

# blip C11

## User's Manual



# blip C11

First edition (March 2001)

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## CE Symbol

The CE symbol on our product signifies that it has been certified according to the standards ETS 300 328, ETS 300 826, EN 60950, EN 60215, following the provisions of Radio Equipment and Telecommunication Equipment directive 1995/5/EEC, EMC directive 89/336/EEC, and Low voltage directive 73/23/EEC.

## Limitations on Use of Bluetooth™ Wireless Technology<sup>1</sup>

- France, Israel, Korea, Mexico, Singapore, Venezuela: The use of Bluetooth equipment is not allowed, due to limitations on the use of the frequency band 2,400-2,483.5.
- Italy, Mexico, Thailand: the use of Bluetooth equipment outdoors is not allowed.
- Colombia, Honduras, Indonesia, Thailand: The connection of Bluetooth equipment to PSTN is not allowed.
- Japan: The Frequency bandwidth of this equipment is also used by radio stations and industrial, scientific and medical equipment, for example factory production lines. Please make sure that no such equipment is being used nearby, before you start using this equipment.

If radio frequency interference occurs, please stop using this equipment immediately.

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## Waivers

This product has been developed and manufactured to fulfil the bluetooth specification to ensure maximum performance and interoperability. One specification point has been waived, see #203-02-010r at [www.bluetooth.com](http://www.bluetooth.com). This does not affect normal use of the blip C11.

## The Bluetooth™ Vision

This product incorporates Bluetooth wireless technology which makes it possible to connect any compatible portable and stationary communications device without using cables. The technology is based on a radio link that offers fast and reliable transmission of voice and data. It does not require a line-of-sight connection in order to establish communication. Bluetooth wireless technology uses a globally available frequency range intended to ensure communication compatibility worldwide.

Please refer to [www.bluetooth.com](http://www.bluetooth.com) for the latest information.

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# 1 Introduction

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Congratulations on your new purchase!

This package contains everything you need to convey your message to the crowd, and you will have the system up and running in a few minutes!

## 1.1 What is BLIP?

Bluetooth™ Local Infotainment Point (BLIP) is a location oriented service device which provides local information through Bluetooth wireless technology<sup>1</sup>. Users entering a BLIP equipped area can access information through Bluetooth equipped terminals, for example their cellular phones or Personal Digital Assistants (PDA).

BLIP can do whatever its owners program it to do. Thanks to the open software platform, its only limits are your imagination and programming skills. The blip C11is equipped with a number of basic applications, forming a foundation for further development.

The Infotainment Access Point (IAP) application makes the BLIP accessible for all types of network communication. The data content can be stored locally on a standalone BLIP, or on a network reachable from the BLIP, for example the Internet. Network data is accessed through a Network File Server (NFS).

BLIP presents many new ways of developing business. Examples of these include:

- Suppliers are able to send information to their customers about products displayed in the store window
- Customers can request further details about the presented products by sending their contact information to the BLIP.
- Travel information and timetables can be transmitted to users waiting for the bus.

As new BLIP applications are developed, new possibilities will emerge, opening up new business opportunities and creating extra value to BLIP customers.

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## 1.2 This Manual

The instructions of this manual will help you install and manage your blip C11.

Note! You should read chapter 7 - Warranty, and chapter 8 - Guidelines for Safe and Efficient Use before using your product.

This manual is available as an on-line publication, as well as in a printable PDF-version. Both versions are delivered together with the blip C11 and can be found on the CD enclosed in the blip C11 product package.

The instructions of this manual will help you install and manage your blip C11.

In this manual, the blip C11 is referred to as BLIP, if nothing else is stated.

The chapters of this manual are the following:

**Chapter 1: Introduction** provides an overview of the BLIP concept and outlines hardware and software requirements.

**Chapter 2: Getting Started** outlines step-by-step instructions on connecting your BLIP to your PC.

**Chapter 3: BLIP Manager** provides instructions on using the BLIP Manager software. The BLIP Manager makes it easy for you to transfer applications and data content to and from your BLIP or BLIPs.

**Chapter 4: Applications** provides information about BLIP applications, and instructions on how to use the applications delivered together with the BLIP.

**Chapter 5: Future Developer?** This chapter provides information about how to become a future developer of BLIP applications.

**Chapter 6: Technical Specification** covers the functions and technical specifications of the BLIP.

**Chapter 7: Warranty** provides warranty terms and conditions, as well as information on what to do if your BLIP fails to operate.

**Chapter 8: Guidelines for Safe and Efficient Use** provides guidelines for product care, and safe and efficient use.

**Chapter 9: Licence Agreement** contains licence agreement information for the software delivered together with the BLIP.

**Chapter 10: Declaration of Conformity**

## 1.3 System Requirements

### 1.3.1 Hardware Requirements

The following hardware requirements apply to the host computer:

<b>Processor</b>	Pentium 150 MHz or better
<b>RAM</b>	64 MB or better (32MB with Windows 98SE)
<b>Harddisk space</b>	>10 MB
<b>Interfaces</b>	Serial and/or Ethernet
<b>Other</b>	CD-ROM drive

### 1.3.2 Operating System

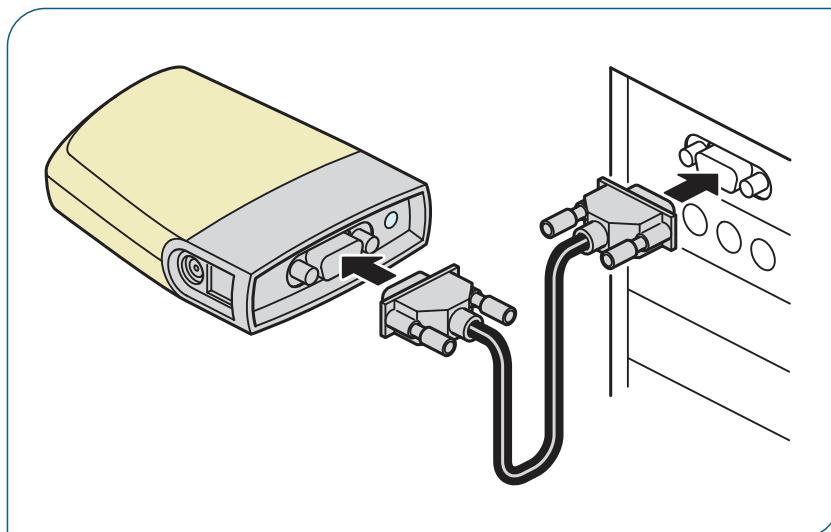
The host computer must be running either of the operating systems:

- Windows 2000 professional, SP1 or later
- Windows NT4 SP4 or later
- Windows 98SE

## 2 Getting Started

### 2.1 Using Serial Connection

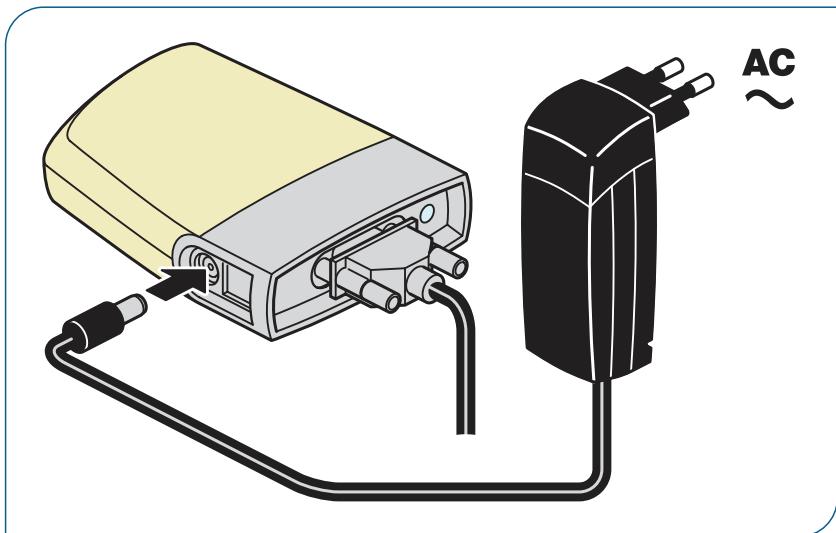
1. Unpack the BLIP and connect the serial cable between the BLIP and the serial RS232 connector on your PC.



