

## **bintec Workshop**

### **DIME tools**

**Purpose** This document is part of the user's guide to the installation and configuration of bintec gateways running software release 7.1.4 or later. For up-to-the-minute information and instructions concerning the latest software release, you should always read our **Release Notes**, especially when carrying out a software update to a later release level. The latest **Release Notes** can be found at [www.funkwerk-ec.com](http://www.funkwerk-ec.com).

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**Guidelines and standards** bintec gateways comply with the following guidelines and standards:

R&TTE Directive 1999/5/EG

CE marking for all EU countries and Switzerland

You will find detailed information in the Declarations of Conformity at [www.funkwerk-ec.com](http://www.funkwerk-ec.com).

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# Introduction

The configuration of the DIME Tools is described in the following chapters. This includes the services for the TFTP Server, Time Server, Syslog Daemon and BootP Server.

## .1 Requirements

The following is required for the configuration:

- **Brickware** version 7.1.1 or later must be installed.



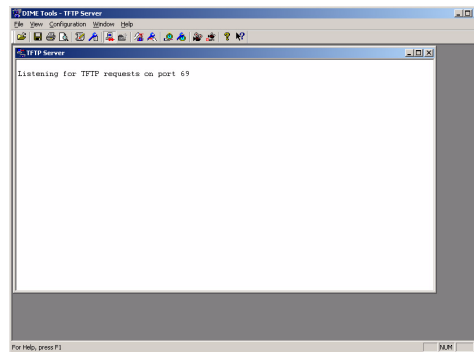
# Configuration

To configure the DIME Tools, start the following program under Windows:

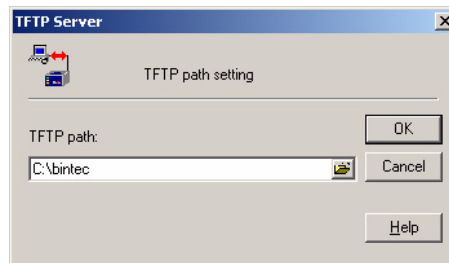
**START → PROGRAM → BRICKWARE → DIME TOOLS**

## .1 TFTP Server

The TFTP server is used to transfer files between router and computer, e.g. for configuration management or updates. In this example, you use the TFTP server to load an update to the router. Make sure the TFTP server is running once you have opened the DIME Tools. Start the TFTP server by pressing the key combination **CTRL + T**.



To assign the TFTP server a directory, e.g. for saving files, you can enter a path under **CONFIGURATION → TFTP SERVER**.



You run the update from the router shell. Enter the following, for example, if your TFTP server's IP address is *192.168.0.2* and the update file name is *vpn25-s7112.v3a*:

```
update 192.168.0.2 vpn25-s7112.v3a
```

You then receive the following message in the router:

```
Starting TFTP File Transfer ..... OK (3417978 Bytes received)
Checking new Boss Image ... OK

Your current software release is 7.1.6.
Loaded new Boss Image has release 7.1.12.

The update will take approximately 1 minute.

*** Don't power-off while the update takes place ***

Perform update (y or n) ? y

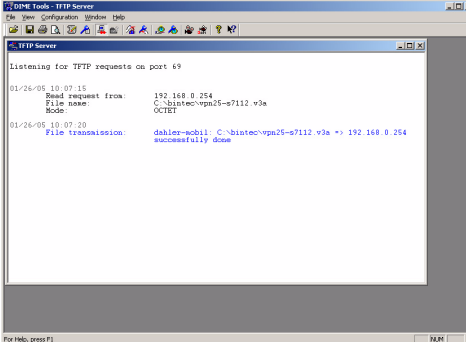
Updating Boss
Erasing Flash ROM ..... OK
Writing Flash ROM ..... OK
Verify Flash ROM ..... OK

Software update successfully finished

Reboot now (y or n) [n] ?
```

■ Answer all questions with **y** to carry out the update.

