

WINDEV® Mobile

New
Version



INTEGRATED DEVELOPMENT PLATFORM

Smartphone, Tablet,
Pocket PC, Terminal

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

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



www.windev.com

DEVELOP 10 TIMES FASTER

“ YOU CAN START DEVELOPING FOR MOBILE DEVICES WITHIN 10 MINUTES ”

"Network and telecom magazine"



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



- WINDEV Mobile 17 is fantastic for developing on Smartphones, Tablet, Industrial devices and Pocket PC.
- Thanks to WINDEV Mobile 17 you develop really quickly (or you can reuse existing WINDEV code).
- You can distribute your applications freely.



Smartphones and tablets are taking over the professional world. These "Pocket computers" now come with such compute power and storage capacity that they allow a comfortable and efficient use of dedicated applications.

With the WINDEV Mobile 17 IDE, creating robust applications for any mobile device is easy and very, very fast!

TABLE OF CONTENTS	
3	Developing for mobile devices
7	Smartphones and tablets (Android, iOS, Windows Phone)
14	Terminals (Windows CE and Windows Mobile)
20	Questions/Answers



BE MOBILE!

Caution: If you're not familiar with WINDEV 17, we recommend you check the WINDEV brochure as well (either on the www.windev.com site, or by requesting a copy from PC SOFT or from your distributor). So you can get additional details about basic features and about the compatible programming language (WLanguage). Or call us!

DEVELOPING FOR ALL MOBILE DEVICES



NEW! iPhone



A complete development environment, adapted for the "Mobile" world

With WINDEV Mobile 17 you are free to choose. Since the windows and the code are compatible from one system to another you can easily switch!

CHOOSE FREELY!

The development of professional applications for mobile devices has evolved tremendously, this is due in large part to equipment and connectivity improvements. Depending on the intended use, one will select a type of device and an operating system.

- Usually, the choices are as follows:
- for professional or industrial applications (rugged terminals, point of sales, applications managing data), Windows Mobile or Windows CE are usually chosen. Android is starting to appear in professional and industrial fields, iOS is starting to appear in the professional field.
 - for personal applications, Android, iOS (iPhone, iPad) or Windows Phone are usually selected.

Of course, this is just a high-level view, and everybody can see benefits in developing an application on the device and OS of their choice!

This brochure covers all the types of development for mobile devices. The first section concerns more specifically phone and tablet applications and the second section terminal applications, but your imagination is the limit!

THE DEVELOPMENT METHOD

A STANDALONE DEVELOPMENT ENVIRONMENT

Regardless of the target equipment and the operating system, the way to develop with WINDEV Mobile 17 is similar.

The development environment is integrated, powerful, complete, intuitive and it is

PORTABILITY OF YOUR APPLICATIONS

ANDROID, IOS, WINDOWS PHONE, WINDOWS CE, WINDOWS MOBILE



With WINDEV Mobile 17, the same specially developed application can run on different Mobile OS. WINDEV Mobile 17 works with Windows CE, Windows Mobile, Windows Phone, iOS and Android..

ALL MOBILES

Develop for all the Windows iOS, Android mobile devices: phones, smartphones, pocket PC, terminals, rugged terminals, tablets, netbook,...

ALL MANUFACTURERS

Applications built with WINDEV Mobile 17 work on devices from all manufacturers: Datalogic, Intermec, Falcon, Symbol, PSC, PAXAR, Psion Teklogix, Pidion, Gotive, HHP...

All the smartphones are supported: Apple, DELL, Qtek, Toshiba, HP, Asus, Acer, Compaq, Orange, Samsung, Paragon, HTC, Motorola, Palm, LG...

(continued from page 3)

adapted to the specificities of mobile devices.

With WINDEV Mobile 17, it's never been easier to develop for mobile.

THE ENTIRE LIFE CYCLE IS SUPPORTED

WINDEV Mobile 17 comes with all the tools needed for managing the entire life cycle of applications: Merise and UML analysis generator, project dashboard, collaborative Source Code Manager, UI generator, 5GL language, debugger, programming documentation generator, schedule management,...

These generators are compatible with WINDEV (Windows, Java and Linux applications) and WEBDEV (Internet, Intranet sites and SaaS).



Develop for Smartphones!

MOBILE SPECIFIC FEATURES

WINDEV Mobile 17 offers a lot of features specific to the use of these terminals, such as SMS reading, accelerometer management, compass management, GPS positioning, bar codes, ...

Integrating the various connection technologies (Bluetooth, Wi-Fi, infrared, GPRS, 3G, replication, synchronization, ...) with your company's Information System is child's play with WINDEV Mobile 17!

POWERFUL UI EDITOR

WINDEV Mobile offers the most efficient UI generator in the world. Building UIs is assisted for mobile devices. Edit controls are very powerful and offer a set of security mechanisms (required controls or not, authorized characters, etc.) and a lot of input format.

PROGRAM IN 5GL: 90% LESS CODE

Programming is done in WLanguage

This programming is compatible with Windows, Linux and the Internet.

This 5th generation language allows you to develop up to 10 times faster, and remove up to 90% of lines of code.

Easy to learn and very powerful, WLanguage saves precious time for development teams.

"MOBILE" ORIENTED FUNCTION FAMILIES

WLanguage on Mobile includes specific function families adapted for mobile development

Among these function families you'll find (these families are available based on the operating system used:

- CDB database
- SQLite database
- HyperFileSQL Mobile database
- SIM card
- Keyboard
- Touch tile (handled with finger)
- Dictaphone/Tape recorder
- Email
- Automatic launching of applications
- Serial, parallel and infrared ports
- SMS
- Socket
- System
- Telephony
- Gyroscope
- Accelerometer
- Compass
- GPS
- Location via telephone operator
- Wi-Fi
- Bluetooth
- Camera, Photo
- Etc...

These WLanguage functions allow easy programming of "mobile" oriented processes;

here're some examples:

- read the address book
- standard access to the device's system features
- retrieve the IMEI number (unique identifier) of the phone
- locate the phone
- read SMSs
- read or write data on the Internet
- retrieve the machine's serial number
- drive a "dictaphone" (start and stop by programming, start a process when the user presses the record button,...)
- disable (and enable) the device's sleep mode (useful to save batteries or to keep a 3G connection)
- get the access path (directory) of the SD card
- switch to T9 input mode
- etc...

WINDEV COMPATIBILITY

You have WINDEV applications?

The compatibility between WINDEV and WINDEV Mobile is amazing: code, analyses, loopers, UML, classes, queries, controls (edit, table, splitter, etc.)!

