. Even if you develop on your own SCM is useful because it keeps track of your applications' history.

CONNECTED AND REMOTE

SCM accepts remote connections through the Internet. This way you can work on a project from a customer site, without fear of losing your modifications.

The SCM can also be used in offline mode (in a train, on a plane, ...).

DIFFERENCES BETWEEN 2 VERSIONS: CODE AND UI

Thanks to SCM, you can check the differences between two versions of a project element: code, classes, queries, procedures, windows and pages, analysis, reports, ... You can apply the modifications from one element to another ("merge").

SCM is inescapable.

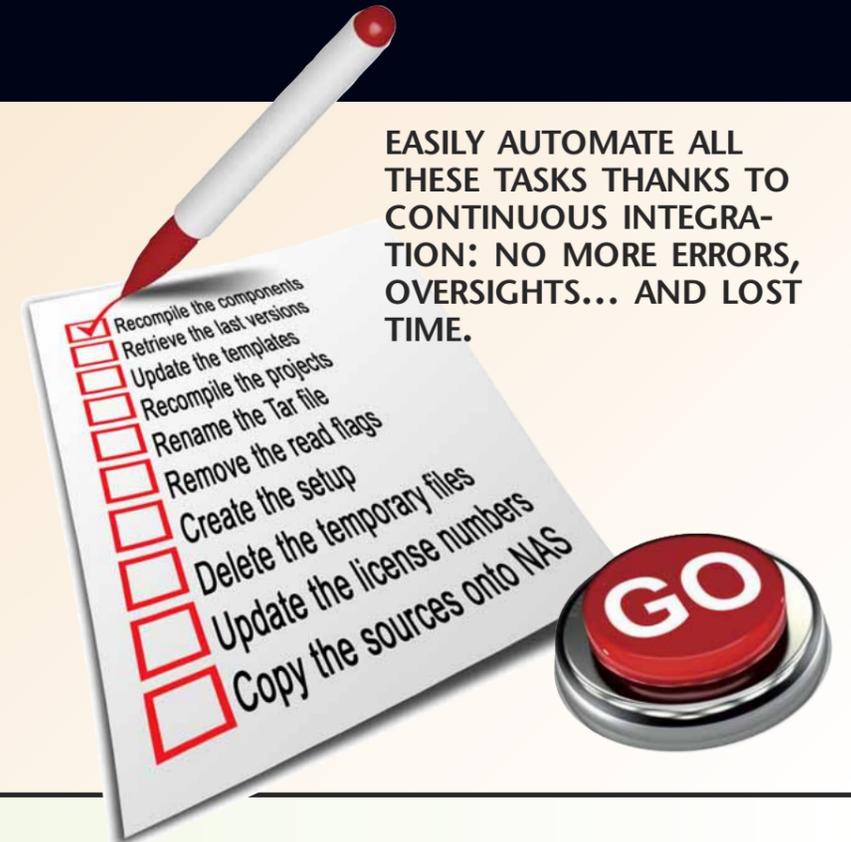
CONTINUOUS INTEGRATION: AUTOMATE BUILDS

The **software factory** concept is used to automate the process for creating applications. The software factory concept allows for instance the setup of a "continuous integration" methodology.

Continuous integration means **man/weeks of operations saved** each years. That's without counting the errors avoided, the speed of correction and the robustness derived.

Software industrialization is made real easy with WINDEV 18.

EASILY AUTOMATE ALL THESE TASKS THANKS TO CONTINUOUS INTEGRATION: NO MORE ERRORS, OVERSIGHTS... AND LOST TIME.



USE EXAMPLES

There are a lot of use examples for continuous integration; we'll just mention:

- automatic compilation of projects at night: the smallest error, the smallest incompatibility are detected
- use several computers for compilation; at night, all the computers can be used to compile automatically
- guarantee identical compilation of an application at any time
- automate manual tasks: compilation of course, but also updates, flag positioning, deletion of temporary files, file renaming, license number update, create the install program...

A VERY EASY IMPLEMENTATION

Implementing continuous integration is easy.

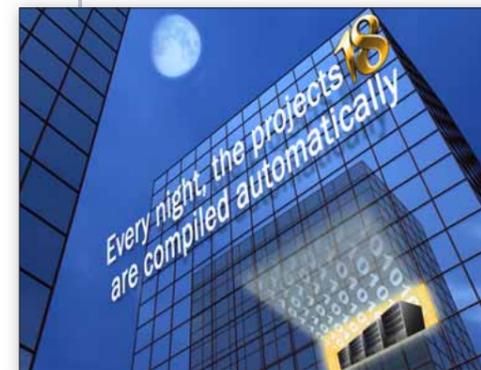
Using the various editor modules, simply:

- 1- Define the "generic" action plans containing the actions to perform (using the action plan editor)
- 2- Deploy the action plans on the coordinator (from the environment)
- 3- Instantly trigger the action plans, or program their execution (at night, ...) with the fabric administrator
- 4- View the execution's status reports

STATUS REPORTS, REPORTS, METRICS

All the execution status reports for the action plans are stored on the coordinator. Run time, potential errors are stored. Statistics can be edited. A history of all the builds is kept.

Continuous integration saves you weeks year after year, and automatically increases the quality of your applications.



MANAGER

The software factory automates hundreds of version creation tasks. This automatically industrializes processes.

NEW

Production control: specify priorities

MAIN POINTS

- Saves time
- No risk of forgetting something
- Automatically increases quality

MERISE MODELING AND UML WORKFLOW

With WINDEV 18, modeling a database is very easy!

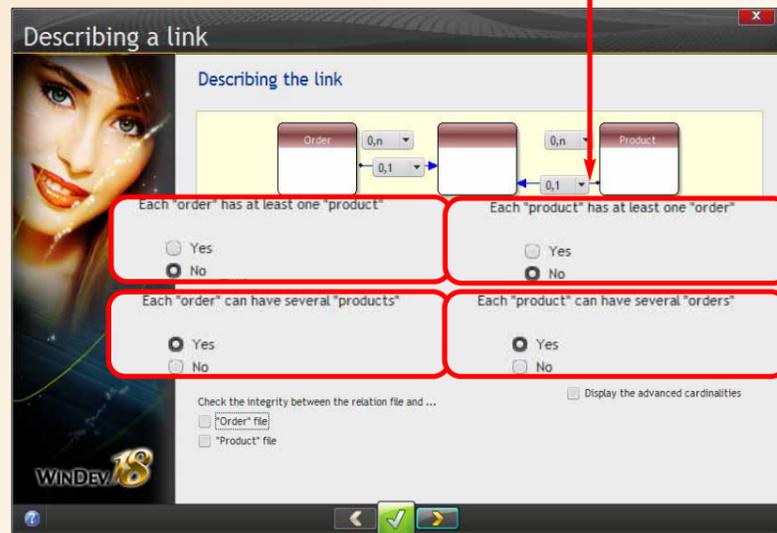
You can create a "MERISE" analysis (LDM and CDM) without knowing MERISE, and a "UML" model without knowing UML!

WINDEV 18 technology is truly **revolutionary**: it graphically represents the organization of the data and processes.

Thanks to WinDev, any developer can automatically create a MERISE or UML analysis. **Impossible to make cardinality errors** (1-n, 0-1, and so on)! WINDEV 18 also supports all the other methods for data modeling.

AUTOMATIC MODELING

Answer **4** easy questions to create the relationships and integrity constraints.



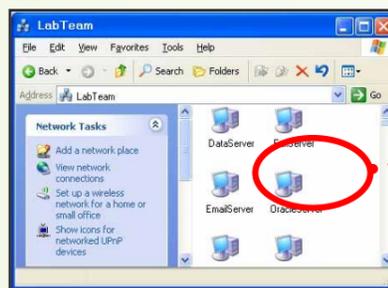
RE-USE EXISTING CODE (ORACLE, XML, AND SO ON): AUTOMATIC

HOW TO RECOVER AND USE EXISTING INFORMATION

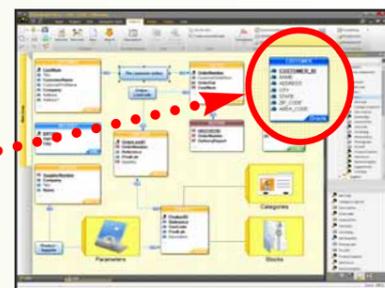
The link with the database or third-party file management systems (XML, Oracle, SQL Server, MySQL, Access, DB2,

Informix, ...) is easier. To reuse a database description, simply move this description from the server to the data model editor and specify the selected tables: can't be any easier than that!

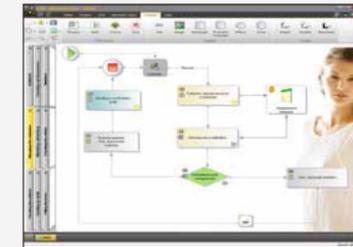
If the structure of the imported database evolves, WINDEV detects it and offers to modify the application's analysis!



Here: an Oracle database on the server. Simply slide the server name toward the data model editor of WINDEV...



...to transfer its description into the WINDEV 18 editor. Here, the database itself remains in Oracle format (blue header).



Workflow editor: model without constraints

HOW TO CREATE AN ANALYSIS?

Let's look at a simple but representative example.

1. We simply need to define the structure of the tables that make up the analysis; columns are defined or retrieved from a data dictionary. We specify the type of

columns, the type of key... Any new column created is fed to the data dictionary. You can also use or define metatypes, preset columns.

2. Then we define the relationships between tables.

To link tables, simply draw a link with the mouse.

3. WinDev then asks some simple questions, in natural language to automatically determine the type of relationship between the two tables (see opposite page). WinDev will check for referential integrity (can be turned off).

4. WinDev then asks if it must generate the relationship table, use an existing table, or if you prefer to describe it "manually": the relationship is defined.

5. WinDev then asks for the relationship names.

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

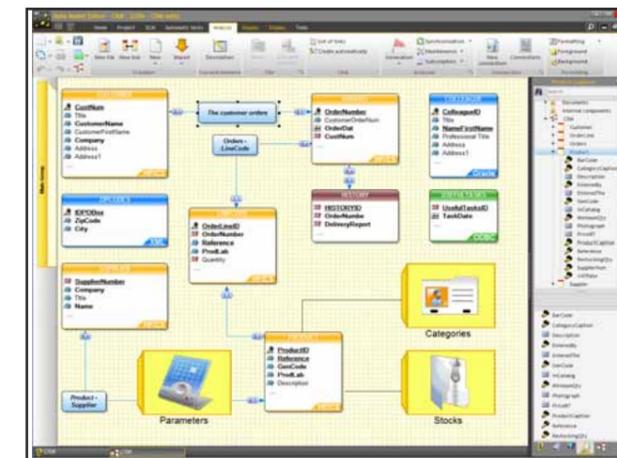
All there is to do now, is generate the windows, menus, reports and source code using the RAD tool (or code the old fashion way), and then print the documentation...

It's that simple.

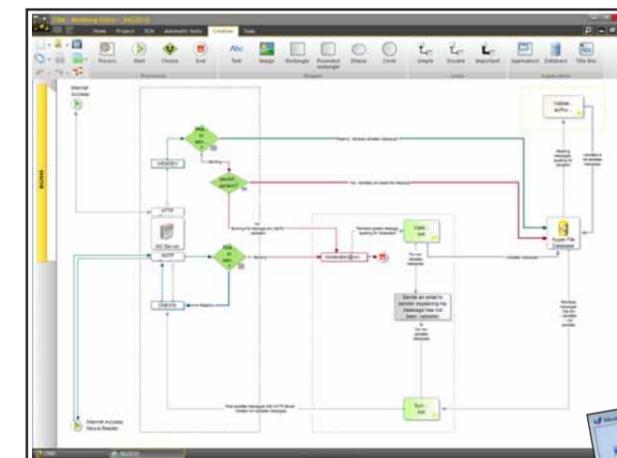
Note that the different modeling methodologies can be used at the same time in a single project.

WINDEV 18 is a professional IDE, therefore it comes with a very powerful design module.

Modeling an analysis (data schema) is very easy.



The workflow editor lets you define in a realistic fashion processes, organizations, workflows, ... without any format constraints.



MANAGER

Defining an application and its rules using the modeling tools provided in WINDEV is simple and easy.

