

# BIANCA/BRICK-XM

## Getting Started

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### **Purpose**

This manual provides a short description of the installation and first-time configuration of the BIANCA/BRICK-XM router with Software Release 4.9.4. Before installing and configuring your router, please note the security instructions described in your BIANCA/BRICK-XM User's Guide.

It is highly recommended that you read our Release Note containing the latest information and instructions for the most current Software Release – especially if you are performing a software update to a higher level. The latest Release Note is always available at [www.bintec.de](http://www.bintec.de).

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The information in this manual is subject to change without notice. Additional information, including changes and Release Notes for BIANCA/BRICK-XM, can be retrieved at [www.bintec.de](http://www.bintec.de).

As an ISDN multiprotocol router, BIANCA/BRICK-XM establishes ISDN connections in accordance with the system's configuration. To prevent unintentional charges accumulating, the product should be carefully monitored. BinTec Communications AG accepts no liability for incidental or consequential loss of data, unintentional connection costs and damages resulting from the unsupervised operation of the product.

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## How to contact BinTec Communications

Ways to contact BinTec	Telephone number or address
Telephone	+49 911 96 73 0
FAX	+49 911 688 07 25
Mail	BinTec Communications AG Südwestpark 94 D-90449 Nürnberg GERMANY
WWW	<a href="http://WWW.BinTec.DE">http://WWW.BinTec.DE</a>



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# BIANCA/BRICK-XM

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## Getting Started

Welcome!

This manual has been designed to help you quickly install and configure your new router using Setup Tool.

First, we'll provide a short list of the available features on the BRICK, then we'll cover installing the additional software included with your BRICK.

Physically *Installing the* BRICK begins on page 5.

Configuring the BRICK is divided into 3 steps and is described beginning on page 8.

Finally, we'll describe a few simple tests that you can use to verify that your configuration was successful (p. 28).

## Features

The BIANCA/BRICK-XM is BinTec's cost effective and flexible multiprotocol router, particularly attractive for midrange communication environments.



The BIANCA/BRICK-XM satisfies all the requirements of today's LAN - WAN connections by combining the functions of a Gateway, Router, Bridge, X.25 Switch and Telematic Server in a single, compact product.

The BRICK's most important features include:

- Support for TCP/IP routing, X.25 packet transfer, IPX routing, and bridging.
- Remote CAPI services for many communications applications under Windows 3.x, Windows 95, and Windows NT.
- Configuration via serial connection (V.24), telnet (TCP/IP), isdnlogin (ISDN), separate SNMP managers, or special Windows software (DIME Browser).
- Integrated Firewall, using NAT (Network Address Translation) and Access Lists.
- Accounting of ISDN and TCP/IP connections.
- Fast Ethernet interface with auto-sensing 10Base-T/100BaseT (RJ45) port .
- Complete choice of ISDN interfaces ( $S_0$ ,  $U_{P0}$ ,  $S_{2M}$  (optional)) with automatic detection/configuration of protocol settings.
- Token Ring interface (optional).



- X.21 interface for directly accessing public X.25 networks (optional).
- Windows and UNIX software for configuring and administering the BRICK.
- HTTP and Java Status Monitors.

## Software Installation

Your BRICK includes several helper/utility programs for Windows and UNIX.

BRICKware  
for Windows

*BRICKware for Windows* consists of the following programs (for detailed information, please refer to the online *BRICKware for Windows* documentation):

- *DIME Tools* – A set of tools for administering your BRICK which includes: *BootP Server*, *TFTP Manager*, *Syslog Server*, *Time Server*, and *ISDN and CAPI Trace Utility*.
- *DIME Browser* – An SNMP manager with a graphical user interface for administering your BRICK.
- *BRICK at COM1/2* – Preconfigured Windows terminal sessions for accessing your BRICK over your computer's serial ports.
- *Remote CAPI* clients for CAPI 1.1 and 2.0.

If you intend on configuring your

BRICK from a PC or using it as a CAPI server for PC applications you should install the software as explained in the online document *BRICKware for Windows*.