You can retrieve and share most of the code and UI. The project can be common to WINDEV and WINDEV Mobile.

Database programming is also the same. Given the size of the screens, you just need to resize the windows, which is very easy to do with WINDEV Mobile 17!

Note that a project created with WINDEV Mobile can be opened in WINDEV.

ACCESS TO APIS

If the system allows it, you can access the device's APIs. If needed, you can code very specific processes.

SCREEN RESOLUTION

WINDEV Mobile 17 supports all the screen sizes and resolutions, DPLs, as well as portrait and landscape modes.

UNIVERSAL DATA ACCESS

Code for database access (in read or write mode) is compatible.

CONTROL THE INTERNET

The information coming from internet can be easily managed and included in the applications.

USER INTERFACE: IN 1 CLICK, BEAUTIFUL AND EFFICIENT...

UI: FANTASTIC

The WINDEV Mobile UI generator enables you to create quickly and without any required skill great-looking interfaces, that are also secure and easy to use.

The "7-tab" technology is applied to manage, among other things, the graphic look of your screen.

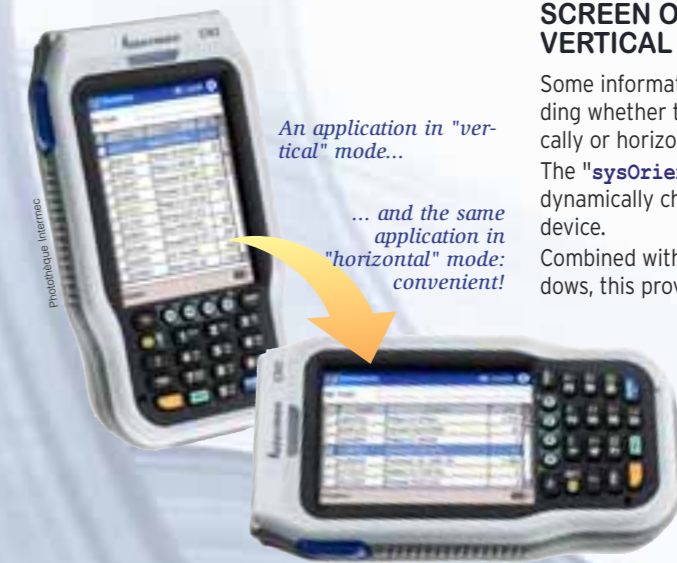
VERY POWERFUL CONTROLS

The available controls are very powerful, and they allow you to easily create user-friendly windows via a simple "Drag/Drop".

An Edit control proposes several automatic features: mandatory input or not, switch to uppercase characters, types of characters allowed in input, direct link with the database,...

A SINGLE APPLICATION FOR SEVERAL SCREEN SIZES

The window anchor concept lets you build a single application, regardless of the terminal's screen size. More time saved!



An application in "vertical" mode...

... and the same application in "horizontal" mode: convenient!

SCREEN ORIENTATION : VERTICAL OR HORIZONTAL?

Some information is easier to read depending whether the screen is oriented vertically or horizontally.

The "sysOrientation" function lets you dynamically change the display on the device.

Combined with the ability to dock windows, this provides great ease of use.

TESTING AND DEBUGGING

DEBUGGING ON THE PC VIA THE PROVIDED EMULATOR

Application testing is performed directly on the PC, thanks to a very powerful "simulation" mode. Here a window being created and its execution in "simulation" mode directly on the PC.



content...

The debugger offers advanced features: break points, resume, on the fly code modification, view variables'

DEBUGGING THE ACTUAL TERMINAL FROM THE PC

In some cases, debugging on the actual terminal is required: special terminal, terminal using devices that can't be emulated on the PC, using the real data found in a mobile specific software (for example, Outlook: contents of e-mails, appointments, scanner, RFID ...).

Thanks to version 17, you can easily debug on the actual hardware (on Windows Mobile), using real data.

Note that there is no additional software to install on the mobile device, because everything is controlled from the PC.

Debug terminals and their special devices, or real data from the PC



YOUR APPLICATIONS ARE PORTABLE



Your applications' portability is insured on mobile devices (phone, tablets and terminals), of course, but the same code can also be ported to Windows, Linux, Mac, as well as used for Internet and Intranet sites. Only WINDEV 17, WEBDEV 17 and WINDEV Mobile 17 provide this universal portability, and through this feature protect your investment in your company's legacy.



PHONE AND TABLETS (ANDROID, IOS & WINDOWS PHONE)



ANDROID



WINDEV Mobile 17 lets you create applications targeted for the Google Android operating system: smartphones, netbook, mobiles...



CONTROLS SUPPORTED ON ANDROID

A large number of control types are supported. Each control brings user-friendliness, automation and integrated security.

- Static control
- Radio button
- Date and time
- List box
- Looper
- Image
- Tab
- Formatted static
- Internal window
- HTML control
- Action bar
- Edit control
- Check box
- Button
- MapView
- Combo box
- Menu
- Progress Bar control
- Control template
- SuperControl
- Camera
- Ad



The DateTime control can be displayed in "roller" mode

HARWARE PLATFORM DETECTION

In the development phase, WINDEV Mobile 17 detects the characteristics of the connected devices: resolution and DPI. At run time, thanks to anchor technology, the application can easily manage the different resolutions and DPI.

WLANGUAGE

Over 700 WLanguage functions are supported on Android, which paves the way to an unlimited range of applications. From basic functions to more specialized ones, such as managing the brightness or volume, as well as voice recognition or synthesis, or XML support, the programming language brings the expertise you're expecting! You can also manage the automatic sending and receiving of e-mails, auto dialing, ...

SUPPORT FOR COMPASS AND ACCELEROMETER

The Android applications can be emulated via phone movements! For example, a movement toward the right goes to the next form, a movement toward the left goes to the previous form, a movement toward the top positions at the beginning of the file and a movement toward the bottom positions at the end of the file.

Programming this type of interface is very simple with WINDEV Mobile 17.

The **Sensor** functions allow you to propose this type of interface.

- Among the supported actions:
- bump (sharp movement) (beginning and end)
 - change of acceleration

- change of orientation
- orientation (compass).

This type of interface can be combined or can coexist with a standard interface (buttons,...).

MANAGEMENT OF MULTITOUCH



The "multitouch" is recognizing finger movements on the screen's surface: scrolling, zooming (pinch),... Applications automatically recognize these movements on image controls. In your programs, events are offered for managing processes: vertical or horizontal movement using one or more fingers and keeping them in contact with the screen, small movement of one or more fingers, spreading or pinching two fingers on the screen.

