



**The World  
in Your Hand**

**DATALOGIC™**

DATALOGIC MOBILE

# MOBILE



**Datalogic Mobile's new PDA!**  
Elf™ is designed with the technology and ruggedness to meet the needs of applications in Field Service, Field Sales, Delivery, Retail and Logistics.

Capitalizing on Datalogic Mobile's legendary ergonomics, the new PDA packs unprecedented features into a compact form factor built for single handed operation.

The rugged PDA uses Datalogic Mobile's next generation platform, providing blazing speed coupled with the latest technology for mobility, all packaged in one of the best ergonomic devices on the market.



**work**

# PROFESSIONAL

Bringing business applications  
to the field work force

# RUGGED

Sealed tight and strong enough to  
face any environmental challenge

# VALUE

High performance at high  
speed, for top efficiency

# EASY&INTUITIVE

Ready to use out of the box,  
zero training required

# REAL TIME

Always keeps you up-to-date  
on field operations

# VOICE&DATA

Communication and connection at all levels

M



“ Every day I deliver 130 packages, filling my truck with 18 m<sup>3</sup>, weighing 400 Kg, to 45 different customer locations! ”

**DELIVERY**

# What the field

Field personnel must frequently communicate with dispatchers and customers by voice or text, such as with SMS or e-mail. They spend a great deal of time on the road, using navigational aids to direct them between stops and around traffic. They are constantly exposed to harsh environments, so a rugged device is paramount.

Field personnel need a device that connects wirelessly through multiple media including PAN, WLAN, and WWAN. They need a single device that combines cellular voice communications with computational tasks and data connectivity. Location data for improving productivity and documenting proof of delivery is required. Windows Mobile is a critical requirement for field service personnel. It provides users easy access to PIM data, MS Office applications, and a certified platform for application compatibility.



**“ I was rerouted to address three customer emergencies for failed equipment between my regular service calls today! ”**

**workforce wants**



**REPAIR**



“ This week we had 83 in-store promotions, set up 45 end caps and executed inventories in each food category ”

## In-Store

Retailers require a device that is small enough and light enough to carry continuously on the floor. The device needs high quality voice communications capability that exceeds that of two way radios in order to be an effective substitute for that solution. The device must read 1D and 2D barcodes (including GS1 stacked codes) quickly and have an ergonomic design that minimizes physical stress on the user during extended scanning activities. The device must be capable of communicating wirelessly while complying with security directives. The interface for all computing needs must be simple and robust to minimize training requirements.

# What retail associates

RETAIL

## Store Management

Managers need a device that provides many features also provided by a desktop solution so they can spend more time on the store floor. They need to be able to track the success of ongoing promotions in the store, inventory reports, pricing, shelf management, cashier override, employee scheduling, and e-mail. They must also be able to perform all the functions of a sales associate, including inventory and sales operations, while having access to their PIM applications and high quality voice communications (both VoIP and cellular).



# Who you are defines what you need

want

	Field Sales	Field Service	Direct Store Delivery	Retail Manager	Retail Sales Associate
Compact size	<input checked="" type="radio"/>				
Ergonomics	<input checked="" type="radio"/>				
Handle	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
QWERTY	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
1D Bar codes	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
2D Bar codes	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Color Camera	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
WWAN - High Speed Data	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
WWAN - Cellular Voice Communication	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
WLAN - Secure Data Transfer	<input checked="" type="radio"/>				
WLAN - Voice Over IP	<input checked="" type="radio"/>				
WPAN - Headset	<input checked="" type="radio"/>				
GPS	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Windows Mobile OS	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
MS Office Mobile	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>



# Boost your business with

A new concept from Datalogic, Power<sup>3</sup> evolves from extensive research into the core needs of all enterprise stakeholders. Three main pillars drive this concept: C<sup>3</sup> real time technologies; F<sup>3</sup> ergonomics and rugged construction; D<sup>3</sup> easy and intuitive tools. Datalogic's next generation products maximize each of these principles to deliver the most cost effective solution available on the market. **Power cubed!**

## Real Time Voice & Data

# C<sup>3</sup>

**Capture** Based on a full set of options, Elf™ is able to serve any kind of requirement: 1D laser for applications where speed is essential, 2D imager where much information must be contained in a single code, and an RFID tag reader with write capability. Elf™ is equipped with Datalogic's patented Green Spot good read feedback. For completing the offer, each model is outfitted with an autofocus 3MPixel camera with flash.