RVS-COM

*RVS-COM* for Windows 95 and Windows NT (Lite Version) is an application that runs using the CAPI interface and provides telecommunications services, such as T-Online (formerly Btx or Datex-J), Fax, Voice Mail, and Eurofiletransfer. Complete instructions can be found in the online documentation included on the CD.

BRICKtools  
for UNIX

*BRICKtools for UNIX* includes a Eurofiletransfer server and client as well as ISDN and CAPI trace tools for various UNIX platforms (refer to the *Software Reference*).

## Installing the BRICK

Select a flat, stable location for your BRICK and connect the included cables to the ports located on the back plane as shown in the diagram below.



Incorrect cabling of the LAN and ISDN interfaces could damage your router. Don't interchange the LAN and ISDN interfaces. Only connect the LAN interface of your router with the LAN interface of your PC/hub. Only connect the ISDN interface of your router with your ISDN outlet.



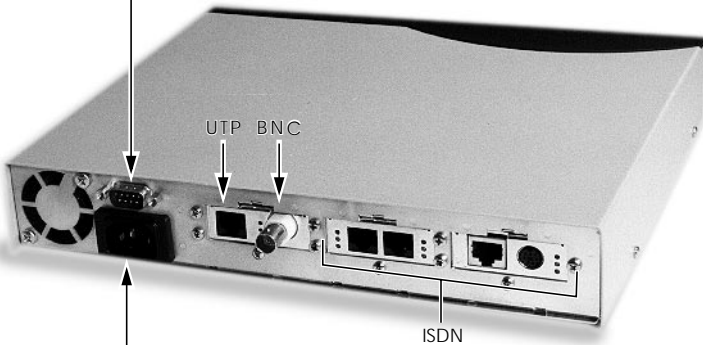
All the examples in this documentation are for a BRICK-XM with a Fast Ethernet adapter (CM-100BT) and two ISDN adapters (CM-2BRI and CM-EBRI).

**Step 1**

Connect the included laplink cable to your terminal or computer and the 9 pin serial port.

**Step 2**

Connect your BRICK to your ethernet's cabling using either the UTP or BNC port.



**Step 4**

Connect the included power cord to the BRICK-XM and your local power supply.

**Step 3**

Connect the included ISDN cable (RJ-45) to your BRICK's ISDN port(s) and your ISDN outlet.



Note that the BRICK-XM does not have a power switch. The system will power up as soon as it is connected to your power source. You may decide to wait until you're ready to access the BRICK before connecting the power source.

### LED Indicators

Each time you power up the system, the BRICK switches into **Power Up Mode** and performs a self-test to verify the integrity of the system. The LEDs on the front panel correspond to various stages of the test.

Upon successful completion of the self test, the **BRICK** then switches into **BOOTmonitor Mode**, (the middle six LEDs remain on) as described in the *User's Guide*.



If the **ERR** indicator remains on (see table below) there may be a problem with the cabling. Verify the ISDN and LAN cabling is correct and power up the system again.



Also note that once the router is up, the system may be accessed via the ISDN using the factory-set passwords. Changing the default passwords is described on page 15.

After 4 seconds, the system then switches into **Normal Operation Mode**. During normal operation, the front panel indicators display status information as follows.

LED	State	Meaning
PWR	On	Power: Power is being supplied.
Slots 1-3	-	The meaning of these LEDs depends on the type of module installed in the corresponding slot. A detailed description can be found in the BIANCA/BRICK-XM User's Guide.
ERR	Blinking	Error: Data transfer problem on one of the slots. Check the cabling.

# Configuration

Configuring your new BRICK involves three simple steps which are described in the following sections.

Gathering the Information (p. 10)

1. First, you will need to know several pieces of information about your network setup. At a minimum you will need to know the information listed in the table shown on the following page. Fill in the fields now and refer to them later when needed.

Accessing the BRICK (p.11)

2. Next, you need to decide whether you want to configure your BRICK over its Ethernet, TokenRing, ISDN, or serial port. The section *Accessing the BRICK* describes the possible ways of gaining access to your new BRICK.

No matter which method you select, you will arrive at an SNMP shell login prompt and can continue with the configuration using the Setup Tool.

