

SPEEDTOUCH 510

Operator's Guide

Multi—User ADSL Gateway



Status Released

Change Note CP E ed 00029

Short Title CD-OG AST510

All rights reserved. Passing on and copying of this document, use and communication of its contents not permitted without written authorization from Alcatel.

Contents

1	About this Operator's Guide	5
2	Customization and Localization Concepts	7
2.1	The SpeedTouch DEMO CD-Rom	9
2.2	.ini and .def Files	12
2.3	st.cfg Files	15
2.4	The DEMO Configuration Files	21
3	Configuration Profile Files	27
3.1	General Contents of a Configuration Profile File	28
3.2	The [env.ini] Paragraph	32
3.2.1	Reserved Variables	33
3.2.2	Preset Variables	36
3.2.3	Customization Variables	37
3.2.4	Groups	41
3.3	The [<configuration>.ini] Paragraphs	44
3.3.1	[<configuration>.ini] and the CLI	46
3.3.2	Use of Customization Variables as TAGS	48
3.4	Configuration Profile Recommendations	49
3.4.1	General Recommendations	49
3.4.2	The SpeedTouch System Password	51
3.4.3	Correct Use of Variables	53

1 About this Operator's Guide

Introduction The purpose of this document is to describe the customization and localization possibilities of the **SpeedTouch™510** Multi-User ADSL Gateways.

The extended customization possibilities of the **SpeedTouch™510** Multi-User ADSL Gateways allow the Service Provider to provide the end-customer with a product that can easily be installed with a minimum need for user interaction, though perfectly suits the configurational needs of the Service Provider's service requirements.

Applicability This document is applicable for the following **SpeedTouch™** DSL products:

- ▶ **SpeedTouch™510** Multi-User ADSL/POTS Gateway
- ▶ **SpeedTouch™510i** Multi-User ADSL/ISDN Gateway.

For readability, both are referred to as **SpeedTouch™** throughout this document.

More information In this Operator's Guide it is assumed that the reader is familiar with the **SpeedTouch™** DSL products. For more information you can check the SpeedTouch™ support web pages at:

<http://www.speedtouch.com>

Directive Unless expressly and unambiguously approved by THOMSON multimedia, you may not:

- ▶ disassemble, de-compile, reverse engineer, trace or otherwise analyze the equipment, its content, operation, or functionality, or otherwise attempt to derive source code (or the underlying ideas, algorithms, structure or organization) from the equipment or from any other information provided by THOMSON multimedia, except to the extent that this restriction is expressly prohibited by local law;
- ▶ copy, rent, loan, re-sell, sublicense, or otherwise transfer or distribute the equipment to others;
- ▶ modify, adapt or create a derivative work of the equipment;
- ▶ remove from any copies of the equipment any product identification, copyright or other notices;
- ▶ disseminate performance information or analysis (including, without limitation, benchmarks) from any source relating to the equipment.

Such acts not expressly approved by THOMSON multimedia will result in the loss of product warranty and will invalidate the user's authority to operate this equipment.

THOMSON multimedia disclaims all responsibility in the event of use that does not comply with the present instructions.

Trademarks The following trademarks are used in this document:

- ▶ SpeedTouch™ is a trademark of THOMSON multimedia
- ▶ Microsoft, Windows , MS-DOS and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation
- ▶ Apple and MacOS are registered trademarks of Apple Computer, Inc.
- ▶ Adobe, the Adobe logo and Acrobat Reader are trademarks of Adobe Systems, Inc.
- ▶ UNIX is a registered trademark of UNIX System Laboratories, Inc.
- ▶ Netscape and Netscape Navigator are registered trademarks of Netscape Communications Corporation.

Other products may be trademarks or registered trademarks of their respective manufacturers.

2 Customization and Localization Concepts

Introduction The concepts described in this Operator's Guide aim to provide an answer to the growing demand for customization and localization possibilities in order to improve and simplify the way end-users must configure their SpeedTouch™ product for end-to-end connectivity according to the requirements of the Service Provider.

The main goals of these concepts are:

- ▶ For the Service Provider:
 - Provide a way to prepare a customized CD-Rom, concentrating on the actual needs of its connection service provisioning
 - Allow to maximize its survey on the end-user's configuration possibilities
 - Allow to provide a company-own look-and-feel of the Graphical User Interface (GUI) towards the end-user.
- ▶ For the end-user:
 - Provides a "Plug-and-Play" look-alike installation
 - Minimize the interaction needed in order to configure the **SpeedTouch™** according the Service Provider's needs
 - Minimize the interaction needed for configuring the end-user's PC(s)
 - Improve the way end-users can upgrade their configuration whenever needed.

Tools to achieve these goals To allow the **SpeedTouch™** to meet these requirements and goals, the following tools are provided:

- ▶ Ease-of-Configuration Concept
 - ▶ Customizable configuration profile files
 - ▶ Customizable Service Provider's Default files
 - ▶ Customizable MS Windows focussed SpeedTouch™ Setup wizard
 - ▶ Auto-detection via proprietary protocol
 - ▶ Discovery and Presentation support of UPnP.
-

**Ease-of-Configuration
Concept**

By guiding the end-user through a Service Provider defined “standard” procedure, misconfiguration, regardless of the required settings, is avoided, both of the **SpeedTouch™** and the end-user’s PC(s).

**Customizable
configuration profile
files**

The procedures the end-user has to follow can be defined and constructed by the Service Provider via the customization of a configuration profile file.

Optionally, by providing not one, but several of these configuration profile files, the Service Provider is able to fine-tune its offered services on the end-user’s needs. Allowing him to select a best suited configuration from a list of services, individual needs of the end-user are fulfilled, yet the Service Provider’s service is assured.

**Customizable Service
Provider Default files**

In case something goes wrong, not only at time of configuration but also afterwards, the Service Provider can prepare a file which allows end-users to return the **SpeedTouch™** to Service Provider defined default settings, without the need of a complete reconfiguration.

**MS Windows Setup
wizard**

The customized configuration profile and Service Provider default files work in close conjunction with the SpeedTouch™ Setup wizard.

This wizard, designed to work on all MS Windows OSs from MS Windows 95 up to MS Windows XP, provides an “installation wizard”-alike configuration, thus avoiding confusion and misconfiguration.

Moreover, some items of the SpeedTouch™ Setup wizard can be customized and localized by the Service Provider such that the interaction between the wizard and the end-user is optimized.

Auto-detection

The SpeedTouch™ Setup wizard is able to detect and configure available SpeedTouch™ devices without any need of IP configuration.

**UPnP Discovery and
Presentation**

Via the discovery and presentation support of *Universal Plug and Play (UPnP)* MS Windows ME and XP users are notified of the presence of SpeedTouch™ device(s) in their subnet by means of a dedicated system tray and network neighborhood icon.

2.1 The SpeedTouch DEMO CD-Rom

Introduction This Operator's Guide is accompanied by a SpeedTouch™ DEMO CD-Rom.

This non-customized DEMO CD-Rom can be used as a master from which the Service Provider can derive a customized Setup CD-Rom.

DEMO CD-Rom Structure The DEMO CD-Rom consists of three OS dependent partitions:

- ▶ An MS Windows OS compatible partition:
This partition is visible to MS Windows OS systems only
- ▶ A Mac OS compatible partition:
This partition is visible to Mac OS systems only
- ▶ A Linux/UNIX OS compatible partition:
This partition is visible to Linux/UNIX OS systems only.

Contents of the MS Windows OS partition The MS Windows OS root-partition of the CD-Rom inventory includes next to some required system files (**autorun.inf**, **shfolder.dll**):

- ▶ **Setup.exe**
Executable CD-Rom browser
- ▶ **SetupST.exe**
Executable SpeedTouch™ Setup wizard application
- ▶ **st.cfg**
Wizard customization and localization config file
- ▶ **ReadUsersGuide.exe**
Executable application for starting Acrobat Reader and opening **SpeedTouch™** documentation files
- ▶ **Acrobat** folder
Folder which contains the Adobe Acrobat Reader Installation files
- ▶ One or more (sub-)language folders containing per language customization and localization files and **SpeedTouch™** documentation files
- ▶ **Copyright.txt**
Copyright text file
- ▶ DEMO configuration files.

Contents of the Mac OS partition

The Mac OS root-partition of the CD-Rom inventory includes:

- ▶ **SpeedTouch™** documentation (PDF format) file(s)
- ▶ **Acrobat** folder
Folder which contains the Adobe Acrobat Reader Installation files
- ▶ **Copyright.txt**
Copyright text file
- ▶ DEMO configuration files.

Contents of the Linux/UNIX OS partition

The Linux/UNIX OS root-partition of the CD-Rom inventory includes:

- ▶ **SpeedTouch™** documentation (PDF format) file(s)
- ▶ **Acrobat** folder
Folder which contains the Adobe Acrobat Reader Installation files
- ▶ **Copyright.txt**
Copyright text file
- ▶ DEMO configuration files.