NEW

Search evolution
Optimized database description import

MAIN POINTS

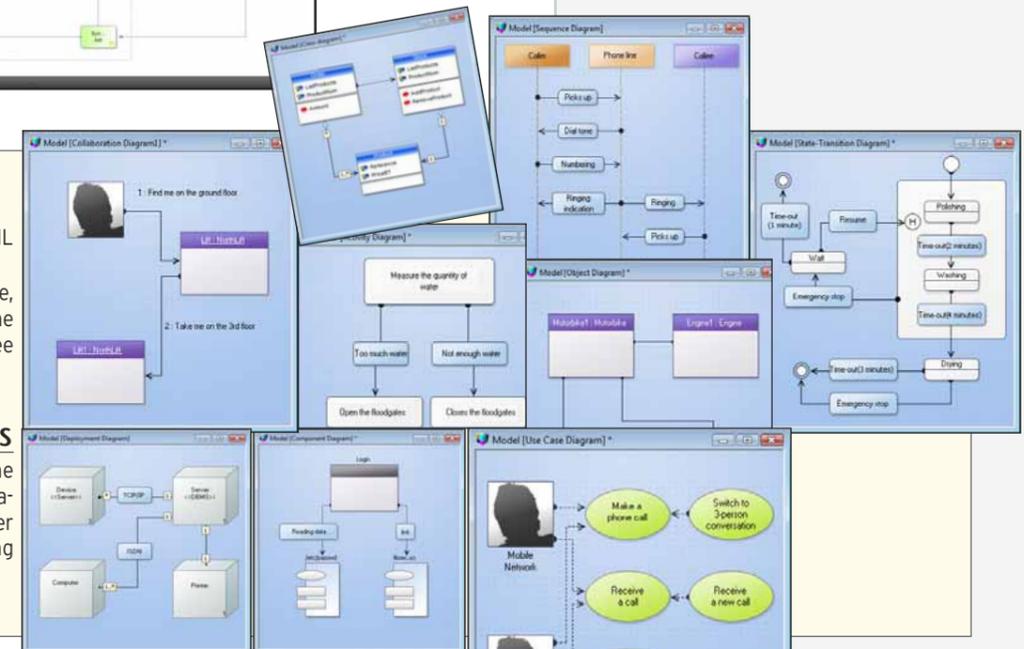
Automatic data dictionary, with bi-directional impact
Generate complete application from the model Generation, reverse analysis and real-time class synchronization from UML

UML

WINDEV supports the 9 UML models. These models are, of course, edited and documented in the "Program documentation" (see page 62).

UML GENERATION AND REVERSE-ANALYSIS

automatically generates the source code from the class diagrams, and reciprocally, offer reverse-analysis of existing classes.



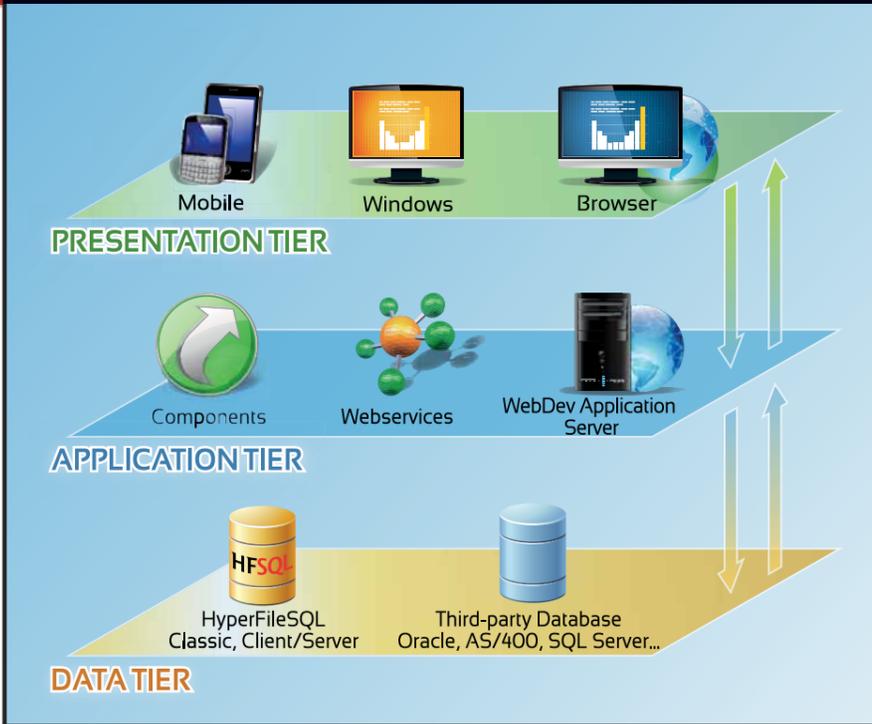


Isolate layers

3-TIER: UI, PROCESSES, DATA ACCESS

3-Tier: this technique is used to separate application code into 3 independent layers.

WINDEV 18 supports 3-tier development, and **makes it easy for each layer to communicate** through serialization and deserialization, and data binding functions.



EASY 3-TIER PROGRAMMING

The purpose of 3-tier programming is to separate the 3 layers usually found in an application: UI, processes and data.

An application is then made of 3 independent layers:

- a presentation layer,
- a process layer,
- data access layer,

these layers communicate among themselves using specific functions (APIs in traditional languages, or advanced WLanguage functions).

The reason for separating them is to facilitate maintenance and future upgrades of the application.

This ensures better security because database access is only authorized by the process layer.

It is also supposed to optimize work in large teams and multi-platform development.

IMPLEMENTATION

The dialog between the layers is done through classes or structures, which are automatically generated by WINDEV

- 1- Choose the data sources (tables or queries) that you want to use in 3-tier mode.
- 2- WINDEV automatically builds the class diagram that corresponds to the classes and structures.
- 3- The classes and structures are generated in WLanguage.
- 4- Synchronization between classes and diagram is done in real time.
- 5- Use these classes to transfer information between the "logic" and "presentation" layer.
- 6- In the presentation layer, use data binding to assign data.

For the communication between layers, depending on the communication protocol between the 2 layers (components, Web Services, HTTP, WEBDEV site, ...), the classes can be serialized in XML or in a binary format using the WLanguage functions named **Serialize** and **Deserialize**.

3-tier is easy with WINDEV



WINDEV lets you easily consume, create, deploy and host **Web services**.

A native syntax is offered.

WINDEV 18 makes it easy to set up **SOA** (Service Oriented Architecture) architectures in your projects.

Use Web Services

WEB SERVICES (SOAP & REST)

EASY WEB SERVICES

CONSUMING SOAP AND REST WEB SERVICES

It is easy to use a SOAP Web service from WinDev. The structures of the WSDL file automatically become native types of WLanguage. For Rest Web services, simply use the **HttpRequest** function.

EASY CREATION OF WEB SERVICES

The creation of the SOAP Web service is easy: simply define the set of procedures that make up the Web service interface.

The complex types (structures, XML content, ...) are supported. The WSDL description file is automatically generated.

EASY WEB SERVICE DEPLOYMENT

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

generated.

EASY WEB SERVICE HOSTING

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

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

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

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

The PCSCloud.net cloud allows for easy Web services deployments.



REMINDER

You're already familiar with version 17? Please note that there is a 76-page technical document dedicated to the 918 new features in version 18. Available in PDF format upon request at www.windev.com.

MANAGER

WINDEV allows n-tier development

NEW

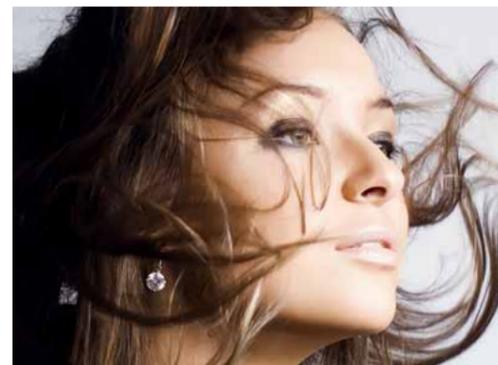
Web services evolution
OOP evolutions (class display, JIT ...)

AAF TECHNOLOGY

UIs benefit from AAF

MAIN POINTS

Serialization/deserialization automatic through WLanguage functions
Real time synchronization



Need to create .NET?

WINDEV 18 offers the .NET features you expect.

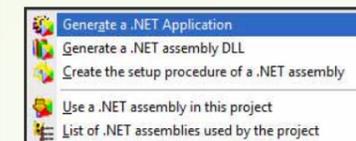
WINDEV 18 creates executables, and also classes (assembly) that can be used by the other .NET languages (asp.Net for example).

WINDEV 18 knows how to use classes created by other languages, **and can include .Net controls** in WINDEV windows.

COMPILE IN .NET

You want to compile a .Net application: nothing's simpler, just click the corresponding menu choice.

You can create your .NET API.



ACCESS .NET AP

WINDEV 18 lets you access .Net APIs.

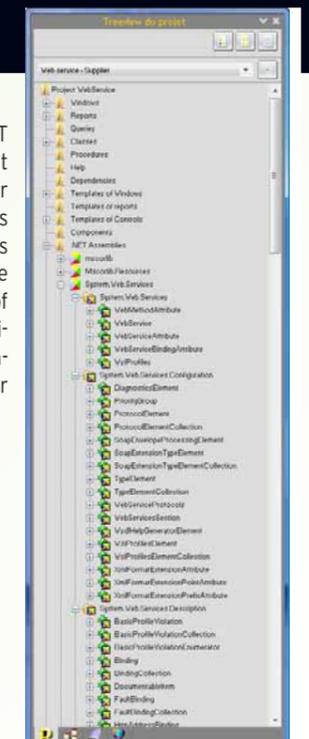
SHARE CLASSES WITH .NET: IMPORT & EXPORT

WINDEV classes can be used directly and without any modification to generate .NET applications.

And vice versa, WINDEV 18 lets you

use .NET classes built using other languages as native classes (with all the advantages of the code editor, documentation editor etc...).

.NET





Open your applications to any standard, easily

OPEN YOUR APPLICATIONS TO ANY STANDARDS

Openness is fundamental to development: a developer should **never be stuck!**

WINDEV 18 is open to all the market standards: this adds simplicity to any action...

With WINDEV 18, you can easily access any standard!

Connect and drive any **device**.

And do this the most easily and naturally in the world, because WINDEV 18 is open to all standards.

USE ANY STANDARD IN YOUR APPLICATIONS



STANDARDS LINKED TO INTERNET

INTERNET

Thanks to WINDEV 18 compatibility with WEBDEV 18, easily transform your Windows applications into dynamic Internet sites or Intranet.

All the project elements (data model, windows, queries, reports, code, classes, ...) are compatible.

HTTP

Get and Post type HTTP requests can be programmed to retrieve data on an Internet server: submit a form, retrieve a site's page (to automatically analyze its content in your program), ...

SOCKETS

Using sockets (including SSL and UDP) in your programs offers a lot of freedom in many areas: communication, ...

It is easy to create a multithreaded socket server for instance.

FTP AND SECURE FTP

A family of functions lets you access an FTP server, list the files, send or receive a file, ...

RPC

You can create and call an RPC server.

RSS

Your applications can read or write RSS streams natively.

The streams, channels, owners are read/write accessible.

SOAP SERVICE WEB XML (CLIENT AND SERVER)

SOAP lets you link applications written using different languages.

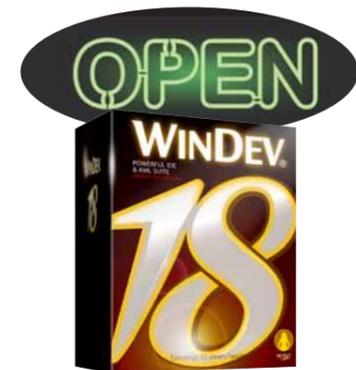
WINDEV 18 lets you easily implement SOAP as Client or Server.

REST technology is also supported.

SMTP AND POP

These outgoing and incoming e-mail standards are supported natively by WINDEV 18.

IMAP is also supported.



MANAGER

WINDEV is open to all the market standards. You'll never be stuck, you'll benefit from all technologies.

NEW

Secure FTP
WiFi functions

AAF TECHNOLOGY

Exports Word, Excel, OpenOffice, PDF, XML

MAIN POINTS

Total openness

Yes to standards



WINDEV®



DEVICES

TOTAL OPENNESS

WINDEV 18 is open to all technologies. You'll never be stuck.

THE OVERALL STANDARDS

TSE & CITRIX

The applications developed with WINDEV operate in the TSE and CITRIX distributed environments.

CONTROLLING SOFTWARE

It's easy to automatically control Word, Excel. A lot of source examples are supplied.

It's even easy to control tools that have an "OLE" mechanism, such as Outlook, MS Project, Notes, Domino, .. as well as OPC.

OPC

OPC is a communication standard for automation that is used a lot in industrial settings, ... WINDEV 18 supports OPC (Data Access part).

XML

XML is supported natively.

LDAP

LDAP is a communication standard for accessing directories. The family of LDAP functions allows you to access and perform searches in the directories (read, write).

ActiveDirectory and OpenLdap are accessible through this family of functions.

PDF

PDF is supported natively, in read, display and document creation mode (see page 30).

BAR CODES

The bar codes are supported in read and write modes (see page 31).

MS OFFICE DOCUMENTS

Documents from the MS Office suite are supported: XLS, XSLX and DOCX in read and write mode.

IMAGE FORMATS

All the image formats are supported (see page 56).

DLL CALL

A WINDEV application can communicate with DLLs.

.NET

It is possible to create .Net applications and assemblies. You can also call .Net assemblies (see page 51).

API

The "API" function lets you manage all the MS Windows APIs.

A wizard manages the structures needed for calling the API.

ZIP, RAR, CAB, 7Z

The ZIP and CAB compression formats are supported in read/write mode. The RAR format is supported in read mode.

TABLET, SMARTPHONE, MOBILE, DEVICE

With WINDEV Mobile, immediately move your WINDEV application on to tablet, Smartphones and mobile devices.

