



# VTGO 2.0

User Manual  
for Windows Mobile 2003-2005



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# Table of Contents

<b>About VTGO</b>	<b>5</b>
System Requirements	5
Tested Pocket PCs	5
Recommended Headsets	6
Phone Screens	6
Call Status Display	8
Auto Answer	8
Answer or End a Call	9
Call Pickup	9
Call Park	9
Call Waiting	9
Conference Three or More Calls	9
Do Not Disturb	10
Forward All Calls	10
Hold /Resume	10
Flash Key	10
Transfer A Call	10
Make A Call	10
Redial	11
Speaker Phone Mode	11
Voice Mail Access	11
1-Play Messages Menu	11
2-Compose Messages Menu	11
3-Review Messages Menu	12
4-Setup Menu	13
Menu Bar Icons	13
Phone Features	14
Directories	14
Contacts Dialing	14
Speed Dial	14
Call Log (History)	15
Tools Menu	15
Extension	15
User Login	15
Speed Dial	16
Edit Speed Dial	17
Directory	18
Call Log	18
Configuration	18
NAT Traversal Note	20
Settings	21
Phone Features	21
Dialing Rules	22
Hot Keys	23
Skins	24
Help	25

Help Topics	25
Statistics	25
Support	26
About VTGO!	26
Exit Program	26
<b>Installation and Removal</b>	<b>26</b>
License Control	26
Program Start Up	27
<b>How Do I ... ?</b>	<b>27</b>
Add Additional Ring Tones	27
Reduce or Eliminate Echo	27
Use Phone while PDA is in Cradle	28
Activate Key Switch Mode	28
Program Recovery	28
Ports and Protocols	28
<b>Application Programming Interface ( API)</b>	<b>29</b>
API Reference	29
Sample Code	31

## About VTGO

### System Requirements

#### Handheld Device

Pocket PC Device with Microphone, Speaker and WiFi  
 Windows Mobile 2003 or 2005 Operating System  
 200MHZ ARM CPU or Faster, 64 Megs Ram  
 Optional Headset

#### IP Network With Wifi Access Points

Cisco CallManager Server or Cisco Call Manager Express Router for Call Control

### Tested Pocket PCs

Manufac turer	Model	OS	VoIP Features	Optimum Performance Settings
Symbol	MC50 MC9090 MC70	2003 2005 2005	<b>Echo Cancellation</b> in Hardware, Full headset jack , Phone Buttons, PTT button, Speaker Phone, Vibrator	Automatic
HP	2200	2003	Full Headset Jack	Adjust Mic/speaker Volume to eleiminate echo
	3100	2003	Must Use Headset for echo control. Speaker and Microphone are close.	Use Headset
	5400 5500	2002	Full Headset Jack, Handset Mode	Mic and speaker Volume adjustments to eliminate echo.
	4700	2003	Full Headset jack, Handset Mode	Mic and speaker Volume adjustments to eliminate echo.
	6300	2003	Full Headset jack, Handset Mode, Speaker Phone, Vibrator	Automatic
	6900	2005		Square Screen,
Fujitsu Siemens	Loox720	2003	Handset Mode	Automatic
Toshiba	e805	2003	Full Headset Jack, unit must be flipped for handset mode.	Mic and speaker Volume adjustments to eliminate echo.
Dell	Axim 30	2003		

Notes:

- Not All Features are supported on All Pocket PC models.
- The Vibrate function will not work if there is no vibrator.
- Hardware Echo cancellation is only available on select units.
- Handset Mode refers to the ability to use the Pocket PC as a handset, with the speaker at your ear and the microphone near your mouth




## Recommended Headsets





Headsets specially designed for the 3.5 mm 3 ring full headset jacks on many pocket PC models can be reviewed and purchased from Plantronics [www.plantronics.com/ipaq](http://www.plantronics.com/ipaq).