Configuration with Setup Tool (p.14)

3. The last step involves logging into the BRICK as **admin**, using the **bintec** password, and issuing **setup** at the shell prompt. Using the Setup Tool is the easiest way to get your BRICK up and running. After logging into the BRICK, use the information you gathered for your local setup, and proceed to the section *Configuration with Setup Tool*.

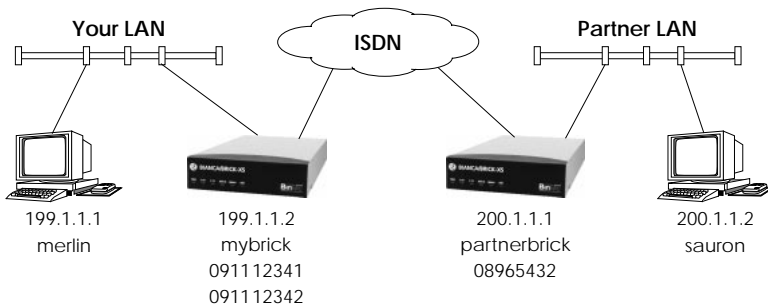
**Caution**

As an ISDN multiprotocol router, BRICK establishes ISDN connections in accordance with the system's configuration. Incorrect or incomplete configuration of your product may cause unwanted charges. The conditions that lead to establishing connections are largely dependent on the respective network configuration.

- To avoid unintentional charges, it is essential that you carefully monitor the product. Observe the LEDs of your product or use the monitoring function in the Setup Tool.
- Use filters to deny certain data packets (cf. page 76). You should be aware that especially in a Windows network broadcasts may establish connections.
- Use the Credits Based Accounting System, as described on page 109, to define a maximum number of ISDN connections and the accounted charges allowed in a certain period of time and thus limit unwanted charges in advance.
- Use the checklist "ISDN connections remain open or are unwanted" on page 176 to prevent the most common causes of unintentional charges.

## Gathering the Information

In the following example network setup, the host *merlin* will be acting as the nameserver and timeserver for *brick*, the BRICK we will be configuring with Setup Tool. The router *partnerbrick* will serve as the remote router for connecting the Partner LAN over ISDN.



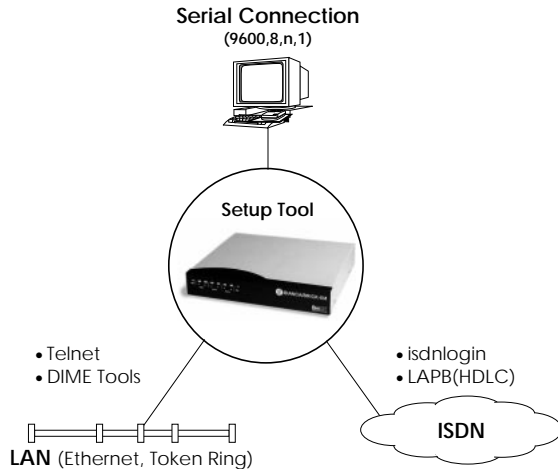
Fill in the table below with the configuration parameters for your local setup, then proceed to the next section.

Parameters	See page	Our example	Your BRICK
License Information	15	-	(see license card)
IP Address	12/16	199.1.1.2	
Hostname	12/16	mybrick	
Your BRICK-XM's ISDN telephone #	19	0911123451 091112342	
Remote router's IP Address	22/26	200.1.1.1	
Remote router's Hostname	20	partnerbrick	
Remote router's ISDN telephone #	20	08965432	
Remote partner's PPP password	20	secret	



## Accessing the BRICK

The BRICK can be configured over any of its interfaces using a variety of methods.



### Access Methods

As shown above, there are several ways of accessing your BRICK once connected to the network interfaces.

- Over a Serial Connection (p. 12)
  - ♦ From a computer or terminal.
- Over Ethernet (p. 12)
  - ♦ From a Windows PC using *DIME Tools*.
  - ♦ From any computer on the LAN using telnet.
- Over ISDN (p. 13)
  - ♦ From a computer connected to another BRICK
  - ♦ Other ISDN stations capable of LAPB (HDLC).