**Compute** Latest architecture available to boost your business. Windows Mobile 6.5 is perfect for application portability, and "finger/touch" usable thanks to the big icons. All the standard tools such as Outlook, Word, and Excel are included. XScale™ PXA310 @ 624MHz and 256 MB RAM / 256 MB Flash for running applications quickly and storing the largest databases.

## Ergonomic & Rugged

# F<sup>3</sup>

**Form** Elf™ includes all the experience combined by Datalogic in terms of ergonomics and usability. Easy to hold in you hand with not only a standard battery, but retains an ergonomic shape even with the high capacity battery. Weight and balance is just right to reduce user fatigue in scan intensive environments.

**Function** Unlike consumer devices, Datalogic Mobile computers endure every day use in a wide variety of harsh environments. Elf™ meets the rigid drop criteria of 1.5m

## Easy & Intuitive

# D<sup>3</sup>

**Develop** Designed for ease of use. Gesturing, spanning, and screen rotation are some of the new technologies that the Elf™ is equipped with to take advantage of the touch screen interface. Elf™ offers the latest Windows Mobile 6.5 platform, with the Datalogic SDK and tools for integrating voice, pictures, and video to create or enhance existing mobility software solutions.

A Micro SD Card can be used for backup of data at the end of the day, or for storing large files such as pictures. The "High Capacity" SD functionality allows storage of up to 32GB.

**Communicate** Bluetooth connection provides short range wireless communications, and the Enhanced Data Rate (EDR) speeds up the data transfer. Cost effective voice and data connectivity inside the four walls thanks to an 802.11a/b/g radio, with the highest level of security using Cisco compatible extensions. Stay connected outside the four walls with a HSDPA UMTS (3.5G) radio. An integrated GPS provides rapid and highly accurate positioning. USB-on-the-Go makes data transfer from and to the Elf™ easy and safe. Modem and Ethernet capability is available through an option on the single cradle.

(5 feet) and IP64 sealing against water and dust. Offering both a large numeric or a full QWERTY keyboard layout, Elf™ is ready for any kind of application.

**Feel** Bright and sharp display for easy readability in a wide range of lighting conditions. Intuitive keypads that allow one-handed use and save time in application navigation. Experience a new sensation: ready to use out of the box with battery, power supply and USB cable all included with the base product!

**Deploy** Wavelink® device management tools make Elf™ a simple device to both deploy and maintain. Preloaded and prelicensed from the factory with Avalanche, Datalogic Mobile tools and the Scan to Configure feature, Elf™ can be up and working in less than two minutes.

**Direct** Remote management from a central console combined with GPS and VoIP promotes efficient deployment of resources or problem resolution while improving asset visibility.

# innovative technology, times 3!



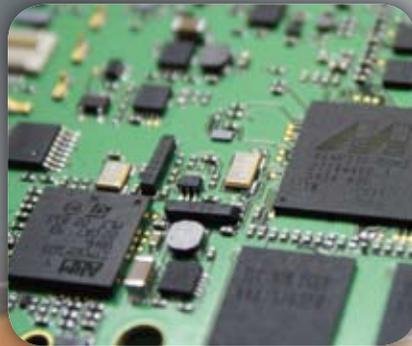
QWERTY and Numeric keyboard to meet diverse user and application needs