Instantly convert a Windows application into a mobile application (Android, iPhone, ...): it's the same code!

Share the modeling, windows, reports, components...

PARALLEL PORT

WINDEV 18 also lets you easily manage parallel ports.

USB PORT

WINDEV 18 supports USB ports (USB 1, USB 2, USB 3). An application can list devices, display a hub tree, be called when a device is connected or disconnected, get information about a device (manufacturer, ID,...).

BLUETOOTH

WINDEV 18 lets you manage and list Bluetooth devices, establish connections and communicate with devices.

BURNING CD AND DVD

Your WINDEV 18 applications can burn CDs or DVDs.

TWAIN: SCANNERS,...

Most scanners, digital cameras, etc. can be controlled... can be controlled by programs that use the TWAIN standard. WINDEV 18 supports this standard easily through... the Twain commands of WLanguage!

DATA ACQUISITION THROUGH SERIAL LINK (RS 232) AND USB

There are plenty of uses: badge reader, electronic scale connection, robot control, etc. With WINDEV it's very easy, a wizard takes care of everything (see p 43).

DOMOTICS

Domotics is supported: X10, CM 11 and CM15 (see page 57).

SNMP

The SNMP standard is used by a large number of network devices: switch, router, PC, network card, network printer... A family of native functions allows you to communicate with these devices.

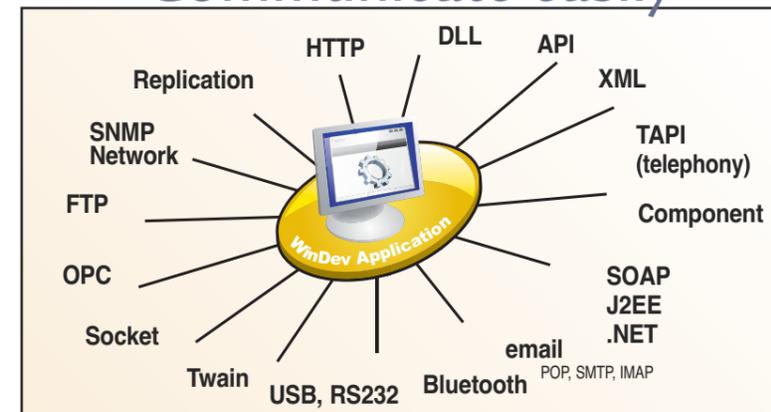
TAPI

TAPI is a standard for communicating with phone devices (PBX, ...).

The family of TAPI functions allows you to manage these devices.

WINDEV 18 is open to all standards.

Communicate easily



NATIVE ACCESSES: GOOGLE APPS, OUTLOOK, LOTUS NOTES, SAP, EXCEL, SALESFORCE ...



COMMUNICATE WITH GOOGLE APPLICATIONS

Google provides a lot of applications, accessible through the Internet, that may be useful.

LINK WITH GOOGLE MAPS

The Google Maps service is an Internet cartography software offered by Google. It lets you display a map or itinerary, with a lot of viewing options.

Examples of processes that can be implemented natively in WLanguage:

- you can get a map and display it in a window control or a report control, send it by e-mail.
- request the drawing of a route on a map.
- request custom markers on a map.

LINK WITH GOOGLE CALENDAR

The Google Calendar service is an Internet application provided by Google that is used to manage a calendar on Internet.

The native WINDEV 18 functions let you for instance, create an application for synchronizing a calendar with an already existing application: use of a meeting room, vehicle...

These functions also allow you to build specific interfaces (for specific business needs, more user friendly, ...) and add specific processes (print...).

LINK WITH GOOGLE CONTACTS

Google Contacts lets you manage contacts over the Internet.

The WLanguage functions let you retrieve your contact list, groups of contacts, as well as the details of each contact: name, notes, instant messaging address, phone, street address, email...

LINK WITH GOOGLE TRANSLATION

The link with Google translation lets you translate entire documents, and can be automated.

You can download and trigger the translation of documents in GoogleDocuments.

LINK WITH PICASA

Picasa is an online image and photo management application offered by Google.

The features offered by version 18 let you create rich clients, automate actions,...

LINK WITH GOOGLE EARTH

The Google Earth mapping service is an Internet satellite mapping software offered by Google.

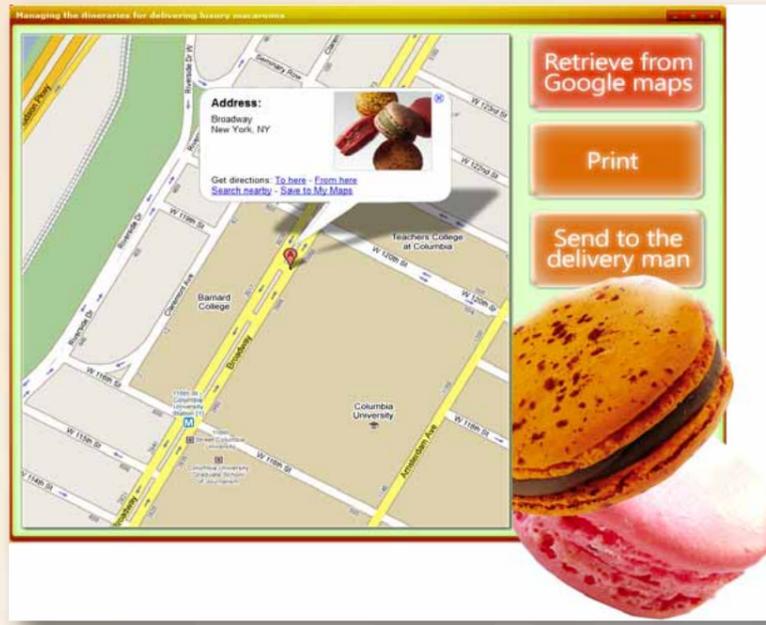
Native access (via an ActiveX in this case) to Google Earth is also possible.

A large number of companies use standard software such as Lotus Notes, SAP R/3, Outlook, Excel, Google...

Google also provides a large number of applications (Contacts, Maps, Calendar, ...) that you may want to control from or include in your applications.

The link between applications built using WINDEV 18 and these software is easy to implement thanks to the **native access functions** provided with the product.

CONTROL AND COMMUNICATE WITH STANDARD APPLICATIONS



NATIVE LOTUS NOTES SUPPORT

Access to e-mails found on the Lotus Notes (Domino) mail server, in incoming and outgoing modes, is standard in native mode. Programming is child's play: these are functions you already know from WINDEV! (eMailSend family, ...).

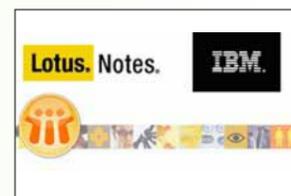
All you need is to add a line of code to connect to the Notes server: **EmailStartNotesSession**.

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

Access to contacts, appointments, tasks and documents found on the server is easy. It can be done in read and write mode through a set of specific WLanguage functions (Notes family).

The versions of Notes supported at the date this document was printed are versions 6.5 to 7.0; do not hesitate

to contact us to find out the versions currently supported.



NATIVE SUPPORT FOR SAP R/3

SAP ACCESS VIA NATIVE BAPI CALL

SAP is a widely used ERP. Many SAP users implement add-on applications in addition to their software.

Native SAP support by WINDEV allows you to do so with our famous ease of use.

A BAPI (Business API) is a function that interacts with an SAP system. Some BAPIs are provided with SAP, other are written by other developers or software publishers. A family of functions enables you to establish a connection (with authentication) and call BAPIs and pass them parameters.

A wizard helps import automatically the structures used.

You don't need to install the

SAP UI module. This access through BAPI allows the database security to be respected (no need to create an account with database modification rights). Access to the database is managed directly by SAP, respecting the priority management.

"WINDEV style" UI in SAP!
"Report and Queries" type reports in SAP!



NATIVE SUPPORT OF SALESFORCE

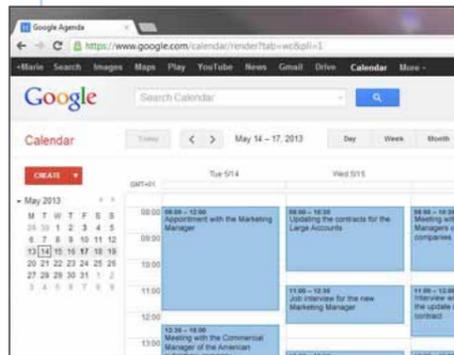
Salesforce is a very popular CRM software worldwide. It is sold as a SaaS (Software as a Service), that is, the application and the data are hosted on Salesforce's server farms.

However, specific requirements are often created by this type of software.



The development of additional modules is a big benefit when using and customizing this type of software.

Thanks to WINDEV 18 native functions, your applications can now interface with Salesforce.



Read and write data in Google Calendar from your applications!

MANAGER

WINDEV is open to all the standard software on the market. You can easily interact natively (read, write).

NEW

Outlook: access the contact database

AAF TECHNOLOGY

Exports Word, Excel, OpenOffice, PDF, XML...

MAIN POINTS

Link to other software



IMAGES, SOUND, VIDEO: AUTOMATICALLY SUPPORTED

WINDEV supports images, sound, video with really surprising power and ease-of-use.

Support for **all formats** is standard without the need to code anything.

TODAY MULTIMEDIA IS PRESENT EVERYWHERE



- BMP
- RLE
- WMF
- ICO
- SVG
- PCX
- JPEG
- TIF
- ION
- GIF
- animated GIF
- PCID
- PSD
- PNG
- TGA
- PDF
- ...
- AVI
- MP3
- WMF
- WAV
- MPEG
- DIVX
- ...



MANAGER

Today, multimedia is everywhere. Thanks to WINDEV, it's automatic in your applications.

NEW

Automatic orientation of photos

MAIN POINTS

Integrated and automatic Support standard formats Read and write

FORMATS: ALL!

WINDEV 18 supports standard image formats.

An image can be stored as an independent file or in a table row of a HyperFileSQL database.

AUTOMATIC DISPLAY

Managing images with WinDev 18 is child's play; it's even automatic in most cases.

• General case
Assign the name of the image file to the name of the image control, for instance: **PART="VALVE.JPG"**

It's that simple.
• Image linked to a table row.
The display is completely automated. There's nothing to program, nothing to write.

IMAGE AND VIDEO CAPTURE

WinDev enables you to dynamically capture an image or a video.

This image can be saved in a file (BMP, JPEG, PNG, ...), enhanced, emailed,...

SAVING IMAGES

WINDEV 18 allows you to handle, modify, enhance and store images on disk. This feature enables you to change the image format by programming (switch from BMP to JPG for example), or to store annotated images, or to read and modify their EXIF parameters.

EFFECTS ON IMAGES

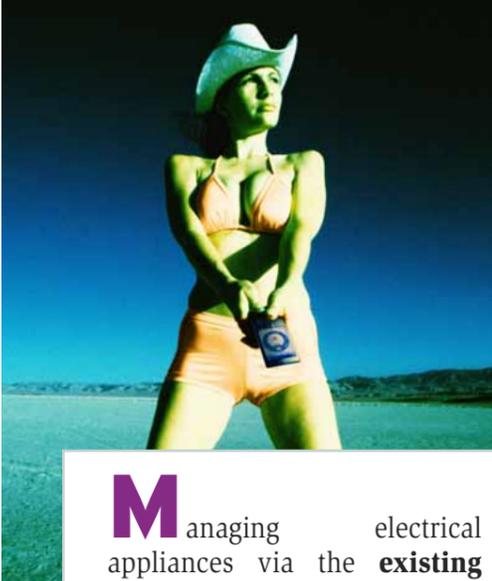
WINDEV 18 enables you to add effects to images: scrolling, display from the center, ... These effects can be defined in the editor or by coding.

SOUNDS

All the sounds (.WAV, .MP3 and all the formats whose MCI driver is installed) are supported. Programming is child's play: simply type:
Sound(Sound_name)

THE VIDEOS ON PC

With WINDEV you can easily drive your video sequences (tutorial, advertising, movie etc...). WinDev supports files in AVI, MPEG, DivX, and so on format.



DOMOTICS

Managing electrical appliances via the **existing wiring** paves the way for easy remote control by programming. Control electrical equipments through applications created with WINDEV 18.

Simply use a plug or switches compatible with the X10 standard.

Switching on a lamp, closing shutters, turning off equipment or getting its state (on, off), and so on. is easily done from a WINDEV 18 application.

This can be done **remotely**, from an Internet site, from a phone or a tablet.

CONTROL ELECTRICAL DEVICES



From her phone, this young woman turns on her Jacuzzi, opens the electrical blinds, and adjusts the air conditioning in the entire house...

SUPPORT FOR THE X10 STANDARD: CONTROL YOUR ELECTRICAL DEVICES

THE "DOMO" TYPE FUNCTIONS TO CONTROL EVERYTHING

These commands let you control devices and find out their state using regular

power lines.

DomoSend lets you send a command such as: turn on, turn off, dim, to one or more electrical devices at the same time.

DomoStatus lets you find out the state (on or off) of a piece of equipment.

DomoOpen lets you initialize the dialog between the application and the interface module (physical bi-directional communication module of CM11 or CM15 type).