2. Connect the AC power adapter between the BLIP device and the wall socket.

Note that the mains plug may look different depending on the mains socket in your country.

Do not connect the plug to any other item than the AC power adapter. It must not be separated from the adapter when plugged into the wall socket.

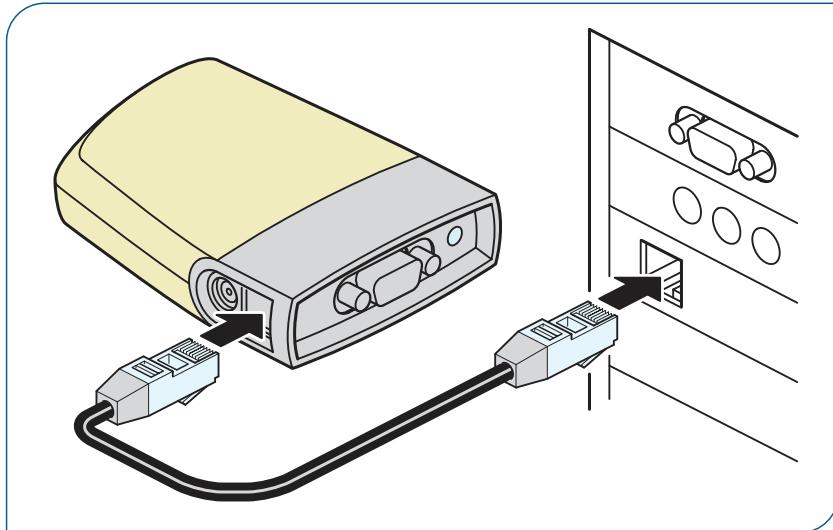


3. Install the BLIP Manager as described in section 3.2 - Installation.
4. Start the BLIP Manager provided on the CD. See section 3.4 - Serial Connection for more instructions on how to configure the BLIP.

## 2.2 Using Ethernet Connection

To be able to use the Ethernet connection, you must set up the network connection preferences using the BLIP Manager.

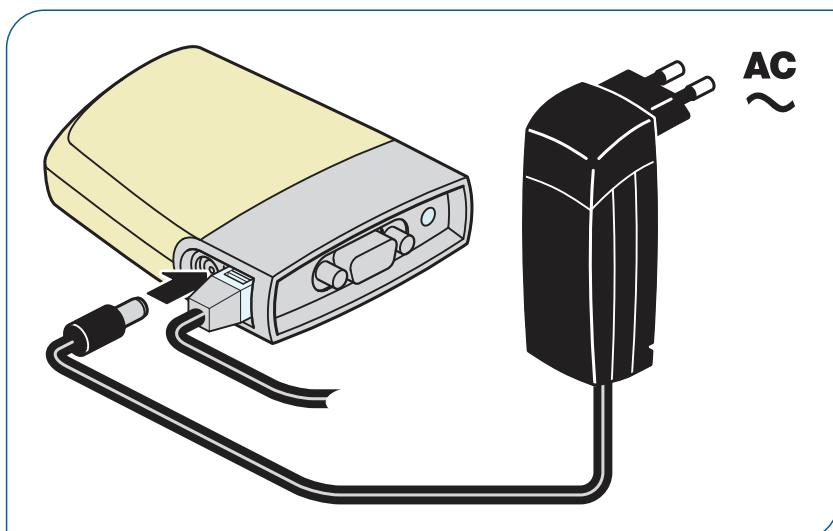
1. Connect your BLIP using the serial interface, as shown in section 2.1 - Using Serial Connection.
2. Start the BLIP Manager and set up the network connection preferences as described in section 3.5 - Configure your BLIP.
3. Disconnect the power cable and the serial cable from the BLIP
4. Connect the Ethernet cable between the BLIP and the network Ethernet interface on your PC.



5. Connect the AC power adapter between the BLIP device and the wall socket.

Note that the mains plug may look different depending on the mains socket in your country.

Do not connect the plug to any other item than the AC power adapter. It must not be separated from the adapter when plugged into the wall socket.



# 3 BLIP Manager

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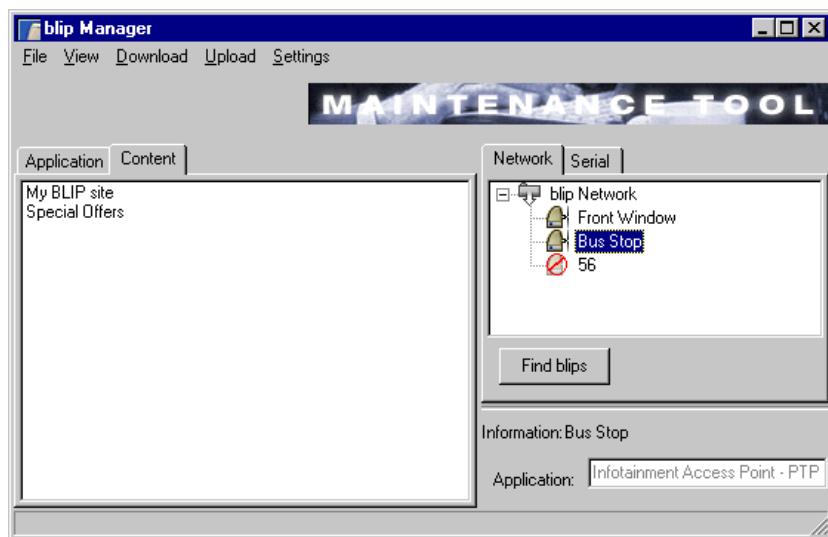
With the BLIP Manager installed, you can easily handle information on all your BLIPs!

## 3.1 Introduction

The BLIP Manager supports you in the following tasks:

- Load application software to the BLIP from the host computer
- Load content to and from the BLIP, for instance HTML pages
- Load data from the BLIP to the host computer, for instance business cards left by users
- Administer a list of the BLIPs connected to the network

In the left window of the BLIP Manager, you will find the content of the files and folders you specify on your host computer, and in the right window you will find your BLIP or BLIPs presented graphically.



Application and data can be transferred to the BLIP from the host computer by the drag-and-drop method.

## 3.2 Installation

Run the BLIP Manager setup from the CD.

### 3.2.1 Windows NT4

#### Install Remote Access Services (RAS)

RAS is used for dial-up networking. If you don't have Remote Access Services (RAS) installed, install it from your Windows NT CD.

#### Install a NULL Modem

1. Select *Start — Settings — Control Panel*.
2. Doubleclick on the *Modem* icon.
3. Click *Add...*
4. Check the *Don't detect my modem; I will select it from a list* box, and click *Next*.
5. Select *NULL Modem Types* from the *Manufacturers* list
6. Select *RAS Serial Cable between 2 PCs* from the *Models* list, and click *Next*.
7. Select one COM port, click *Next* and then *Finish*.

#### Create a dial-up network connection

1. Select *Start — Accessories — Dial-Up Networking*, and click *New*.
2. Name the connection "BLIP".
3. Check the *I know all about phonebook entries and would rather edit the properties directly* box, and click *Finish*.
4. Select the *RAS Serial Cable between 2 PCs* in the *Dial Using* list.
5. Uncheck the *Use another port if busy* box.
6. Select the *Server* tab, and choose *PPP; Windows NT, Windows 95 Plus, Internet* as dial-up server type. *Network protocols* should be *TCP/IP*.
7. Click on *TCP/IP Settings*, and select the *Server assigned IP address* radio button.