Windows Mobile 6.5, the latest version on the market: easy, intuitive and no training required



USB-on-the-Go for sending and receiving data, setting automatically the behavior of the PDA



New power boosted architecture (PXA310 @ 624MHz together with a ARM-7 coprocessor, 256MB RAM & Flash)



Wavelink Avalanche preloaded and precicensed for managing all your devices in the field



Micro SD card slot supports SDHC storage cards, providing easier access to consumer channels for large memory



Built-in accelerometer for display rotation and keeps the device awake when in motion



Choose between a 1D laser scanner or 2D bar code imager to enable rapid and intuitive capture of the types of bar codes used by many enterprises. This, together with Green Spot, the Datalogic patented good read technology, provides better user efficiency and accuracy particularly useful in noisy and silent environments



3MP autofocus camera with flash to capture high quality pictures, to document proof of condition for a damaged shipment or a broken piece of equipment, or even a signature on a document



The best 4 radios in wireless technology using the same form factor:

- 802.15 Bluetooth 2.0 EDR for fast data transfer, reduced complexity of multiple simultaneous connections due to additional bandwidth, lower power consumption through a reduced duty cycle
- 802.11 a/b/g Cisco Certified for compatibility with the latest infrastructure and assuring the most secure network
- UMTS HSDPA covers all the frequencies in the world at extremely high speeds
- Integrated GPS for real time location based applications, providing directions for drivers and instant fleet location for dispatchers

# Range (product models)

## Standard Version

- Bluetooth
- WiFi
- Camera
- WM 6.5



## Reading Options

- 1D
- 2D
- RFID



## Keyboard Options

- QWERTY
- Numeric



## Communication Options

- UMTS
- GPS



# Accessories

- Single slot dock for battery recharging that permits traditional data transfer through USB and RS232 connections; slot for spare battery placed on back of device; Ethernet and modem module that expand connectivity with easy "click" on dock base
- Four slot dock for recharging up to eight batteries at the same time (four on the devices, four in the spare slots); Ethernet communications version available for applications requiring firmware update, or date download/upload remotely via a wired connection
- Power mobile dock (PMD) securing the device in the truck or car; keyboard and display that remain uncovered and easily accessible; loudspeaker that allows the user to hear instructions from the navigation system; PMD, including full set of connectors (USB, micro USB OTG and RS232) for interfacing to almost anything
- Quick attach rugged handle available for facilitating scan intensive applications (such as inventory)



↓ EASY CLICK



Single Slot Dock



Single Slot Dock:  
Ethernet - Modem Module



Four Slot Dock:  
Ethernet - Charger



Four Slot  
Battery Charger



High Capacity  
Battery



Standard  
Battery



Holster



Powered  
Mobile Dock



Handle



Lighter Adapter

A woman with a headset is looking at a globe. The globe is semi-transparent and shows the continents. The background is dark blue with some light streaks.

# EASEOFCARE

Our EASEOFCARE Service Program ensures the most cost effective way to protect your investment in your chosen Datalogic Mobile device. Each of our EASEOFCARE Service Level options will lower the Total Cost of Ownership (TCO) inherent in all mobile devices by minimizing downtime and service costs, plus maximizing operator productivity. One can also choose from 1, 3 or 5 year coverage.

## **EASEOFCARE LEVEL 1 Overnight Replacement Comprehensive**

- Next business day product replacement
- Datalogic owned replacement pool
- Shipping charges paid both ways
- Incidental damage covered
- Wear and tear, component and parts failures covered
- Some accessories, like battery doors, stylus, hand straps are replaced when damaged and shipped together with the unit
- Wavelink® Avalanche™ software maintenance
- Duration: 3 or 5 years at time of product purchase, or 1 year continuous coverage