MANAGER

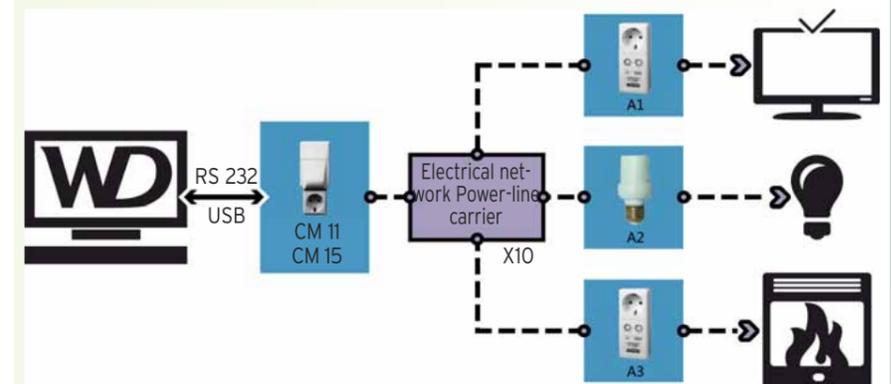
Domotics functions in WINDEV 18 let you control electrical equipments using existing wiring

NEW

Various evolutions

MAIN POINTS

Programming in WLanguage Use existing wiring





A VERY RICH CATALOG OF EXAMPLES AND WIZARDS

REUSE THESE EXAMPLES
LET THE WIZARDS GUIDE YOU
USE COMPONENTS

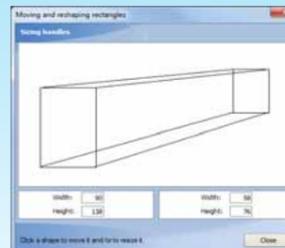
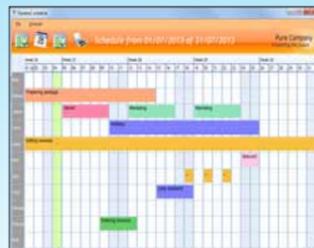
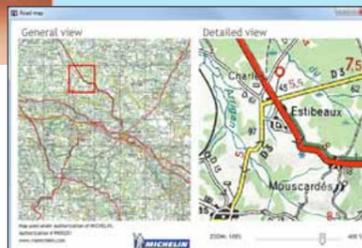


Before you start writing code, check that it doesn't already come with WINDEV!

WINDEV 18 comes with an impressive set of examples and their source code.

These examples serve a double purpose: **tutorial** first, **financial** second. Retrieve a single example and save entire days of programming.

Reuse them in your applications!



LIST OF PROVIDED EXAMPLES

Here is a selection of examples provided with the product that can be reused in your applications or can be used as learning tools.

- Complete CRM
- Complete accounting application
- Secure remote access to data via Internet
- Click area in an image (geographic map)
- Operations using XML functions
- Using ZIP type compression functions
- Use of a Web camera
- Using SOAP
- Using RPC
- Secure remote access to data via Internet
- Using sockets
- Using threads
- Trigger
- Multiwindowing
- Treeview
- Transferring files by FTP
- Drawing curves
- Remote monitoring through a web camera via Internet
- Use of a Web camera
- Telephony (CTI): auto-dial, display caller ID on PC, etc.,...
- Synchronize data files
- Data replication via email
- Statistics
- Service: application without GUI running in background task on a server
- Scanner controlled by TWAIN
- Puzzle: moving images with the mouse
- Using queries
- Optimized search using composite keys
- Task list
- Internet search from a Windows application without displaying a browser
- Network: find out who is locking a table record
- Custom setup
- Link to Palm Pilot
- Graphic slider
- Configuring POP3
- Managing 3D shapes with the mouse
- Graphical schedule manager
- Management of Holiday and Flex Time
- Phonetic search, without using the exact spelling
- Control Outlook
- Spell a number out
- Instant messaging
- Mathematical management of matrices
- Mailing by email
- Mailing by fax
- Line smoothing
- Reflexive link
- Report examples: different types
- Printing by programming without using the report editor
- Direct print to a printer (using ASCII code); useful for industrial printers
- Print preview
- Automatic import into an application of the content of an Internet page (entire or partial content); get price list, financial information, schedule, ...
- User groupware: define specific rights depending on user groups
- Stock chart
- Managing computer hardware
- Using OLE DB to access data-

- bases
- Automatically generate test data for an application
- Financial functions
- Advanced Excel management features
- Close Windows by programming
- Programmed table export: addition to the automatic export function
- Keystroke simulation
- Screen saver
- Drag and drop between windows, applications and Windows
- Dictaphone
- Draw from a program
- Encrypting data
- Dynamic compilation: how to create code that will be compiled and executed on demand by an application
- Calendar
- Calculations on dates and times
- Euro calculator
- Automatic image animation: Parameters illustration
- Alarm
- Create assistants (similar to WinDev's wizard) for your own applications
- Use of DCOM and COBRA (older protocols)

SUPERCONTROLS

- You can create your own supercontrols, to share them among your applications or among developers. Numerous ready-to-use supercontrols are provided.
- RTF toolbar, to create text edit areas
 - Find/Replace function in a text
 - Screen capture, to perform hard

- copies by programming or when clicking a button
- Counter
- Spelling checker (using the Word dictionary, which must be installed on the computer)
- Industrial type graphic unit
- Progress bar
- Assisted input of a date range
- File and directory picker
- Check the validity of a credit card number
- Check the validity of a RIB number
- Check the validity of a SIREN number (France)

COMPONENTS

- Image annotation
- Managing a MS agent
- Protect the information displayed in a window
- Manage a BalloonTip
- List of French zip codes
- SQL connection wizard
- Managing and sending emails
- Managing and sending faxes
- User management
- Network and system information
- Holidays management
- Managing a tips and tricks window
- Application protection (number of users, number of computers, duration)
- Managing a search engine
- Secure payment
- GMT SOAP server
- Display the content of a memory zone
- Manage Socket client and server

WIZARDS

Wizards are very useful: they generate for you the code required for building your application. To do so, the wizard asks questions and generates the corresponding code (and windows if necessary) according to your answers. The generated code is clear and of course can entirely be customized. A wizard can help you with an area you're not familiar with! For example, performing a RS 232 serial link data acquisition only requires 3 minutes, timed! (see page 35).

- Acquiring information about the serial port
- Calculating the key of an INSEE number
- Calculation of the date corresponding to the Monday in a given week
- Calculate a deadline
- Center a window in the screen
- Load a dynamic link library (DLL)
- Time a process
- Compress a file
- Check the existence of a disk
- Conversion between decimal and hexadecimal numbers
- Convert a HFSQL table into a text file
- Convert a text file into a HF table
- Convert a xBase file into a HF file
- Convert a date into a string of a given format
- Convert an angle measurement
- Create an HTML page from the table data (memory or browsing table)
- Trigger a process at a given time
- Decompress a compressed file
- Last day of the month

- Determine the number of mouse buttons
- Determine whether the mouse button are reversed
- Status of the mouse buttons
- Status of a control key
- Create a hard copy of the window
- Functions for print layout
- Manage sounds via multimedia
- Manage an audio CD via multimedia
- Manage multimedia Windows animations
- Insert a string into another string
- Run the control panel
- Limit the mouse movements
- Input mask for a real number with an exponent
- Modify the window background
- Number for the day in the year
- Open the dialog box used to format a diskette
- Open a window where the mouse cursor is located
- Browsing two nested tables
- Control Word
- Control Excel
- Find a file or a directory
- Retrieve the word that was clicked
- Retrieve the selected elements in a list
- Retrieve a disk error
- Transfer the content of a HFSQL view to an Excel file
- Transfer the content of a HFSQL view to an HTML file
- Transfer the content of a HFSQL view to a text file
- Transfer a HFSQL view to the clipboard
- Spell a number out
- Check the Luhn key
- Check whether a year is a leap year
- Check whether a SIREN code is valid
- Check whether the mouse is connected
- Check whether a program is already running
- Check a RIB key
- Zoom on an image

"FUNCTION" WIZARDS

These wizards generate parameters for functions.

- For example, the RGB color wizard directly proposes the name of the colors and then changes them into the corresponding RGB values...
- TreeAdd
- TreeModify
- LoadImage
- BuildBrowsingTable
- CreateShortcut
- Encrypt
- CursorPos
- DateSys
- dCopyBlt
- Unencrypt
- dPixelColor
- dSavelImage
- dSavelImageGIF
- dSavelImagePEG
- EmailSendMessage
- EmailStartSession
- EmailStartSMTPSession
- EnumControl
- Event
- ExelInfo
- ExtractString
- dCrypt
- fUnencrypt
- fDriveInfo
- fWrite
- fWriteLine
- WinSize
- fExtractPath
- FinRedemption
- FinDecreasingRedemption
- FinLinearRedemption
- FinPeriodInterest
- FinPaymentNb
- FinInterestRate
- FinCurrentVal
- FinNetCurrentVal
- FinFutureVal
- FinRepayVal
- fRead
- fReadLine
- fOpen
- fDir
- fSelectDir
- fSelect
- fImageSelect
- FTPConnect
- grCreate
- HAlIas
- Random

- HChangeName
- HChangeRplDir
- HCreateView
- HDeclare
- TimeSys
- HFilter
- HImportText
- HReadFirst
- HReadSeekFirst
- HOpenAnalysis
- HIndex
- iPreview
- iBorder
- iCreateFont
- iPrintReport
- iPrintImage
- iMargin
- BitmapInfo
- INIWrite
- INIRead
- iParameter
- ExeRun
- ListSeek
- NumToString
- NetworkConnect
- NetworkDisconnect
- NetworkDirName
- RGB
- SelectColor
- sParameter
- sOpen
- StatCorrelation
- StatCovariance
- StatAverageDeviation
- StatStandardDeviation
- StatStandardDeviationP
- StatMax
- StatMin
- StatAverage
- StatSum
- StatVariance
- StatVarianceP
- SysColor
- SysEnvironment
- CurrentTitle
- Confirm
- Error
- Info
- Password/Login
- OK/Cancel
- YesNo

To develop faster, an example is always useful!

ONLINE RESOURCES (FREE ACCESS)

Before starting any new development, run a search in the examples! You will probably find parts of code that can be reused in your application! This feature may save you hours, days or even weeks of development.

The www.windev.com site offers a large number of

development resources. You can download these resources freely.





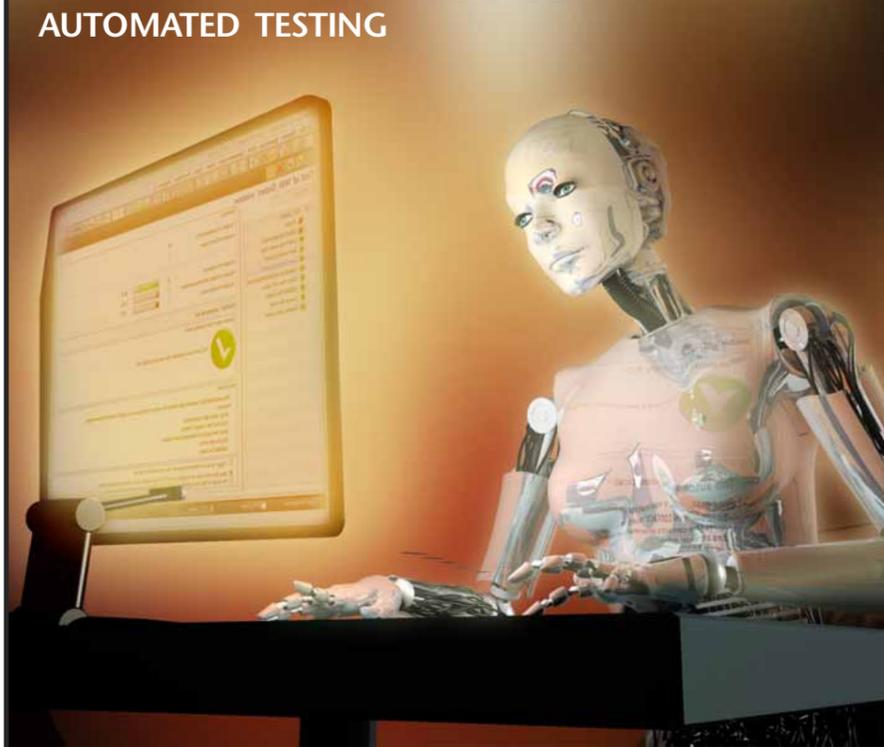
CREATE AND REPLAY AUTOMATED TESTS

Usually the **quality and security** of an application also depend on many parameters independent from the coding itself: complexity or ease-of-use of the language, complexity or intuitiveness of the environment, need or not to use third-party software, UI generator limiting the number of user errors, etc.

The **automated test** phase is only one of the phases that ensure the high quality of your software, but it is an important and required one.

WINDEV 18 also offers regression tests, unit tests, integration tests and stress tests.

By simply saving your actions, **test scenarios** are created that can be **replayed** later for each new version of your programs.