Make sure that the *Use default gateway on remote network* box is unchecked!

8. Click *OK*, and then *Security*. Select the *Accept any authentication including clear text* radio button. Click *Ok*, and then click *Close*.

Start the BLIP Manager.

Select *Start — BLIP Manager* to start the BLIP Manager. Select settings from the main menu, and continue with section 3.3 - Settings.

## 3.2.2 Windows 98SE

### Install Remote Access Services (RAS)

RAS is used for dial-up networking. If you don't have Remote Access Services (RAS) installed, install it from your Windows 98 CD.

### Install a NULL Modem

1. Select *Start — Settings — Control Panel*.
2. Doubleclick on the *Modem* icon.
3. Click *Add...*
4. Check the *Don't detect my modem; I will select it from a list* box, and click *Next*.
5. Select *NULL Modem Types* from the *Manufacturers* list
6. Select *RAS Serial Cable between 2 PCs* from the *Models* list, and click *Next*.
7. Select one COM port, click *Next* and then *Finish*.

### Create a dial-up network connection

1. Select *Start — Accessories — Communication — Dial-Up Networking*, and doubleclick on *Make new connection*.
2. Name the connection "BLIP".
3. Select the *RAS Serial Cable between 2 PCs* in the *Select a device* list, and click *Next*.
4. Even though the telephone number is not used, you have to type at least one digit to be able to continue.
5. Click *Next* and then *Finish*.
6. Rightclick on the "BLIP" connection you just created, and select *Properties* from the pop-up menu.
7. Select the *Server Types* tab, and uncheck *NetBEUI and IPX/SPX compatible* in the *Allowed network protocols* section.
8. Click on *TCP/IP Settings*.

Make sure that the *Use default gateway on remote network* box is unchecked!

9. Click *OK*, and then *OK* again.

### Start the BLIP Manager.

Select *Start — BLIP Manager* to start the BLIP Manager. Select settings from the main menu, and continue with section 3.3 - Settings.

### 3.2.3 Windows 2000

#### Install Remote Access Services (RAS)

RAS is used for dial-up networking. If you don't have Remote Access Services (RAS) installed, install it from your Windows 2000 CD.

#### Install a NULL Modem

Note that you may be required to have administrator rights to install a modem!

1. Select *Start — Settings — Control Panel*.
2. Doubleclick on the *Phone and Modem Options* icon.
3. Click *Add...*
4. Check the *Don't detect my modem; I will select it from a list* box, and click *Next*.
5. Select *NULL Modem Types* from the *Manufacturers* list
6. Select *RAS Serial Cable between 2 PCs* from the *Models* list, and click *Next*.
7. Select one COM port, and then click *Next*. If the dialogue window *Digital Signature Not Found* is shown, just click *Yes*.
8. Click *Finish*, and then *OK* to close the *Phone and Modem Options* window.

#### Create a dial-up network connection

1. Select *Start — Settings — Control Panel*.
2. Doubleclick on *Network and Dial-up Connections*, then doubleclick on *Make new connection*, and the click *Next*.
3. Select *Dial up to private network*, click *Next*, and then click *Next again* (no phone number is needed).
4. Name the connection "BLIP", and click *Finish*. There will now be a dialogue called *Connect BLIP* on your screen.
5. Click *Properties* in the *Connect BLIP* dialogue, and check that *Modem-RAS Serial Cable between 2 PCs* is stated in the *Connect using* field.
6. Click *Configure* and set *Maximum speed* to 115 200.
7. Check the *Enable hardware flow control* box, and click *OK*.
8. Uncheck the *Client for Microsoft Networks* box.
9. Click on *Internet protocol (TCP/IP)*, and then *Properties*.

Make sure that the *Use default gateway on remote network* box is unchecked!

10. Click *OK* in the following three dialogue windows.

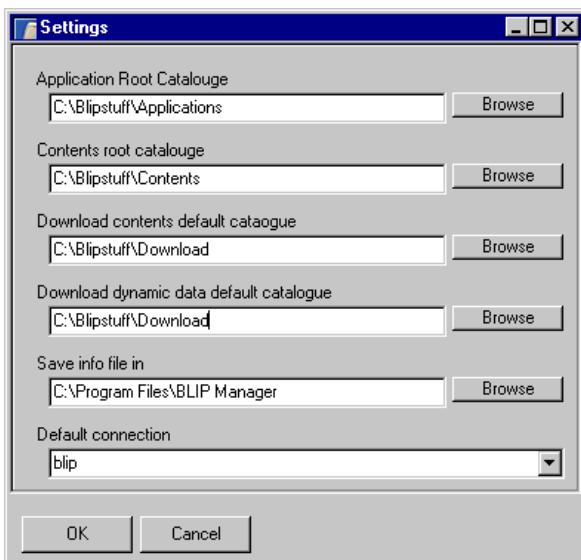
Start the BLIP Manager.

Select *Start — BLIP Manager* to start the BLIP Manager. Select settings from the main menu, and continue with section 3.3 - Settings.

## 3.3 Settings

The BLIP Manager Settings are used to change the default settings for the folders in which you store your applications, content, and dynamic data on your host computer. It also shows your default connection.

To change the settings of your BLIP Manager, choose *Settings* and the Settings window will appear.



To define your folders, write the complete folder address in the address field, or click the *Browse* button and select the preferred folder.

**Application Root Folder**

The folder on your host computer where you store your BLIP applications.

**Content Root Folder**

The folder on your host computer where you store content to load to your BLIP.

**Download Content Default Folder**

The folder on your host computer where you store content loaded from your BLIP.

**Download Dynamic Data Default Folder**

The folder on your host computer where you store dynamic data loaded from your BLIP.

**Save info file in**

The folder on your host computer where info files about your BLIP operations will be stored.

**Default Connection**

Should be the dial-up connection defined in the installation process, as described in section 3.2 - Installation.

Press *OK* when all folders are defined.

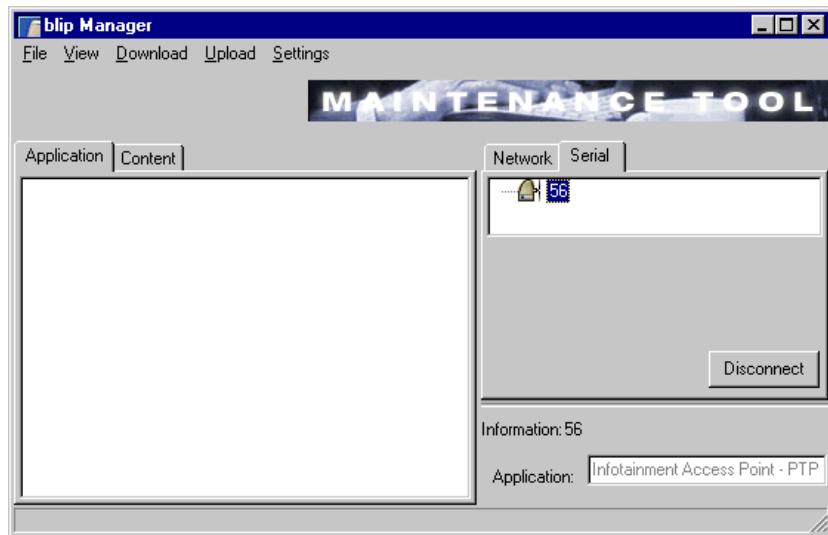
## 3.4 Serial Connection

Before you connect to your blip, make sure your default connection is the dial-up connection defined in the installation process, as described in section 3.2 - Installation.

Information about how to choose your default connection can be found in section 3.3 - Settings.

Select the *Serial* tab to open the Serial window.