Master Custom MS Windows OS CD-Rom

The Master CD-Rom for MS Windows OSs derived from the DEMO CD-Rom MS Windows OS root-partition must contain the following items for proper functionality:

- ▶ The required system files (**autorun.inf**, **shfolder.dll**):
- ▶ **Setup.exe**
- ▶ **SetupST.exe**
- ▶ **ReadUsersGuide.exe** (and appropriate documentation file(s))
- ▶ **Acrobat** folder, appropriate for local language(s)
- ▶ **copyright.txt**

Optionally the following additional items may be available:

- ▶ **st.cfg**
- ▶ One or more (sub-)language folders with per language customization and localization items
- ▶ One or more customized configuration profile files (.ini)
- ▶ Optionally, one or more default settings files (.def)
- ▶ Optionally, one or more graphics customization folders.

Customization and localization wizard hierarchy

The SpeedTouch™ Setup wizard supports multiple languages. When starting, the SpeedTouch™ Setup wizard uses the language as defined by the MS Windows Operating System (taking into account both language and sub-language). In case the language is not available, it uses the default sub-language of that language, if it is available. In case even the default sub-language is not available the SpeedTouch™ Setup wizard uses the default English language.

By default the SpeedTouch™ Setup wizard will look for the configuration profile files and the **st.cfg** customization and localization file in the subdirectory associated with the language the wizard is running in. In case the subdirectory does not exist or in case it is empty, the configuration profile files and the **st.cfg** customization and localization file from the root-partition are used.

Generally speaking, file(s) located in a language folder have a higher priority than the "general fall-back" file(s) located in the same directory as the SpeedTouch™ Setup wizard application (**SetupST.exe**), i.e. the MS Windows root-partition of the CD-Rom.

Master Custom Mac OSs CD-Rom

The Master CD-Rom for Mac OSs derived from the DEMO CD-Rom Mac OS root-partition may contain the following items:

- ▶ Appropriate documentation file(s)
 - ▶ **Acrobat** folder
 - ▶ **copyright.txt**
 - ▶ one or more customized configuration profile files (.ini).
-

Master Custom Linux/UNIX OSs CD-Rom

The Master CD-Rom for Linux/UNIX OSs derived from the DEMO CD-Rom Linux/UNIX OS root-partition may contain the following items:

- ▶ Appropriate documentation file(s)
 - ▶ **Acrobat** folder
 - ▶ **copyright.txt**
 - ▶ One or more customized configuration profile files (.ini).
-

2.2 .ini and .def Files

DEMO configuration files

The customized configuration profile file(s) and accompanying Service Provider Default settings file(s) should be derived from one (or more) of the following DEMO configuration files, available on the MS Windows root-partition of the DEMO CD-Rom:

- ▶ **Bridge_dhcp.ini**
- ▶ **Bridge_Fixed_IP.ini**
- ▶ **Bridge_Fixed_IP_Manual.ini**
- ▶ **MER_fixed_IP_napt_dhcp.ini**
- ▶ **MER_wan_dhcp_client_napt_dhcp.ini**
- ▶ **PPTP_dhcp_dns.ini**
- ▶ **PPPoA_ipcp_subnetmask.ini**
- ▶ **PPPoA_napt_dhcp_dns.ini**
- ▶ **PPPoA_dhcp_spoof.ini**
- ▶ **PPPoE_ipcp_subnetmask.ini**
- ▶ **PPPoE_napt_dhcp_dns.ini**

In section 2.4 the service settings of all these files is described.

.ini files

Files with extension **ini** are the configuration profile files.

Each of these files represents a specific service profile. Once selected via the wizard, this file will determine the wizard procedure and will be used to configure the **SpeedTouch™**.

In case this file is directly uploaded via the **SpeedTouch™** Upgrade web page, the default values the Service Provider configured in the file will be applied to ensure Internet connectivity.

.def files

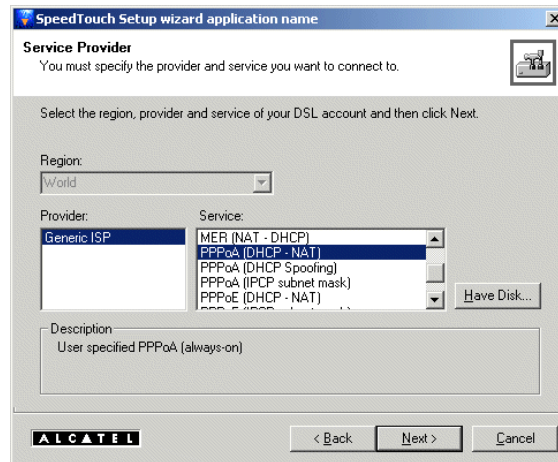
Files with extension **def** are only applicable in case the end-user uses the **SpeedTouch™** Setup wizard to configure the **SpeedTouch™**. The wizard uses such files as Service Provider Default settings file. The wizard will copy the appropriate .def file onto the **SpeedTouch™** during configuration. From then on a "soft" reset-to-defaults via the **SpeedTouch™** web pages will in fact imply a reset-to-ISP-defaults.

Editing .ini files

Editing .ini and .def files must always be done via the MS Windows Notepad application. Do NOT edit .ini files using a Mac or Linux/UNIX text editor.

The SpeedTouch™ .ini files

When using the Setup wizard it will present the end-user all available configuration profiles via the following selection window:



The end-user can define its appropriate configuration profile from following subsequent selections:

- ▶ Region (set by reserved variable **CONF_REGION**)
Presents the available regions to select from
- ▶ Provider (set by reserved variable **CONF_PROVIDER**)
Presents the available Service Providers for the selected region
- ▶ Service (set by reserved variable **CONF_SERVICE**)
Presents the available Services for the selected Service Provider.

When customizing a .ini file the Region, Provider and Service strings are defined by settings the corresponding reserved variables: See subsection 3.2.1 for more information.

Once the configuration profile is selected by the end-user, the Setup wizard will continue using this .ini file. During the following wizard steps the .ini file will be completed with the possible user-inputs. At the end of the Setup wizard procedure the completed .ini file is copied onto the **SpeedTouch™**.

The SpeedTouch™ .def files

As mentioned before, at the end of the Setup wizard procedure, the wizard will copy the completed .ini file to the **SpeedTouch™** device. In case one or more .def files are present, the accompanying .def file is also copied and will be used in case a “soft” reset-to-defaults of the **SpeedTouch™** is invoked by the end-user.

The following .def files are possible:

- ▶ **isp.def**
General Defaults file. If present, this file overrules all other .def files.
- ▶ **<Provider name>.def**
These .def files will only be used in case no **isp.def** is available and a configuration profile was selected from Provider <Provider name>. I.e. the file name of the .def file must be an exact matching string with the definition of the reserved variable **CONF_PROVIDER**.
- ▶ **<.ini configuration profile file name>.def**
These .def files will only be used in case no **isp.def** is present and a configuration profile was selected with no corresponding <Provider name>.def file, but with the same file name <.ini configuration profile file name> as the .def file.

This allows the Service Provider to provide a customized reset-to-defaults default configuration:

- ▶ Per selected configuration profile
For each .ini file one corresponding <.ini configuration profile file name>.def can exist.

OR

- ▶ Per selected Provider
For each Provider name (set by **CONF_PROVIDER** in the available .ini files) one corresponding <Provider name>.def can exist.

OR

- ▶ One general **isp.def** file is valid for all available configuration profile.

None of the .def files is required. However it is advised to provide at least an **isp.def** file in case no other .def files are placed on the customized Setup CD-Rom.

2.3 st.cfg Files

Customization of the SpeedTouch™ Setup wizard

The **st.cfg** file allows customization and localization of the SpeedTouch™ Setup wizard and SpeedTouch™ documentation delivered on the CD-Rom.

st.cfg file contents

An **st.cfg** file is an ASCII text file consisting of a set of SpeedTouch™ Setup wizard customization commands and file references.

The following is an example of the DEMO **st.cfg** file as provided in the MS Windows root-partition of the DEMO CD-Rom:

```
[ Setup Wizard ]
'Language=0x0409 English
'Language=0x040a Spanish
'Language=0x0413 Dutch
'Language=0x0407 German
'Language=0x040c French
'Language=0x0410 Italian
'Language=0x0416 Portuguese
'Language=0x041d Swedish

'ShowLogo=0

>WelcomeTitle=Welcome to the SpeedTouch Setup Wizard
>WelcomeSubTitle=This Wizard helps you configure your
SpeedTouch.
'AppName=SpeedTouch Setup Wizard

'AppImage=AppImage.bmp
'AppIcon=SetupST.ico
'SetupIcon=SetupIcon.bmp
'SetupIconInternal=SetupIconInternal.bmp
'SpeedTouchLogo=SpeedTouchLogo.bmp

[ Read User's Guide ]
'Language=0x0409 English
'Language=0x040a Spanish
'Language=0x0413 Dutch
'Language=0x0407 German
'Language=0x040c French
'Language=0x0410 Italian
'Language=0x0416 Portuguese
'Language=0x041d Swedish

English=User's Guide.pdf
Dutch=User's Guide_nl.pdf
German=User's Guide_de.pdf
French=User's Guide_fr.pdf
Italian=User's Guide_it.pdf
Portuguese=User's Guide_pt.pdf
Swedish=User's Guide_sw.pdf
Spanish=User's Guide_sp.pdf
```

Applicability of the st.cfg file

Note that the customization and localization done via the **st.cfg** file makes only sense for the SpeedTouch™ Setup wizard application and should therefore only reside in the MS Windows partition (sub)directory of the customized CD-Rom.