### Setup Tool

The simplest method involves using the **Setup Tool** over a Serial Connection. This method requires a terminal or a computer running a terminal program to be attached directly to the BRICK's serial port.

## Over Serial Port

With a terminal or terminal program (UNIX or PC)

- Connect the computer or terminal using the included cable to the BRICK's serial port.
- Set your communications parameters to: 9600 bps, 8 data bits, no parity, 1 stop bit, software handshake (XON, XOFF) and VT100 terminal emulation.
- After pressing the <Return> key, you should receive a login prompt.

For Windows PCs: You can also use the preconfigured terminal programs *BRICK at COM1/COM2* included in the *BRICKware* suite.

- Continue with the *Configuration with Setup Tool* as described on page 14.

## Over LAN Interface

From a Windows PC using DIME Tools

You can access the BRICK from a Windows PC on the LAN. This requires *BRICKware* and a TCP/IP stack to be installed on a PC on the same LAN segment as the BRICK. Power up your BRICK; then with *DIME Tools* running:

- A *BootP Server* window will open automatically once the PC receives a BOOTP request from the BRICK.
- In this window, enter the BRICK's IP address, netmask, and hostname. The nameserver and timeserver's address can also be set here.
- Using a VT100 compatible telnet program, telnet to your BRICK using the IP address you assigned it with *BootP Server*.
- Continue with the *Configuration with Setup Tool* as described on page 14.

## From any computer using telnet

Once the BRICK is assigned its IP address (i.e. using *BRICKware* and *BootP Server* as mentioned above) you can access the system from any computer on the LAN.

- Using a VT100 compatible telnet program, telnet to the BRICK at its IP address.
- Continue with the *Configuration with Setup Tool* as described on page 14.

## Over ISDN

### From a computer connected to another BRICK

The BRICK automatically configures its ISDN interface at boot time if the system is attached to an ISDN dialup line. You can login to your new BRICK from this computer over ISDN using the *isdnlogin* program.

- Login to your existing BRICK.
- At the shell prompt, issue **isdnlogin** <telno> where *telno* is the ISDN number your new BRICK is connected to.
- Continue with the *Configuration with Setup Tool* as described on page 14.

## Additional Configuration Possibilities

### SNMP shell

Of course, the BRICK can be configured manually from the SNMP shell or by using an external SNMP manager such as *DIME Browser for Windows*. These mechanisms require a greater understanding of the BRICK's internal data structures, SNMP, and the MIB (management information base).

For information on working with the SNMP shell or using *DIME Browser*, refer to the *Software Reference* and *BRICKware for Windows* respectively (both are included on the Companion CD).

### Third party SNMP Manager

The BRICK can also be configured using third party SNMP Managers such as HP OpenView, Sun/Netmanager, and Transview. The Management Information Base implemented on the BRICK must be imported into your SNMP manager. The complete MIB is included on the Companion CD. See your SNMP manager documentation on importing MIBs.

### Configuration with Setup Tool

If you haven't already done so, login to the BRICK now by entering **admin** at the login prompt and **bintec** at the password prompt. Enter **setup** now. Setup Tool's main menu will be displayed as follows.

BIANCA/BRICK-XM Setup Tool	BinTec Communications AG mybrick
<div style="display: flex; justify-content: space-between;"> <span><b>Licenses</b></span> <span>System</span> </div> <p>Slot1:      CM-EBRI, ISDN S0</p> <p>Slot2:      CM-2BRI, ISDN S0, Unit 0                          CM-2BRI, ISDN S0, Unit 1</p> <p>Slot3:      CM-100BT, Fast Ethernet</p> <p>WAN Partner              IP      IPX      PPP                      ISDN      CAPI</p> <p>Configuration Management              Monitoring and Debugging              Exit</p>	
Press <Ctrl-n>, <Ctrl	<div style="border: 1px solid black; border-radius: 10px; padding: 2px 10px; display: inline-block;">Return</div> menu items, <Return> to enter

#### Navigating the Menu



ool menus can be navigated using the fol-



Enters the currently highlighted menu item.



Moves forward and backward between menus and fields.