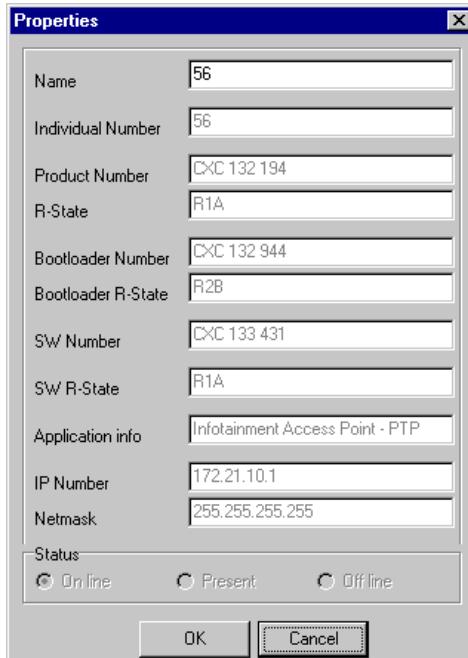
Press the *Connect* button and your connected BLIP will appear as an icon in the Serial window.



If the BLIP does not appear as an icon, or appear as a red crossed-out BLIP icon, check your connected cables as described in section 2.1 - Using Serial Connection.

You can check the properties of your BLIP by right clicking the BLIP icon and choosing *Properties*.

This will open the Properties window.



The default name of your BLIP is the BLIP individual number. The individual number is unique to the BLIP, and is also printed on the label on the BLIP.

- When you highlight the BLIP icon you will find information about your BLIPs individual number or name, and its application in the lower right corner of the BLIP Manager!

If you like to change the name of your BLIP, right click at the BLIP icon and choose *Rename BLIP*.

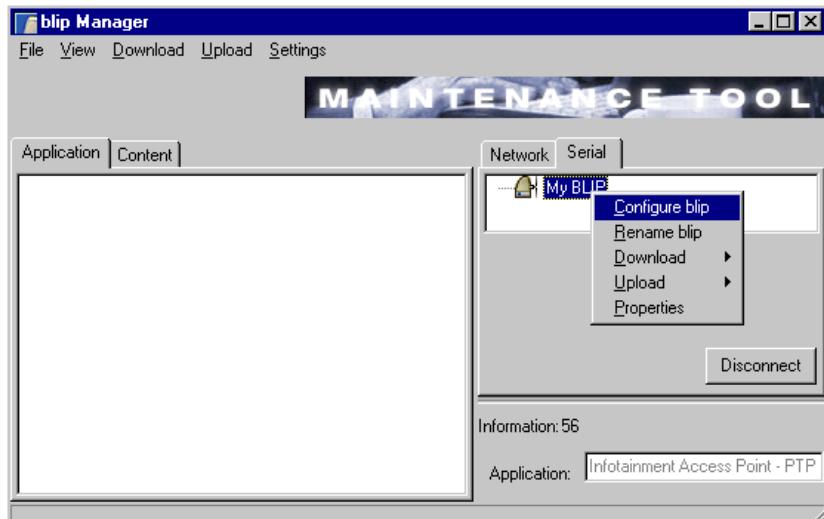
Your changes are automatically saved, but you can also save by choosing *Save* from the *File* menu.

There are two physical connection possibilities of your BLIP:

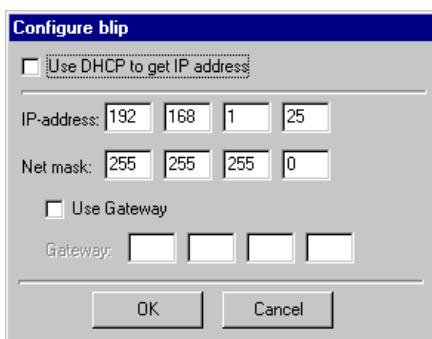
- If you would like to keep your BLIP as a single serial connected BLIP, continue with section 3.3 - Settings.
- If you like to connect your BLIP to a network, keep the BLIP at serial connection and continue with section 3.5 - Configure your BLIP.

## 3.5 Configure your BLIP

To set DHCP or static IP for your BLIP, right click at the BLIP icon and choose *Configure BLIP*.



This will open the Configure BLIP window.



### Use DHCP to get IP address

This is the default option. When the “Use DHCP to get IP address” box is checked, the BLIP automatically receives an IP number from the network server.

### IP address and Netmask

When the “Use DHCP to get IP address” box is *not* checked, a static IP address can be specified in the IP address fields. The system will suggest a netmask that will work with your chosen IP address. Contact your system administrator for further details regarding the netmask.

### Use Gateway

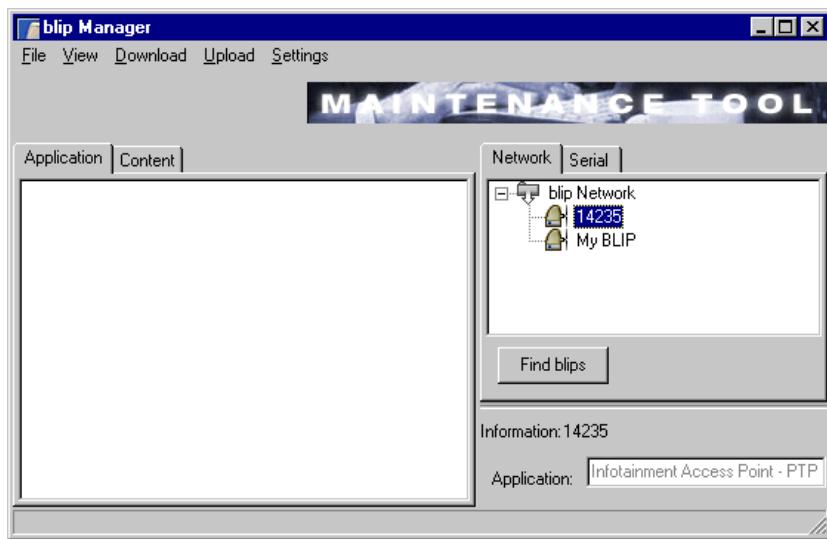
The BLIP must know which computer on the local network that is used as a gateway, in order to connect to the Internet through the BLIP. When the “Use Gateway” box is checked, you can specify the IP address for the Internet gateway.

## 3.6 Ethernet Connection

Check that your BLIP or BLIPs are connected to a network using the Ethernet interface, as described in section 2.2 - Using Ethernet Connection.

The BLIP Manager searches for BLIPs connected to the same subnet. This means that if there is a router situated between the BLIP Manager and a BLIP, this BLIP will not be found.

Select the *Network* tab to open the Network window.



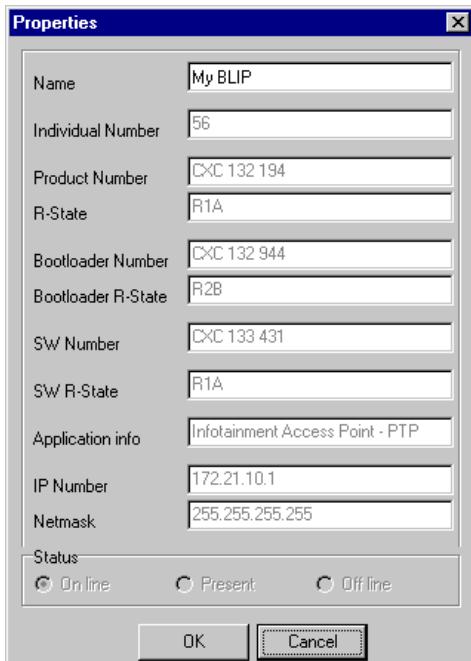
Your connected BLIP or BLIPs will appear as icons in the Network window.

If one or several of your BLIPs do not appear in the Network Window, or appear as red crossed-out BLIP icons, make sure that the missing BLIP or BLIPs are properly connected to the ethernet interface and power.

Also check if your DHCP or static IP setup is correct as described in section 3.5 - Configure your BLIP.

You can check the names and other properties of your BLIPs by right clicking a BLIP icon and choose *Properties*.

This will open the Properties window.