LONG PRESS

The Android operating system (and phones in general) don't have the concept of "right click". This concept is replaced by a prolonged pressing of the finger on the screen. Usually, a popup menu comes up following this action. For an easy support by programming of this extended screen pressing, a programming element is available in most controls. The programming of a long press is made easier.

WIFI



Wi-Fi support is very complete in WINDEV Mobile 17.

The **Wifi** family of functions offers a large number of features, such as:

- access points detection
- connection to an access point
- add to/delete from the list of available network
- connection status
- information about the connection
- encryption support for many formats: WEP, WPA, WPA2, WPA EAP, IEEE8021X...
- ...

BLUETOOTH



Bluetooth management with WINDEV Mobile 17 is very complete.

The **BTxxx** Bluetooth management with WINDEV Mobile 17 is very complete such as:

- list of Bluetooth devices
- change in the phone's visibility
- accept connections
- get information about a device
- ...

MAP CONTROL

The Map control lets you display a Google Map in order to find a location, to create an itinerary, to display Points of Interest (P.O.I.), ...

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

The WLanguage **Address** type lets you designate a geographical point.

The **Marker** type lets you position P.O.I. on a map. The symbol representing these P.O.I. is customized by the `..image` property.



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



Android application on the tablet (expense management)



P.O.I markers example. books.

GENERATE REVENUES: AD CONTROL

The new "Ad" control uses the Google "AdMob" protocol.

Your applications can display ads served by Google and generate revenues.

Graphical and text formats are supported (banner ads and text ads).



Display ads in your mobile apps and generate revenues!

NOTIFICATION



A notification, top left (here sales figures)

Icons found at the top of an Android home screen are "Notification" icons

They can be "expanded" to show their details.



The notification once expanded

Thanks to the **Notif** family of WinDev Mobile 17 functions, it is easy to add icons (and their details) to the icon bar and to delete them, to perform sound notification, vibration and light up the LED.

For example: the application received a message, the information has been sent, the

application is (or is not) connected, you have an appointment...

There are 4 types of notifications, all supported by WINDEV Mobile 17:

- notification in the home screen bar
- sound notification
- notification by vibration
- notifications by switching the phone's front LED on (in a chosen color).



Turn on the phone LED in the color of your choice

TOAST

A Toast is an informational message that pops up on the screen to notify the user without requiring any validation.

Simply specify the text to display, where to display it and the duration of the display (short or long) thanks to the **ToastDisplay** fonction.



Display a toast type message

MAKE YOUR PHONE VIBRATE!



Thanks to the **Vibration** family of functions, you can make the phone vibrate when typing information.

VOICE RECOGNITION, VOICE SYNTHESIS

Simply dictate a text to the **SpeechRecognitionTrigger** function for this text to be converted into character strings!

Speech synthesis is also supported.

CONTACT LIST ACCESS

Reading, searching, creating, modifying and deleting contacts found in the phone is managed by WLanguage through the following **Contact** family of functions.



CAMERA/PHOTO CONTROL

The camera control directly displays images captured by the phone's camera. Photos and videos are supported.

What is visualized can be stored (photos in JPG and PNG formats, videos in mpg and 3gp formats).

The **click on camera control programming event**, lets you execute a process when clicking this control.

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

This control also lets you display photos and videos.

For example, an expert can take pictures and include them in a report, or the application can send them automatically to the headquarters, and include them automatically in the relevant report (in WINDEV format or in

Word for instance).

The **Video** functions let you control this type of control.

PLAYING VIDEO

The "multimedia" control is supported in Android.

This control allows you to read video files as well as music files.

The popular audio and video formats are supported: Wav, mp3, AVI...



For example, if the signal is spotty, a data transfer can be forbidden, while if a good quality Wi-Fi signal is available, downloads can be allowed.

MANAGEMENT OF NON-LATIN LANGUAGES

Non-Latin languages (Russian, ...) are supported on Android.

USE OF EXTERNAL WEBSERVICES

WINDEV Mobile 17 offers integrated Web service support.

The web service used is imported into the project, and the environment recognizes it after that: types declared by the web service, procedures to call, ... Development is simplified.

QR CODE



QR bar codes are decoded. An application can trigger the camera to acquire the QR bar code and decode its content automatically.

FINDING OUT THE CONNECTION TYPE AND THE NETWORK STATUS

The **SysNetworkInfo** WLanguage functions enable you to get the network connection type and the quality of the reception signal. It can be useful for an application to know whether it is connected to the Internet via Wi-Fi or 3G.



SQLITE: NATIVE ACCESS



Native access to SQLite lets you natively access the data files found on Android devices via the usual WLanguage commands (**FileToScreen**, ...).

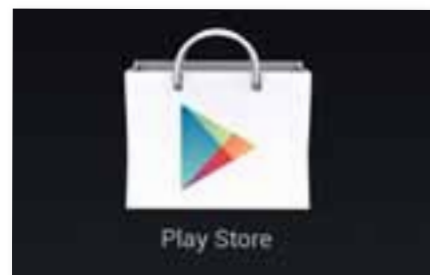
You can also access the files from a PC, to synchronize data for instance
WINDEV 17 and WEBDEV 17 also offer native access to SQLite, which allows easy data synchronization from the back office.

DIRECT SETUP



Applications internal to the company are usually installed directly on the devices. It's easy, thanks to WINDEV Mobile 17.

DEPLOYMENT VIA GOOGLE PLAY



Applications developed with WINDEV Mobile 17 are easily deployed on Google Play, the Android market (for a free or paid distribution).

If you charge for your applications, you generate revenue for each sale. During the application's generation phase, version 17 lets you limit the devices authorized to download the application.

For example, if an application is specifically designed for tablets, you can forbid to have it downloaded to a phone.

ANDROID EXAMPLES

A large number of examples are provided with Android
Among these examples, you'll find:

• **Android FTP Client**: example of an FTP client built for Android devices



• **Android Explorer** : file explorer for Android

• **Android Managing Contacts**: custom contact management example

• **Android Managing orders**: order taking example (customer and product management, etc.)

• **Android Registered**: attendance manager example (seminar, conference, ...)



• **Android GPS** : example on GPS features use (longitude, latitude, altitude, speed and

direction)

• **Android RSS Reader**: RSS stream reader with management of images and favorites

• **Android Password**: example of a password "briefcase" implemen-

tation (pin number, Internet sites, etc.)