## Phone Screens

### Main Screen

<p><b>Call Status Display</b></p>		<p><b>Feature Keys</b></p>
<p><b>Dial Pad</b></p>		
<p><b>Options Menu Bar</b></p>		
<p><b>1216</b> Directory Number Display</p>		
<p> Battery Charge Indicator, Tap to open power controlpanel.</p>		
<p><b>1:34</b> Call Timer</p>		
<p> Tap to dial Voice Mail, Icon Flashes when Voicemail is waiting.</p>		
<p> Do Not Disturb Indicator, Tap to disable DND</p>		

 <p>Call Forward indicator, Tap to stop forwarding.</p>
<p><b>Send Key</b>                  Enter a number on the dialpad and Tap to start a call or Tap to get dial tone, dial number from dialpad.                  Tap twice to redial last number.</p>
<p><b>Clear &lt;&lt;</b>                  Tap to backspace dialing errors</p>
<p><b>Answer/End Call</b>                  Tap to accept an incoming call or hang up an existing call.</p>
<p><b>Hold/Resume</b>                  Tap this button to place the active call on hold or retrieve a call from hold.</p>
<p><b>Transfer</b>                  To transfer callers:                  1. During an active call, Tap the Transfer button to put the first call on hold.                  2. Dial the other party's number and wait for answer.                  3. Tap the Transfer button again to complete the Transfer.</p> <p>The transfer button is labeled Transfer or Finish TX, depending upon whether the currently selected call has a transfer initiated.</p>
<p><b>Conference</b>                  To conference callers:                  1. During an active call, Tap Conference. The first caller is placed on hold. Dial tone is heard.                  2. Dial the number of the other party you want to conference.                  3. After the second caller connects, Tap Conference again to connect all three parties. You can continue to add more callers until the conference limit is reached. 3-6 callers.</p>
<p><b>Flash ( Key Switch Mode Only)</b>                  Sends a timed hook flash on an established call's line or trunk interface , used for transfer and feature activation on a remote phone system.</p>
<p><b>Call Log</b>                  Tap to open the Call Log in Keyswitch Mode</p>
<p><b>Park</b>                  Tap the Park Button to park the currently active call. The park slot (number) will be displayed. If the Call is not retrieved it will return to the parking DN after 1 minute.</p>
<p><b>Pick up</b>                  Tap GPickup to pick up a call ringing on another phone within your pickup group.</p>
<p><b>DialPad</b>                  Used to Enter digits for dialing, voicemail and any other IVR type system.</p>
<p><b>Speed Dial</b>                  Tap to display the speed dial numbers.</p>
<p><b>Tools</b> </p>
<p><b>Tools</b>                  Tap for Configuration and Options</p>
<p> Phone Features</p>

 Speed Dial
 Directories
 Call Log
 Push to Talk
Note: Hard Buttons can be mapped for: Send, Hang-up, Hold/Resume, Transfer, Conference. See the Hotkey Section for details on how to assign Hotkeys.

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## Call Status Display

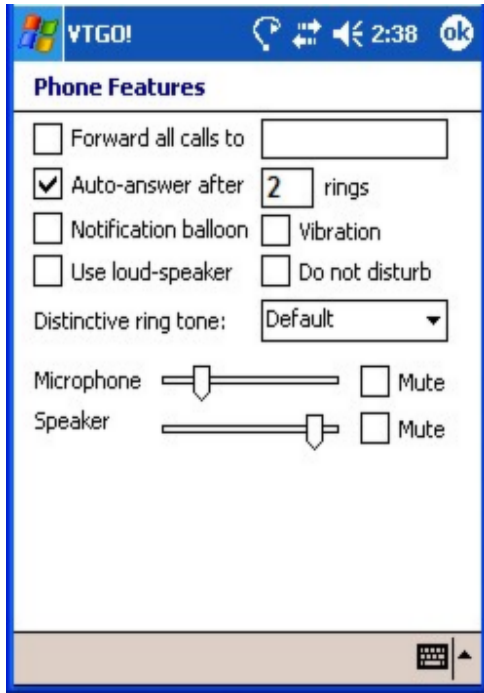
The Call Status Display area provides information regarding your extension, current time, date, outgoing call contact information and call status. It also displays call state indicator, voice mail indicator, and call forward indicator. Upon initializing VTGO the Pocket PC registers with the Cisco Call Manager and displays your IP address momentarily.