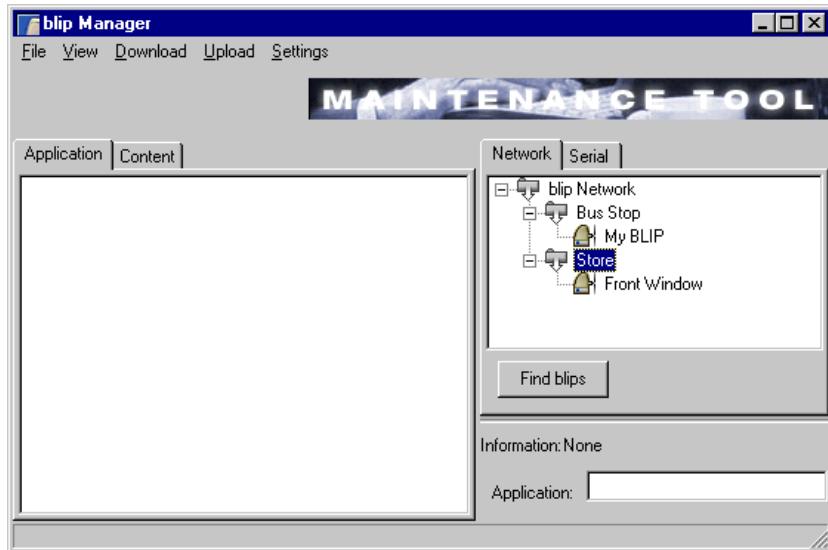
The default name of your BLIP is the BLIP individual number. The individual number is unique to the BLIP, and is also printed on the label on the BLIP.

- ▶ When you highlight a BLIP icon you will find information about the BLIPs individual number or name, and its application in the lower right corner of the BLIP Manager!

Right click at a BLIP icon and choose *Rename BLIP*, if you like to change the name of a BLIP.

Your changes are automatically saved, but you can also be save by choosing *Save* from the *File* menu.

The BLIP Manager also makes it possible for you to group your BLIPs by creating folders. Just right click in the Network window and choose *Create* and then *New Folder*. Right click on the new folder and choose *Rename* if you would like to change its name.



You can organize your BLIPs into your created BLIP folders as you like by using the drag-and-drop method.

## 3.7 Upload to the BLIP

This section provides information on how to transfer applications and content from your host computer to one or several BLIPs (referred to as an upload).

Note that each time a new application or new content is uploaded to the BLIP, the current application or content will be overwritten.

### 3.7.1 Upload Applications

1. Select an application on your host computer.

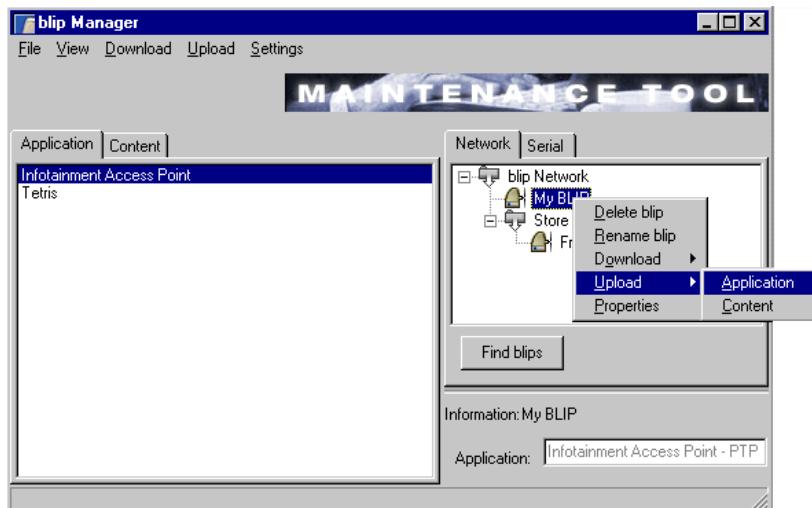
Choose the *Application* tab to open the Application window. The names of the applications stored in the Application Root Folder will appear in the Application window (to define the Application Root Folder see section 3.3 - Settings). To select an application to upload, click its name to highlight it.

2. Select the BLIP or BLIPs for your application

To select a BLIP for uploading, click a BLIP icon in the Serial/Network window (depending on your connection) to highlight it. To select multiple BLIPs, organize the BLIPS into a folder and highlight it. The application will be uploaded to the selected BLIP, or to all BLIPs in a selected folder.

3. Upload the application.

Right click on the highlighted BLIP or BLIP folder. Select *Upload Application* to load the application to the BLIP or BLIPs.



- You can use the drag-and-drop method to upload applications!  
Click and hold the mouse button on an application in the Application window, drag it to the selected BLIP or BLIP folder, and release the mouse button.

### 3.7.2 Upload Content

1. Select the content on your host computer.

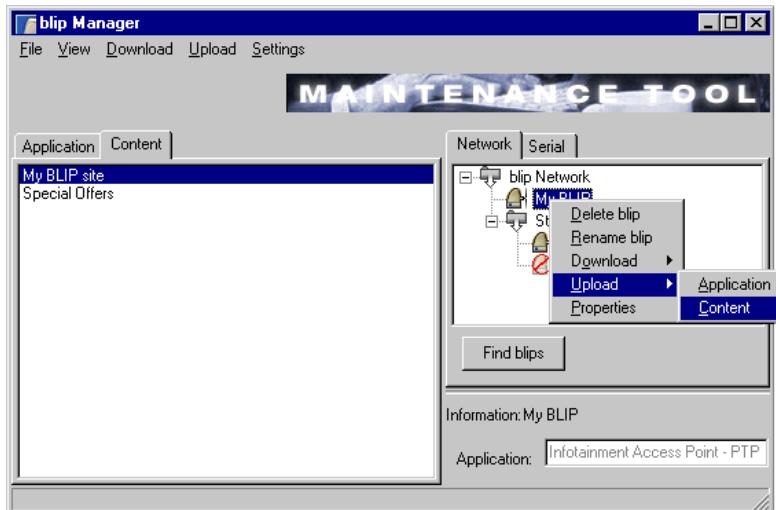
Choose the Content tab to open the Content window. The names of the content stored in the Content Root Folder will appear in the Content window (to define the Content Root Folder see section 3.3 - Settings). To select content to upload, click its name to highlight it.

2. Select the BLIP or BLIPs for your content

To select a BLIP for uploading, click a BLIP icon in the Serial/Network window (depending on your connection) to highlight it. To select multiple BLIPs, organize the BLIPs into a folder and highlight it. The content will be uploaded to the selected BLIP, or to all BLIPs in a selected folder.

3. Upload the content.

Right click on the highlighted BLIP or BLIP folder. Select *Upload Content* to load the content to the BLIP or BLIPs.



- » You can use the drag-and-drop method to upload content!  
Click and hold the mouse button on an application in the application Window, drag it to the selected BLIP or BLIP folder, and release the mouse button.

## 3.8 Download from the BLIP

This section tells you how to transfer files from one or several BLIPs to your host computer (referred to as a download).

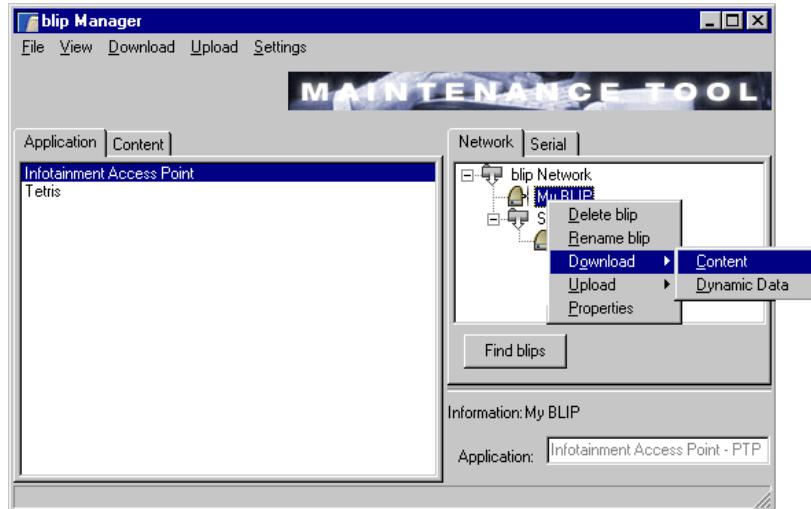
### 3.8.1 Download Content

1. Select the BLIP to load content from.

To select a BLIP to download content from, click a BLIP icon in the Serial/Network window (depending on your connection) to highlight it. To select several BLIPS at the same time, organize the BLIPS into a folder and highlight it.