• **Android Notes**: graphic note taking implementation example

• **Android Speech Synthesis**: example of the use of speech synthesis features

• **Android System** : example of on how to use Android specific system features (toast, notifications, Wi-Fi, ...)

• **Game**: gaming example, usually meant to be distributed via Android Market. This game is actually offered on Google Play.



• **New examples have been introduced in version 17:**

- Android Sport Assistant
- Android Beach
- Android Stopwatch
- Android purchasing list management
- Android Inventory
- Android Expense accounts
- Android Poker
- Android Polls
- Android Stocks
- Android Tic Tac Toe
- Android Zip
- WM Quizz



IOS (IPHONE, IPAD)

WINDEV MOBILE 17 lets you create native applications for iPhone, iPad and iPad Touch. You develop in a familiar way, using WLanguage, with the added benefit of the efficient environment you know, and reusing your existing code if appropriate.

As with the other platforms, you benefit from powerful editing features in the environment: project editor, UI editor (WYSIWYG, "7-tab" technology, alignment, snap-on, F4, etc.), code editor, data model editor, query editor, UML editor, debugger, source manager, internal components, project configurations, unit tests, automated tests, continuous integration, profiler (static and dynamic audit under the simulator), UI compilation errors, image catalog, business rules, control centers, requirement management,...

Version 17 is intended for "professional apps", distributed on a number of mobile devices.

CONTROLS SUPPORTED IN IOS

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

- Static, formatted static, ellipse
- Edit control (with input mask support)
- Button
- Image
- Radio button
- check boxes with styles, native check boxes
- Date Time (including "roll")
- List box
- Looper (with breaks)
- Multiline areas (native)
- Chart
- Supercontrol
- Control template, window template
- Internal window
- HTML control.

PORTABILITY

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

You can choose to develop for a specific device.

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

RICH WINDOWS

Styles allow for text personalization: color, font, size, bold/italic/underlined, alignment, shadow, background color, border, rounder border, double border, etc., background image, ...

Automatic file links (data binding) are active.

The "9 image" mode is supported, as well as planes.

If needed, you can lock windows in portrait or landscape mode, or allow both.

WLANGUAGE

Over 700 WLanguage functions are already supported by iOS.

All the WLanguage types are supported. GPS is supported, the voice input can be controlled, a function enables you to play sounds, to make the device vibrate, etc. OOP is supported.

APPLICATION COMPILATION

Applications are compiled in Windows Mobile 17. They must be signed then. Simply use your "ios developer" certificate obtained from Apple to sign your application. This operation is performed on a Mac.

CALLING WEB SERVICES

Calling web services is easy to implement.

WINDEV Mobile automatically imports all the descriptions of the structures and procedures.

The **HttpRequest** function is also available. It allows, among other things, to send "get" or "post" requests to a WEBDEV application server, which is useful to exchange data.

SENDING AND RECEIVING E-MAILS

Functions for sending and receiving e-mails are available in WLanguage.

It is also possible to trigger by programming the opening of the standard outgoing mail window with the fields' contents already filled out (subject, title, attachment,...).



AUTO DIAL

The **tapiDialerCall** WLanguage function lets you trigger a call to a specified number.

MULTIMEDIA

The **PhotoCapture** WLanguage function lets you select an image from the device's gallery, or save images into the gallery.

The **VideoStartApp** WLanguage function lets you start the standard camera app and retrieve photos or video stored in the app.

HYPERFILESQL

HYPERFILESQL CLASSIC

The HyperFileSQL database (see p. 16) can be installed on an iPhone or iPad. Your applications benefit from the power of HyperFileSQL.

More than 120 HyperFileSQL functions are supported.

Data and indexes are compatible with Windows, Linux and Mac versions: data can easily be shared or exchange with back office for instance!

HYPERFILESQL CLIENT/SERVER

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



The development environment is adapted to iOS

iPad applications are getting more and more popular

Each device can easily access the enterprise's data.

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

DEPLOYING DATA FILES

You can include the files of your choice when creating a bundle (archive containing the executable and the files needed by the application).

An automated file extraction mechanism from the downloaded bundle can be used.

This mechanism enables you to automatically install databases in the mobile.

SHARING FILES VIA ITUNES

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

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

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

It is often easier to enter data on a PC than on a phone!

You can also copy HyperFileSQL data files this way.



Sharing files via iTunes

CALLING OBJECTIVE-C LIBRARIES

You can natively call Objective-C code.

You can also directly enter Objective-C code in lieu of WLanguage code (feature useful for troubleshooting!).

APPLICATION DEPLOYMENT

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

- AppStore
- Ad Hoc Distribution
- In-House Distribution.



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

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

The "Ad Hoc" and "In-House" type of distribution (see below) let you distribute applications without any validation from Apple, and without having to make them public.

Your professional applications are protected this way from any unwanted publicity, and from download by third-parties.

You master your applications' distribution, and you don't need to pay any commissions.

"AD HOC" DEPLOYMENT

The Ad Hoc deployment mode lets you deploy your application on a maximum of 100 devices.

The installation is done manually from each device.

The application does not need to go through Apple's validation process, and is not publicly available.

IN-HOUSE DEPLOYMENT

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

This type of deployment also removes the constraints of the physical installation.

The deployment is performed via a web server, which eliminates manual operations on each device.

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

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

DEPLOYMENT ON THE APPSTORE

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

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



These 3 deployment methods depend only on Apple and may change at any time. You may need to have a license or a subscription with Apple, or to have special hardware from Apple. Please visit the Apple's web site to check the accuracy of the information and the special conditions at the time you're reading this information.

AMONG THE IOS EXAMPLES

A large number of examples and their source code are provided for iOS.

Among these examples, you'll find: iOS Beach, iOS Stop Watch, iOS Click on Chart, iOS CRM, iOS Loan, iOS Regular expressions, iOS Financial functions, iOS Contact management, iOS Order management, iOS Purchasing list management, iOS Registered, iOS RSS reader, iOS Password, iOS Notes, iOS Expenses, iOS Poker, iOS Poll, iOS Stocks, iOS System, iOS Tic Tac Toe, WB Quizz...



WINDOWS PHONE



NATIVE WP APPLICATIONS

WINDEV Mobile 17 generates native applications (.xap) for WP (WP is the acronym for Windows Phone).