General use of st.cfg files

st.cfg files can be located in the root-directory of the MS Windows root-partition, or in one or more sub-language folders.

By default the SpeedTouch™ Setup wizard will look for the **st.cfg** customization and localization file in the subdirectory associated with the language the wizard is running in. In case the subdirectory does not exist or in case it is empty, the **st.cfg** customization and localization file from the root-partition are used.

Comments

Comments can be added in the file, but must be preceded by `'`, e.g.:

```
'This is some comment
```

Comments are discarded by the SpeedTouch™ Setup wizard.

For example, all (exemplary) lines in the **st.cfg** file provided on the DEMO CD-Rom are comments.

[Setup Wizard] paragraph

The **[Setup Wizard]** paragraph may contain one or more of the following customization and localization items:

► **Language=<Language code>**

To select in which language the SpeedTouch™ Setup wizard GUI will appear in case the Operating System's system (sub-)language is not supported by the SpeedTouch™ Setup wizard.

If used in a (sub-)language folder, the language selection overrules the Operating System's language setting.

If used in the root partition, the language selection identifies the language to be used in case the Operating System's language setting is not supported.

Following languages are currently supported:

- **x0x0409**: English (default)
- **x0x040a**: Spanish
- **x0x0413**: Dutch
- **x0x0407**: German
- **x0x040c**: French
- **x0x0410**: Italian
- **x0x0416**: Portuguese
- **x0x041d**: Swedish.

▶ **ShowLogo=<{0|1}>**

To select whether the (non-customizable) company logo in the lower left corner of the SpeedTouch™ Setup wizard GUI should be shown (ShowLogo=1) or not (ShowLogo=0):



▶ **WelcomeTitle=<Welcome title>**

Allows to customize the title shown on the introduction Setup window:



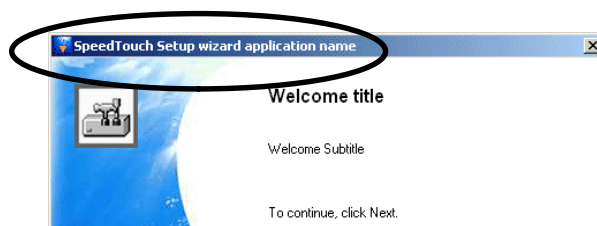
▶ **WelcomeSubTitle=<Welcome subtitle>**

Allows to customize the subtitle shown on the introduction Setup window:



▶ **AppName=<SpeedTouch Setup wizard application name>**

Allows to customize the menu bar name of the SpeedTouch™ Setup wizard application:



▶ **AppImage=AppImage .bmp**

Allows to customize the left frame company image bitmap on the first and last SpeedTouch™ Setup wizard window:



A valid **AppImage .bmp** should be of fixed size 177 x 330 pixels.

▶ **SpeedTouchLogo=SpeedTouchLogo .bmp**

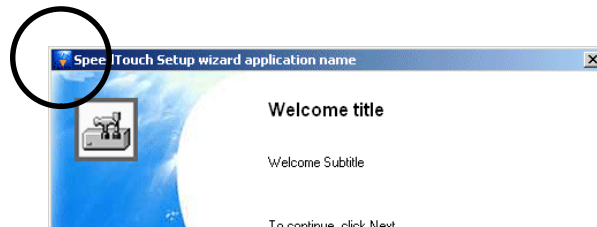
Allows to customize the introduction bitmap on the first page of the SpeedTouch™ Setup wizard window:



A valid **AppImage .bmp** should be of fixed size 260 x 110 pixels.

▶ **AppIcon=AppIcon .ico**

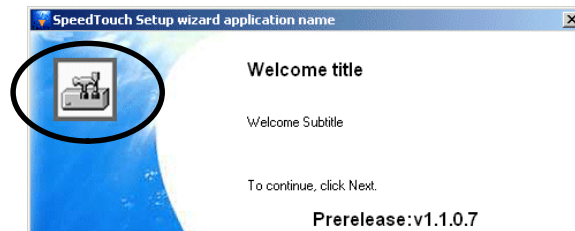
Allows to customize the title bar application icon of the SpeedTouch™ Setup wizard window:



A valid **AppImage .bmp** should be of fixed size 16 x 16 pixels.

▶ **SetupIcon=SetupIcon.bmp**

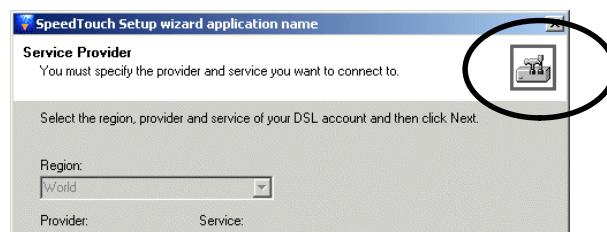
Allows to customize the Setup logo bitmap in the company image on the first and last SpeedTouch™ Setup wizard window:



The maximum valid size of the graphic is 55 x 55 pixels.

▶ **SetupIconInternal=SetupIconInternal.bmp**

Allows to customize the wizard logo bitmap in the upper right corner of the SpeedTouch™ Setup wizard window:



The maximum valid size of the graphic is 40 x 40 pixels.

[Read User's Guide] paragraph

The **[Read User's Guide]** paragraph may contain one or more of the following customization and localization items:

▶ **Language=<Language code>**

To select in which language the SpeedTouch™ user documentation will appear, i.e. which PDF file is opened by the ReadUsersGuide.exe application.

If used in a (sub-)language folder, the language selection overrules the Operating System's language setting.

If used in the root partition, the language selection identifies the language to be used in case the Operating System's language setting is not supported.

Following languages are currently supported:

- **x0x0409**: English (default)
- **x0x040a**: Spanish
- **x0x0413**: Dutch
- **x0x0407**: German
- **x0x040c**: French
- **x0x0410**: Italian
- **x0x0416**: Portuguese
- **x0x041d**: Swedish.

▶ **<Language>=<User's Guide PDF filename>**

To specify the name of the PDF file for a specific language selection, for example **German=User's Guide_de.pdf** to specify the file name of the German translation of the User's Guide.

2.4 The DEMO Configuration Files

File system directory structure

The DEMO configuration files represent the non-customized files from which a Service Provider specific customized service profile files can be derived.

These files are constructed that way that the need for customization should be minimal.

For a detailed description on the contents of the file and how to customize it, please refer to chapter 3.

Bridge_dhcp.ini

This configuration profile file represents the following configuration:

- ▶ Transparent Bridging, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
- ▶ **SpeedTouch™** IP address : 10.0.0.138
- ▶ **SpeedTouch™** DHCP server : disabled
- ▶ **SpeedTouch™** DNS server : disabled.
- ▶ Via the wizard, a user name and System password to protect the device, input is required
- ▶ PC configuration (via the wizard or manually): DHCP client.

Bridge_Fixed_IP.ini

This configuration profile file represents the following configuration:

- ▶ Transparent Bridging, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
- ▶ **SpeedTouch™** IP address : 10.0.0.138
- ▶ **SpeedTouch™** DHCP server : disabled
- ▶ **SpeedTouch™** DNS server : disabled
- ▶ Via the wizard, a user name and System password to protect the device, input is required
- ▶ PC configuration, specified by the Service Provider (via the wizard or manually):
 - Static Public IP address
 - Default Gateway IP address.

**Bridge_Fixed_IP
_Manual.ini**

This configuration profile file represents the following configuration:

- ▶ Transparent Bridging, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
- ▶ Via the wizard, the **SpeedTouch™** IP address, default IP address = 10.0.0.138, input is required
- ▶ Via the wizard, the **SpeedTouch™** DHCP server status: user defined configuration, default = disabled, input is required
- ▶ **SpeedTouch™** DNS server : disabled
- ▶ Via the wizard, a user name and System password to protect the device, input is required
- ▶ PC configuration, specified by the Service Provider (via the wizard or manually):
 - Static Public IP address or DHCP client
 - Default Gateway IP address.

**MER_fixed_ip_nat
_dhcp.ini**

This configuration profile file represents the following configuration:

- ▶ Routed Ethernet, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
- ▶ **SpeedTouch™** local IP address : 10.0.0.138
- ▶ Via the wizard, the **SpeedTouch™** WAN interface: fixed IP address , input is required
- ▶ **SpeedTouch™** DHCP and DNS servers : enabled
- ▶ Via the wizard, a user name and System password to protect the device, input is required
- ▶ PC configuration (via the wizard or manually): DHCP client.

**MER_wan_dhcp
_client_nat_dhcp.ini**

This configuration profile file represents the following configuration:

- ▶ Routed Ethernet, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
- ▶ **SpeedTouch™** local IP address : 10.0.0.138
- ▶ **SpeedTouch™** WAN interface : DHCP client
- ▶ **SpeedTouch™** DHCP and DNS servers : enabled
- ▶ Via the wizard, a user name and System password to protect the device, input is required
- ▶ PC configuration (via the wizard or manually): DHCP client.