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## Auto Answer

The Auto Answer option can be enabled if you want VTGO to answer incoming calls automatically after a set number of rings.

To enable Auto Answer open Phone features (  Checkbox Icon) and check the Auto answer box then set the number of rings before answer.



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## Answer or End a Call

You can answer incoming calls by clicking the **Answer** button or by pressing the mapped Hotkey. To release an active call press the **Hang up** key.

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## Call Pickup

Press the GRPPickup to answer a call ringing on a phone in your pickup group. The Call will be pulled to your extension and answered.

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## Call Park

Press the Call Park Button to Park the active call on a system Park Directory Number. Make note of the Park number. The Call can be retrieved by dialing this number from another phone. The Parked call will timeout and return to the originating station after a 1 minute delay.

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## Call Waiting

Optionally, based on system configuration, a second call will be presented when your primary number is dialed. To answer the second call press the answer button or the hotkey assigned for answer. The original call will be placed on hold.

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## Conference Three or More Calls

To conference two or more calls, while active on a call, **press** the **conference** button and **dial** another number. The first caller is placed on hold. When the other end answers **press** the **complete conference**, all parts will be joined, repeat this process for additional members. The maximum number of conferees is

defined in the Call Manager.

---

## Do Not Disturb




---

From the Phone Features Icon, Tap the Do Not Disturb checkbox to disable ringing. Tap again to enable ringing.

---

## Forward All Calls

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To set up or change Call Forward, Click the  icon, Check the checkbox next to the "Forward all calls to" option, and enter the telephone number of the forwarding destination in the space provided using the keyboard. The  icon will be displayed when calls are forwarded. Click on the  icon to cancel forward. To change the call forward number, first uncheck the checkbox, close the dialog, and then open the dialog again to set it.

---

## Hold /Resume

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To place an active call on Hold, press **Hold**. Music will be played for calls put on hold, if music on hold is active on your Call Manager. To retrieve a Held call, press the **Resume** key or the **Hang up** key and the call will become active again.

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## Flash Key

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Use the **Flash** key to send a timed hook-switch-flash on the active phone call. This will put the current call on hold and provide secondary dialtone for transferring, conferencing or activating other features.

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## Transfer A Call

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Once on an active call you can transfer the call by pressing **Transfer** and entering the telephone number. You can then announce the transfer or simply press **Finish TX** to complete the transfer. You can cancel the call transfer at any time by pressing **Hang-up** and **Resume**.

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## Make A Call

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Several ways to make a call:

From Keypad:

1. Tap your number using the Keypad pad and Tap Send.
2. Select a previously dialed number from the Redial Pulldown List and Tap Send.
3. Tap just the send key to redial the last number.
4. Tap Send once will provide dialtone, enter the number including access codes.

From Directory:



Tap Directory Icon 

1. Select Name/ Number Tap Call
- 


## Redial

To Redial the Last Number press the Send button Twice. The First click will display the previous number, the second click will dial it.

## Speaker Phone Mode

VTGO will support Speaker Phone mode on select Pocket PC Models. This mode is activated by clicking on the Handset Icon  in the Call Status Window or by pressing the Hotkey Assigned under the Hotkeys configuration. When the Speaker Phone is active the icon will change to .

