# Khompwizard - User's Manual

# Sumário

# Introduction

The **khompwizard** performs the configuration function of E1 and FXO boards. The setup process is performed in the steps below.

# E1 boards

## User Scenario

```
-------------------- Scenario ----------------------
|                                                    |
| In which scenario will the E1 link(s) be used?     |
|  ------------------------------------------------  |
| |      0  PSTN only                             | |
| |      1  Central Office(link0) and PBX (link 1)| |
| |      2  PBX only                              | |
| |      3  Other type of configuration           | |
|  ------------------------------------------------  |
|                                                    |
|                                                    |
+----------------------------------------------------+
|       <Continue>     < Return >     <  Exit  >     |
 ----------------------------------------------------
```

Defines the settings that are applied on each link connected to the system, following the usual configuration parameters.

For example, for links connected to the central office, the wizard sets up the synchronization timing to be obtained from the link. Other parameters specific signaling also are configured according to the type of scenario chosen.

If the scenario of using the links is different from the three first options, you can choose a setting for link in the option "Other type of configuration ...".

## Scenario by link

```
-------------------- E1 Link Scenario. ----------------------
|                                                             |
| To change scenario, choose the desired 'device-link'and press |
| 'Change':                                                   |
|                                                             |
|  ---------------------------------------------------------  |
| |                  1973-0  Central Office               | |
| |                  1973-1  Central Office               | |
| |                  4876-0  Central Office               | |
|  ---------------------------------------------------------  |
|                                                             |
+-------------------------------------------------------------+
|     <Continue>   < Change >   < Return >   <  Exit  >       |
 -------------------------------------------------------------
```

This screen, you can define a scenario for each type of special link, allowing settings to non-usual environment for using the links.

Selecting one of the links and pressing the "Change" is shown a screen to define the specific scenario of the link (below).

```
---------------- Scenario. --------------------
|                                              |
| For which scenario will be used the link '0' |
| of the device which serial number is '1973'? |
|                                              |
|  ------------------------------------------  |
| |            0  Central Office           | |
| |            1  PABX                      | |
|  ------------------------------------------  |
+------------------------------------------------+
|     <Confirm>   <Return >   < Exit  >        |
 ------------------------------------------------
```

On this screen, you define what the scenario for a link to a specific card. After the scenario selected, the configurator returns to the previous screen.

# Signaling

```
---------------- Signaling --------------------
|                                              |
| Which signaling will be used for the E1      |
| link(s)?                                     |
|  ------------------------------------------  |
| |      0  R2/MFC Digital (Brazil)        | |
| |      1  RDSI (EURO ISDN)               | |
| |      7  Using different signalings     | |
|  ------------------------------------------  |
|                                              |
+------------------------------------------------+
|     <Continue>   < Return >   < Exit  >      |
 ------------------------------------------------
```

- **R2/MFC Digital (Brazil )**
  Signaling more common in Brazil (R2 Digital or R2D).
- **ISDN (EURO ISDN )**
  ISDN Signaling, used in most modern plants.
- **I use different signals ...**
  Select to configure each link with a different signaling and/or user signalization (between PBXes).

If the selected option is "Use different signalings..." the next menu will be "Signaling by link", otherwise it will be the final screen.

## Signaling by link

```
----------------- E1 Link Signaling -------------------
|                                                       |
| To change signaling, choose the desired 'device-link'and |
| press 'Change':                                       |
|  ----------------------------------------------------  |
| |           1973-0  R2/MFC Digital (Brazil)          | |
| |           1973-1  R2/MFC Digital (Brazil)          | |
| |           4876-0  R2/MFC Digital (Brazil)          | |
|  ----------------------------------------------------  |
|                                                       |
+-------------------------------------------------------+
|   <Continue>  < Change >  < Return >  <  Exit  >      |
 -------------------------------------------------------
```

The columns have the following meanings, from left to right:

- Serial number board attached, followed by the number of link;
- Indicates the signaling set to link .