-
- PPTP_dhcp_dns.ini** This configuration profile file represents the following configuration:
- ▶ Relayed PPPoA, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
 - ▶ **SpeedTouch™** local IP address : 10.0.0.138
 - ▶ **SpeedTouch™** DHCP and DNS servers : enabled
 - ▶ Via the wizard, a user name and System password to protect the device, input is required
 - ▶ PC configuration (via the wizard or manually): DHCP client.
-

- PPPoA_ipcp_subnetmask.ini** This configuration profile file represents the following configuration:
- ▶ Always-on Routed PPPoA, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
 - ▶ Via the wizard, a user name and password for the user account at the Service Provider, input required
 - ▶ **SpeedTouch™** local IP address : 10.0.0.138
 - ▶ **SpeedTouch™** DHCP server : enabled
 - private "Net10" DHCP pool
 - public IPCP DHCP pool (via PPP link)
 - ▶ **SpeedTouch™** DNS server : enabled
 - ▶ Via the wizard, a user name and System password to protect the device, input is required
 - ▶ PC configuration (via the wizard or manually): DHCP client.
-

- PPPoA_pat_dhcp_dns.ini** This configuration profile file represents the following configuration:
- ▶ Always-on Routed PPPoA, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
 - ▶ Via the wizard, a user name and password for the user account at the Service Provider, input required
 - ▶ **SpeedTouch™** local IP address : 10.0.0.138
 - ▶ Connection sharing towards own subnet on local PPP peer address via NAT
 - ▶ **SpeedTouch™** DHCP and DNS servers : enabled
 - ▶ Via the wizard, a user name and System password to protect the device, input is required
 - ▶ PC configuration (via the wizard or manually): DHCP client.
-

PPPoA_dhcp_spoof.ini

This configuration profile file represents the following configuration:

- ▶ Always-on Routed PPPoA, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
 - ▶ Via the wizard, a user name and password for the user account at the Service Provider, input required
 - ▶ **SpeedTouch™** local IP address : 10.0.0.138
 - ▶ **SpeedTouch™** DHCP server : enabled
 - private "Net10" DHCP pool
 - DHCP relay for PPP-to-DHCP Spoofing (via PPP link)
 - ▶ **SpeedTouch™** DNS server : enabled
 - ▶ Via the wizard, a user name and System password to protect the device, input is required
 - ▶ PC configuration (via the wizard or manually): DHCP client.
-

PPPoE_ipcp_subnetmask.ini

This configuration profile file represents the following configuration:

- ▶ Always-on Routed PPPoE, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
 - ▶ Via the wizard, a user name and password for the user account and, optionally, a Service Name at the Service Provider, input required
 - ▶ **SpeedTouch™** local IP address : 10.0.0.138
 - ▶ **SpeedTouch™** DHCP server : enabled
 - private "Net10" DHCP pool
 - public IPCP DHCP pool (via PPP link)
 - ▶ **SpeedTouch™** DNS server : enabled
 - ▶ Via the wizard, a user name and System password to protect the device, input is required
 - ▶ PC configuration (via the wizard or manually): DHCP client.
-

**PPPoE_pat_dhcp
_dns.ini**

This configuration profile file represents the following configuration:

- ▶ Always-on Routed PPPoE, VPI/VCI is selectable between: 0/35, 0/36, 0/37, 8/35, 8/36, 8/37 or any user input, default VPI/VCI=8/35, input is required
 - ▶ Via the wizard, a user name and password for the user account and, optionally, a Service Name at the Service Provider, input required
 - ▶ **SpeedTouch™** local IP address : 10.0.0.138
 - ▶ Connection sharing towards own subnet on local PPP peer address via NAPT
 - ▶ **SpeedTouch™** DHCP and DNS servers : enabled
 - ▶ Via the wizard, a user name and System password to protect the device, input is required
 - ▶ PC configuration (via the wizard or manually): DHCP client.
-

3 Configuration Profile Files

Introduction The **SpeedTouch™** configuration profile files are ASCII text files consisting of a set of **SpeedTouch™** Setup wizard commands and CLI commands.

In the following the structure and contents of the configuration profile files are described.

Most of the realistic example files provided in this chapter can be found on the DEMO CD-Rom and are an ideal starting point to make a customized configuration file.

IMPORTANT NOTE In this chapter many example configuration files are given. In some of the example files CLI command lines are split up in two or more lines to enhance the readability of the text. Such split up will be indicated by the character -> in front of each line which was split of from the line above. However, for real configuration files, e.g. as provided on the DEMO CD-Rom such wrapping is not allowed, i.e. in a CLI command line , you may not use "hard returns".

3.1 General Contents of a Configuration Profile File

General .ini file The following example shows the `Bridge_dhcp.ini` file as included on the DEMO CD-Rom. This configuration profile reflects the factory default configuration of the **SpeedTouch™**:

```
[ env.ini ]
set var=CONF_REGION value="World"
set var=CONF_PROVIDER value="Generic ISP"
set var=CONF_DESCRIPTION value="User specified bridge
-> configuration using DHCP"
set var=CONF_SERVICE value="Bridging - DHCP"
set var=CONF_DATE value="19/02/2002"
set var=CONF_VERSION value="3.7.2.x"
set var=HOST_SETUP value="auto"

'Setting of env variables for use without wizard
'-----
set var=DSL_ADDR value="8*35"
set var=passwd value=""

'Definition of groups
'-----
'Definition of bridge group
def var=vp_vc type=grp desc="Specify the details about the
bridge -> service. Most values are correct by default."
alias="Bridge -> Service"
'Definition of password group
def var=passwdgrp type=grp desc="Specify your user name and
-> password to protect your modem" alias="Modem security"

'bridge group
'-----
def var=DSL_ADDR type=combo grp=vp_vc alias="VPI/VCI"
-> data="0*35,0*36,0*37,8*35,8*36,8*37" default="8*35" req
-> desc="Type the VPI/VCI value you want to use or select one
-> from the list. These values should be provided by your ISP."

'password group
'-----
def var=%userid type=string grp=passwdgrp alias="User Name"
-> desc="Type your user name."
'password group - variable passwd
def var=%passwd type=passw grp=passwdgrp alias="Password" req
-> desc="Type your password."

[ phone.ini ]
add name=Br1 addr=$DSL_ADDR type=bridge

[ qos.ini ]
add name=default class=ubr

[ bridge.ini ]
ifadd intf=Br1 dest=Br1
ifattach intf=Br1

[ brfilter.ini ]

[ pptp.ini ]
```

```

[ dhcp.ini ]
pool add name=LAN_private
pool config name=LAN_private poolstart=10.0.0.1
-> poolend=10.255.255.254 netmask=255.0.0.0 leasetime=7200
config spoofing=off autodhcp=on scantime=20 trace=off
policy verifyfirst=off trustclient=on
spooof failtime=4 errorlt=60 dodlt=10
stop

[ mer.ini ]

[ ppp.ini ]

[ cip.ini ]

[ nat.ini ]
bind application=H323 port=1720
bind application=FTP port=21
bind application=RTSP port=554
bind application=IRC port=6667
bind application=RAUDIO(PNA) port=7070
bind application=ils port=389
bind application=ils port=1002

[ pfilter.ini ]
chain delete chain=source
chain create chain=source
rule create chain=source index=0 dstintfgrp=!wan action=accept
rule create chain=source index=1 prot=udp dstport=dns
-> action=accept
rule create chain=source index=2 prot=udp dstport=67
action=accept
rule create chain=source index=3 action=drop
chain delete chain=forward
chain create chain=forward
rule create chain=forward index=0 srcintfgrp=wan dstintfgrp=wan
-> action=drop
chain delete chain=sink
chain create chain=sink
rule create chain=sink index=0 srcintf=eth0 srcbridgeport=1
-> action=accept
rule create chain=sink index=1 srcintfgrp=!wan action=accept
rule create chain=sink index=2 prot=udp dstport=dns
action=accept
rule create chain=sink index=3 prot=udp dstport=68 action=accept
rule create chain=sink index=4 action=drop

[ pfirewall.ini ]
assign hook=sink chain=sink
assign hook=forward chain=forward
assign hook=source chain=source

[ ip.ini ]
config forwarding=on firewalling=on redirects=on
sourcerouting=off -> ttl=64 fraglimit=64 defragmode=nat
apadd addr=10.0.0.138/8 intf=eth0 broadcastip=10.255.255.255
-> addroute=no
rtadd dst=255.255.255.255/32 gateway=10.0.0.138
rtadd dst=10.0.0.0/8 gateway=10.0.0.138
rtadd dst=10.0.0.0/8 src=10.0.0.0/8 gateway=10.0.0.138
rtadd dst=224.0.0.0/4 intf=eth0
rtadd dst=0/0 intf=eth0 metric=70

```

```
[ dnsd.ini ]
domain domain=lan
add hostname=SpeedTouch
stop
troff

[ dhcc.ini ]

[ adsl.ini ]
config opermode=multimode maxbitspertoneUS=13

[ system.ini ]
config upnp=on mdap=on
setpassword password=$%passwrđ

[ endofarch ]
```

Structure The file is structured in paragraphs each beginning with [`<part>.ini`]. The name `<part>` of the paragraph reflects the **SpeedTouch™** configuration item on which the paragraph contents apply.

Paragraphs Each paragraph contains a set of **SpeedTouch™** commands related to the paragraph's "configuration subject" which will be interpreted by the **SpeedTouch™** CLI interpreter. These commands must always be constructed on one line of the file. In other words in one command line, the use of "hard returns" is not allowed.