2. Download the content.

Right click on the highlighted BLIP. Select *Download Content* to load the content to the Download Content Default Folder (to define the Download Content Default Folder see section 3.3 - Settings). When downloading content from multiple BLIPs organized into a folder, the content will be saved into subfolders named as the individual BLIPs under the Download Content Default Folder.



### 3.8.2 Download Dynamic Data

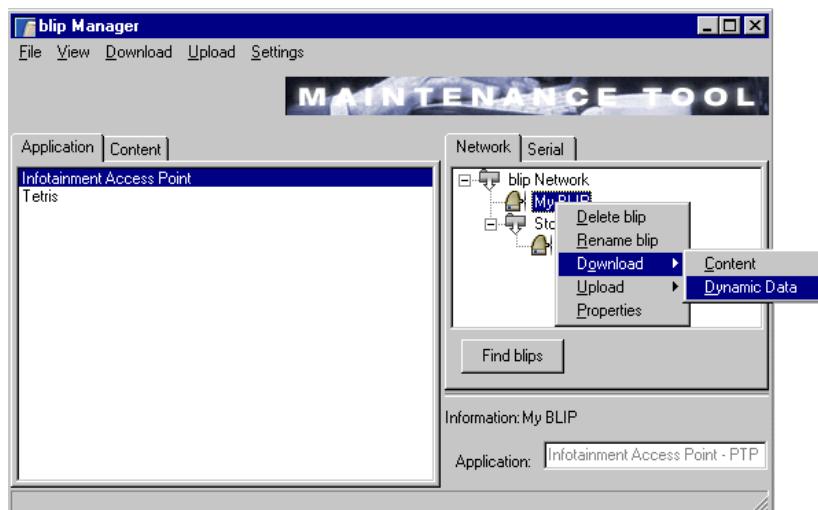
1. Select the BLIP to load dynamic data from.

To select a BLIP to download dynamic data from, click a BLIP icon in the Serial/Network window (depends on your connection) to highlight it. To select several BLIPS at the same time, organize the BLIPS into a folder and highlight it.

2. Download the dynamic data.

Right click on the highlighted BLIP. Select *Download Dynamic Data* to load the dynamic data to the Download Dynamic Data Default Folder (to define the Download Dynamic Data Default Folder see section 3.3 - Settings). When downloading dynamic data from multiple BLIPS organized into a folder, the data will be saved into subfolders named as the individual BLIPS under the Download Dynamic Data Default Folder.

## BLIP Manager



# 4 Applications

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This chapter describes the applications delivered together with the BLIP and how to use them.

## 4.1 Infotainment Access Point

The IAP implements a so called LAN access point. This means that all of the functions you normally can access via your network, also can be accessed through the IAP (provided that the terminal has these capabilities). The IAP application makes it possible for a user to browse through HTML and WMLC (the WML binary format) data.

The Infotainment Access Point (IAP) application makes the BLIP accessible for all types of network communication. For example, if you have a Bluetooth terminal capable of displaying streaming video, the IAP application can be used to stream the video data. For example, it would be possible to send data to a printer from a terminal using a BLIP with IAP installed.

The area where the BLIP is present will transform into an Infotainment Access Point!

You can use Common Gateway Interface (CGI) scripts together with data and graphics, which gives the possibility to make the user interact with the BLIP.

- ▶ Using CGI scripts, you can now get valuable input from the user via your BLIP site. The user can interact with the BLIP and submit data to your applications.

The HTML/WMLC content and CGI scripts are usually stored locally on a standalone BLIP, but contents and scripts can also be stored on a network reachable from the BLIP, for example the Internet. Possible storage locations include:

- Local - Locally in the BLIP
- Network - On a local network connected to the BLIP
- Internet - On a computer connected to the Internet and the BLIP

### 4.1.1 Upload the IAP

Make sure that the Internet Access Point application is uploaded to the BLIP. See section 3.7.1 - Upload Applications for more information on how to upload an application to the BLIP using the BLIP.

### 4.1.2 Creating Content

After uploading the IAP, the BLIP will contain default HTML and WMLC content, which makes it possible to test the application with a device using the Bluetooth wireless technology.

You can now create your own HTML pages, WMLC pages, and CGI scripts and make them accessible for the user when browsing the site content!

## Application Configuration

IP addresses for both the BLIP and the terminal is handed out by the BLIP when the terminal connects to the BLIP. The IP address that the BLIP assigns to itself is the IP address that the terminal has to use to access locally stored information. There is a default address, but it can also be configured by editing the text file */blip/cfg/info\_access\_point.cfg* before the Infotainment Access Point application is downloaded to the BLIP using the BLIP Manager.

The configuration file is a ASCII text file with the following parameters:

Parameter	Description
<b>application_name</b>	Server name - The name that the BLIP is using to contact terminals
<b>blip_ip</b>	Network address - The network address that the BLIP assigns to itself during the connection to a terminal
<b>wap_home_url</b>	Homepage URL - Used only for WAP, this is the WAP start page for the terminal

This is an example of how a configuration file may look:

```
application_name = Store window BLIP
blip_ip = 192.168.100.1
wap_home_url = index.wmlc
```

Edit the file using a text editor, e.g. Notepad. If the file is absent, the default values are:

```
application_name = Infotainment Access Point
blip_ip = 192.168.1.1
wap_home_url = index.wmlc
```

### WML

Compile your WML files to the binary WMLC format using a common WAP compiler. A compiler can be obtained through Ericsson Developer's Zone at <http://www.ericsson.com/developerszone>.

### CGI Scripts

CGI scripts gives the possibility to make the user interact with the BLIP. CGI Scripts can be run together with HTML and WAP

### 4.1.3 Locations

#### Local

When creating the content, you must place your files in the following directory structure on your PC:



The folders in the directory can contain the following:

<b>dat</b>	HTML files WMLC files Graphics files
<b>cgi</b>	CGI scripts

Use the BLIP Manager to upload the directory structure to the BLIP. Refer to section 3.7.2 - Upload Content for more information.

#### Network

Network data is accessed through a Network File Server (NFS).

To be able to create and use content on a network connected to the BLIP, you must edit the Linux script file *rc.app*. The file is located in the *\blip\cfg* directory on your computer (provided that the Infotainment Access Point is properly installed from the CD to the application directory on your PC).

This file is preferably updated while situated on the PC, but it is possible to edit the file directly on the BLIP. The file is located in the */blip/cfg* directory on the BLIP.

1. Add the following line to *rc.app* using a text editor (e.g. Notepad):

```
mount -t nfs IP_ADDRESS:DIR /usr
```

**IP\_ADDRESS** The IP address of the network server withholding the data content

**DIR** The directory on the network server that contains the HTML/WML/CGI content.

Write for example the following:

```
mount -t nfs 10.2.4.14:/home/blip/content /usr
```

2. Add the following line to *rc.app* to put a link in */blip/dat* in order to make the web server look for the content on the nfs-mounted disk:

```
ln -s /usr /blip/dat/network
```

To reach data on the network server, write for example the following:

```
110.2.4.14/network/index.html
```

## Internet

Internet configuration is currently unavailable.