The TFTP server looks like this if the file has been transferred successfully:



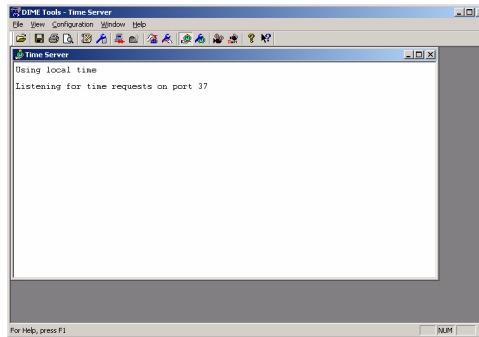
```
DIME Tools - TFTP Server
File Transfer Configuration: Settings (Help)
TFTP Server
Listening for TFTP requests on port 69
01/26/05 10:07:15
  Read request from: 192.168.0.254
  File name: C:\bintec\vpn25-s7112.v3a
  Mode: OCTET
01/26/05 10:07:20
  File transmission: dahlex-sobill: C:\bintec\vpn25-s7112.v3a -> 192.168.0.254
  successfully done
For Help, press F1
```



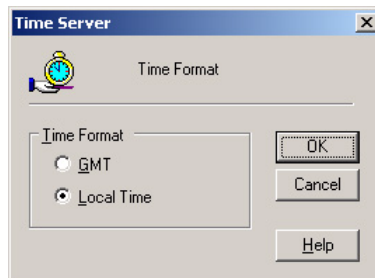
## .2 Time Server

The time server is used to synchronize the network time to PCs or routers. Make sure the time server is running once you have opened the DIME Tools.

Start the time server by pressing the key combination **CTRL + M** in the DIME Tools.



You can configure the time server under **CONFIGURATION → TIME SERVER**.



The following fields are relevant:

Field	Meaning
GMT	Select this item if you wish to use Greenwich Mean Time.
Local Time	Select this item if you want the time server to transfer local time.

Table -1: Relevant fields in **CONFIGURATION → TIME SERVER**

- Go to **IP → STATIC SETTINGS** to configure the time server in the router.

VPN Access 25 Setup Tool		Bintec Access Networks GmbH	
[IP] [STATIC]: IP Static Settings		Head Office	
Domain Name			
Primary Domain Name Server			
Secondary Domain Name Server			
Primary WINS			
Secondary WINS			
Time Protocol		TIME/UDP	
Time Offset (sec)		0	
Time Update Interval (sec)		86400	
Time Server		192.168.0.2	
Remote CAPI Server TCP port		2662	
Remote TRACE Server TCP port		7000	
RIP UDP port		520	
Primary BOOTP Relay Server			
Secondary BOOTP Relay Server			
Unique Source IP Address			
HTTP TCP port		80	
SAVE			CANCEL
Enter string, max. length = 35 chars			

The following fields are relevant:

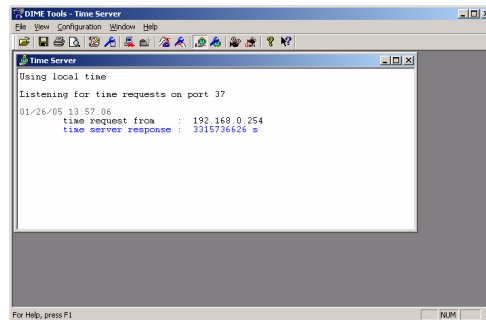
Field	Meaning
Time Protocol	For selecting the time protocol for the time server.
Time Offset (sec)	For adjusting the hours for time offset.
Time Update Interval (sec)	Define the synchronization interval.
Time Server	Enter an IP address for the time server.

Table -2: Relevant fields in **IP → STATIC SETTINGS**

Proceed as follows to configure the entry:

- Set **TIME PROTOCOL**, e.g. to **TIME/UDP**.
- Set **TIME OFFSET (SEC)**, e.g. to **0**.
- Set **TIME UPDATE INTERVAL (SEC)**, e.g. to **86400**.
- The IP address of the **TIME SERVER** is, for example, **192.168.0.2**.