TAGS The commands of the paragraphs may include customization TAGS. The wizard uses these TAGS to invoke user interaction during the wizard procedure.

The declaration of the TAGS, and their whereabouts during the wizard are defined in the first paragraph of the file.

Comments Comments can be added in the file, but must be preceded by `'`, e.g.:

```
'This is some comment
```

Comments are discarded both by the Setup wizard and **SpeedTouch™** CLI interpreter.

End of the file At the end of the file the [`endofarch`] followed by at least one "new – empty – line" ("hard return") declares the end of the file.

Customizing the wizard procedure

The wizard's aim is to detect available **SpeedTouch™** devices and to configure them, as well as configuring the end-user's PC(s).

The Service Provider can change the behavior of the wizard on the point of configuring the **SpeedTouch™** and the end-user's PC(s).

Customization of the **SpeedTouch™** configuration via the Setup wizard is done by means of *groups*. Each group, declared in the [env] part of the file, represents a subsequent window during the wizard procedure where user interaction may be required by the wizard.

The amount of windows is theoretically unlimited, but practically to be held lesser than five.

Each of these windows can be given an *alias*, a *description*, a *help* and a set of up to four variables which can/must be entered by the end-user. These variables represent the TAGS, used by the wizard to gather all needed information to configure the **SpeedTouch™**.

Customization of the end-user's PC(s) is done by means of a single variable which allows the Service Provider to either:

- ▶ Enable the PC's Automatic IP configuration (DHCP client configuration)
- ▶ Set the PC with a fixed IP configuration (no end-user participation)
- ▶ Force the end-user to enter a fixed IP configuration for the PC
- ▶ Allow the end-user to choose the PC's IP configuration (complete manual fixed or automatic IP configuration).

The latter selection includes also a complete manual IP configuration of the **SpeedTouch™** to be performed by the end-user.

For a detailed description of all these customization possibilities, see section 3.2.

3.2 The [env.ini] Paragraph

Use of the [env.ini] paragraph

As mentioned before the [env.ini] part is used to determine the customization of the wizard procedure, hence the configuration of the **SpeedTouch™** and the end-user's PC(s).

Next to a set of reserved variables, the Service Provider can use this paragraph to declare all its customization variables and groups, and determine how the end-users is expected to handle them.

In the following the declaration of the reserved variables, the customization variables and customization groups is described.

The [env.ini] part is also the place where the Service Provider can declare preset values for the customization variables in case the configuration file is directly uploaded to the **SpeedTouch™** via its web pages.

[env.ini] The following is an example of a (non-realistic) [env.ini] part:

```
[ env.ini ]

set var=CONF_REGION value="DEMO"
set var=CONF_PROVIDER value="SpeedTouch"
set var=CONF_DESCRIPTION value="Demonstration of custom fields."
set var=CONF_SERVICE value="Demo : Custom Fields"
set var=CONF_DATE value="March 2002"
set var=HOST_SETUP value="user"

set var=VAR1 value="fixed string"

'Definition of groups
def var=demo1 type=grp alias="Group page name (page1)"
desc="Group description (two lines)" help="Group help (one line)"

'Group demo 1
def var=VAR1 type=string grp=demo1 alias="A required string" req
-> default="This is a string" desc="Type a string (required,
-> default)."
def var=VAR2 type=string grp=demo1 alias="A string"
-> default="12345QWD&^7" desc="Type a string (not required,
-> default)."
def var=VAR3 type=passw grp=demo1 desc="Type a password (not
-> required, no alias)."
```

In the following subsections each part of this paragraph is explained.

3.2.1 Reserved Variables

Reserved variables in [env.ini]

The [env.ini] part always starts with the same set of obligatory reserved variables:

```
[ env.ini ]

set var=CONF_REGION value="DEMO"
set var=CONF_PROVIDER value="SpeedTouch"
set var=CONF_DESCRIPTION value="Demonstration of custom fields."
set var=CONF_SERVICE value="Demo : Custom Fields"
set var=CONF_DATE value="March 2002"
set var=HOST_SETUP value="user"
...
```

Reserved variable syntax

The syntax of the reserved variables is as follows:

```
set var=<reserved variable name> value="<value>"
```

Where <reserved variable name> must be one of:

- ▶ **CONF_REGION** (value is a string)
To give a name to the region where the configuration profile is valid for, e.g.:

```
set var=CONF_REGION value="Europe - Belgium"
```
- ▶ **CONF_PROVIDER** (value is a string)
To identify the Service Provider, e.g.:

```
set var=CONF_PROVIDER value="Your Internet Service Provider"
```
- ▶ **CONF_DESCRIPTION** (value is a string)
To give a description of the service profile offered by this configuration file, e.g.:

```
set var=CONF_DESCRIPTION value="Your Internet Connection"
```
- ▶ **CONF_SERVICE** (value is a string)
To give a name to the Service Profile offered by this configuration file, e.g.:

```
set var=CONF_SERVICE value="User defined Routed PPPoE dial-in connection with automatic IP configuration"
```
- ▶ **CONF_DATE** (value is a string)
To date the configuration file creation, e.g.:

```
set var=CONF_DATE value="March 2002"
```
- ▶ **HOST_SETUP** (value is one of the available options)
To determine how the end-user's PC will be configured. For possible values, see below.

The **HOST_SETUP** variable

The **HOST_SETUP** reserved variable will determine how the end-user's PC will be configured.

The following selections are possible:

- ▶ **set var=HOST_SETUP value="none"**

The wizard will skip all PC configuration windows of the SpeedTouch™ Setup wizard. No PC configuration will be done by the wizard.

- ▶ **set var=HOST_SETUP value="user"**

The wizard will require the end-user to provide the IP configuration of the PC(s) and the local IP configuration of the **SpeedTouch™**

- ▶ **set var=HOST_SETUP value="auto"**

The wizard will configure the PC for automatic IP configuration, i.e. as DHCP client

- ▶ **set var=HOST_SETUP**

-> **value="addr:xxx.xxx.xxx.xxx/xx**

-> **gateway:xxx.xxx.xxx.xxx**

-> **dns:xxx.xxx.xxx.xxx;xxx.xxx.xxx.xxx"**

The wizard will configure the PC with the Service Provider preset IP configuration of:

- Optionally, the PC's IP address
- Optionally, the PC's Default gateway IP address
- Optionally, the PC's primary and secondary DNS server IP address(es).

Items that are not specified will be required to be provided by the end-user during execution of the wizard. The values (entered by the end-user) are sent to the **SpeedTouch™** prefixed with an underscore (e.g. "**_gateway:xxx.xxx.xxx.xxx**"). When the wizard is reused to configure another PC in the local network, it will allow the end-user to change only the parameters stored with an underscore.

Each of the possible values for the **HOST_SETUP** reserved variable can be extended by the fixed string **shortcut**:

- ▶ **set var=HOST_SETUP value="none shortcut"**

- ▶ **set var=HOST_SETUP value="user shortcut"**

- ▶ **set var=HOST_SETUP value="auto shortcut"**

- ▶ **set var=HOST_SETUP value="addr gateway dns shortcut"**

In this case, at the end of the Setup wizard the PC's web browser is opened to the **SpeedTouch™** web pages. Also a shortcut to the **SpeedTouch™** web pages is created on the end-user PC's MS Windows desktop.

Note: This option does only work for MS Windows 98SE, 2000, ME and XP.

Reserved host variables in [env.ini]

Next to the reserved variables described above, also a set of reserved host variables exist. These variables are automatically assigned by the SpeedTouch™ Setup wizard at the end of the procedure and added to the [env.ini]part:

```
[ env.ini ]
...
set var=HOST_MAC_ADDR value=<host MAC address> type=macaddr
set var=HOST_IP_ADDR value=<host IP address> type=ipaddr
set var=HOST_NET_MASK value=<host netmask> type=ipmask
set var=HOST_NAME value=<host hostname> type=string
...
```

Reserved host variable syntax

The syntax of the reserved host variables is as follows:

- ▶ **HOST_MAC_ADDR** (value is a MAC address)
The Ethernet MAC address of the PC that sent the configuration profile file to the **SpeedTouch™**.
- ▶ **HOST_IP_ADDR** (value is an IP address)
The IP address of the PC that sent the configuration profile file to the **SpeedTouch™**.
- ▶ **HOST_NET_MASK** (value is a netmask)
The (sub)netmask of the PC that sent the configuration profile file to the **SpeedTouch™**.
- ▶ **HOST_NAME** (value is a string)
The host name of the PC that sent the configuration profile file to the **SpeedTouch™**.

Special values for reserved host variables

In case the PC is configured as DHCP client (or will be configured as such by the SpeedTouch™ Setup wizard (`set var=HOST_SETUP value="auto"`)), both **HOST_IP_ADDR** and **HOST_NET_MASK** will be set to `"dhcp"`.

3.2.2 Preset Variables

Preset variables in [env.ini]

Preset variables are used to provide preset values for the customization variables (see subsection 3.2.3) in case the configuration file is not used via the wizard (in which case the end-user enters the appropriate values for the variables) but directly uploaded to the **SpeedTouch™** via its web pages (in which case user interaction is not possible).