Scrolls among entries in a list of possible field values.

Selects/unselects (toggles) special fields or scrolls a list of field entries.

Entering two successive Esc characters returns you to the previous menu.



As you move between menus, the lines at the top and bottom of your screen will display status information for the respective menu/field you are currently editing.

## Licenses

Select the [*Licenses*] menu and then [*ADD*] to enter your license information. You will need to enter your *Serial Number*, *Mask* and *Key*, as shown on your License card.

After entering your information and selecting [*SAVE*], the system will display a list of licensed features.



If the system states that the license is “not ok” then you have entered an invalid Serial Number, Mask, and Key combination. Delete the invalid entry (marking the entry for deletion with the spacebar, then selecting delete) and enter your information again.



You can use the <Tab> key to move directly from one field to the next. Useful for moving from a field containing a long list of entries directly to the next field.

Once you have entered your license information, select [*EXIT*] to return to the main menu.

## System

Select [*System*] from the main menu. The only required entries at this time are the first two fields (*System Name* and *Local PPP ID*); this information will be used as the

BRICK's hostname and PPP ID. With the exception of the *admin*, *read*, and *write Password/Community* fields, the other fields are not required and can be edited later. The SNMP Community fields define the passwords that are required for logging into your BRICK via the network.



You can, of course, enter the same name in both fields. In our example both *System Name* and *Local PPP ID* are set to brick (see page 10).

Select [SAVE] to accept the entries and return to the main menu.

### Setting up the LAN Interface

Select [CM-100BT, Fast Ethernet] to configure your ethernet interface. In the following menu you will need to enter the IP address, local netmask<sup>1</sup>, and type of encapsulation to use on your BRICK. For now, you can select Ethernet II encapsulation.

---

1. If you are using a standard netmask (e.g. 255.255.255.0), you can leave this field empty.

The settings for our example setup on page 10 are shown below.

BIANCA/BRICK-XM Setup Tool [SLOT 3 ETHERNET]: Configure Ethernet Interface	BinTec Communications AG mybrick
IP-Configuration	
local IP-Number	<b>199.1.1.2</b>
local Netmask	<b>255.255.255.0</b>
Encapsulation	Ethernet II
IPX-Configuration	
local IPX-NetNumber	0
Encapsulation	none
Bridging	enabled
Advanced Settings >	
SAVE	CANCEL
Enter IP address (a.b.c.d or resolvable hostname)	

Once your entries are correct, select [**SAVE**].

## Setting up the ISDN Interface

Select [*CM-2BRI, ISDN S0, Unit 0*] to configure your ISDN interface. Note that you can configure your ISDN interface either as an ISDN dialup line or as a leased line. Since the menu entries differ slightly depending on what type of ISDN line you are using, continue with the configuration by performing the appropriate section as follows:

- For a *Dialup Line* configuration, refer to pages 18 - 24.
- For a *Leased Line* configuration, refer to pages 24 - 27.

### Dialup Line

Depending on which protocol your ISDN subscriber interface uses and whether or not the ISDN autoconfiguration was successful, the [*CM-2BRI, ISDN S0, Unit 0*] menu may be displayed as follows:

BIANCA/BRICK-XM Setup Tool		BinTec Communications AG	
[SLOT 2 UNIT 0 ISDN BRI]: Configure ISDN Basic Rate Interface		mybrick	
Result of autoconfiguration:	Euro ISDN, point to multipoint		
ISDN Switch Type	<b>autodetect on bootup</b>		
D-Channel	dialup		
B-Channel 1	dialup		
B-Channel 2	dialup		
Advanced Settings >			
Incoming Call Answering >			
SAVE		CANCEL	
Use <Space> to select			

The ISDN autoconfiguration procedure runs until either the proper protocol is detected or the switch type is set manually. If the cables are connected and auto detec-



tion just keeps running, you may have to select the appropriate ISDN protocol manually by scrolling through the entries in the *ISDN Switch Type* field using the spacebar or the left and right arrow keys.

Leaving the Switch Type setting to “autodetect on bootup” usually allows the BRICK to automatically detect the proper ISDN protocol each time the system boots.