SUPPORTED CONTROLS

The following controls are supported by WINDEV Mobile 17 on Windows Phone:

- Description: single/multiline, formatted static, horizontal/vertical alignment...
- Image: jpg and png, 100% homethetic, centered, etc...
- Button, graphical buttons: style,...
- Edit control: mask support, multiline available, alignment (left/right)
- HTML control
- Check box, Radio button
- Looper: can contain all types of controls.
- ...

Anchor support allows for an easy switch between portrait and landscape formats
Plane management is also available
Data persistence inside controls is supported.

Animation during the transition from one window to another is available by default without any coding.

WLANGUAGE

Over 400 WLanguage functions are supported.

OOP is supported.

Thread and socket management is easy.
GPS, accelerometer, ... are supported.



API: NATIVE CALLS TO .NET ASSEMBLIES

You can call .Net assemblies from WLanguage code

The classes of the assemblies are handled natively from the environment (call to the methods of these classes).

VIRTUAL KEYBOARD

The keyboard is automatically supported. For example, if a control uses a numeric mask, during an input, the keyboard offered will be automatically switched to numeric entry.

HOME SCREEN

You can define the application's icon, and the image of the "wallpaper" (the picture that appears on the phone's home screen).



CLOUD

Based on WEBDEV technology, access to the cloud is easy and powerful thanks to the [HttpRequest](#) family of functions. Exchanging and storing data is easy, using your choice database (HyperFileSQL, MySQL, Oracle,...).

MANAGING LOCAL DATA

The "f" family of functions ([fOpen](#), [fWrite](#),...) is available, which allows you to store data locally on the phone.

DEBUGGING

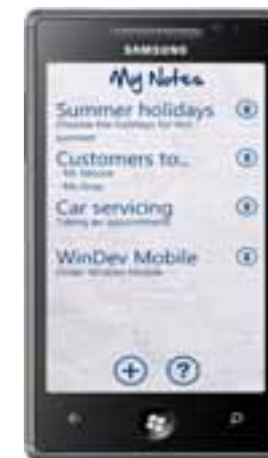
The debugger is available in "simulator" mode (in the WINDEV Mobile editor).

MARKETPLACE



Windows Phone applications are distributed via the Marketplace (App Hub, application distribution site managed by Microsoft). Applications developed with WINDEV Mobile 17 are, of course, also distributed this way.

AMONG THE WP EXAMPLES



Several examples are provided for WP. Among these, you will find:

- Password management
- Note management
- GPS location and SIM card
- Management of the accelerometer's compass
- Photo management
- Stopwatch
- Poker
- Tic Tac Toe

WINDOWS MOBILE

WINDEV Mobile 17 lets you of course develop applications for smartphones running Windows Mobile.

This type of phone is widely used (existing customer base mainly)

The features supported on Windows Mobile are detailed in the following pages.



TERMINALS

(WINDOWS MOBILE 5, 6.X, CE 4 AND 5, POCKET PC 2003)



WINDOWS MOBILE & WINDOWS CE

Today, applications developed on Windows Mobile and Windows CE are mainly professional and industrial applications.

LARGE NUMBER OF SKIN TEMPLATES PROVIDED

In order to easily define a look adapted to your applications, a large number of ready-to-use skin templates are provided. It lets you automatically give a spectacular look to applications you've created.



Real-time statistics



Use all the interface programs provided by device manufacturers

DYNAMIC COMPILATION

Dynamic compilation (creation, compilation and code execution by an application) is available on WINDEV Mobile 17.

XML

The WLanguage XML functions are supported on Mobile. Programming Web services is very easy then.

PRINTED REPORTS

WINDEV Mobile 17 lets you easily create reports thanks to the report generator included in the environment.

The report is created in standard PCL mobile format

You can also create reports using the print commands from the **iPrint** family of WLanguage function.

For printers that do not respect the PCL standard, you can also program the control sequences directly.

PRINTING BAR CODES

Printing a bar code from a mobile is convenient!

Version 17 allows you to do it directly from an application on a mobile, via a connection between the mobile and the printer, or via the printer embedded in the terminal.

The printer must simply be "PCL" compatible

The supported barcodes are: UPCA, UPCE, EAN13, EAN8, Interleaved 2 of 5, Codabar, MSI Code, Code 39, Code 93, Code 128, EAN 128, PDF 417, Datamatrix...

RFID

Thanks to WINDEV Mobile 17 you can easily develop applications supporting the "RFID" technology. The application remotely reads and writes information stored on a chip with an integrated antenna. The chip is embedded (or glued) inside an object or on packaging: complete traceability!

TYPES OF COMMUNICATIONS WITH WINDEV MOBILE

	Remote Access (HF C/S)	eMail	FTP	HTTP	Telephony	SOAP J2EE .NET	Socket	SMS
ActiveSync	●	●	●	●		●	●	
Network card	●	●	●	●		●	●	
3G	●	●	●	●		●	●	
Infrared							●	
Smartphone or GSM access					●			●
WiFi	●	●	●	●		●	●	



A reader, a RFID chip model (there are dozens of models)

FRAMEWORK: COMMON TO SEVERAL APPLICATIONS

In order to optimize memory use on the PDA, a framework can be shared among several applications loaded on the machine. You can choose the framework elements to embed, in order to only install the needed modules, therefore limiting the size of the memory used.

TOOLS

SPECIAL TOOLS PROVIDED WITH THE PRODUCT

In addition to the usual tools (that come with WINDEV), WINDEV Mobile 17 comes with tools useful during the development, fine-tuning and presentation phases.

WDEXPLORER

WDEXPLORER lets you easily view from a PC the files and directories located on a mobile device.

WDCEDB

WDCEDB lets you view and access the data found in the CEDB files (.cdb) of a mobile device: appointments, contacts...

WDCAPTURE

WDCAPTURE lets you build from a PC screen copies or videos of what is displayed on the screen of the mobile device connected to the PC.

WDREGISTRY

WDREGISTRY lets you easily view the content of a mobile device's registry.

WDSYNCHRO

WDSYNCHRO lets you configure the synchronization that will be automatically performed by "ActiveSync" when the mobile device will be connected to the PC.

DEPLOYMENT: EASY

SUPPORTED PROCESSORS

All the ARM architecture processors are supported.

MSI AND CAB SETUP

The "MSI" standard is supported.

Generating mobile applications in "CAB" format (the entire application is stored in a .CAB file) lets you "paste" this .CAB file onto the Pocket PC which installs it later. The MSI format is also supported.