The amount of preset variable declarations depends of course on the amount of variables needed to ensure a correct configuration of the **SpeedTouch™**.

Preset variables must be placed after the system variable declarations, but before the groups declaration:

```
[ env.ini ]

set var=CONF_REGION value="DEMO"
set var=CONF_PROVIDER value="Alcatel"
set var=CONF_DESCRIPTION value="Demonstration of custom fields."
set var=CONF_SERVICE value="Demo : Custom Fields"
set var=CONF_DATE value="September 2001"
set var=HOST_SETUP value="user"

set var=VAR1 value="fixed string"

'Definition of groups
def var=demo1 type=grp alias="Group page name (page1)"
...
```

Preset variable syntax

The syntax for defining a preset variable is as follows:

```
set var=<variable name> value="<fixed value>"
```

The name of the preset variable **<variable name>** should be the same as the corresponding customization variable.

The value of the preset variable must be of the same type as specified for the corresponding customization variable.

Applicability of preset variables

The preset values of preset variables will only be used in case of a configuration file upload via the web pages to provide values for the corresponding customization variables.

In case the Setup wizard is used, preset variable declarations are silently discarded or used as default value for the corresponding variable.

Offering default values for the customization values can be done via the customization variable declaration (See subsection 3.2.3 for more information).

3.2.3 Customization Variables

Customization variables in [env.ini]

The customization variables are the variables used by the wizard to invoke user-interaction, i.e. the end-user must “answer” to the questions presented during the wizard procedure.

In case the wizard is not used, i.e. in case the file is directly uploaded via the **SpeedTouch™** web pages, the corresponding preset variables take over the responsibility for providing the appropriate values for the customization variables.

The Service Provider can define as many customization variables it expects to be required for a correct configuration of the **SpeedTouch™**, which suites its network needs.

However, per group, i.e. per window in the wizard procedure, the amount of possible customization variables is limited to four.

How the customization variables are used in the context of groups is described in subsection 3.2.4. This subsection describes the possible types of variables, and their specific syntax and how they can be presented towards the end-user during execution of the wizard procedure.

In the [env.ini] paragraph customization variables are located in the group declaration:

```
[ env.ini ]
...
'Definition of groups
def var=demo1 type=grp alias="Group page name (page1)"
desc="Group description (two lines)" help="Group help (one
line)"
...

'Group demo 1
def var=VAR1 type=string grp=demo1 alias="A required string" req
-> default="This is a string" desc="Type a string (required,
-> default)."
```

```
def var=VAR2 type=string grp=demo1 alias="A string"
-> default="12345QWD&^7" desc="Type a string (not required,
-> default)."
```

```
def var=VAR3 type=passw grp=demo1 desc="Type a password (not
-> required, no alias)."
```

```
'Group demo 2
def var=VAR10 type=integer grp=demo2 alias="A required number"
-> default="12345" req desc="Type the value (required,
default)"
def var=VAR11 type=integer grp=demo2 alias="A number" desc="Type
-> the value"
...
```

Customization variable syntax

The syntax for defining a customization variable is as follows:

```
def var=<variable name>
-> type=<type>
-> grp=<group name>
-> alias="<alias name>"
-> desc="<description>"
-> data="<data>"
-> default="<default value>"
-> min=<min> max=<max>
-> req
```

The syntax contains following fields:

- ▶ **var=<variable name>** (REQUIRED – all types)
The name of the customization variable. Any name is allowed, however spaces are not allowed and the name may not start with "CONF", "HOST", an underscore "_" or the dollar sign "\$".
- ▶ **type=<type>** (REQUIRED – all types)
The type of the variable's value.
- ▶ **grp=<group name>** (REQUIRED – all types)
The group in which this variable is to be applied.
- ▶ **alias="<alias name>"** (OPTIONAL – all types)
The name presented towards the end-user in the Setup wizard.
- ▶ **desc="<description>"** (OPTIONAL – all types)
Allows some related help text to be provided towards the end-user in the Setup wizard.
- ▶ **data="<data>"** (REQUIRED – only for types **list** and **combo**)
To provide a list of possible selections to the user. The offered values must be separated by commas, e.g.: `data = "0*35,8*35"`
In case the selection concerns strings, the values must be quoted, e.g.: `data = " 'one', 'two', 'three', 'four' "`
- ▶ **default="<default value>"** (OPTIONAL – all types)
Allows to offer a default value. The offered value must be of type as defined by **type**. In case of type **list** the default value must be one of the possible values defined in **data**.
- ▶ **min=<min> max=<max>** (OPTIONAL – only for type **integer**)
Allows to define a range between the minimal **min** integer number and maximum **max** integer number the end-user is allowed to choose from. Only integer values are allowed, the **min** value must be smaller than **max**, negative values are allowed. If used, both **min** and **max**, must be explicitly defined.
- ▶ **req** (OPTIONAL – all types)
Adding this field, makes the variable obligatory. An empty value for the variable will not be accepted. The end-user can not proceed as long as this value is not specified. Omit **req** for non-required input.

Customization variable types

Following types of customization variables are supported:

- ▶ **string**: a string
The value may be any string, all characters are allowed, except “.
- ▶ **integer**: an integer number (may be limited to a range)
All integer numbers between -9999999999999999 and 9999999999999999 are allowed as value, the actual range may be limited by **min** and **max**.
- ▶ **ipaddr**: an IP address
Any valid IP address **xxx.yyy.zzz.uuu** is allowed within the following ranges:
 - Any **xxx** value in the range 1 up to 223, except 127
 - Any **yyy** value in the range 0 up to 255
 - Any **zzz** value in the range 0 up to 255
 - Any **uuu** value in the range 1 up to 254
- ▶ **ipmask**: an IP (sub)net mask
Any valid contiguous IP (sub)net mask is allowed.
- ▶ **passwd**: a password string (for the **SpeedTouch™**)
The value may be any string without spaces, consisting of characters from following ranges: 0 – 9, a – z and A – Z.
- ▶ **list**: an exclusive selection of values the user has to choose from.
The possible values must be specified in **data**. Any type of value is allowed. The user is NOT allowed to provide a alternative value.
- ▶ **combo**: a selection of values the user can choose from.
The possible values must be specified in **data**. Any type of value is allowed. The user is allowed to provide an alternative (relevant) value of his choice.

All types can be defined as input-required by adding **req** to the definition.

Note: The type **grp** is exclusively used to define a group. See subsection 3.2.4 for more information.

Calculations on variables

The SpeedTouch™ Setup wizard allows to do bitwise **AND** and **OR** calculations on any variable of type **ipaddr** and **ipmask**.

These variables are automatically calculated by the SpeedTouch™ Setup wizard at the end of the procedure and added to the `[env.ini]` part:

```
set var=<variable name> value=<calculated value>"
```

The syntax of a calculation declaration is as follow:

```
def var=<variable name>
-> type=<{ipaddr|ipmask}>
-> calc=<calculation>
```

The syntax contains following fields:

- ▶ **type=<{ipaddr|ipmask}>** (REQUIRED)
The type of the variable's (calculated value). Should be either type **ipaddr** to indicate an IP address or type **ipmask** to indicate a (sub)netmask.
- ▶ **calc=<calculation>**
Bitwise AND/OR calculation on IP addresses and/or (sub)netmasks. Calculations are performed exclusively from left to right. The use of brackets is not allowed. The result of the calculation becomes the value of the variable

In the declaration of **calc** only variables that are previously declared in the `[env.ini]` part, reserved host variables, fixed IP addresses and/or IP (sub)netmasks. are allowed.

Example calculation

The configuration profile file part below shows a realistic example of how to use the calculation possibilities on variables.

```
...
set var=wan_addr type=ipaddr
set var=wan_netmask type=ipmask
...
def var=gateway type=ipaddr calc="wan_addr AND wan_netmask OR
-> 0.0.0.1"
```

The example calculation above allows to calculate the first IP address of a subnet range (commonly assigned to the subnet's default gateway), based on an IP address and IP (sub)netmask).

Calculations can also be performed on the reserved host variables:

```
...
set var=ip_offset type=ipaddr value="0.0.0.2"
...
def var=ISP_gateway type=ipaddr calc="HOST_IP_ADDR AND
-> HOST_NET_MASK OR ip_offset"
...
```

3.2.4 Groups

Group declaration in [env]

The use of groups in **[env.ini]** allows the Service Provider to alter the amount of windows presented to the end-user during execution of the Setup wizard i.e. each group declaration will result in a subsequent window in the Setup wizard.

The declaration of the groups is done in the **[env.ini]** after the declaration of the system variables and preset variables, but before the declaration of the customization variables:

```
[ env.ini ]
...

'Definition of group 1 - presents a window in the wizard
def var=demo1 type=grp alias="Group page name (page1)"
-> desc="Group 1 description (two lines)"
-> help="Group 1 help (one line)"
...
```

Group declaration syntax

The syntax for declaring a group is as follows:

```
def var=<group name>
-> type=grp
-> alias="<title>"
-> desc="<description>"
-> help="<help text>"
```

The syntax contains following fields:

- ▶ **var=<group name>** (REQUIRED)
The name of the group. During the declaration of the customization variables this name is used (**grp=<group name>** in the customization variable syntax) to identify to which group the variable belongs. Any name is allowed, however spaces are not allowed and the name may not start with "CONF", "HOST", an underscore "_" or the dollar sign "\$"
- ▶ **type=grp** (REQUIRED)
Mandatory type to declare a group
- ▶ **alias="<alias name>"** (OPTIONAL – RECOMMENDED)
The title of the window. The **<alias name>** string will be provided in the title bar of the window.
- ▶ **desc="<description>"** (OPTIONAL)
Allows a description to be provided in the title bar of the window.
- ▶ **help="<help text>"** (OPTIONAL)
Allows some related help text to be provided towards the end-user in the Setup wizard.