This screen is for selecting a different signal for each link*cards*available in the E1 system. Select the board and desired link, and use "Change" to enter the menu with the options (below).

```
---------------- Signaling -------------------
|                                             |
| Which signalling will be used on link '0' of  |
| device which serial number is '1973'?       |
|  -----------------------------------------  |
| |        0  R2/MFC Digital (Brazil)       | |
| |        1  RDSI (EURO ISDN)              | |
| |        3  Line Side                     | |
| |        4  CAS EL7                       | |
|  -----------------------------------------  |
|                                             |
+---------------------------------------------+
|    <Confirm>   <Return >   < Exit  >        |
 ---------------------------------------------
```

Changes the signaling of a specific link, providing the following signaling options:

- **Digital R2/MFC**
  Signaling very common in Brazil and Latin America, also called Digital or R2D R2. The settings of timing and number of digits input are automatically configured according to the usage scenario of the link E1.
- **ISDN (EURO ISDN )**
  ISDN Signaling (ISDN), normally used in more modern equipment. If the link has been configured in the previous screens to connect to the central government, the sign chosen is "ISDN User" (ISDN EndPoint); if you have configured for PBX, the signal will be "ISDN network (ISDN network).
- **Line Side**
  CAS Signaling Line Side, used for communication between different branches of PABX.
- **CAS***EL7*
  *Signaling CAS EL7 used for communication between different branches of PABX.*

# FXO boards

This part of the setup is performed in the following steps:

## Choosing the card

```
-------------- Choose the board. --------------
|                                              |
| Choose a board to use as a reference for     |
| cadence recognition:                         |
|                                              |
|  ------------------------------------------  |
| |                 123  KFXO-80             | |
|  ------------------------------------------  |
|                                              |
+----------------------------------------------+
|   < Next >       < Return >      <   Exit  >  |
 ----------------------------------------------
```

The choice of the board has the following options:

- Serial number;
- Model name of the analog board.

First step is to choose the card that will be used as reference to detect the cadences.

## Choosing the channel

```
--------- Escolha o canal da placa. -----------
|                                              |
| Escolha o canal da placa '00' a utilizar como |
| referência para detecção de cadências:       |
|                                              |
|  -------------------------------------------  |
| |                   00                     | |
| |                   01                     | |
| |                   02                     | |
| |                   03                     | |
| |                   04                     | |
| |                   05                     | |
| |                   06                     | |
| |                   07                     | |
|  -------------------------------------------  |
|                                              |
+----------------------------------------------+
|   < Next >      < Return >     <  Exit  >    |
 ----------------------------------------------
```

Here the channel that will be used to detect cadences is defined. The channel need to be connected to the proper line and working properly.


# Entering the numbers

```
-------------------- Numbers to dial. ----------------------
|                                                          |
| Please enter de reference numbers for cadence recognition: |
|                                                          |
|  --------------------------------------------------------  |
| |  Free branch (should stay free until recognition finishes): | |
| |  _____                              | |
| |                                                        | |
| |  This branch (used for busy tone recognition):         | |
| |  _____                              | |
| |                                                        | |
| |  Invalid branch (fast busy tone):                      | |
| |  _____                              | |
|  --------------------------------------------------------  |
|                                                          |
+----------------------------------------------------------+
|       < Next >        < Return >        <  Exit  >       |
 ----------------------------------------------------------
```

Last step of data delivery, it takes three numbers to detect cadences.

- **Free branch**
  This number should remain free until the end of the test, it will be detected by the frequency that represents the row is free;
- **This branch**
  This number is used to detect the cadence of a busy signal and must be the own extension number used for the test (in the "Choose a channel plate") , making a connection to themselves and ensuring the return of the sign of occupation;

- **Invalid branch**
This number connects to an invalid number, thus detecting the fast busy tone that represents an invalid link.

# Detection of cadences

```
---------------------- Detecting.... --------------------------
|                                                              |
| Cadence: 'Seizure (dial tone)':                              |
|                                                              |
|  Detecting...                                                |
|                                                              |
|   ---------------------------------------------------------  |
|   |||||||                         10%                     |  |
|   ---------------------------------------------------------  |
  --------------------------------------------------------------
```

Next, the wizard starts to detect the cadences using the numbers provided. If the detection completes successfully, you will get a final screen, and the program will save the cadences found in the machine.

However, if the figures provided are not fulfilling the requirements, the lines are not connected, or some other error is detected, you will get an error screen with information about the problem occurred, as follows:

```
------------------ Erro detecting cadences. ------------------
|                                                             |
|  Failed to execute the cadence recognition, please check the  |
|  connections between board and the PBX / central office and   |
|  the numbers used for the detection.                        |
|                                                             |
+-------------------------------------------------------------+
|                        <  Next  >                           |
  -------------------------------------------------------------
```

If this message is displayed, please verify the physical connections corresponding to the boards and to the channel used for setup, as well as the status of the given branches.