# **FBConfig – Handbook**

Relase 2.00 © Detlef Reil, 1/22/2010

*FBConfig* is a Windows program for configuration of the *voco* Call Buttons over the Serial Port. The three versions *voco*, *voco SE* and *voco NT* are supported

## Installation

*FBConfig* is installed during the installation of the *Rabus CallButton Server*. However, FBConfig can be started by calling the program file FBConfig.exe without previous installation as well.

The menu item [Call Button]/[Settings] shows the configuration of the Serial Port. The checkbox [Fast communication] should be activated if you don't experience bad communication. The baudrate is negotiated automatically with the Call Button.

Settings	×
Port to Call Button	ОК
COM Port: COM1 -	Cancel
Baudrate	
Auto	
C 38400 Baud	
East communication	
ATI Timeout (sec.): 40	

## **Call Parameters**

For mass installation of Call Buttons, FBConfig can also be started in batch mode for use of a deployment batch program by using call parameters. The general syntax is

FBConfig [filename [options]]

The given configuration file (.fbc) will be loaded. Possible options:

/b	batch mode: The parameters stored in the file will be sent to the connected
	Call Button device immediately
/bn	same as /b, but any potential error message will be suppressed
/i x.x.x.x	the (own) IP-Adresse in the file is overwritten by x.x.x.x
/n x	the Call Button name in the file is overwritten by x

## **Result File**

After every successful configuration of a Call Button, an entry to the file FBConfig.csv is appended. The file can be opened with e.g. MS-Excel and contains the following information about the Call Buttons:

- Serial Number
- Name (configured)
- IP-Adresse (configured)
- Firmware version
- Firmware variant (00-german, 01-english, 02-german, http-enabled, 03-english, http-enabled)
- Timestamp
- MAC address

#### Instructions

After connecting a Call Button (standard RS232 cable (1:1)), the current release information of the device can be uploaded by clicking the button [Get version], consisting of firmware release, serial number, MAC address, configuration release and language.

The entered or uploaded configuration can be stored and loaded in the menu [File]. Please note, that the encryption keys are not transmitted during an upload and thus are not stored. Encryption keys are only stored when they have been entered.

#### **Upload Parameters**

Additionally, all configured parameters (except for the encryption keys) are uploaded from the Call Button by clicking the button [Get configuration] or selecting the menu item [Call Button]/[Get configuration].

📩 FBConfig - Configuration for VOCO Call Button				
<u>F</u> ile Call <u>B</u> utton <u>?</u>				
General Network Encryption HTTP Miscellaneous				
Current Firmware Versio	n			
100121 - 22	Serial Number:	12121212		
,	MAC:	00:19:88:11:3E:01		
	Configuration Version:	000010		
Language	Radio Module		Get <u>v</u> ersion	
DEUTSCH	© voco SE (IEEE 802.11bg)		Get configuration	
	voco NT (IEEE 802.11bg)	-		
Available Firmware Vers	ion			
100331 - 23	D:\65XX\VOCONT\CBNT_DCE_10	0331.BIN	Choose file	
Language	- Radio Module			
ENGLISH	C voco (IEEE 802.11b)	-	Doupdate	
1	O voco SE (IEEE 802.11bg)			
	voco NT (IEEE 802.11bg)			

## **Firmware Update**

In order to update the Call Button firmware, first the appropriate file must be selected on the PC using the button [Choose file]. The filename is as follows

vvvv\_xx\_yymmdd.BIN

- vvvv = version (CB for *voco*, CB2 for *voco SE*, CBNT for *voco NT*)
- xx = language (EN or DE)
- yymmdd = firmware release.

The update is performed by clicking the button [Do update]. This button is only enabled when the firmware release on the Call Button is older than the version of the selected file. If an previous firmware release or a different firmware variant is to be downloaded, the menu item [Call Button]/[Firmware Update] is to be called. A warning is shown when there are incompatibilities between the file and the device.