### 4.1.4 Connecting to the BLIP

Refer to the documentation supplied by the terminal manufacturer for more information on how to connect to the BLIP using a Bluetooth terminal.

## 4.2 Create Your Own Applications

Would you like to create your own BLIP application? See section 5 - Future Developer? for more information about how to become a future developer of BLIP applications.

## 5 Future Developer?

---

Are you a future developer?

Visit Ericssons Developer's Zone at <http://www.ericsson.com/developerszone> and discover how to write applications for your BLIP!

The Ericsson Developer's Zone is the site for product, service and application developers as well as content providers. You'll get valuable information as a member to Ericsson Developer's Zone.

Welcome to share our knowledge!

# 6 Technical Specification

---

## 6.1 Features

The blip C11 provides the following main features:

- Stand-alone processing and data storage capacity
- General purpose LED for indication of different conditions
- Wide voltage range battery eliminator power input
- Convenient size
- Can be mounted standing, lying, or mounted on the wall
- High quality design, associating high technology information devices with the traditional shape of a rune stone
- Possibility to connect to LANs and the Internet

## 6.2 Function

The main functions of blip C11 are the following:

- A palm-sized, stand-alone server for sending information to terminals that enter the area of reception for Bluetooth communication
- Many applications for the BLIP device will be created by third party developers
- Applications and data may be downloaded from a standard PC

## 6.3 Technical specification

### Electrical Data, Capacity

<b>Supply voltage</b>	4,5 - 15 V DC
<b>Operating current consumption</b>	<300 mA
<b>Memory capacity</b>	2 MByte RAM, 2 MByte FLASH
<b>Processing capacity</b>	ARM7 TDMI-based 32-bit RISC at 22.5 MHz

### Bluetooth Interface

<b>Bluetooth standard</b>	1.0b, Class 2 (0 dBm)
<b>Range</b>	~10 m
<b>Frequency</b>	ISM band (2,4 GHz), 79 frequency hops
<b>Antenna</b>	Internal 2.4 GHz Bluetooth antenna

### Hardware Interface

<b>Serial speed settings</b>	Up to 115200 bps
<b>Serial connection</b>	Serial RS232, 9-pin female D-sub, pin-configured as DCE
<b>Ethernet</b>	RJ-45 (10-baseT) 10 Mbps interface
<b>Power adapter</b>	DC-adapter, 2.1 mm pin connector
<b>Miscellaneous</b>	One general purpose LED (green)

### Mechanical Data

<b>Dimensions (H x W x D)</b>	117 x 88 x 32 mm
<b>Weight</b>	~300 g
<b>Material</b>	Aluminium base and plastic cover

### Environmental Conditions

<b>Temperature, operating</b>	+5 to +40 °C
<b>Temperature, storage</b>	-5 to +45 °C
<b>Humidity, operating</b>	5 to 85%, non-condensing
<b>Humidity, storage</b>	5 to 95%, non-condensing

### Hardware Deliverables

- blip C11 device hardware
- Power adapter and serial cable
- CD containing the blip C11 User's Manual, the Windows-based maintenance tool BLIP Manager, and BLIP applications
- Getting started instructions printed on the CD cover
- Web address, log in instructions for the BLIP website

### Software Deliverables

- Bootloader, preinstalled in the blip C11 hardware
- Software Developer's Kit (SDK) (can be obtained from the Ericsson Developer's Zone):
  - Software platform based on  $\mu$ CLinux/ $\mu$ C-Libc and the Ericsson Bluetooth Host Stack
  - Toolset: Open Source GNU cross development toolset (binutils, gcc, and gdb/Insight configured for arm-elf)
- Applications, built on top of the software platform, using the Toolset in the SDK
- BLIP manager, a Windows-based maintenance tool used for updating data and applications stored in the blip C11

The software package is divided into the following:

- Applications
- Software Developer's Kit (SDK)
- Bootloader

The SDK consists of the software platform and a toolset.

# 7 Warranty

---

## Limited Warranty

Thank you for purchasing this Ericsson Product. To get maximum use of your new product, we recommend that you follow a few simple steps:

- Read chapter 8 - Guidelines for Safe and Efficient Use.
- Read all the terms and conditions of your Ericsson Warranty.

Save your original receipt. You will need it for warranty repair claims. Should your Ericsson Product need warranty service, please send an e-mail to blip support, see [www.ericsson.com/developerszone](http://www.ericsson.com/developerszone), to get further information.

## Our Warranty

Ericsson warrants this Product to be free from defects in material and workmanship at the time of its original purchase and for a subsequent period of one (1) year.

Any Ericsson accessory is covered by a warranty period of one (1) year from the date of its original purchase by a consumer in accordance with the applicable terms and conditions stipulated herein.

Ericsson will maintain services for the Product under a subsequent period of thirty-nine (39) months from last manufacturing date of this Product model.

## What we will do

If, during the warranty period, this Product fails to operate under normal use and service, due to improper materials or workmanship, Ericsson will, at its option, either repair or replace the Product in accordance with the terms and conditions stipulated herein.

## Conditions

1. The warranty is valid only if the original receipt issued to the original purchaser by the dealer, specifying the date of purchase and serial number, is presented with the Product to be repaired or replaced. Ericsson reserves

the right to refuse warranty service if this information has been removed or changed after the original purchase of the Product from the dealer.

2. If Ericsson repairs or replaces the Product, the repaired or replaced Product shall be warranted for the remaining time of the original warranty period or for ninety (90) days from the date of repair, whichever is longer. Repair or replacement may involve the use of functionally equivalent reconditioned units. Replaced faulty parts or components will become the property of Ericsson.
3. This warranty does not cover any failure of the Product due to normal wear and tear, or due to misuse, including but not limited to use in other than the normal and customary manner, in accordance with Ericsson's instructions for use and maintenance of the Product. Nor does this warranty cover any failure of the Product due to accident, modification or adjustment, acts of God, improper ventilation or damages resulting from liquid. Ericsson does not warrant that use of the Product will be uninterrupted or error free.
4. This warranty does not cover product failures caused by improper repair installations or services not performed by an Ericsson appointed service location in accordance with the instructions given by the BLIP support.
5. The warranty does not cover Product failures, which have been caused by use of non-Ericsson original accessories.
6. Tampering with any of the seals on the Product will void the warranty.
7. THERE ARE NO EXPRESS WARRANTIES, WHETHER WRITTEN OR ORAL, OTHER THAN THIS PRINTED LIMITED WARRANTY. ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL ERICSSON BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR COMMERCIAL LOSS, TO THE FULL EXTENT THOSE DAMAGES CAN BE DISCLAIMED BY LAW.

Some countries/states do not allow the exclusion or limitation of incidental or consequential damage, or limitation of the duration of implied warranties, so the preceding limitations or exclusions may not apply to you. This warranty gives you specific rights, and you may also have other legal rights which may vary from country to country/state to state.

## Bluetooth Capability Statement

This product is manufactured to meet the Bluetooth Specification 1.0b with critical Errata.

The following Bluetooth profiles are supported:

- LAN Access Profile
- Generic Access Profile
- Serial Port Profile

# 8 Guidelines for Safe and Efficient Use

---

Please read this information before using your BLIP.

Your BLIP is a highly sophisticated electronic device. To get the most out of your BLIP, please read this text about product care, and safe and efficient use.

## Product Care

- Do not expose your product to liquid, moisture, or extreme humidity.
- Do not expose your product to extreme high or low temperatures.
- Do not expose your product to lit candles, cigarettes, or cigars, or to open flames etc.
- Do not drop, throw or try to bend the product as rough treatment could damage it.
- Do not paint your product as the paint could obstruct parts and prevent normal use.
- Do not attempt to disassemble your product; a broken warranty seal will void the warranty. The product does not contain consumer serviceable components. Should your BLIP need service, please send an e-mail to BLIP support, see [www.ericsson.com/developerszone](http://www.ericsson.com/developerszone), to get further information.
- Treat your product with care, keep it in a clean and dust-free place.
- Changes or modifications to this product, not expressly approved by Ericsson, may void the user's authority to operate the equipment.