APPLICATION UPDATE: ACTIVESYNC, GPRS, 3G, INTERNET

The update of an application is automatically performed during a connection to the PC via the standard ActiveSync software (see WDSynchro below that is used to configure this automatic update)

But when using a mobile device, it is often very useful to be able to update an application remotely when needed.

This feature is also offered by applications developed using WINDEV Mobile 17.



WINDEV Mobile 17 lets you easily develop applications meant to run on Windows Mobile or Windows CE.

A TRUE RAD FOR SMARTPHONE, POCKET PC, TABLET, RUGGED TERMINAL...

WINDEV Mobile 17 brings RAD to mobile devices. Professional development has never been so fast: RAD generates an application for you based on the data structures.

Startup screen, menus, table and form windows are automatically generated and allow you to create a real application directly usable in just a few minutes (10 minutes according to the independent magazine "Reseau et Telecom" (Network and Telecom)).

You build a proof of concept for a prospect or your management in record time.

Of course, traditional programming is also available: you create your applications then by defining your windows and by entering your code (5GL code, which allows for up to 90% less code than in 4GL).

CONTROLS SUPPORTED IN WINDOWS MOBILE AND CE

WINDEV Mobile 17 supports all the needed controls for mobile:

- Static control
- Radio button
- Button
- Looper
- Image
- Tab
- Formatted static
- Internal window
- HTML control
- Table
- ...
- Edit control
- Check box
- List box
- Combo
- Menu
- Progress Bar control
- Control template
- SuperControl
- Chart
- Spin



The "Media Center" skin template



The "ActivLeopard" skin template

TAPI ACCESS (TELEPHONY)

TAPI access (telephony functions) is done natively using WLanguage: automatically dial a phone number, ...



Your applications can automatically dial a telephone number

CALL TO DLLS AND .NET ASSEMBLIES

Most add-on equipment vendors (GPS, scanner, bar code reader, RFID reader, etc.) provide drivers with their hardware.

These drivers are provided in the form of native DLLs or sometime as .Net assemblies.

These communication modes via DLL or via a .Net assembly are supported by WINDEV Mobile 17.

THE LOOPER

"Looper controls" are supported on WINDEV Mobile, which is very useful depending on the terminal.

EASY CHARTS

A chart builder is available on Mobile: you create charts on Mobile devices without any programming.



DATABASES

DATA ACCESS LOCAL, REAL TIME OR REPLICATED

Database access is done based on your needs and choices: local (data on the Pocket PC), or in real time where the device is used (wireless network), or in real time anywhere in the world (3G, GPRS), or by replication, the data is synchronized then (via ActiveSync or via replication).

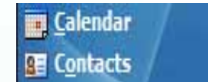
ALL DATABASES: HYPERFILESQL, ORACLE, SQL SERVER, AS/400, CEDB...

Your databases on your Pocket PC or your phone: it's easy!
HyperFileSQL Mobile comes with your product. Native AS/400 access is also offered (additional).

CEDB

WINDEV Mobile 17 also natively supports "CEDB" type files, which are used by a large number of standard applications on Pocket CE 4 and 5 (Outlook, Calendar ...).

Your applications directly read and write in the Calendar, in Outlook, in the Task list, retrieve data...



ACCESS TO THE IS DATABASES

WINDEV Mobile provides easy access to existing I.S. databases. (Information System). Applications access in real time or via replication the current database, using wired or wireless connection.

UNIVERSAL REPLICATION

WINDEV Mobile lets you synchronize files via "ActiveSync" or via the "Universal replication" mechanism, which allows replication between different databases (HyperFileSQL and Oracle for instance)

This very flexible and powerful mechanism allows "offline replication": for example, you can receive a replica table by email, run it directly on the mobile and update the database directly on the mobile, without physical connection to a PC.

All the types of databases can be accessed by the universal replication.

HYPERFILESQL MOBILE DATABASE: EMBEDDED AND FREE

HYPERFILESQL: THE RELIABLE AND EASY SOLUTION

WINDEV Mobile comes with the powerful HyperFileSQL database.
This easily embedded database doesn't require any administration.

SECURITY: ENCRYPTION

HyperFileSQL allows data and index encryption. This is an important security feature for mobile devices, which can easily be taken away from their owners

The decryption key can be found in a table, or a program, entered by the user, or deduced from various element.

DIRECT LINK WITH HYPERFILESQL CLIENT/SERVER

WINDEV Mobile applications directly access data that are stored in the HyperFileSQL Client/Server databases (via Wi-Fi, Bluetooth, network, Internet...). This means that an application found on a mobile acts in real time on data, with the compatibility, ease of use and usual power of 5GL programming.

RESUME CONNECTION

Reconnecting after an unscheduled disconnection (Wi-Fi or 3G drop) is automatic. The disconnected application reconnects while preserving all the contexts. This is an automatic security for your applications, and great comfort for your users.

RECORD LOCKING

In HyperFileSQL Client/Server and in native AS/400, record (row) locking is managed automatically.

FULL COMPATIBILITY

Compatibility between HyperFileSQL Classic, HyperFileSQL Client Server and HyperFileSQL Mobile is complete.

For example a database can be directly copied from a mobile to a HyperFileSQL Client/Server server.

AUTOMATIC MODIFICATION OF THE HYPERFILESQL TABLES ON THE TERMINAL

If needed, the structure of the database found on the mobile will be updated directly from the mobile (not connected to a PC).

Your offline users can get database structure modifications via GPRS, 3G or the Internet for example. You don't need to connect the mobile device to the PC.



Automatic modification in action on a device

HYPERFILESQL MOBILE MAXIMUM CAPACITY

Columns per table	65,535
Keys per table	65,535
Key size	65,535 bytes
Rows per table	134 millions
Table size	2 BG
Row size	2 GB
Column size	65,535 bytes

FEATURES

128-bit encryption
Referential integrity
Triggers
Import Export
Replication*
Embedded
Compress/Decompress memos on the fly