The menu item [Ball Button]/[Force Firmware Update] is significantly faster, but shows no warnings when file and device are incompatible.

#### **Network Settings**

The property page [Network] shows the WLAN and LAN settings. Remarks:

**Name**: The name of every Call Button must be unique in the installation, since it is used for identification of the devices.

**Boot Mode**: DHCP or a fixed IP address should be configured. The special mode is reserved for customer specific installations and should not be used in normal environments. The communication is fastest (and thus most power-saving) with a fixed IP. Depending on the LAN environment, a transaction of down to half a second per event is possible. In DHCP mode about 1 second more is needed. When using DHCP, the server can but need not specified.

📩 FBConfig - Configuration for VOCO Call Button
<u>File</u> Call <u>B</u> utton <u>?</u>
General Network Encryption HTTP Miscellaneous
ESS Id: WLAN198
LAN
Boot Mode
C <u>D</u> HCP C <u>Manual IP</u> C Spe <u>c</u> ial
Own <u>I</u> P: 192 . 168 . 168 . 74
Subnet Mask: 0 . 0 . 0
D <u>H</u> CP Server IP: 0 . 0 . 0 . 0 (any: 0.0.0.0)
DHCP Lease Time: 5 O sec I min C h
Rabus Server Connection
Administration Server IP: 192 . 168 . 168 . 7 Port: 8000
<u>R</u> outer to Admin Server: 0 . 0 . 0 . 0 (local: 0.0.0.0)
TCP Timeout (sec.): 50 Gratuitous ARP

## Administration Server IP, Port and Router: Rabus Server.

The timeout values should be set to defaults (TCP timeout: 30; DHCP timeout: 30; DHCP lease time: 5).

## Encryption

By the upper group of options you may select if you want to keep the current encryption settings (option 1), if you want to configure the keys from the loaded file (option 2) or if you want to configure the key values entered below (option 3).

### FBConfig - Handbook

Option 2 is only enabled when the loaded file contains the encryption keys. This will only be the case when they have been entered not uploaded from a Call Button. Option 2 will be disabled when one of the other options is selected and can only be enabled by reloading the file.

EBConfig - Configuration for VOCO Call Button	<b></b>
File Call Button ?	
General Network Encryption HTTP Miscellaneous	
C Skip security settings (old values will be retained)	
f C Use security settings previously loaded from file	
Use security settings below	
Encryption	
C No WEP encryption	
C 40bit WEP encryption	
C 128bit WEP encryption	
О <u>W</u> PA/TKIP	•
WPA <u>2</u> / AES	
WEP parameters	
Key <u>1</u> : 🕫	
Key <u>2</u> : O	
Key <u>3</u> : C	
Key <u>4</u> : C	
Paste from clipboard <u>R</u> eset Keys	
WPA parameters	
Authentication	
Server certificate:	
Usemame:	
Passphrase:	

The middle section is enabled only when WEP encryption was selected. The WEP key is entered in the edit fields an hexadecimal values. For WEP40 4 x 10 digits and for WEP128 4 x 26 digits must be entered. The keys may be pasted form the clipboard. The clipboard must contain a string with the exact number of hexadecimal characters of all keys (for WEP40: 40 characters and for WEP128: 104 characters). Any spaces, linefeeds and separators will be ignored.

The button [Reset keys] will insert default values.

The bottom section is enabled when WPA encryption was selected.

#### **HTTP Settings**

Thr property page [HTTP] selects the application protocol. When using the Rabus protocol, any Call Button event (button press, scan, auto call, wakeup timer, etc.) will initiate a communication with Rabus Server with the proprietary Rabus protocol. The application must be connected to *Rabus*. In contrary, when using the HTTP protocol, any <u>user</u> event (button press, scan, auto call) will request a URL from the web server. There is still a frequent communication with Rabus for administration purposes.