You receive the following message in the time server if time synchronization is successful:



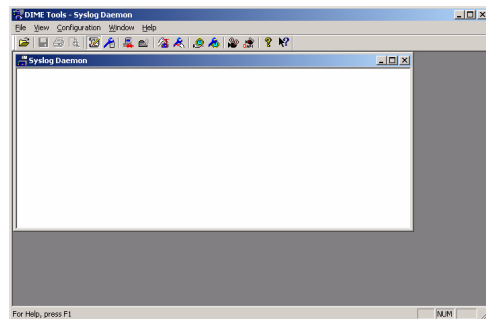
```

DIME Tools - Time Server
File View Configuration Window Help
Time Server
Using local time
Listening for time requests on port 37
01/26/05 13:57:06
time request from : 192.168.0.254
time server response : 3315736626 s
For Help, press F1
  
```

### .3 Syslog Daemon

The Syslog Daemon is used to log the debug messages and accounting information on a computer. Make sure the Syslog Daemon is running once you have opened the **DIME Tools**.

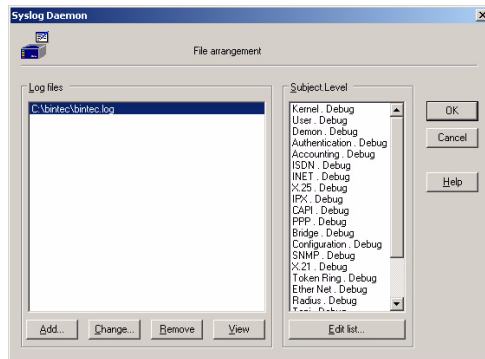
Start the Syslog Daemon by pressing the key combination *CTRL + L* in the **DIME Tools**.



```

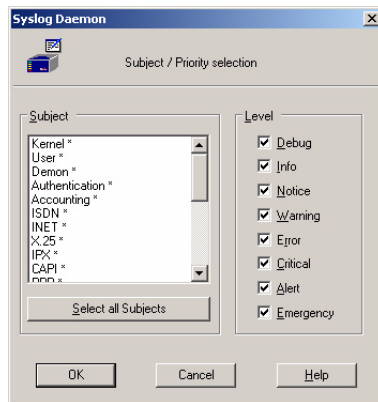
DIME Tools - Syslog Daemon
File View Configuration Window Help
Syslog Daemon
For Help, press F1
  
```

The configuration is made in the **CONFIGURATION → SYSLOG DAEMON** menu.



Proceed as follows to configure an entry:

- Click **Add** and enter a file name, e.g. *bintec.log*.
- Go to the **Edit List** field to continue the configuration.



Proceed as follows if you would like to log all the messages sent by the router:

- Click the **Select all Subjects** field.
- Tag *Debug*.
- Leave both windows by pressing **OK**.

You must add an entry in the following menu to make the router send the debug messages to the Syslog server:

- Go to **SYSTEM** → **EXTERNAL SYSTEM LOGGING** → **ADD**.

VPN Access 25 Setup Tool [SYSTEM] [LOGGING] [ADD]	Bintec Access Networks GmbH Head Office
Log Host	192.168.0.2
Level	debug
Facility	local0
Type	all
Timestamp	none
SAVE	CANCEL

The following fields are relevant:

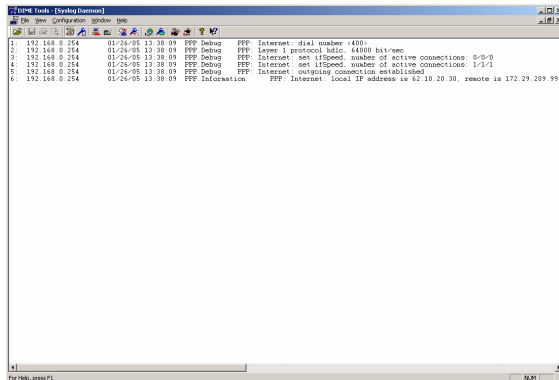
Field	Meaning
Log Host	Enter the IP address of the Syslog server.
Level	Select the type of messages you wish to send.