AUTOMATED TESTING

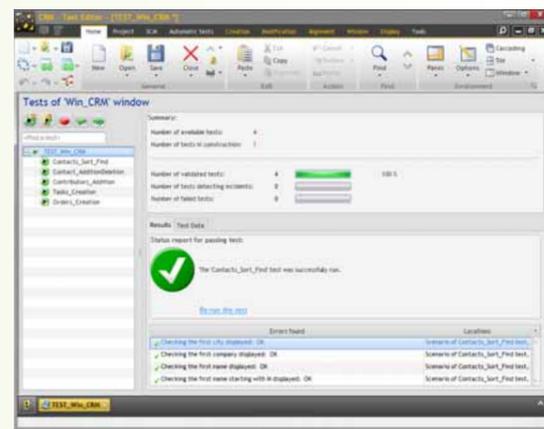
TEST SCENARIO IN WLANGUAGE

The saving of an automated test generates a test scenario.

A benefit of these test scenarios is that they are created in WLanguage.

Using WLanguage as the scripting language makes it a lot easier to modify and customize these scripts. The "Emulate" family of functions are available in WLanguage for this purpose. This allows you to modify the scenarios, to add or change a value to test for example, or to add a column, or to change the name of an external database...

The use of WLanguage also



enables you to easily perform loops on actions to test in a given scenario. Load testing is easy. Note that these tests use "smart renaming"; if one of the control name changes in the project, the test continues to work automatically!

Test the executable
In the environment, tests automatically run on the element being updated. The tests can also be run on an executable to validate it before distributing an update for instance.

MANAGER

The ability to create unit tests for code and UI directly from the environment lets you improve the quality of the applications

NEW

New functions in the "dbg" family

MAIN POINTS

Integrated with the development environment
Scenario generated in WLanguage
Execution without leaving your code
Automatic GUI tests, without coding

WINDEV 18 offers unit tests and integration tests.

The creation of test suites is made extremely simple.

WINDOW TEST

A set of recording buttons comes up when requested, and allow you to start and stop recording a test scenario.

All the tests related to one window are grouped into the same script file, which is saved with the project.

UNIT TEST FOR PROCEDURES AND CLASSES

To directly test a procedure or a class, simply use the popup menu that offers to create (and then replay) a new unit test.

APPLICATION VALIDATION RATE

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

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

THE TEST SCENARIO EDITOR

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

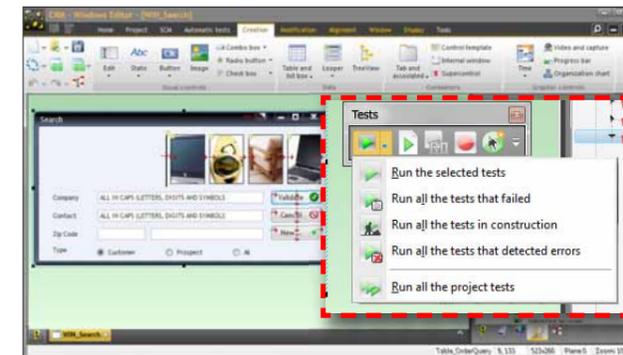
TEST VERIFICATION DURING CURRENT OPERATIONS

Each time a client version is created, WINDEV 18 displays the application's validation rate, and notifies you if this rate is unacceptable (this can be configured).

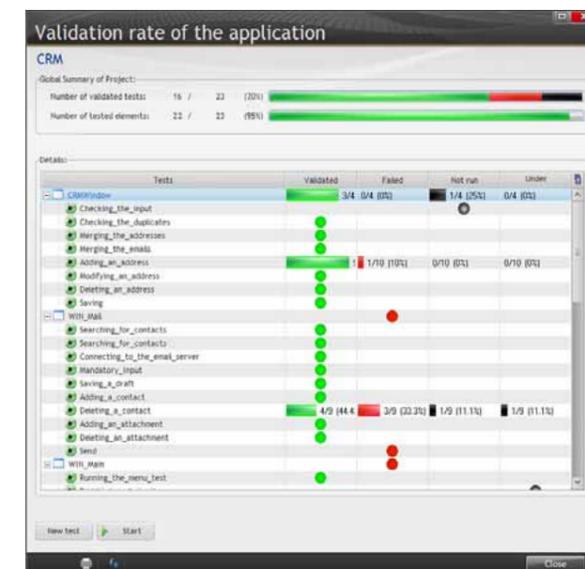
Each modified element that has not been tested and for which a test exists is flagged. If there's no test for a window that has been modified, the Testing Center indicates whether this window has been run at least once since the last compilation.

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

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



"Record" button, to save and play a scenario. When performing a "GO" operation, tests are also offered



List of tests available per window, status of each test, and summary

A FULLY INTEGRATED TOOL

Test management is fully integrated with the development environment: window editor, code editor, executable creation...

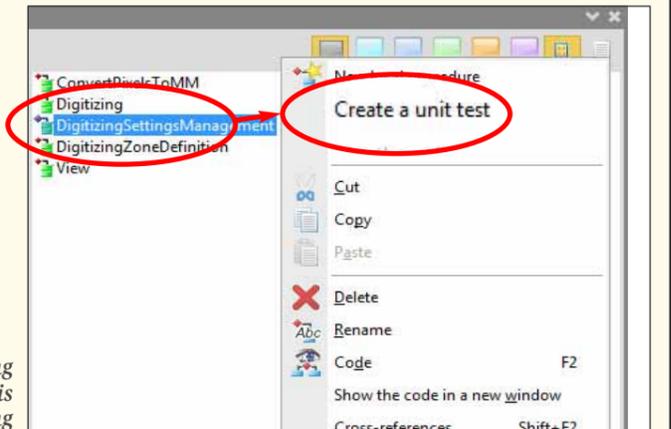
The Dashboard (see page 12) displays the test results, and lets you run the tests.

The tests and their results are automatically available to all the members of the development team.



Excerpt from the dashboard: the red light indicates that the tests have failed or have not been run. Click to open the list.

In the environment: creating a unit test for a procedure is done by right clicking



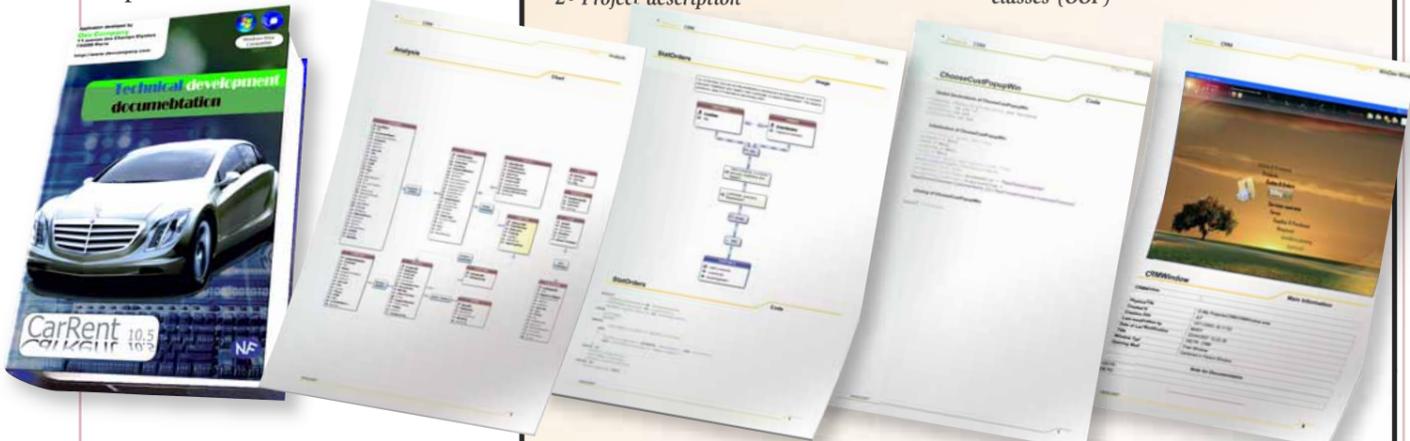
TECHNICAL DOCUMENTATION IN 1 CLICK

WINDEV 18 includes an analysis and program **documentation** generator as part of the product.

AN ALWAYS UP-TO-DATE DOCUMENTATION

A complete documentation contains 12 sections

1• Cover	3• Dashboard	8• Window description	and Web services
2• Project description	4• Schedule	9• Report description	12• Main index and appendices
	5• Business rules	10• Query description	
	6• Data schema	11• Description of classes (OOP)	
	7• UML models		



A complete documentation usually contains several hundred pages

The full documentation is created in one click by **reverse-analysis** of your project and can be edited at any time, it will always be up-to-date.

This documentation generator will save you days.

1 DOCUMENTATION ? 1 CLICK !

THE WHOLE DOCUMENTATION IS ALWAYS UP-TO-DATE IN ONE CLICK

Thanks to WINDEV 18 and the reverse-documentation technique used, you benefit at any time from a complete and up-to-date documentation, which is truly useful. And this only requires one mouse click...

SIMPLIFIED MAINTENANCE

The documentation is essential for easy maintenance. New developers assigned to a project can easily get familiar with its features and architecture. This, in turns, makes it easier for them to join the team, and allows them to be productive much sooner.

CONSULTING FIRM: MAKE SIGNING CONTRACTS AND COLLECTING A LOT EASIER

For a consulting company, an analysis documentation is often required by the client when signing the contract, and later when taking delivery of the application. At each revision of the documentation, you

save days thanks to WINDEV. And the documentation is always up-to-date...

EASILY DISTRIBUTE THE DOCUMENTATION: HTML, PDF, WORD...

You'll be able to easily distribute the documentation: in paper format, on your company's intranet (using HTML), by integrating it into a word processor (Word, Open Office, etc.), or in PDF format, to attach to an e-mail for example...

CUSTOMIZABLE DOCUMENTATION

You can customize many parts of the documentation: fonts, size, images, etc. Several documentation templates are available.

SHARED RESOURCES

The documentation is part of the shared resources necessary for working as a team.

Documentation is a requirement for any professional development. This is of course a standard feature of WINDEV 18.

MANAGER

A technical documentation is fundamental for a subroutine, or simply to help a new member join the team. Here the documentation is automatically created.

NEW

Miscellaneous new features

AAF TECHNOLOGY

AAF can be printed with the documentation

MAIN POINTS

Always up-to-date documentation
Print to paper, HTML (for Intranet), PDF, Word, OpenOffice...

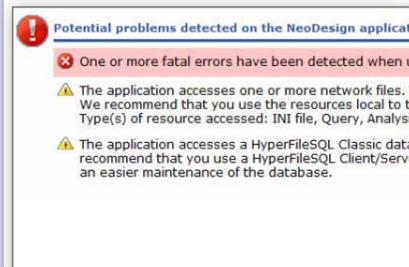


The "Software Infrastructure Supervisor" (SIS) lets you follow the status of your **Information System**.

SIS keeps you informed on the volumes used, the users, the applications.

SIS **automatically** performs **security audits**, to alert you of potential problems: different versions of the same application in use, non-optimized data server, access to data located on unusual servers

The Infrastructure Supervisor lets you size and increase the speed of your network.



SIS detects the potential problems

MANAGER

SIS enables you to ensure seamless operating for your applications on the company's hardware.

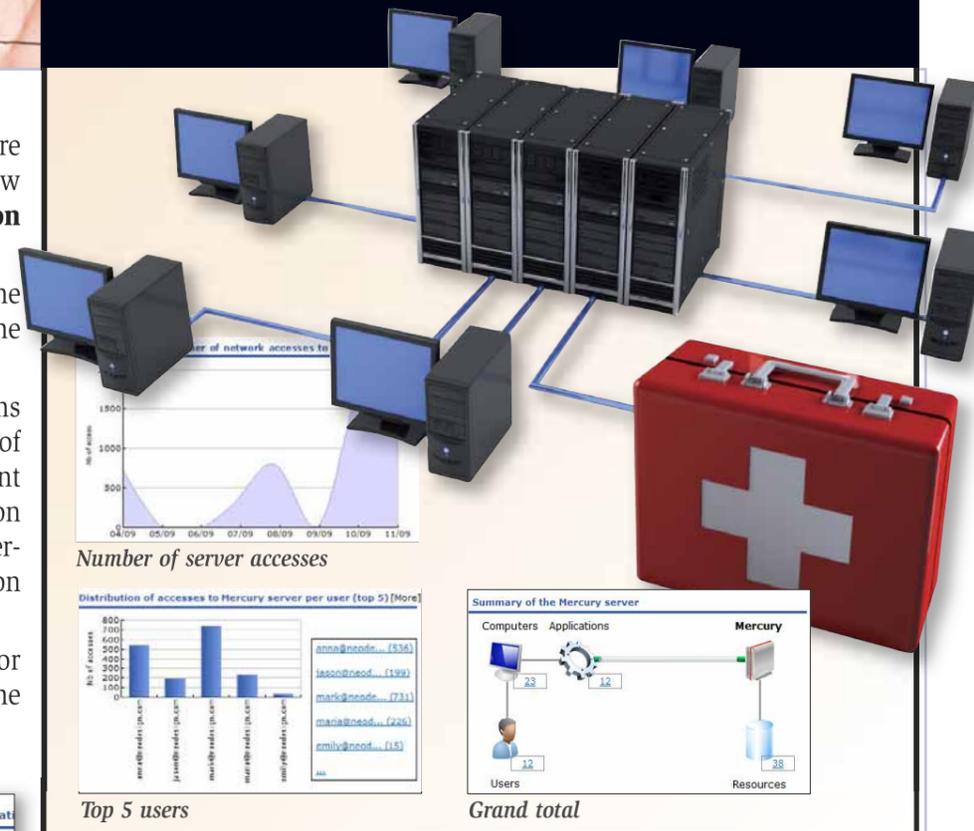
NEW

Various evolutions

MAIN POINTS

Application security
Hardware monitoring
Security audit

INCREASE YOUR NETWORK'S SPEED WITH SIS



INFRASTRUCTURE AUDIT

A network audit can be started at any time. This status report applies to one specific resource (an application, a server, a computer, etc.) and contains 2 parts:

- potential problems
- a summary of the resource's settings.