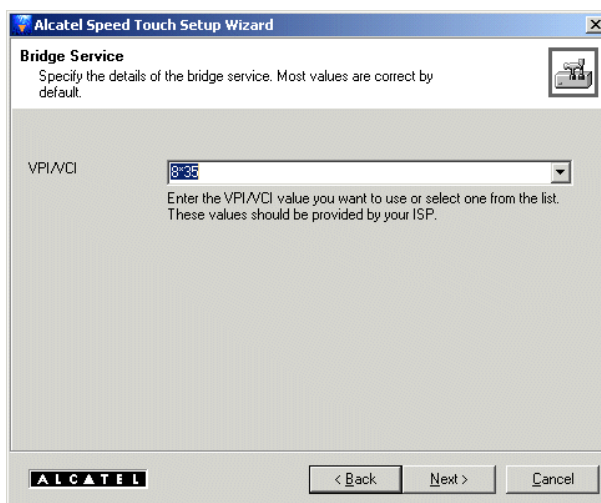
Example The following is an example of a group declaration. Some customization variable declaration is added to show the related output in the window.

```
[ env.ini ]
...

'Definition of bridge group
def var=vp_vc type=grp alias="Bridge Service" desc="Specify the
-> details about the bridge service. Most values are correct by
-> default." help="The values for the bridge service must be
-> provided by your Service Provider."
...

'bridge group - Variable vp_vc
def var=DSL_ADDR type=combo grp=vp_vc alias="VPI/VCI" desc="Type
-> the VPI/VCI value for the channel you want to use or select
-> one from the list." data="0*35,0*36,0*37,8*35,8*36,8*37"
-> default="8*35" req
def var=DSL_ENCAP type=list grp=vp_vc alias="Encapsulation" ->
-> desc="Select the encapsulation method applied on this
VPI/VCI
-> channel" data=" 'llc/snap', 'vcmux' " default="llc/snap" req
...
```

This declaration of a group and its variables will result in the following window, presented to the end-user during execution of the Setup wizard:



Number of group declarations

The number of group declarations is theoretically unlimited. But the Service Provider should consider to minimize the need for required user-interaction during the Setup wizard, thus avoiding misconfiguration by and/or confusion of the end-user.

It is advised to restrict the number of customization groups to a practical limit of four plus one group to set the **SpeedTouch™** System password.

System password group

All DEMO configuration profile files contain the password group. Although this group is not obligatory for the configuration file, it is strongly advised always to include this group in the configuration profile. It allows the end-user to set a System password to restrict access to the **SpeedTouch™** via its web pages or via a Telnet session.

The following declaration is used in the DEMO files to invite the end-user to provide a System password. In this declaration the end-user is obligated to provide a password (see `req` field):

```
'Definition of password group
def var=passwdgrp type=grp desc="Specify your user name and
password to protect your device" alias="SpeedTouch security"

'password group - variable userid
def var=%userid type=string grp=passwdgrp alias="User Name"
desc="Type your user name."

'password group - variable passwd
def var=%passwd type=passwd grp=passwdgrp alias="Password" req
desc="Type your password."
```

If the Service Provider chooses to restrict access to the **SpeedTouch™** by the end-user itself, it should consider to set a fixed System password itself via its customized configuration profile files.

However, in case the Service Provider "locked" the **SpeedTouch™** with a fixed secret System password, the user will never be able to use the Setup wizard for e.g. reconfiguring the device or configure its PC(s) as long he does not know the secret System password.

3.3 The [`<configuration>.ini`] Paragraphs

Introduction The [`env.ini`] paragraph allows the Service Provider to customize the behavior of the wizard via the group declarations, and to determine the way how the end-user's PC IP settings should be configured with the `HOST_SETUP` system variable.

The declaration of customization variables, applied on groups, allows the Service Provider to present questions to the end-user, which he/she has to answer.

The input of the end-user (i.e. the "answer" on the particular customization variable) will be used by the wizard as a TAG (which consists of the customization variable name preceded by the dollar sign "\$") in order to be able to configure the **SpeedTouch™**.

[`<configuration>.ini`] paragraphs

The paragraphs following after the [`env.ini`] paragraph are the paragraphs in which the **SpeedTouch™** configuration is defined and the TAGS are used.

The following paragraphs can be found in order of appearance:

- ▶ [`phone.ini`]
To configure the **SpeedTouch™** virtual channel phonebook.
- ▶ [`qos.ini`]
For internal use only. Do not change this paragraph.
- ▶ [`bridge.ini`]
To configure the **SpeedTouch™** Bridged Ethernet packet service.
- ▶ [`mer.ini`]
To configure the **SpeedTouch™** Routed Ethernet (MAC Encapsulated Routing) packet service.
- ▶ [`pptp.ini`]
To configure the **SpeedTouch™** Relayed PPPoA (PPPoA-to-PPTP Relaying) packet service.
- ▶ [`ppp.ini`]
To configure the **SpeedTouch™** Routed PPPoA and/or Routed PPPoE packet services.
- ▶ [`cip.ini`]
To configure the **SpeedTouch™** Classical IPoA packet Service.
- ▶ [`ip.ini`]
To configure the **SpeedTouch™** IP address and IP routing configuration.
- ▶ [`nat.ini`]
To configure the **SpeedTouch™** NATP (Network Address and Port Translation) configuration.

- ▶ **[brfilter.ini]**
For internal use only. Do not change this paragraph.
 - ▶ **[pfilter.ini]**
To configure the **SpeedTouch™** packet filter settings.
 - ▶ **[pfirewall.ini]**
To configure the **SpeedTouch™** packet firewall settings.
 - ▶ **[dhcp.ini]**
To configure the **SpeedTouch™** DHCP server settings.
 - ▶ **[dhcc.ini]**
To configure the **SpeedTouch™** DHCP client settings.
 - ▶ **[dnsd.ini]**
To configure the **SpeedTouch™** DNS server settings.
 - ▶ **[adsl.ini]**
To configure the **SpeedTouch™** ADSL standards settings.
 - ▶ **[system.ini]**
To configure the **SpeedTouch™** System password and MDAP & UPnP settings.
-

3.3.1 [**<configuration>.ini**] and the CLI

The CLI As mentioned before each of the [**<configuration>.ini**] paragraphs reflect a configurational item of the **SpeedTouch™**.
On the **SpeedTouch™** those configurational items are configured via a character based configuration environment, called the Command Line Interface (CLI).

This CLI is directly accessible via a Telnet session to the **SpeedTouch™**. This allows advanced users to configure the **SpeedTouch™** by issuing CLI commands. However, by using the configuration profile files, this way of configuring the device is made superfluous.

By uploading a configuration profile file, be it done by the wizard or done directly by the end-user, the CLI interpreter will execute the CLI commands listed in the .ini file. By the execution of these CLI commands the **SpeedTouch™** will be configured.

Paragraphs and CLI command groups

As mentioned before each of these paragraphs reflect one of the In the following overview the relationship between the available **SpeedTouch™** CLI commands and the [**<configuration>.ini**] paragraphs is given:

- ▶ [**env.ini**]
All commands present in the **env** CLI command group.
- ▶ [**phone.ini**]
All commands present in the **phonebook** CLI command group.
- ▶ [**bridge.ini**]
All commands present in the **bridge** CLI command group.
- ▶ [**mer.ini**]
All commands present in the **mer** CLI command group.
- ▶ [**pptp.ini**]
All commands present in the **pptp** CLI command group.
- ▶ [**ppp.ini**]
All commands present in the **ppp** CLI command group.
- ▶ [**cip.ini**]
All commands present in the **cip** CLI command group.
- ▶ [**ip.ini**]
All commands present in the **ip** CLI command group.
- ▶ [**nat.ini**]
All commands present in the **nat** CLI command group.
- ▶ [**pfilter.ini**]
All commands present in the **firewall chain** CLI command subgroup and all commands present in the **firewall rule** CLI command subgroup.

- ▶ **[pfirewall.ini]**
All commands present in the **firewall** CLI command group (except those part of the **firewall chain** and **firewall rule** CLI command subgroups).
- ▶ **[dhcp.ini]**
All commands present in the **dhcp server** CLI command subgroup.
- ▶ **[dhcc.ini]**
All commands present in the **dhcp client** CLI command subgroup.
- ▶ **[dnssd.ini]**
All commands present in the **dns** CLI command group.
- ▶ **[adsl.ini]**
All commands present in the **adsl** CLI command group.
- ▶ **[system.ini]**
All commands present in the **system** CLI command group.