🚔 FBConfig - Configuration for VOCO Call Button	x
File Call <u>B</u> utton <u>?</u>	
General Network Encryption HTTP Miscellaneous	
⊢ Host Protocol	
C Rabus protocol	
HTTP	
URL: //tester.aspx?name=\$N&event=\$E&batt=\$B&scan=\$S	
\$1 will be dynamically replaced by Call Button name \$1 by multi ID ••• HTTP GET	
\$S by scanned barcode C HTTP HEAD \$E by event type	
\$B by battery load in % \$\$ bv \$	
LAN	
DNS Server [P: 0.0.0.0	
HTTP Server IP: 192 . 168 . 168 . 5 Port: 80	
<u>R</u> outer to HTTP Server: 0 . 0 . 0 . 0 (local: 0.0.0.0)	
<u>ICP</u> Timeout (sec.): 90 ☐ Gratuitous ARP also on HTTP	
Administration Connection	
Administration connection interval: 18 h 0 min	
☐ <u>C</u> onnect to Admin Server after each HTTP event	

The following wildcards will be replaced in the configured URL:

- \$N by the configured Call Button name
- \$S by the scanned barcode
- \$E by the type of the event (1=button press, 2=barcode scanned, 3=HTTP wakeup, 4=auto call)
- \$\$ by the dollar character (\$)

When the checkbox is activated, the Call Button communicates with Rabus Server after every http transaction e.g. for debugging purposes.

## Miscellaneous

The upper radio button group selects the baudrate of the Serial Port of the device. It must be the same as the baudrate of a connected barcode scanner. FBConfig is able to detect the baudrate of the Call Button when communicating.

The [Default On-Time...] (Default: 20) is the time in seconds the Call Button will wait for a response from the application after sending the event. When timing out, message 1 (Rabus communication) or message 19 (HTTP communication) is displayed and the device switches off.

The [flash time...] (Default: 10) refers to the lamp flashing after a communication error after a user event. The Call Button is powered on while flashing.

The transaction protocol (Default: 4) refers to the Rabus communication and should be set to the maximum value when using the current Rabus release.

EBConfig - Configuration for VOCO Call Button	×		
<u>File</u> Call <u>B</u> utton <u>?</u>			
General Network Encryption HTTP Miscellaneous			
Serial Port Baudrate for Scanner / Debugging	1 II.		
C <u>9</u> 600 Baud © <u>38400 Baud</u>			
Enable <u>b</u> arcode scanner enquiry			
	1 II		
( <u>Lemp</u> ( LEDs (red/yellow/green)			
Indication (red) after error (sec.) 10 flashing 🔽			
Indication (green) when OK (sec.): 5 flashing IV			
Asterisk in display			
s: two-digit error message			
Timing Default <u>O</u> n-Time after wakeup (sec.) 90			
Transaction Protocol	-		
C Type 2 C Type 3: with MAC address I Type 4: new protocol			
Events	-		
Allow <u>m</u> utliple events			
	-		
Deactivate Emergency-Oπ (not recommended)			

When the option [Asterisk in display] (Default: on) is set, an asterisk character is shown in the lower right corner while the device is powered on. During disconnection, a small circle appears. After switching off, no character is displayed.

The option [Deactivate Emergency-Off] (Default: off) should be used only with externally powered devices. Normally, the Call Button switches off not later than 10 minutes after the event in order to save the battery (message 2 is displayed). By the way, the device is <u>not</u> able to switch off while the button is pressed (e.g. because off wrong storage)!

When the option [Enable barcode scanner enquiry] is selected, the Call Button will execute an software enquiry protocol on the Serial Port to be used with special serial barcode scanners (e.g. Symbol LS1004). This option should only be set for Call Buttons to be used with an appropriate barcode scanner.

The option [Exclude from automatic configuration] (Default: off) prevents this specific device from being updated with a configuration change by *Rabus Server*. This option should only be set when a Call Button is supposed to have a special configuration (e.g. for debugging purposes). Otherwise, the parameters to be regarded in the configuration update are selected within Rabus.