This way you can easily optimize the use of your software on the infrastructure you have.

IF I STOP THIS SERVER, WHAT WILL HAPPEN?

Every developer, every project manager, every IT engineer would like to get the instant and reliable answers to these questions:

- If I stop this server, what will happen?
- What applications are running on this server?
- Are some servers hosting applications whose version is outdated?

- What are the details of the errors that occur during applications' execution?
- How can I get an error dump on a live application that restarts on its own?
- This application uses which server(s)?
- This application uses which resources (component, web services, data files, ...) found on which servers? Sometimes, in "real life", an application uses components that access unknown resources...
- Which application, which user, which machine use a lot of resources?

The summary report of SIS displays links that immediately answer these questions (and dozens more).

The Infrastructure Supervisor is going to change your life!

Your applications' implementation is secured. The quality offered to your end user increases.



Generate an online help

DELIVER A HELP SYSTEM WITH YOUR APPLICATIONS

WINDEV includes a help generator in "HLP" and "CHM" format.

This generator enables you to **provide a professional help** with your application, which will improve your users efficiency.

Upon request, WINDEV 18 also inserts a "?" **menu** in your application, which contains the link to the help system, a link to the list of all the new features, some backup options...



MANAGER

An online help lets you make better use of an application and therefore makes it more profitable.

NEW

Various evolutions

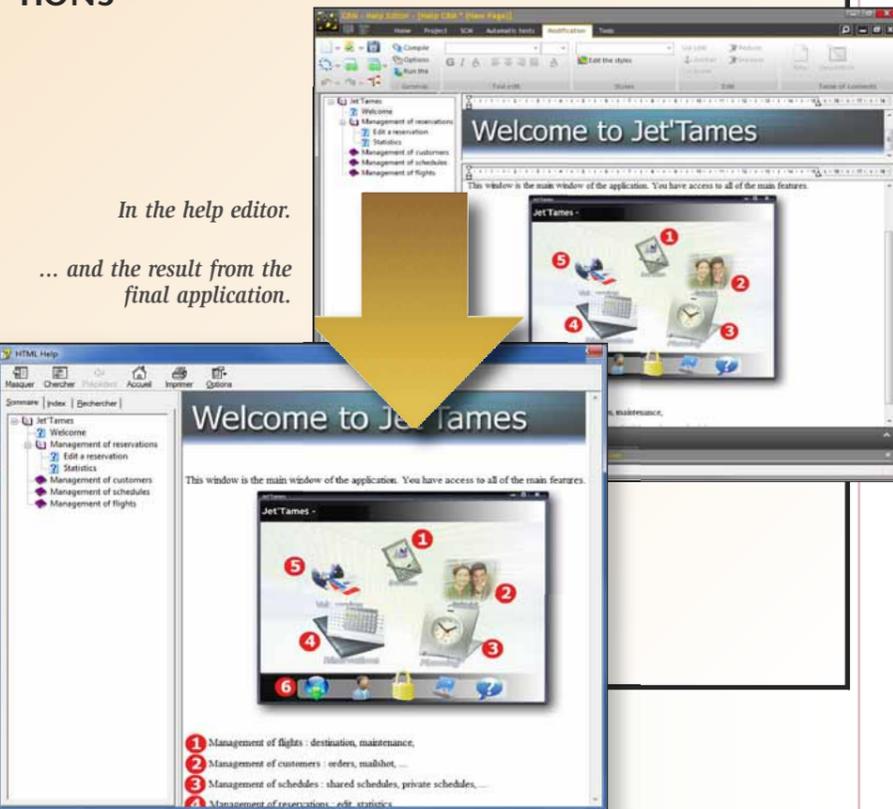
AAF TECHNOLOGY

The end user benefits from an online help

MAIN POINTS

Integrated with the environment
Automatic structure

HELP USERS TO BETTER USE YOUR APPLICATIONS



In the help editor.

... and the result from the final application.

CREATE THE HELP FOR YOUR APPLICATION

WINDEV 18 lets you easily create 4 levels of help in your applications:

- WinHelp and CHM help (HTML help)
- tooltip
- status bar
- help related to a control

Tooltip, status bar and control help are created directly in the development environment through the "7-tab".

The CHM or WinHelp help is created by using the help editor.

AN EASY-TO-USE EDITOR

The help generator automatically creates:

- help pages
- screen copies of the application
- links to the corresponding processes of the calling application.

Several elements can be configured (colors, buttons, background image, and so on).

SOME OF THE AVAILABLE FEATURES

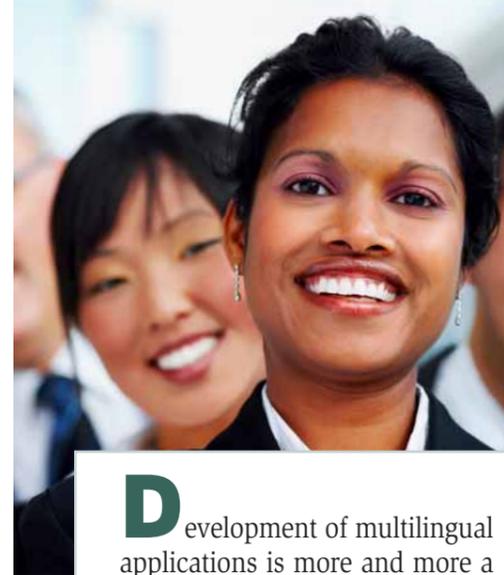
The help generator offers features that allow you to easily build help systems:

- create link with keywords
 - detection of broken links
 - adding information to an image: arrows, text,...
 - text style management
 - link to Internet page
 - link between different CHM help systems
- The help generator lets you easily create an interactive help system.

WINDEV 18 comes with its own help generator.

Deploy and sell internationally

TRANSLATE YOUR APPLICATIONS AUTOMATICALLY



Development of multilingual applications is more and more a necessity.

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

And then there's Europe of course! WinDev offers an innovative and powerful solution for **supporting foreign languages** (Latin character sets, non-Latin character sets -Unicode UTF8-, left-to-right and right-to-left writing).

For applications targeted for the North American continent, English, Spanish and French ensure the largest possible distribution of your software.

And there're the emerging countries as well: China, Russia, ...

Translate your applications into several languages, distribute them all over the world!

MANAGER

Translating an application for a new market has never been this easy. WINDEV 18 comes with all the tools needed.

NEW

Link with Google Translate in the editor

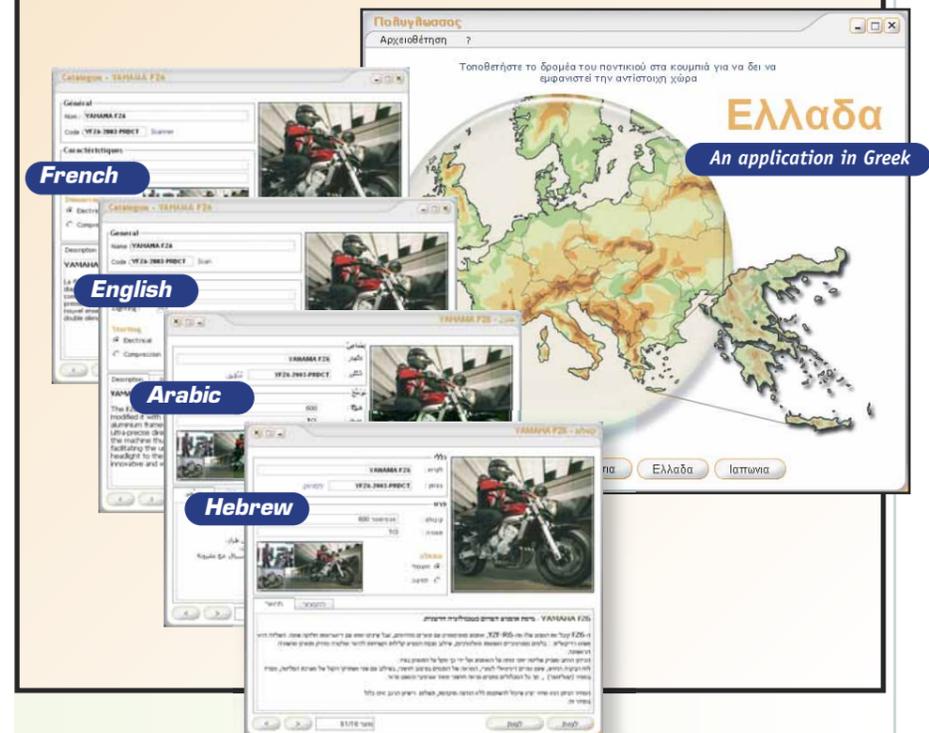
AAF TECHNOLOGY

Combine all the languages into the same EXE or limit an EXE to one language

MAIN POINTS

64 languages per application
A single executable
Instant visualization in the editor
Your own terminology dictionary that grows automatically

64 LANGUAGES PER APPLICATION



UP TO 64 LANGUAGES PER APPLICATION

Multilingual support (up to 64 languages per project) is automatic for your applications: specify the languages to use, and translate texts, labels, etc. Unicode is supported.

USE AN AUTOMATIC TRANSLATION SOFTWARE

You can call a translation software or site to translate your controls' labels in real time directly from the editor.

The multilingual support takes into account the specificity of each language: input/display mask (date,...), centering,...

DIRECT INPUT IN DIFFERENT LANGUAGES

Can it be any easier!

The input is directly performed in each language (Russian, Chinese, French...) This feature is available for the screens, reports, code messages...

AUTOMATIC TEXT EXTRACTION

The WDMMSG tool, available separately, lets you extract all the "text" in a project, and reintegrate it after translating it.

Useful if you want your application to be translated by a translation agency or a software!

CREATE YOUR OWN DICTIONARY

WDMMSG also creates a database containing the source texts and the translated texts, and automatically proposes a translation whenever possible.

Developing multilingual applications is child's play with WINDEV 18!



Installer
2.500 postes



Automatically create setup procedures

DEPLOYMENT, VERSION MANAGEMENT AND MAINTENANCE: AUTOMATIC

WINDEV 18 automates the deployment phases in all the possible cases: software publisher, consulting company, internal IS department, Internet distribution etc...

The setup program generator automatically creates the program adapted to your case. Everything can be modified and customized.

After its development and deployment, an application starts evolving. WINDEV 18 also automates maintenance tasks, including for the Database.

WINDEV 18 manages the complete application life cycle.



MANAGER

Automatically managing the installation and the maintenance of applications make them more reliable, more accessible. Time saved is also quite impressive.

NEW

Setup from the Cloud
Install signature

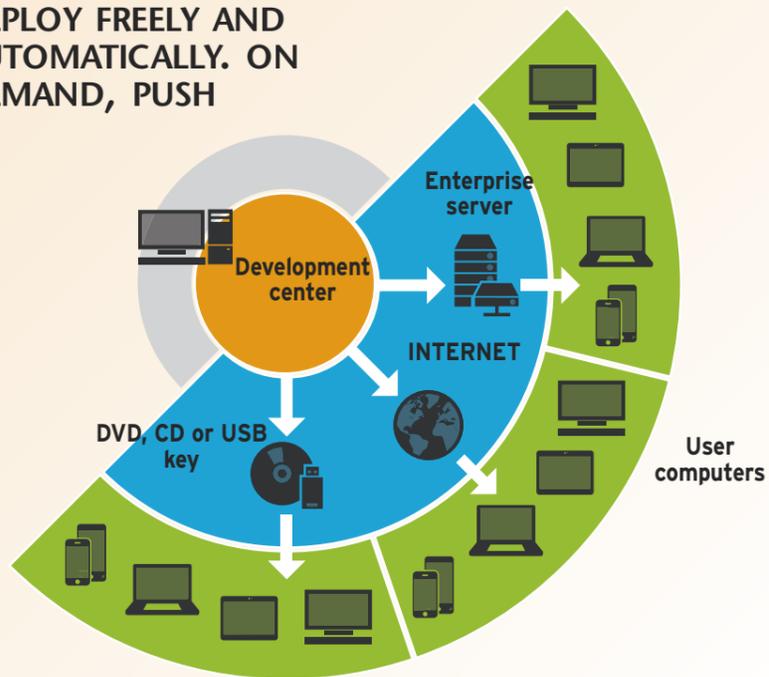
AAF TECHNOLOGY

Automatic update of table structures by comparison with the application's version. Remote control of applications and connected users

MAIN POINTS

Install push
The application manages the updates itself

DEPLOY FREELY AND AUTOMATICALLY. ON DEMAND, PUSH



AUTOMATICALLY CREATE SETUP PROGRAMS

Opposite, an example of the interface for creating setup program: hard to be simpler, everything is visual. Everything can also be easily configured.