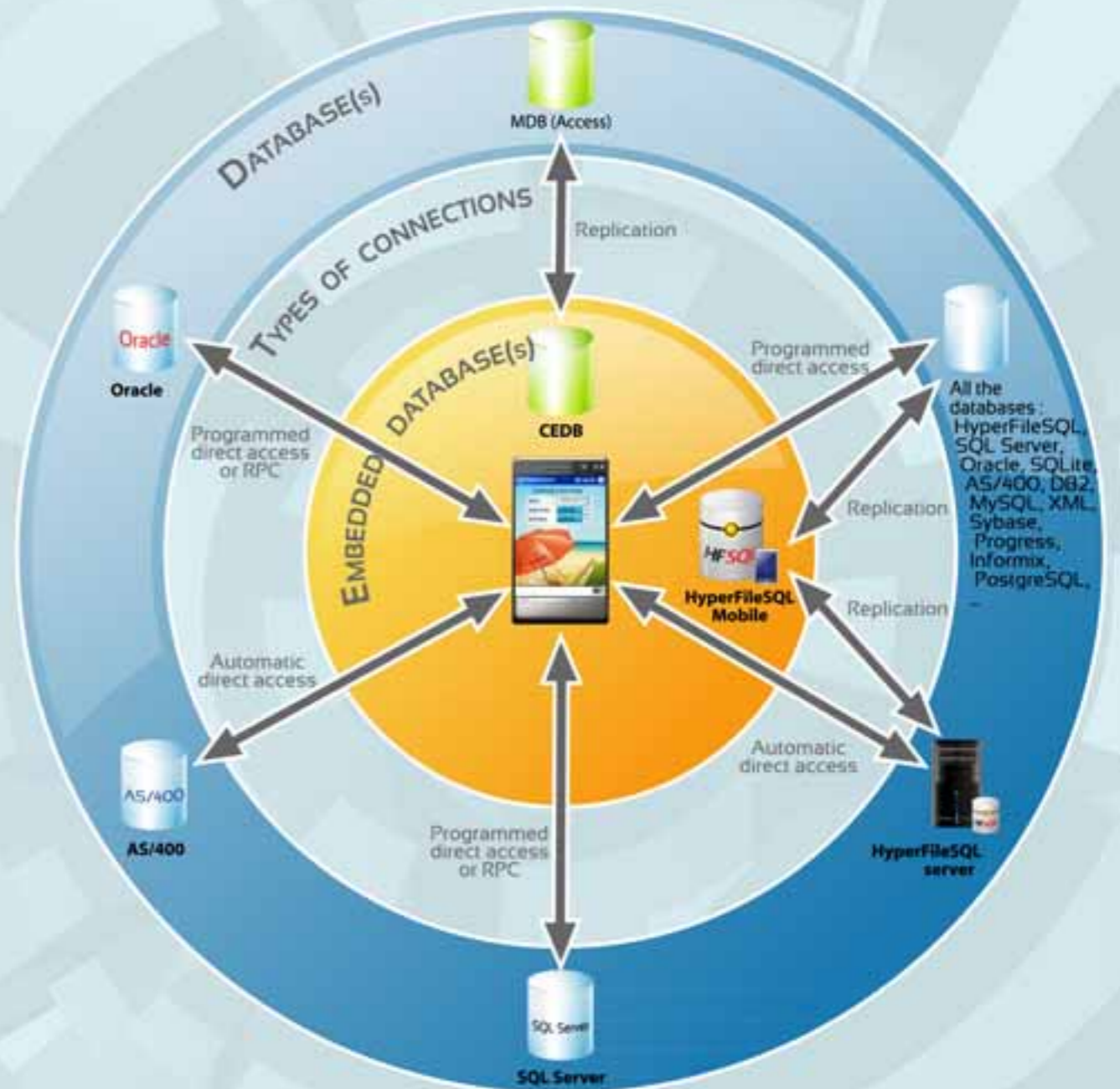
TECHNOLOGIES

Automatic Maintenance
Concurrent access management for direct access to HyperFileSQL Client/Server
Zero administration
Resume automatically after incident
Automatic Deployment

* available on Windows Mobile and CE, not available on iOS (iPhone and iPad).



Imagine, 128 gigabytes on a memory card. Only a few years ago this was the capacity of the hard drives on desktop PCs! Now you can easily and at little cost embed large size (up to 300 million rows) secure databases onto your pockets, tablets, mobiles and phone.



TYPES OF CONNECTION TO THE IS DATABASES

	Hyper FileSQL Classic	Hyper FileSQL C/S	SQL Server	Oracle	AS/400	Access	Any database
ActiveSync	●	●	●/●	●/●	●/●	●	●
Direct Access		●			●		
Access by RPC	●	●	●/●	●/●	●/●	●	●
Web Services	●	●	●/●	●/●	●/●	●	●
Socket	●	●	●/●	●/●	●/●	●	●
Direct stored procedures		●					

● Standard ● Through Native Access, additional



WHAT LINK TO THE PC?

- No link is required (you don't need to be linked to a PC to run an application)
- Unidirectional or bidirectional replication (synchronization)
- Infrared link
- Bluetooth
- WiFi
- Cable (ActiveSync or application controlled directly)
- Modem or Internet link
- Telephony (GPRS, 3G), directly integrated or linked
- Other methods

COMPONENTS AND EXAMPLES PROVIDED

AMONG THE PROVIDED COMPONENTS

Signature

Allows you to easily include a ready-to-use "Signature" control in your WinDev Mobile application.

Time limit

Implements a time limit system, as well as a system for activating the software on Pocket PC.

GPS

Used to interrogate a GPS to retrieve a longitude, a latitude, a speed, an altitude.

Falcon specific,

Symbol specific,

Datalogic specific,

Intermec specific,

Paxar specific:

Let you access features specific to the Pockets from these manufacturers.

GANTT

Used to display a Gantt chart in a memory table or in a window included in the component.

Login Management

Manages the user identification in an application from a login and a password.

Directory picker

Directory picker for Pocket PC.

PC Directory Picker

Selects a directory found on a Pocket PC from a standard WinDev PC application.

PC File Picker

Selecting files found on a Pocket PC from a WinDev application.

AMONG THE PROVIDED EXAMPLES

Pocket .Net

Use example for a .Net assembly (here to list the Wi-Fi networks).

Pocket Managing Contacts

Contact management for Pocket PC.

Pocket Managing Orders

Simplified management of orders/invoice.

Pocket Inventory

Lets you perform inventory management and save the results in a HyperFileSQL Database.

Pocket RTF

Lets you put RTF text inside edit control.

Pocket Click on Chart

Offers a solution for pulling out a pie chart section on a simple user click.

Pocket Registered

This example is an attendance manager. It is used to note the people attending a seminar.

Sending SMSs

"Pocket Sending SMS" project for Pocket PC or PC. These examples are used to send SMSs.

Virtual keyboard

This example proposes virtual keyboards that can be fully customized and certainly smaller than the standard keyboard of Pocket PC.

Map

This example is a light version of a well known WINDEV tool: WDMAP. This example is used to view and modify the data files in HyperFileSQL Mobile format directly on a Pocket PC.