## **EASEOFCARE LEVEL 2 2 Day Comprehensive**

- 2 business day repair turnaround
- Shipping charges paid both ways
- Incidental damage covered
- Wear and tear, component and parts failures covered
- Some accessories, like battery doors, stylus, hand straps are replaced when damaged and shipped together with the unit
- Wavelink® Avalanche™ software maintenance
- Duration: 1, 3 or 5 years at time of product purchase, or 1 year continuous coverage

## **EASEOFCARE LEVEL 3 5 Day**

- 5 business day repair turnaround
- Courier charges paid both ways
- Factory defects covered
- Wavelink® Avalanche™ software maintenance
- Duration: 1, 3 or 5 years at time of product purchase, or 1 year continuous or non-continuous coverage

# Software

## Development

Datalogic Mobile provides a suite of SDKs for C++, C#, VB.NET, Java and web development, Datalogic Mobile SDKs supplement standard development tools such as MCL Collection and MS Visual Studio 2008 so you can build applications that take full advantage of features supported in Datalogic Mobile devices such as scanner, voice, camera, GPS, printers and many other device capabilities.



## Windows Mobile 6.5

Elf™ and Windows Mobile 6.5 meet the demanding requirements of businesses that require efficiency in mobility around the clock. The reliability in being able to make decisions and act quickly in real time. Productivity soars as you stay connected to clients and colleagues with e-mail, voice mail, calendar, contacts, text messages and instant messaging (IM).

Elf™ provides mobile access to the web, core business applications and Microsoft Office Mobile. Windows Mobile 6.5 platform encompasses a range of products and technologies designed to work with existing business assets, helping your mobile employees and IT staff to achieve more with the tools they already have.

**REAL SIZE**

**Develop, Deploy, Direct**

Avalanche saves you time and money by making it easy to bring devices under management. Elf™ devices are capable of automatically finding the Avalanche host system out of the box with the Scan To Configure feature, eliminating the need for administrators to carry out extensive device discovery efforts. Extensive use of Profiles and Groups allows administrators to predefine configuration details that can be automatically applied to new devices meeting specified criteria rather than provisioning each device individually as it is added.



FEATURE	Avalanche SE	Avalanche MC
Most advanced security	✓	✓
Advanced help desk tools (Remote Control)	✓	✓
Device provisioning	✓	✓
Asset management	✓	✓
User management	✓	✓
Profile-based management	✓	✓
Statistics	✓	✓
Reporting	✓	✓
Wireless infrastructure management		✓
Distributed server architecture		✓

# Specifications



## PHYSICAL CHARACTERISTICS

DIMENSIONS	157 x 81x 42 mm (6.18 x 3.18 x 1.65 in)
WEIGHT	415 to 440 g (14.6 to 15.5 oz) depending on model (incl. battery)
DISPLAY	Reflective TFT daylight readable color display, allowing both resolution 320 x 240 pixels and 640 x 480, 89 mm (3.5 in) diagonal, 65K colors, backlight, touch screen
KEYBOARD	27-key Numeric or 46-key QWERTY backlit keyboard standard. Side scan keys, push to talk and volume setting
NOTIFICATION	Vibrator, LEDs and Green Spot
OPERATING TEMPERATURE	-10° +50°C (14° to 122°F)
STORAGE TEMPERATURE	-20° +70°C (-4° to 158°F)
DROP RESISTANCE	Withstands drops from 1.5 m (5 ft) onto concrete
ENVIRONMENTAL SEALING	IP64 standard for water and dust resistance

## SYSTEM

OPERATING SYSTEM	Microsoft Windows Mobile 6.5 with Mobile tools: Outlook, Word Mobile, Excel Mobile, PowerPoint Mobile, One Note Mobile and Internet Explorer Mobile 6.0
MICROPROCESSOR	XScale™ PXA310 @ 624 MHz
COPROCESSOR	ARM-7 32 bit 72 MHz
SYSTEM RAM MEMORY	256 MB
SYSTEM FLASH MEMORY	256 MB (including Backup directory for user data & program permanent storage)
EXPANSION SLOTS	Micro SD card slot compatible with SDHC cards, user-accessible
REAL-TIME CLOCK	Time and date stamping under software control
POWER SUPPLY	Removable battery pack with rechargeable Li-ion batteries; 3.7 V 3000/5000 mAh (11.10/18.50 Watt hours)