- Allow the end users to create they own reports and queries and to modify the reports whose source code is supplied
- Install help for user macro-Code
- Display user license during installation
- Display a readme file at the end of the installation program
- Selecting the optional tools to include in setup
- Include uninstaller
- Set the automatic data file modification
- Customize the data files path during installation
- Customize the groupware files path during installation
- Include MDAC in the installation
- Install ODBC driver for Hyper File



Execute your application directly from a key

One click: the setup program is automatically created

Each time the application starts, it checks whether there is a newer version available

Automatically checks the version number: if the user skipped one or more updates, it is handled by the update

Minor update? A patch!

Automatic database update: no more "hack jobs"!



Version management: roll back to a previous version of your application in one click.

AUTOMATIC APPLICATION UPDATE, AUTOMATIC DATABASE MAINTENANCE

NO MORE "HACK JOBS"!

Which developer hasn't had the thankless task of writing some quick and dirty hack to increase an item size or add an item to an existing table?

The problem is even more complex when several versions of the application are in use: the application version as well as the database version have to be checked as well.

Writing those hacks is always tricky because they alter the data.

With WINDEV 18 these will be things of the past! WINDEV will automatically create the procedure to update the file and will automatically install it and execute it when updating your application. This procedure will have all the old versions of the application (up to 100), and will update the "old" HyperFileSQL databases if necessary.

Deploy in one click



WINDEV®

AUTOMATIC INSTALLATION

The integrated environment knows your project, the databases it uses... Therefore, it knows how to automatically create a full setup program.

Of course, you can modify this program, set up parameters, etc...

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

Note that the setup programs are multilingual.

ASSISTED CUSTOMIZATION

The elements to install are easily picked from lists;

By default WinDev offers elements from the modules you used in the application.

All the elements can be customized: title, background image, logo, end-user license text, readme, etc.

The program group(s) will be created automatically using the icons you specify.

REFERENCE SERVER: ALWAYS UP-TO-DATE INSTALLED BASE

Just install the new version on the server and each user computer will be updated automatically on its own (live update), through the company network or through the Internet or even through the PCSCloud cloud.

This way you can rest assured that all the machines are always up to date.

LIVE UPDATE, CD, DVD, USB KEY, INTERNET, CLOUD...

The setup program generator allows for flexible deployment.

It creates programs on CD, DVD, USB key, HTTP, and any media.

INSTALL PUSH

In the "Push" mode, instead of each user starting the installation on his computer himself, a remote administration software takes care of it.

You install without having to go anywhere!

MULTI-SITE INSTALLATION THROUGH RELAY SITE

This mode lets you deploy an install using relay servers (which can be in the Cloud) in order to not overload the main server (can be combined with "push"). The client applications refer to the relay servers then.

SINGLE USE PASSWORD

This feature lets you manage the remote activation of a program or an update. A key is generated on the client computer. The client sends an activation request (via Internet), receives an activation key, then can activate its application.

APPLICATION PATCH

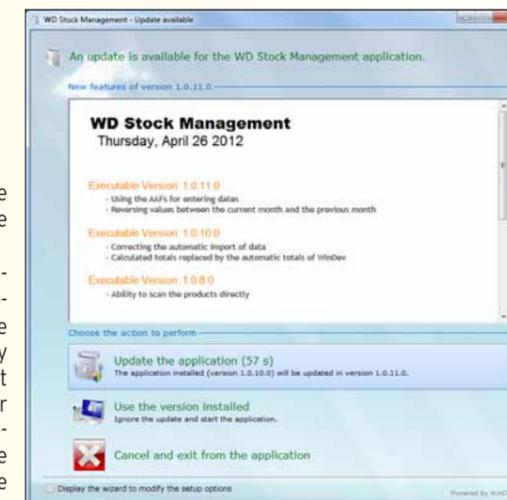
For a minor application update, you can also provide additional resources (windows, reports, etc.) as patches or as independent objects.

VERSION MANAGEMENT

WinDev automatically manages the different versions of your application (internal and customer-facing).

You can rollback to a previous version of your application in one click if required

WINDEV manages the complete development life cycle.
The industrialization of the development process is automatic!



AUTOMATIC UPDATE

Here, we're launching an application on a computer. A new version has been detected on the reference server. This version is offered automatically. Everything is automatic

ROBOT (WATCHDOG): IT MONITORS YOUR APPLICATIONS AND YOUR SERVERS

WINDEV 18. comes with a monitoring robot.

The goal of this engine is to **check that an application or a server works.**

If the monitored element fails (hardware failure, loss of Internet connection, system shutdown, and so on), the robot **triggers the alerts** that have been defined.

You're instantly notified.



Warning message sent to a cell phone

MANAGER

The monitoring engine insures uninterrupted service for applications, file servers or Internet sites.

NEW

Extended parameters ("fail/resume" mode)

MAIN POINTS

Service continuity
Rich and easy configuration
Easy implementation



MONITORING: POWERFUL AND EASY

WHAT TO MONITOR?

The engine lets you monitor the following elements for instance:

- HTTP server
- NNTP server
- SNMP server
- file server
- email server
- WEBDEV application server
- HyperFileSQL server
- WINDEV 18 application (1 line to add in the application)

WHICH WARNINGS?

The server notifies you by:

- sending a configurable e-mail message to the specified addresses (up to 20 addresses)
- message sent to a specific application (internal messaging,...)
- message sent to the integrated messaging system

- control screen (visual warning and/or sound)
- starting a WLanguage procedure
- third-party program (this program can for instance, send a configurable message via SMS to chosen numbers).

Of course, you can choose a combination of these warnings.

Among the monitoring parameters that can be specified, you'll find:

- the frequency: run the test every X, from 1 second to 1 day
- repetition: in case there's no answer from the monitored element, how often to retry and how long before triggering the warning
- text of the message to send
- the message's medium (SMS, e-mail, ...).



How to manage **user feedback**? The bugs they report as well as their suggestions?

WINDEV 18 comes with a "feedback" component that can be included in your applications.

It helps the user enter the information and manages **structured customer feedback** (via an internal network or via Internet).

The requests are then stored and managed by the Project Monitoring Center which can **assign** them to a team member.

If it is a bug, the request is turned into an issue and stored in the Quality Center (see p 11).

The users are guided when filling out their requests that are structured. Information doesn't get lost anymore and **your applications' quality improves.**

MANAGER

The feedback component, included in your applications, enables users to send back their suggestions and requests automatically.

NEW

Various evolutions

AAF TECHNOLOGY

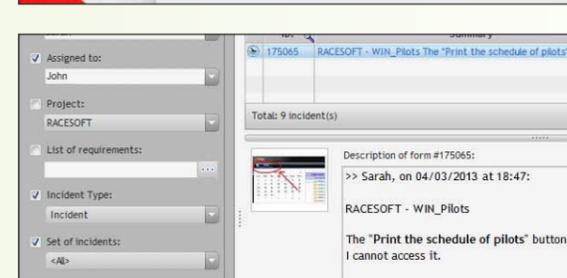
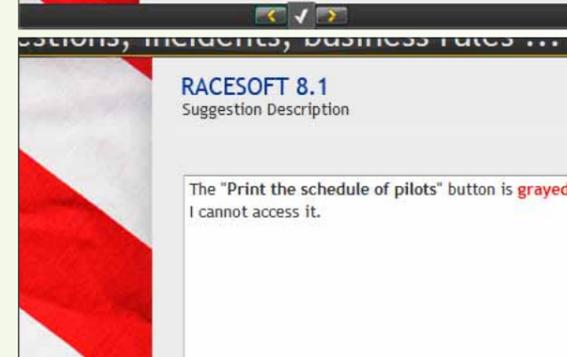
Feedback is an AAF component

MAIN POINTS

Be responsive and analyze your users' requests
Automatic integration to Control Centers

INCIDENT AND USER FEEDBACK MANAGEMENT

LEARN FROM YOUR USERS' EXPERIENCE!



THE USER COMMUNICATES

From the "?" menu of the application (generated by WINDEV 18 upon request), the end user can send a message to the software creator (or to the I.S. department). If the application runs into a bug, the wizard can be started automatically.

MESSAGE ENTRY

The user describes his problems or needs.

The hardware and software configuration is automatically detected and added to the message.

ANNOTATE SCREEN COPIES

The copy of the current screen is automatically attached to the message. The user can annotate the image using the integrated editor. Other screen copies or attachments can also be included.

IMPORT INTO THE CONTROL CENTER

Then we see the user's message in the development team's Quality Control Center: It is ready to be acted upon!

With WINDEV 18, keep in touch with your end users.



WINDEV 18: YOUR COMPANY'S ALLY

WINDEV 18 is the only development environment that allows for such a fast professional development.

COMES WITH EVERYTHING!



4 MANUALS INCLUDED, TUTORIAL ON DVD

WINDEV 18 comes with 4 manuals: programming guide, concepts, report editor and tutorial (with exercises on DVD).

Community-contributed online help

Of course a powerful online help is available as well as a large number of educational examples.

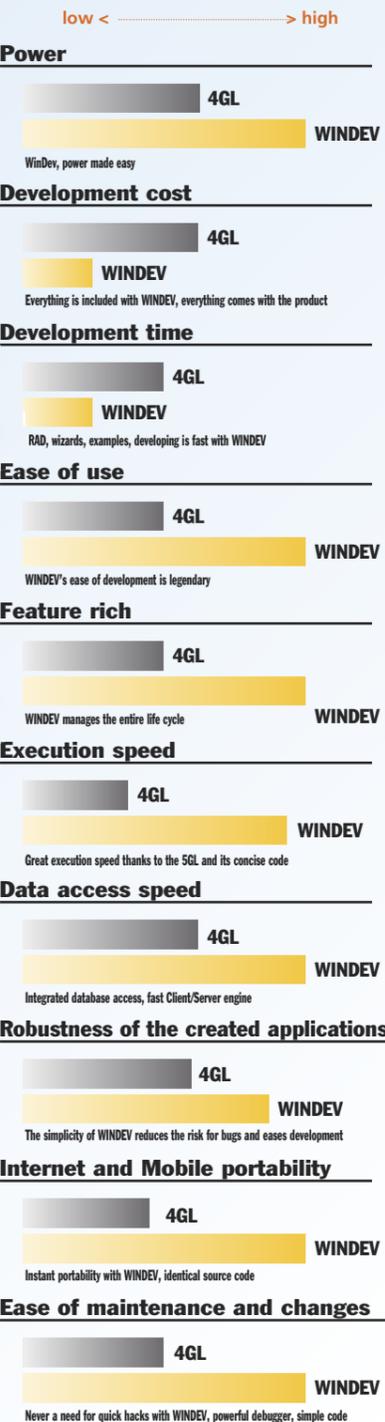
The online help can be accessed through Internet in a community-based format, which means that developers can add their own comments, details about each topic.

Get started in 1 week

Usually it only takes about one week for a developer to become comfortable with WINDEV 18.

More time saved !

COMPARE FEATURES!



1 SATISFACTION
The developer concentrates on the business needs and not on the code: applications finally meet user needs

2 RESPONSIVENESS
Up to 20 times fewer code lines: development and update times melt!

3 COMPETITIVENESS
Time to market is reduced, which allows for market share gains

4 RELIABILITY
Your software is easier to build: it is more reliable

5 SPEED
The code is streamlined, the software is faster



WINDEV, PLAIN COMMON SENSE: 10 PROOF POINTS

Here are some testimonials from our customers. Check them out in the special issue of "01 Informatique" dedicated to WINDEV and WEBDEV.

*Customer testimonial**
"Since we've installed WinDev, the department hasn't stop growing. New contracts keep coming in, and it's not unrelated"

*Customer testimonial**
It took only one week for our team to become fully productive which really illustrates how simple developing with WinDev is.

*Customer testimonial**
"WinDev is the best choice in terms of productivity and reliability"

*Customer testimonial**
The WinDev IDE is the only product on the market to offer such development productivity

*Customer testimonial**
"The productivity that WinDev brings us in our development projects gives us the mean to execute all our ideas and improves our market exposure"

*Customer testimonial**
"WinDev offers a set of rich features well suited for complex projects. Without WinDev we would have never been able to carry out such project, especially in the required time frame"



Find testimonials on www.windev.com

- your customers are in a hurry: they demand short project cycles**
Develop 10 times faster with WINDEV. You'll meet your deadlines.
- you're not part of an experimental lab your projects must come to an end**
Use the RAD tool, the wizards, the components and bring all your projects to completion.
- power comes from simplicity**
WINDEV is easy to use. Your teams will be successful with WINDEV.
- developers should concentrate on their trade, not on the tool**
The time of the techies that produce code by the mile is over.
- your customers want to keep their current systems and hardware**
The applications developed with WINDEV operate on all the Windows versions.
- a project must be documented**
The documentation guarantees a long life for the application.
- deploy without constraints**
Freely deploy your applications and your databases with WINDEV. No worries.
- teams perform better with WINDEV**
Clear and easy to read commands improves code readability and makes maintenance easier.
- only one language should be used for all systems**
The "single language" approach is the perfect answer to heterogeneousness.
- budgets must be respected**
Rapid development with WINDEV 18 results in measurable gains.