To ensure data transfers are possible over ISDN, verify that the autoconfiguration is correct or set your ISDN switch type appropriately.

Once the switch type and channel fields are correct select [*Incoming Call Answering* >].

### Incoming Call Answering

In this menu you will specify how your BRICK responds to incoming ISDN calls and which services it will support.

To enable routing (i.e. to allow IP connections via ISDN calls), use [*ADD*] to create a new entry and select **PPP (routing)** in the *Item* field (using the spacebar). Then enter one of your BRICK’s ISDN numbers (or an EAZ) in the *Number* field.

BIANCA/BRICK-XM Setup Tool		BinTec Communications AG	
[SLOT 2 UNIT 0 ISDN BRI][INCOMING]: Incoming Call Answering		mybrick	
Item	Number	Mode	Username
ADD	DELETE		EXIT



If you want to login to your new BRICK via the *isdnlogin* program, you also need to create an *ISDN Login* entry. A different *Number* must be specified. Normally, this is done by using a different Multiple Subscriber Number (in Euro ISDN) or a different EAZ (for 1TR6).

Once your entries are correct select [EXIT] to return the [CM-2BRI, ISDN S0, Unit 0] menu; select [SAVE] to complete the configuration of the ISDN interface and return to the main menu.

### WAN Partner

Select [WAN Partner]. This menu displays a list of known WAN partners and initially will be empty.

To add a new WAN partner select [ADD]. A menu similar to the following will be displayed. For our example setup, we have already filled in the appropriate fields.

BIANCA/BRICK-XM Setup Tool [WAN][ADD]: Configure WAN Partner	BinTec Communications AG mybrick																
<table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Partner Name</td> <td>partnerbrick</td> </tr> <tr> <td>Encapsulation</td> <td>PPP</td> </tr> <tr> <td>Compression</td> <td>none</td> </tr> <tr> <td>Encryption</td> <td>none</td> </tr> <tr> <td>Calling Line Identification</td> <td>no</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">                     WAN Numbers &gt;                      PPP &gt;                      Advanced Settings &gt;                 </td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">                     IP &gt;                      IPX &gt;                      Bridge &gt;                 </td> </tr> <tr> <td style="text-align: center; padding-top: 10px;">SAVE</td> <td style="text-align: center; padding-top: 10px;">CANCEL</td> </tr> </table>	Partner Name	partnerbrick	Encapsulation	PPP	Compression	none	Encryption	none	Calling Line Identification	no	WAN Numbers > PPP > Advanced Settings >		IP > IPX > Bridge >		SAVE	CANCEL	
Partner Name	partnerbrick																
Encapsulation	PPP																
Compression	none																
Encryption	none																
Calling Line Identification	no																
WAN Numbers > PPP > Advanced Settings >																	
IP > IPX > Bridge >																	
SAVE	CANCEL																
Enter string, max length = 25 chars																	

In the *Partner Name* field, enter a name for this partner; normally the partner's hostname is used. You can specify

the encapsulation to use, and whether or not to compress/encrypt data. Calling Line ID, (CLID) is enabled automatically once you configure an ISDN number (in the next step).

### WAN Numbers

After adding the WAN partner information, select the [*WAN Numbers >*] submenu. This menu lists the WAN numbers this partner can be reached at and initially will be empty. Select [*ADD*] to enter a new WAN number for the partner you just configured.

In the *ISDN number* field, enter the ISDN telephone number your partner's router can be reached at. To take advantage of ISDN's CLID feature, select "both (CLID)" in the *Direction* field.

Select [*SAVE*], and then [*EXIT*] to return to the partner settings menu.

### PPP Settings

Now go into the [*PPP >*] submenu and configure the PPP settings to use for this link. Here we define the type of authentication to use for call setup. In our example we are routing IP traffic, and will use both PAP and CHAP au-

thentication. Then enter the *PPP Password* the remote site must match when performing authentication.