## COMMUNICATIONS

INTERFACES	Electrical: integrated RS232 up to 115.2 Kbps USB: integrated micro USB connector, Host 1.1 and Client 2.0, also for supplying power
WIDE AREA NETWORK (WAN)	UMTS HSDPA 850 1900 2100 - GSM/GPRS/EDGE 850 900 1800 1900 MHz for voice and data communication
LOCAL AREA NETWORK (LAN)	SIM socket under the battery Summit IEEE 802.11a/b/g Frequency range: Country dependent, typically 2.4 - 2.5 GHz CCX v4 Security
PERSONAL AREA NETWORK (PAN)	Bluetooth® Wireless Technology IEEE 802.15 Class 2 with EDR
GLOBAL POSITION SYSTEM (GPS)	Integrated GPS

## READING OPTIONS

### LASER CHARACTERISTICS

SCANNING RATE	104 ± 12 scan/sec
MINIMUM RESOLUTION	0.10 mm / 4 mils
DEPTH OF FIELD	5 to 64 cm (2 to 25 in), depending on bar code density
BAR CODES	GS1 Databar, EAN/UPC, Code 39, 2/5 Codes, Plessey, Codabar, Code 128, EAN128, MSI, Code 93, Code 11 VLD - Class 2/II EN 60825-1/CDHR

### IMAGER CHARACTERISTICS

SCANNING RATE	60 frames/sec maximum
MINIMUM RESOLUTION	Linear codes at 3 mils; 2D codes at 5 mils
BAR CODES	UPC A, UPC E, EAN 8, EAN 13, Interleaved 2 of 5, Code 39, Code 39 Full ASCII, Codabar, Code 128, EAN 128, Code 93, MSI, PDF417, Micro PDF, DataMatrix, QR, GS1 Databar, Aztec, Maxicode, POSTNET, PLANET, Japan Post, Australia Post, KIX Code, Royal Mail RM4SCC, USPS 4CB, UPU FICS CDRH/IEC Class II
LASER CLASSIFICATION	IEC Class 1M
LED CLASSIFICATION	Wide VGA (752 H x 480 V pixels), 256 gray scale
RESOLUTION	BMP, JPEG
IMAGE FORMATS	

### RFID CHARACTERISTICS

OPERATING FREQUENCY	13.56 MHz
RFID TAGS ISO14443	Philips Mifare Classic 1k (read/write block only) Philips Mifare Classic 4k (read/writeblock only) Philips Mifare Ultralight
RFID TAGS ISO15693	EMS LRP ISO15693 Series EMS HMS Series Texas Tag-It HF-I ISO15693 Infi neon ISO15693 I-CODE SLI ISO15693
OPERATING RANGE	Up to 10 cm

### CAMERA CHARACTERISTICS

RESOLUTION	3 megapixel
ILLUMINATION	User controllable flash
LENS	Auto focus

# Software

## DEVELOPMENT

Windows SDK™  
MCL-Collection™  
Java Virtual Machine (Crème)

## CONFIGURATION & MAINTENANCE

Wavelink Avalanche® prelicensed  
Avalanche Remote Control™  
Avalanche CE Secure™  
Datalogic Firmware Utility  
Datalogic Desktop Utility  
Datalogic Configuration Utility

## TERMINAL EMULATION

Wavelink® Terminal Emulation™  
Wavelink® TermProxy

## APPLICATIONS

Vo-CE™ (voice recognition)  
Wavelink® Communicator (push to talk)  
Wavelink® SpeakEasy (voice recognition)



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www.elf.mobile.datalogic.com