A ROI with no match on the market

COUNT YOUR SAVINGS

FEATURES	WINDEV.
Merise, UML modeling tool	included
Complete application RAD	included
Unlimited database included	included
Cluster	included
Software Infrastructure Supervisor	included
Report generator	included
PDF document printing	included
Bar code printing (QR code, EAN,...)	included
Fax and email sending (one at a time or mailing)	included
Query editor	included
5GL language	included
Remote debugger	included
Performance profiler	included
Data acquisition/sending via RS 232, USB and // link	included
Versioning tool (SCM)	included
Static audit, Dynamic audit	included
Software integration	included
Link to external languages: Java, C#, C++, VB, Cobol, ...	included
Translation in 64 languages	included
Online help generator	included
Setup program generator (including "push")	included
Monitoring robot	included
Control Centers: Scheduling, Quality, Requirements	included
Maintenance procedure generator	included
Analysis and program documentation generator	included
Regression test center	included
User feedback management center	included
Self-training time	1 week
Custom hotline (phone and email, 15 inquiries)	included
Version 100% in English (product, documentation, help, examples, wizards, ...)	included
Development time	
Product price list (with manuals)	
	TOTAL

WINDEV is a complete development environment.

Its very **competitive price** is made possible by its success and the large volume of sales.

The first **quality** of WINDEV is its **power**.

Its second quality is its **reliability**.

Its third quality is its **ease-of-use**, now stuff of legend.

Its fourth quality is its **openness**.

The fact that the price of WINDEV 18 is so low is only one of the elements that make it a **success**.



A day without WINDEV is a day lost: order WINDEV 18 today!

MANAGER

The very low price of WINDEV and its very low learning curve are nothing next to its reliability and its power. But a reasonable price is always a plus.

NEW

Over 918 new features in version 18

MAIN POINTS

All in English
Everything is included and integrated
Very short training time

KEEP ON BUDGET, WIN CONTRACTS

WINDEV 18 is a very complete and powerful tool, yet very simple to use and with very short training time required.

With WINDEV 18 you'll reach all of your objectives.
Its incredibly low price in relation to its fea-

ture set and extended services, is only made possible by our large number of customers.

You will save a lot of money by using WINDEV 18, while bringing total satisfaction to your most demanding users.

The ROI is instantaneous.

at your side for 25 years



PC SOFT AT YOUR SERVICE FOR OVER 25 YEARS

YOUR FREE TECHNICAL SUPPORT

For over 25 years, PC SOFT has been helping professional developers develop their **strategic applications** better and faster.

Who else has such **confidence** in its products that it **offers** free technical support?

The **ease-of-use** of our environments and their reliability allow us to offer you this service, which is fundamental for your efficiency, free of charge.

MANAGER

PC SOFT answers all your requests. Our free technical support (we have total confidence in our products) is real guarantee for your teams.

NEW

WINDEV, WEBDEV and WINDEV Mobile are all up to version 18, and share projects

MAIN POINTS

Free, personalized, technical support
Quality training
Intervention on site

In order to help you reach your objectives faster, PC SOFT provides you with more than 25 years of experience in the professional development market.

SERVING DEVELOPERS SINCE 1984

PC SOFT has been creating development tools since 1984. This is why we know what we're talking about, and above all, it's why we know you.

Several millions of applications developed using PC SOFT tools are running worldwide, in all kinds of fields.

GET YOUR TEAMS QUICKLY UP-TO-SPEED ON WINDEV 18

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

- Tutorial (500 page manual included), examples
- PC SOFT training seminar
- Consulting services

FREE HOT LINE

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

We are so confident about our product that

we offer free technical support: it is free (15 inquiries).

Free support is accessible by Internet and fax.

Note that the hot lines of most of our competitors are more expensive than the cost of WinDev itself.

PROFESSIONAL NEWSGROUPS

PC SOFT offers exchange forums for developers: News Group. PC SOFT New Groups are moderated, which means that their content is technical and professional, "off topic" messages are not accepted. Access to these newsgroups is free.

AN EXPERIENCED PC SOFT CONSULTANT IN YOUR OFFICE

PC SOFT can make an experienced engineer, who is familiar with your field, available to you in your offices, for a duration of 1 to 5 days.

The PC SOFT consultant will help you so you can maximize your investment in WinDev for your specific project, will audit existing code and will guide you in your strategic choices.

WINDEV 18 enables you to easily reach your objectives.





PRESTIGIOUS REFERENCES

Go to the www.windev.com site to read several detailed testimonials from companies that are using WINDEV, WEBDEV and WINDEV Mobile.

Several customers among PC SOFT's tens of thousands share their experience.

You'll be able to see for yourself the variety of use WINDEV can be put to.

DEVELOP ANY TYPE OF APPLICATION

While you are reading these few lines, millions of PCs in the world are running applications built using WINDEV. Software with over 200,000 deployed copies, that manage billions of dollars, that work with tables containing several dozen millions of records, or on networks with thousands of remote machines in real time, ...

You too, like them, build your software more easily with WINDEV.

MANAGEMENT

- CRM, ERP, EAI, EDI, mail order, KM, CAPE, CAM, sales, accounting, payroll, management, amortizations, portfolio, budget...
- Various business applications: auto sales and auto repair, trade, food, match making, hair salon, fashion, photo stores, airline fret agent, city IS departments, cemetery, fresh produce warehouse, workers' council, marina, dry cleaner, SPA, oil distributor, home owner associations, optician, express shipper, temp agency, maritime company, airport, cosmetic industry, publishing house, toy industry, newspaper publisher, etc...
- Genealogy software
- Applications linked to ERP, SAP, Mapix, Sage...
- Management of computer inventory, helpdesk
- Industrial packaging
- Real-time inventory management, with laptop and PDA linked by radio and GPRS
- Complete management of a 500 food store chain, with connection to cash registers, to the headquarter mainframe...
- Real-time management of ID cards
- Organization and optimization of stores
- Worldwide logistics management for a car manufacturer
- Tool for optimizing inventory in the fashion design industry
- Census and poll
- Work time management
- Print giant labels (with bar code)
- Personnel management using picture
- Crop optimization based on quotas and type of culture
- Statistics, reporting
- Consumption billing debited from a smart card
- Account receivable management
- Athlete management (Olympic games...)
- Entry and management of classified ads for a daily newspaper
- Geographical and historical atlas
- Process and prevention of work-related accident, with printing of legal documents
- Repair planning and train circulation...

- Nurse, Pharmacy, Chiropractor, Emergency technician
- Ultra sound optimization
- Management of thousands of employees for "Médecine du Travail" (work health department)
- Measure the volume/pressure of internal organs...

SPACE

- Stellar seismology study (software loaded on a space probe)
- Calculation of comet orbits
- Editing the sky maps
- Automatic generation of an airplane flight log
- Interface for the defense system of a large country
- Monitoring a stratospheric balloon...

EDUCATION

- WINDEV is used in a lot of engineering schools
- Tutorial including 3,000 windows
- Student self evaluations
- CAL training for a banking software running on mainframe and distributed at 50,000 copies...

FINANCE

- Financial transaction management for clients on 15,000 computers spread over 400 connected networks
- Banking back office
- Insurance premium and claims
- Stock price retrieval
- Banking terminal interface (men/computer, computer/central site) (ATM)
- Commercial land management, on laptop, connected to main system via Client/Server...

INDUSTRIAL

- Supervision software
- Control of an automatic feeder for livestock
- Airbags testing
- Engine testing management
- Monitoring of tests for train braking system
- Monitoring and simulation of flow for dams
- Data entry in a vineyard of the ripening stage of grapes, with GPS positioning
- Real-time entry of veterinary procedures
- Controlling an electronic microscope
- Monitoring of printed circuit

- presses
- Calculation for building design
- Control of automatic industrial wood cutting operations
- Control drilling/milling equipment
- Control of a viscosity measure instrument
- Analysis of mechanical chocks
- Control of automated paint mixing equipment
- Controlling an interactive vocal server
- PABX and PCBX Management
- Modeling of a drinking water network
- Creation of artificial images of mechanical parts
- Remote surveillance of sensitive areas
- Remote surveillance of a network of water reservoirs
- Monitoring of car making robots
- Checking the access to nuclear central areas
- Send/receive message on a laptop from a boat
- Acquisition and process of weather related data
- Remote control of an extended network of diode display panel
- Examination of combustible radioactive chips
- Interactive terminal issuing transportation tickets
- Interactive information terminal in a department store
- ISO normalization programs
- Technical construction calculations
- Help pre-cabling a building
- Technical documentation management (aviation)
- Workshop Management...

This list is not exhaustive of course, but it gives you a good idea of the power of WINDEV and how our customers use it.

Don't let your competition get ahead, choose the best development environment to build your application: WINDEV 18.

WINDEV & WEBDEV: a driving force for Porsche France SA

The company: Porsche France SA uses WinDev & WebDev for the development of its internal and external strategic reporting tools. High performance handling and security guaranteed!

Project leader: [Photo]

WinDev, SAP and AS400 used in a winning combination

Porsche France SA uses WinDev & WebDev for the development of its internal and external strategic reporting tools. High performance handling and security guaranteed!

Project leader: [Photo]

WinDev, SAP and AS400 used in a winning combination

Porsche France SA uses WinDev & WebDev for the development of its internal and external strategic reporting tools. High performance handling and security guaranteed!

Project leader: [Photo]

Test beds at John Deere: master analyses with WINDEV

All the John Deere factory in Saran, the engine test benches beds are analyzed using applications developed with WinDev. Quite a success story!

The company: John Deere is the world leading manufacturer of agricultural machinery. The other applications are used on the test benches to analyze the engine data.

Project leader: [Photo]

WinDev WebDev have analyzed international data

John Deere uses WinDev & WebDev for the development of its internal and external strategic reporting tools. High performance handling and security guaranteed!

Project leader: [Photo]

(cacharel) From manufacturing to ordering, WinDev & WebDev are the perfect fit

WinDev & WebDev are at the heart of application development at Cacharel. Made to measure!

The company: Cacharel is a French fashion brand. The applications are used for the manufacturing and ordering process.

Project leader: [Photo]

WinDev WebDev are at the heart of application development at Cacharel. Made to measure!

WinDev & WebDev are at the heart of application development at Cacharel. Made to measure!

Project leader: [Photo]

New remedy at Bristol-Myers Squibb: WINDEV Mobile

ALTEVA has implemented a complete solution for managing building and office maintenance requests at Bristol-Myers Squibb European Headquarters.

The company: Bristol-Myers Squibb is a multinational pharmaceutical company.

Project management: [Photo]

PLAYMOBIL France: Your children too can thank WinDev!

The French subsidiary of Playmobil uses the WinDev IDE to collect and manage data for its toy distribution business in France.

The company: Playmobil is a German toy manufacturer.

Project Manager: [Photo]

WINDEV & SEGAFREDO ZANETTI Help in making express decision!

The Italian multinational chose WinDev AS400 to provide decision making tools dedicated to sales managers and brands.

The company: Segafredo Zanetti is an Italian multinational company.

Project leader: [Photo]

YOU TOO, SWITCH TO WINDEV!

Reusing your legacy code is very easy. You can retrieve the UI (windows), the SQL queries, use your current database or migrate your data automatically to HyperFileSQL. You distribute your applications without paying any royalties, without changing your hardware or software, and your applications automatically benefit from cutting edge features, from internet and mobile device portability.

WINDEV Mobile pumps up BRIDGESTONE-METIFLOT sales

The METIFLOT Company, a subsidiary of BRIDGESTONE, has chosen WINDEV Mobile to provide its sales force with an application for mobile computers.

The company: Bridgestone is a Japanese multinational corporation.

Project management: [Photo]

BRIDGESTONE METIFLOT

BRIDGESTONE METIFLOT is a subsidiary of Bridgestone. The applications are used for the management of sales and distribution.

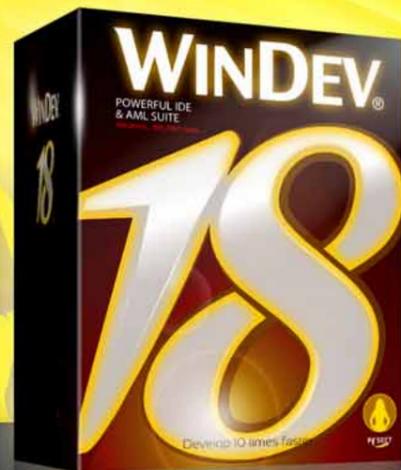
Project leader: [Photo]

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WINDEV®

INTEGRATED DEVELOPMENT
PLATFORM



www.windev.com