BIANCA/BRICK-XM Setup Tool [WAN][ADD][PPP]: Configure WAN Partner	BinTec Communications AG mybrick
Authentication Partner PPP ID Local PPP ID PPP Password	<b>CHAP + PAP</b> <b>partnerbrick</b> <b>mybrick</b> <b>secret</b>
Keepalives Link Quality Monitoring	off off
OK	CANCEL
Enter string, max length = 25 chars	

Select [OK] to return to the main [WAN Partner] menu.

### IP Partner Configuration

Select the [IP >] submenu and configure the IP parameters for this WAN partner. Depending on whether you are us-

ing a transfer network, enter the IP Network address and netmask<sup>1</sup> for your WAN Partner.

BIANCA/BRICK-XM Setup Tool		BinTec Communications AG	
[WAN][ADD][IP]: IP Configuration (partnerbrick)		mybrick	
IP Transit Network		no	
Partner's LAN IP Address		200.1.1.0	
Partner's LAN Netmask		255.255.255.0	
SAVE		CANCEL	
Enter IP address (a.b.c.d or resolvable hostname)			

Select [SAVE] twice, and then [EXIT] to return to Setup Tool's main menu.

### IP Configuration

From the main menu select [IP]. From the submenus which are displayed select [Routing]. This menu displays a list of routes known to the BRICK. Initially, the list will be empty. Select [ADD] to create a new default route. Your display will be similar to the menu shown below.

In the *Route Type* field, select "Default route".

In the *Network* field select the appropriate entry (using the spacebar) to specify whether the default route should be over the LAN or WAN. For WAN routes, select the appropriate entry depending on whether you are using a transfer network.

In the *Partner / Interface* field select the partner name the default route leads to. For our example, we added a

- 
1. If you are using a standard netmask (e.g. 255.255.255.0), you can leave this field empty.

**default route without a transfer network to partnerbrick via ISDN.**

BIANCA/BRICK-XM Setup Tool		BinTec Communications AG	
[IP][ROUTING][ADD]: Configure IP Routes		mybrick	
Route Type	Default route		
Network	WAN without transit network		
Partner / Interface	partnerbrick		
Metric	1		
SAVE		CANCEL	
Use <Space> to select			

Then select [SAVE] and then [EXIT] until you return to the main menu.

Your configuration is almost complete. Now proceed to the section *Saving your Configuration* on page 27.

**Leased Line**

If you connected your BRICK to an ISDN leased line, the WAN Interface submenu will appear similar to the following except that the *ISDN Switch Type* field will display “autodetect on bootup” and each of the channel fields will be set as “dialup” channels.

To configure the BRICK’s ISDN interface for use with a leased line you will need to set the ISDN Switch Type, and D and B channel fields manually.

Scroll through the entries in the *ISDN Switch Type* field and select the entry for the number or channels your ISDN line uses. Upon exiting this field the cursor will jump to the first channel used. For each channel used, specify which mode the channel should operate in.

BIANCA/BRICK-XM Setup Tool [SLOT 2 UNIT 0 ISDN BRI]: Configure ISDN Basic Rate Interface		BinTec Communications AG mybrick	
Result of autoconfiguration:	autoconfiguration disabled		
ISDN Switch Type	<b>leased line B1 channel (64s)</b>		
D-Channel	not used		
B-Channel 1	leased dte		
B-Channel 2	not used		
Incoming Call Answering > Advanced Settings >			
SAVE		CANCEL	
Use <Space> to select			

Once your entries are correct, select [SAVE] to return to the main menu.

### WAN Partner

Select [WAN Partner] from the main menu. Select the "Leased, Slot 2 (0)" partner name. A menu similar to the following will be displayed.

BIANCA/BRICK-XM Setup Tool [WAN][ADD]: Configure WAN Partner		BinTec Communications AG mybrick	
Partner Name	<b>Leased, Slot 2 (0)</b>		
Encapsulation	PPP		
Compression	none		
Encryption	none		
Calling Line Identification	no		
WAN Numbers > PPP > Advanced Settings >			
IP > IPX > Bridge >			
SAVE		CANCEL	
Enter string, max length = 25 chars			

### IP Partner Configuration

Select the *[IP >]* submenu to set the IP parameters for this WAN partner. Depending on whether you are using a transfer network, enter the IP Network address and netmask<sup>1</sup> for your WAN Partner’s LAN.