Table -3: Relevant fields in **SYSTEM** → **EXTERNAL SYSTEM LOGGING** → **ADD**

Proceed as follows to configure the entry:

- Enter the IP address of the server under **LOG HOST**, e.g. *192.168.0.2*.
- Set **LEVEL** to *debug*.

If the router is active, you should now receive a number of messages in the Syslog server window.



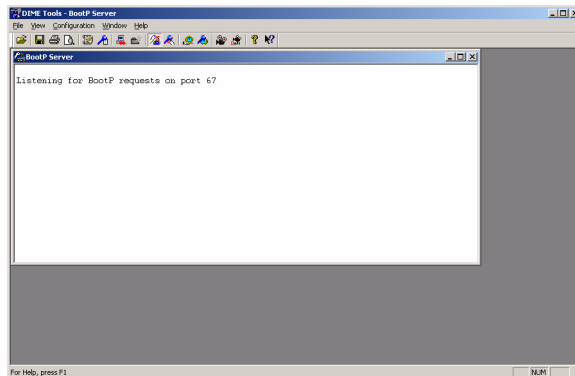
```

DIME Tools - Dime (Command)
File View Configuration Window Help
PPP Internet: dial number 4000
1: 192.168.0.254 01/26/05 13:38:09 PPP Debug PPP Internet: protocol hdlrc: 44000 bit/sec
2: 192.168.0.254 01/26/05 13:38:09 PPP Debug PPP Internet: set lISpeed: number of active connections: 0/0/0
3: 192.168.0.254 01/26/05 13:38:09 PPP Debug PPP Internet: set lISpeed: number of active connections: 1/1/1
4: 192.168.0.254 01/26/05 13:38:09 PPP Debug PPP Internet: outgoing connection established
5: 192.168.0.254 01/26/05 13:38:09 PPP Information PPP Internet: local IP address is 87.20.20.30, remote is 172.29.209.99
6: 192.168.0.254 01/26/05 13:38:09 PPP Information
  
```

## .4 BootP Server

The BootP server gives you the possibility of transferring an IP address or a complete configuration to a Bintec router in the ex works state during booting. Make sure the BootP server is running once you have opened the DIME Tools.

Start the BootP server by pressing the key combination **CTRL + B** in the **DIME Tools**.



```

DIME Tools - BootP Server
File View Configuration Window Help
BootP Server
Listening for BootP requests on port 67
  
```

You can save defaults for individual routers for transferring complete configurations in the following menu:

**CONFIGURATION → BOOTP SERVER**

The following fields are relevant:

Field	Meaning
Name	Give the router a system name.
IP Address	Enter the IP address of the LAN interface.
Hardware Address	Enter the MAC address of the router.
Net Mask	This is the subnetwork mask that belongs to the IP address.
Browse	Enter a file name for the configuration you wish to transfer to the router.

Table -4: Relevant fields in **CONFIGURATION → BOOTP SERVER**

Proceed as follows to configure the entry:

- Enter **NAME**, e.g. *Bintec1*.
- Enter the IP address under **IP ADDRESS**, e.g. *192.168.0.1*.
- Enter **HARDWARE ADDRESS**, e.g. *00:A0:F9:03:26:A9*.
- The **NET MASK** is, for example, *255.255.255.0*.
- Select the configuration file under **BROWSE**, e.g. *VPN25.cf*.

- Leave both windows by pressing **OK**.

When you restart the Bintec router, it receives an IP address from the BootP server during booting.

**Note**

The configuration you transfer via BootP must be located in the TFTP server directory.

Please do not forget to start the TFTP server if you wish to transfer a file.