PC CDB Browse

This example is used to access the standard databases (.cdb) found on a Pocket PC.

Expense account



"Pocket Expense report" project usable on Pocket PC and PC.

These examples are used to manage the expense accounts. You have the ability to synchronize the data entered in the two projects.

FTPClient

This example shows the content on an FTP server. It can also be used to download, rename or delete files.

Using sockets

"Pocket Using Sockets" project usable on Pocket PC and PC.

These examples present the functions for managing the sockets.

PC Registry

This example is used to handle the registry of a Pocket PC from a PC.

Poll

"Poll Pocket" project usable on Pocket PC and PC. These examples are used to perform polls. The data can be synchronized.

Loan

This example simulates loan calculations and displays the corresponding amortization table.

Financial functions

This example presents the use of the financial functions.

Stocks

"Pocket Stock" project usable on Pocket PC and PC

These examples are used to manage the stocks. You have the ability to synchronize the data entered in the two projects.

Explorer

This example is a file explorer for Windows CE. You have the ability to list the files and directories found on a Pocket PC.

Regular Expressions

This example explains how to use regular expressions and how to perform searches in character strings.



Tasks

The PC Tasks application is used to enter a task list (with management of priorities, deadline, automatic reminder, ...).

MIME extraction

This example is used to extract the attachments found in an email.

Images

This example is used to browse a specific directory to find images.

Password

This example presents a "box" of passwords. It can be used to manage password created when using Internet sites but also in applications or everyday life.

Poker

This example is used to play Poker on a Pocket PC.

Tic Tac Toe

This example lets you play "Tic Tac Toe" on a Pocket PC. This example illustrates the use of the stylus and object movement.

Slide show



This example is an image viewer for Pocket PC. It lets you visualize image.

Thread Pool

This example presents the use of threads. Reminder: A thread is a process that runs in parallel to the current application.

Statistics

This example performs various statistical calculations.

Telephony

This example is a telephony application that can be used on a Pocket PC with phone access (GSM type).

Persistence

This example presents how to use functions for managing persistent controls.

ZIP

This example explains how to create and handle archives (".ZIP" files).

Notes

This example lets you draw graphical "notes" and save them. You have the ability to enter keywords to identify your notes.

Shopping list management

"Pocket shopping list management" project usable on Pocket PC and PC.

These examples are used to manage a list of stores, departments, products and purchases

The data can be synchronized.

Beach Reservation

"Pocket beach" project usable on Pocket PC and PC.

These examples are used to manage the bookings for private beaches. You have the ability to synchronize the data entered in the two projects.



Animated

This example illustrates the image animation capabilities of WinDev Mobile.

PC Photo Album

This example is used to import and/or export the

photos found on a Pocket PC from a PC.

PC Explorer

This example is used to view the files and directories found on a Pocket PC.

Unicode socket

"Pocket Unicode Socket" project usable on Pocket PC and PC.

These examples present the operating mode of sockets with the Pocket PCs.

Stopwatch

This example uses both an analog and digital stopwatch.

APN

This example manages the devices camera.

These examples and components are provided with their source code.

Use these examples freely in your applications, or check out their architecture!

See company TESTIMONIALS about WINDEV Mobile

Please visit www.windev.com

ACT NOW

TRAINING: EASY!

WINDEV Mobile comes with a complete online help system, and its documentation: a tutorial guide, a programming guide and a conceptual guide.

ORDER TODAY, DEPLOY IN A WEEK!

With the WINDEV Mobile Integrated Development Environment you can now develop on tablets, Smartphones and industrial terminals. Mobile computing is taking over the world, WINDEV Mobile is your best ally for developing today and quickly, high performance applications on this hardware.

Order your copy of WINDEV Mobile 17 today!

WINDEV® Mobile

EXAMPLES OF APPLICATIONS

Autonomous mobile application: order taking, delivery, meter reading, customer service, ...

Application with replication (physically, via Bluetooth or Wi-Fi, or by telephone or Internet)

Wireless local area network application: mobile communication with the enterprise's network in real time

Real time remote application, via simple 3G subscription

Control industrial machines by infrared

Application on mobile phone, with secure access to your enterprise's data for instance

Geolocalization application, trip optimization

Executive dashboard

Restaurant menu on tablet

Application to be distributed via a "Store" or a "Market"

And any other application you may dream up...

QUESTIONS ANSWERS

The same copy of WINDEV Mobile 17 lets you create applications for iPhone and iPad, Android, Windows Phone, Windows CE and Windows Mobile?

Yes. And your code and windows are compatible.

Do I need to own WINDEV?

No, WINDEV Mobile is a stand-alone software

However, if you own WINDEV, you can retrieve your existing code and share data and projects with it.

What is the main benefit of WINDEV Mobile 17?

The simple fact that you can develop an application for mobile devices with the same ease-of use as with WINDEV is a fantastic benefit!
The portability of the code and win-

dows is another unmatched benefit.

Do I need to pay royalties on applications developed using WINDEV Mobile?

No, you can freely distribute your applications developed using WinDev Mobile, you don't have to pay any royalties to PC SOFT.

Deploy without restriction or risks!

Can I test the application I'm developing directly on the development PC?

The development is performed on a standard PC, and the application being developed can be tested at any time using the simulator provided with the product.

Why is the Technical Support on WINDEV Mobile free?

PC SOFT trusts its products and therefore offers free technical support

for WINDEV Mobile. Fifteen inquiries (by phone or Internet) are offered*.

Is there a professional newsgroup for WINDEV Mobile?

Yes; you can share your experience with the developer community.

How long will it take me to get trained?

If you know WINDEV, only one day is needed; otherwise a week is enough.

Contact us; we're here to help!

Main features

IDE for Pocket PC, Smartphone, Tablet and industrial terminals, manages the complete application life cycle

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

Free Hot Line*

Free deployment

Compatibility with WINDEV and WEBDEV

Integrated environment

WYSIWYG window editor, rich controls, anchors

Teamwork

Audit

Control Centers, Dashboard

Data model generator (UML, Merise, Flexible)

Documentation Generator (analysis, programming)

Business rules and Requirements

SQL query generator

UI generator, adapted to the display size, with inheritance

Compatible 5GL language WEBDEV and WINDEV

Simulator, debugger

Code Editor with assisted edit

Unit tests

Application translation (64 languages)

Open to Internet

Management of images

Source Code Manager

Special setup generator

Access to Store and Market

Large number of examples

Tutorial in 1 week (1 day only if you're familiar with WINDEV)