As shown on the following page we added the IP address and netmask for partnerbrick. No transit network is needed in our example.

When ready, select *[SAVE]* twice, and then *[EXIT]* to return to the main menu.

BIANCA/BRICK-XM Setup Tool		BinTec Communications AG
[WAN][ADD][IP]: IP Configuration (Leased, Slot 2 (0))		mybrick
IP Transit Network		no
Partner’s LAN IP Address		200.1.1.0
Partner’s LAN Netmask		255.255.255.0
SAVE		CANCEL
Enter IP address (a.b.c.d or resolvable hostname)		

### IP Configuration

From the main menu select *[IP]*. From the submenus which are displayed select *[Routing]*, then *[ADD]* to add a default route for the BRICK to use.

In the *Route Type* field, select “Default route”. In the *Network* field specify whether the default route should be over the LAN or WAN. For WAN routes, select the appropriate entry depending on whether you are using a trans-

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1. If you are using a standard netmask (e.g. 255.255.255.0), you can leave this field empty.



fer network. In the *Partner / Interface* field select the partner name the default route leads to. For our example we added a default route without a transfer network to partnerbrick via ISDN. (See the following page).

BIANCA/BRICK-XM Setup Tool [IP][ROUTING][ADD]: Configure IP Routes		BinTec Communications AG mybrick
Route Type Network	Default route WAN without transit network	
Partner / Interface	Leased, Slot 2 (0)	
Metric	1	
	SAVE	CANCEL
Use <Space> to select		

Then select [SAVE]. Return to the main menu by selecting [EXIT] twice. Your configuration is almost complete. Now proceed to the next section *Saving your Configuration*.

## Saving your Configuration

Once you have finished configuring either your ISDN dialup or leased line, select [Exit] from the main menu.

For an initial configuration you should select [Save as boot configuration and exit]. Your initial configuration is now complete and is saved in a flash ROM file named "boot". You are then returned to the BRICK's SNMP shell prompt.



The configuration file saved as "boot" will be used upon each new system start.

For information on configuration management and the transfer of configuration files to/from remote hosts via TFTP refer to the *BRICK User's Guide*.

## Testing your Configuration

**LAN Test** To test your new configuration try issuing a simple ping command to a PC on the BRICK's LAN to verify the LAN interface is properly configured. In our example, we would issue:

```
ping -c 5 199.1.1.1
```

If the LAN portion of the configuration was successful you should receive output similar to the following:

```
PING 199.1.1.1: 64 date bytes
64 bytes from 199.1.1.1: icmp_seq=0. time=8. ms
64 bytes from 199.1.1.1: icmp_seq=1. time=1. ms
64 bytes from 199.1.1.1: icmp_seq=2. time=1. ms
64 bytes from 199.1.1.1: icmp_seq=3. time=1. ms
64 bytes from 199.1.1.1: icmp_seq=4. time=1. ms
----199.1.1.1 PING Statistics----
5 packets transmitted, 5 packets received, 0% packet loss
round-trip (ms) min/avg/max = 1/2/8
```

**ISDN Test** To verify the ISDN portion of the configuration is correct, try the same command using the IP address of the remote router (200.1.1.1 in our example) or a host on the remote LAN.

If the ping command to the remote router is successful, try issuing another ping command using the IP address of a computer on the remote partner's LAN.

Once all ping commands are successful, your configuration is complete.

## Troubleshooting

If any of the ping commands are unsuccessful, refer to the *Troubleshooting* chapter in the *BRICK User's Guide*.

## Getting the latest BRICK News and Software

Now that your BRICK is up and running, you might like to visit our WWW site at

*<http://www.bintec.de>*

to keep abreast of new developments at BinTec Communications AG.

Via our WWW server BinTec provides you free of charge with the most recent versions of:

- User documentation for your BinTec software and hardware in Portable Document Format (PDF).
- System software for your BRICK.



You will find instructions on how to update system software in the User's Guide, chapter 8, section *Upgrading System Software*.

- Release notes for upgrading your BRICK's system software.
- Windows software and UNIX Tools applications.