## Antenna Care

Do not place a metallic shield around your BLIP since it will reduce the radio transmission efficiency.

## Efficient Use

For optimum performance, please make sure that there is no metallic surrounding your BLIP.

### Radio Frequency Exposure

Your BLIP is a radio transmitter and receiver. When in operation, it communicates with a Bluetooth equipped mobile phone or PDA (Personal Digital Assistant) by receiving and transmitting radio frequency (RF) electromagnetic fields in the frequency range 2400 to 2500 MHz. The output power of the radio transmitter is very low, 0,001 Watt.

The BLIP unit is designed to be in compliance with the RF exposure limits set by national authorities and international health agencies<sup>2</sup> when installed or used separate from other antennas or radio transmitters.

### Driving

RF energy may affect some electronic systems in motor vehicles such as car stereo, safety equipment etc. Check with your vehicle manufacturer's representative to be sure that your BLIP will not affect the electronic systems in your vehicle.

#### Vehicles Equipped with an Air Bag:

An air bag inflates with great force. Do not place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

#### 2. Examples of RF exposure standards and guidelines:

ICNIRP, "Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz)", International Commission on Non-Ionizing Radiation Protection (ICNIRP), Health Physics, vol. 74, pp 494-522, April 1998.

99/519/EC, EU Council Recommendation on the limitation of exposure to the general public to electromagnetic fields 0 Hz - 300 GHz, Official Journal of the European Communities, July 12, 1999.

ANSI/IEEE C95.1-1992, "Safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz", The Institute of Electrical and Electronics Engineers Inc., New York, 1991.

FCC Report and Order, ET Docket 93-62, FCC 96-326, Federal Communications Commission (FCC), August 1996.

Radiocommunications (Electromagnetic Radiation Human Exposure) Standard 1999, Australian Communications Authority (ACA), May 1999

## Electronic Devices

Most modern electronic equipment, for example equipment in hospitals and cars, is shielded from RF energy. However, certain electronic equipment is not, therefore:

- Do not use your BLIP near medical equipment without requesting permission.

BLIPs may affect the operation of some hearing aids, implanted cardiac pacemakers and other medically implanted equipment.

Pacemaker patients should be aware that the use of a BLIP very close to a pacemaker might cause the device to malfunction. If you have any reason to suspect that interference is taking place, immediately turn off your BLIP. Contact your cardiologist for more information.

## Aircraft

- Turn off your BLIP before boarding any aircraft.
- To prevent interference with communication systems, you must not use your BLIP while the plane is in the air.

Do not use it on the ground without permission from the crew.

## Blasting Areas

Turn off your BLIP when in a blasting area or in areas posted "turn off two-way radio" to avoid interfering with blasting operations. Construction crews often use remote control RF devices to set off explosives.

## Explosive Atmospheres

Turn off your BLIP when in any area with a potentially explosive atmosphere. It is rare, but your BLIP or its accessories could generate sparks. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fuelling areas, such as petrol stations, below deck on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

Do not transport or store flammable gas, liquid, or explosives in the same compartment of your vehicle that contains your BLIP and accessories.

## Power Supply

- Connect the AC power adapter only to designated power sources as marked on the product.
- To reduce risk of damage to the electric cord, remove it from the outlet by holding onto the AC adapter rather than the cord.
- Make sure the cord is positioned so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.
- To reduce risk of electric shock, unplug the unit from any power source before attempting to clean it. If the plug will not fit into the outlet, have a proper outlet installed by a qualified electrician. Improper connection can result in risk of electric shock.

## Children

Do not allow children to play with your BLIP. They could hurt themselves or others, or could accidentally damage the BLIP. Your BLIP contain small parts that could become detached and create a choking hazard.

## Disposing of the Product

The product should never be placed in municipal waste. Please check local regulations for disposal of electronic products.

# 9 Licence Agreement

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This is a legal Agreement, between you Licensee, the recipient of the enclosed Software on compact disc, diskette or any other media, e.g. your BLIP, and any upgrades thereof, and Ericsson Business Innovation AB, the Vendor. By opening the software package and selecting the "I agree" button and/or using the software you are agreeing to be bound by the terms of this Agreement.

## Licence

The Licensee is hereby granted a non-transferable, non-exclusive, restricted right and licence to use the software included herein, Software. However, the Software licensed hereunder may be delivered in an inseparable package also containing other software programs than the Software.

You may:

- Use the enclosed Software on a single Ericsson product
- Make copies of the Software solely for purposes of backup. The copyright notice must be reproduced and included on a label on any backup copy.

You may not:

- Subject to when applicable, the EC Council Directive of May 14, 1991 on the legal protection of computer programs (91/250/EEG) ("Software Directive" Article 6) distribute copies of this Software or its documentation to others;
- Modify, rent, lease or grant your rights to this Software to third parties (except in the event the Ericsson product containing an item of Software is transferred to a third party and provided the transferee agrees in writing to be bound by the terms of this Licence Agreement).
- Translate, reverse engineer, decompile, disassemble or otherwise alter the Software or its documentation or disclose any information designated as confidential or proprietary at the time of disclosure or, by nature, is confidential or proprietary.

## Term

Your licence remains effective from the date of receipt until terminated. You can terminate it at any other time by destroying the Software together with all copies of the Software in any form. Your licence will also automatically terminate without

notice if you fail to comply with any term or condition of this Agreement. Upon any termination you must destroy all copies of the Software in any form.

### Limited Warranty

Vendor warrants the CD-ROM, on which part of the Software is provided, to be free of defects in materials and workmanship under normal use for ninety (90) days after the date of receipt. The Vendor's and its suppliers' entire liability and your exclusive remedy under this warranty (which is subject to you returning the Software according to instructions on <http://www.ericsson.com/developerszone> with a copy of your receipt) will be, at Vendor's option, to replace the disc(s)/diskette(s) or refund the purchase price for the Software and terminate this Agreement.

Except for the above express limited warranties, Vendor and its suppliers make and you receive no warranties or conditions either express, implied, statutory or otherwise and Vendor and its suppliers specifically disclaim any implied warranties of merchantability and fitness for a particular purpose. Vendor does not warrant that the Software will be uninterrupted or error free. You assume the responsibility for the selection of the program and hardware to achieve your intended results; and for the installation, use and results obtained from the Software.

Some jurisdictions do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you.

### Intended Use

The Software shall be used in accordance with the instructions and for its intended use and purpose only. The software or part of it is not permitted to be used in for example life support systems, nuclear facility applications, missile technology, chemical or biologized industry or of flight navigation or communication of air, ground support equipment or other similar business, if failure to perform on behalf of the software in any way, could result in personal injury, death, damage to tangibles or environmental damage.

### Limitation of Liability

In no event shall Vendor or its suppliers be liable for any indirect or consequential losses or damages whatsoever including loss of data, loss of business, loss of profits, business interruption or personal injury arising out of the use of or inability to use this Software. Vendor and its suppliers entire liability under this Agreement shall be limited to the amount actually paid by Licensee for the Software.

## Governing law

The validity, construction and performance of this Agreement shall be governed by the laws of Sweden.

# 10 Declaration of Conformity

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We,  
Ericsson Business Innovation  
LM Ericssons väg 8  
SE-126 25 Stockholm  
  
declare under sole responsibility that our product

blip C11

to which this declaration relates, conforms to the appropriate standards ETS 300 328, ETS 300 826, EN 60950, EN 60215, following the provisions of Radio Equipment and Telecommunication Equipment directive 1995/5/EEC, EMC directive 89/336/EEC, and Low voltage directive 73/23/EEC.

Stockholm, March 2001

(Place and date of issue)



*Jöran Hoff, President*

## FCC Statement

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.