SpeedTouch™ CLI description

For a detailed description of the **SpeedTouch™** Command Line Interface (CLI), please consult the **SpeedTouch™ CLI Reference Guide** available from the SpeedTouch™ support web pages at:

<http://www.speedtouch.com>

3.3.2 Use of Customization Variables as TAGS

TAG syntax The syntax for using TAGS is as follows:

```
$<variable name>
```

In which <variable name> should be the same name as used in the `var=<variable name>` field of the variable's declaration.

The value of the `$<variable name>` as it will be used in the CLI command, be it specified by a preset value or by the end-user, should always be in conformity with the parameter syntax of the CLI command.

Example The following provides an example of the declaration and use of a variable which invites the end-user to provide the VPI/VCI values for the Virtual Channel to be configured in the **SpeedTouch™** Phonebook. For readability the concerned variable is underlined and red colored:

```
[ env.ini ]
...
set var=DSL_ADDR value="8*35"
...

'Definition of bridge group
def var=vp_vc type=grp desc="Specify the details about the
bridge -> service. Most values are correct by default."
alias="Bridge -> Service"

'bridge group
'-----
def var=DSL_ADDR type=combo grp=vp_vc alias="VPI/VCI"
-> data="0*35,0*36,0*37,8*35,8*36,8*37" default="8*35" req
-> desc="Type the VPI/VCI value you want to use or select one
-> from the list. These values should be provided by your ISP."

[ phone.ini ]
add name=Br1 addr=$DSL_ADDR type=bridge
...
```

3.4 Configuration Profile Recommendations

3.4.1 General Recommendations

Customization level It is recommended to keep the required end-user interaction to a minimum to avoid end-users getting confused and possibly ending up with a wrongly configured device.

Connection service customization The provided configuration profiles on the DEMO CD-Rom are selected based on the applicability of the applied Connection Services in the field.
Therefore, in most cases, it is sufficient to keep the customization of the files to a minimum regarding the **SpeedTouch™** configuration, i.e. to edit the configuration profile files provided on the DEMO CD-Rom as less as possible.

SpeedTouch™ System password Alcatel strongly advises to invite the end-user to provide a System password, or to configure a preset System password for the **SpeedTouch™** to restrict unauthorized access via the **SpeedTouch™** web pages or a Telnet session.
See subsection 3.4.2 for more information.

SpeedTouch™ System config The Setup wizard is able to detect and configure an available **SpeedTouch™** without any need of IP configuration. On Windows ME and XP systems users can be notified of the presence of an **SpeedTouch™** in their subnet via UPnP.
The CLI command `config upnp=on mdap=on` in the [`system.ini`] paragraph controls this behavior.
For a correct functioning of the Setup wizard and UPnP it is important NEVER to change the CLI command `config upnp=on mdap=on` in the [`system.ini`] paragraph.

SpeedTouch™ and PC IP configuration

In most cases, the easiest way to configure the **SpeedTouch™** Local network IP settings and the end-user PC's IP configuration is via the automatic IP configuration utility of the **SpeedTouch™** DHCP server for providing an IP address to the end-user's PC and maintaining the default 10.0.0.138 **SpeedTouch™** IP address.

Whenever possible, this configuration is used in the configuration profile files provided on the DEMO CD-Rom. However, the Service Provider is free to choose another IP configuration setup, if desired.

Configuration profile files and OSs

When creating a customized CD-Rom it is important that the CD-Rom is readable for all OSs the Service Provider wants to support.

The Service Provider may decide to provide a dedicated CD-Rom per OS or can choose to provide one CD-Rom, valid for all OSs.

In case of the DEMO CD-Rom this is done via a three-partitioning of the CD-Rom, one partition for each of the most popular and common OSs (MS Windows OSs, Mac OSs and Linux/UNIX OSs).

Editing .ini files

Editing .ini files must always be done via the MS Windows Notepad application. Do NOT edit .ini files using a Mac or Linux/UNIX text editor as this might cause corrupted and non-functional configuration files.

CLI commands in a .ini paragraph

CLI commands in a paragraph of a configuration profile file should always be constructed in their complete form, i.e. with all required parameters specified. Uncompleted CLI commands, i.e. commands in which required parameters are not specified, used in a configuration profile file will be discarded by the CLI command interpreter. This may result in a misconfigured **SpeedTouch™**.

Valid use of variable TAGs in CLI commands

In case of a variable TAG, the value of the variable, be it specified by a preset value or by the end-user, should always be in conformity with the syntax of the CLI command.

3.4.2 The SpeedTouch System Password

Securing the SpeedTouch™

Once installed and configured at the end-user's premises, the **SpeedTouch™** ADSL router will be used for high-speed Internet access. As is, it is vulnerable for malicious attackers trying to gain control over the device itself and the local network behind it.

Therefore, it is explicitly recommended to restrict access to the **SpeedTouch™** by configuring its System password.

System password group

All DEMO configuration profile files contain the password group. Although this group is not obligatory for the configuration file, it is strongly advised always to include this group in the configuration profile. It allows the end-user to set a System password to restrict access to the **SpeedTouch™** via its web pages or via a Telnet session.

The following declaration is used in the DEMO files to invite the end-user to provide a System password. In this declaration the end-user is obligated to provide a password (see `req` field):

```
'Definition of password group
def var=passwdgrp type=grp desc="Specify your user name and
password to protect your modem" alias="Modem security"

'password group - variable userid
def var=userid type=string grp=passwdgrp alias="User Name"
desc="Type your user name."

'password group - variable passwd
def var=passwd type=passw grp=passwdgrp alias="Password" req
desc="Type your password."
```

In the following extract of the configuration profile files, the System password is configured:

```
[ system.ini ]
setpassword password=$passwd
```

Fixed System password

The Service Provider can decide to deny access to the **SpeedTouch™** even by the end-user itself. This can be done by configuring a preset System password via the configuration profile file.

Once the **SpeedTouch™** is configured via such configuration profile file, it will not be accessible, nor re-configurable by wizard anymore, unless a hardware reset-to-default is performed via the reset button on the **SpeedTouch™** back panel (which clears the complete configuration of the **SpeedTouch™**, System password included and returns the device to its default configuration). On the other hand, all **SpeedTouch™** devices, configured by such configuration profile file, will be secured by the very same System password.

This drastic solution can only be used for configurations where access to the **SpeedTouch™** is never needed by the end-user and – considering the further use of the wizard for configuring the end-user's PC(s) – for a single end-user PC setup (as the wizard can not continue without password authentication first in case it is re-executed on another PC).

The following extract of the configuration profile file shows how to set a preset System password:

```
[ system.ini ]
setpassword password=<System password string>
```

Where `<system password string>` represents the password string chosen by the Service Provider.

Serial number System password

The **SpeedTouch™** can be configured with a System password equal to the serial number which uniquely identifies the device.

This unique serial number is printed on the marking label found on the bottom of the **SpeedTouch™**. It consists of the concatenation of the string 'CP' followed by nine digits. These nine digits incorporate the serial number. In case the System password is set to the serial number, for authentication the serial number must be given without the preceding string 'CP'.

The following extract of the configuration profile file shows how to set a preset System password equal to the device serial number:

```
[ system.ini ]
setpassword password=$_BOARD_SERIAL_NBR
```

Once the **SpeedTouch™** is configured via such configuration profile file, it will only be accessible, using the unique serial number. In this System password setup, each **SpeedTouch™** device, configured by such configuration profile file, will be secured by a unique System password.

3.4.3 Correct Use of Variables

Using variables When using variables in the customized configuration profile files, the Service Provider must make sure that the output of the variable, i.e. the TAG which will be used in the CLI command is relevant for the parameter of the CLI command.

This means that the type of the variable must be appropriate for the expected value of the CLI command parameter for which the variable TAG will be used. In case of a variable of type `list` or `combo`, the listed selection values of the variable must be the same as the allowed parameter values of the corresponding CLI command.

Example The following example will illustrate the stated requirement:

```
...
'bridge group - Variable vp_vc
def var=DSL_ADDR type=combo grp=vp_vc alias="VPI/VCI" desc="Type
-> the VPI/VCI value for the channel you want to use or select
-> one from the list." data="0*35,0*36,0*37,8*35,8*36,8*37"
-> default="8*35" req
...
[ phone.ini ]
add name=Br1 addr=$DSL_ADDR type=bridge
...
```

The `DSL_ADDR` variable will be used in the `[phone.ini]` paragraph to add a phonebook entry with a VPI/VCI value, equal to one of the proposed selection values (listed in `data`) or equal to the provided user input. The CLI command `add` in the **phonebook** CLI command group requires following syntax:

```
add name=<string> addr=<VPI*VCI> type=<{any|bridge|ppp|cip}> in
which VPI must be in the range of 0 up to 15 and VCI in the range of 0
up to 511.
```

This means that the value of variable TAG `$DSL_ADDR` must adhere to the syntax `<VPI*VCI>` as it is meant to be used to provide a VPI/VCI value. In case the end-user provides input which does NOT comply to the syntax `VPI*VCI` or in which the ranges of `VPI` and/or `VCI` are exceeded, the resulting CLI command `add name=Br1 addr=$DSL_ADDR type=bridge` will be corrupt.

Important Note The wizard does NOT check whether provided input is valid or not. Therefore it is advised to use `list` rather than `combo` whenever possible as a variables of type `list` do not allow alternative end-user input. In general, free end-user input should be avoided as much as possible.