## Voice Mail Access

You can access your voice messages by clicking on the voice mail indicator  in the call status display area. The icon will blink when a message is waiting. When the Voice Mail system answers, it will prompt you for your password. Enter it followed by the # key. The menu options for **Unity** are detailed in the following links:

- Play Menu
- Compose Menu
- Review Menu
- Setup Menu

## 1-Play Messages Menu

While Playing a Message:	After Playing a Message:
1-Repeat	1-Play Again
2-Save	2-Save
3-Delete	3-Delete
4-Slowdown	4-Reply
5	5-Forward
6-Speedup	6-Mark as New
7-Skip back	7-Backup
8-Pause/Resume	8-Pause/Resume
9-Skip ahead	9-Summary
0-Help	0-More Options
*-Exit	#-Skip

## 2-Compose Messages Menu

The Voice Mail system will prompt you to enter the phone numbers or names of the recipients. Use ## to change between number and name.

Press # will Send The Message

Press * to Cancel
<b>1-Message Options</b>
1-Address
1-Change Addressing
1-Add Name
2-Hear Current Names
3-Remove Name
2-Change Recording
1-Hear Recording
2-Save Recording
3-Re-Record
4-Add to recording
3-Set Special Delivery
1-Urgent
2-Return Receipt
3-Private
4-Future Delivery
4-Review Message
0-Help
*-Exit
#-Cancel

### 3-Review Messages Menu

<b>1-Saved Messages</b>	<b>2 Deleted Messages</b>
1-Repeat	1-Repeat
2-Save	2-Save
3-Delete	3-Delete
4-Slowdown	4-Slowdown
5	5
6-Speedup	6-Speedup
7-Skip back	7-Skip back
8-Pause/Resume	8-Pause/Resume
9-Skip ahead	9-Skip ahead
	0-Help
*-Exit	*-Exit
#-Cancel	#-Cancel

## 4-Setup Menu

---

<b>1-Greetings and Transfer</b>
1-Change Greeting
1-Re-Record Greeting
2-Turn-on Alternate Greeting
3-Edit Other Greetings
1-Edit Standard Greeting
2-Edit Closed Greeting
3-Edit Alternate Greeting
4-Hear All Greetings
2-Change Call Transfer
1-Direct to Voice Mail
2-Change Destination Number
<b>2-Message Settings</b>
1-Change Message Notification
3-Change Full or Brief Menus
4-Edit Private Lists
<b>3-Personal Settings</b>
1-Change Password
2-Change Recorded Name
3-Change Directory Listing Status
0-Help
*-Exit
#-Cancel

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## Menu Bar Icons

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The Softphone provides several additional features that are accessible from the menu bar at the bottom of the screen.

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## Phone Features


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This window contains the following additional phone features:

- Forward all calls to [                    ] Select this checkbox and enter the destination number including Access Codes.
  - Auto-answer after (n) rings -- This option can be selected if you want VTGO! to answer incoming calls automatically after a set number of rings.
  - Notification Balloon-- Check this box if you want to pop up a Notification Balloon with Caller ID and Answer or Ignore Button.
  - Vibration - Check This box if you want the Pocket PC to vibrate when it Rings. ( Not all Pocket PCs have a vibrate capability.)
  - Microphone volume control/mute control -- Click on the sliders to control the microphone/speaker volumes.
  - Click on the Microphone or Speaker icons to activate/mute the corresponding device.
  - Reduce the Microphone sensitivity here to reduce acoustical echo in Handset Mode.
  - Distinctive Ring Tone: Select the ring tone you want played when a new call arrives. The ring tone will be played as you select it.
  - Do Not Disturb: Check this to silence incoming call notifications.
  - Use loud-speaker: Check this box to enable the Speaker Phone function (on units equipped with Audio routing capabilities). The speaker phone will activate automatically with auto answer
- 


## Directories

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- Tap the  icon to open your Imported Outlook Contacts, and CallManager Express Local directories. Outlook contacts are automatically loaded when this window is opened.
  - To Change the open directory use the selector box at the top of the window.
  - Search the Directory by keying a few characters; after a 1 second delay the search will return all matching entries, refine your search by keying in additional characters.
  - Tap the Call button to dial the selected contact's phone number.
- 

## Contacts Dialing


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Tap the Contact Icon  This will open the Contacts screen, TAP and Hold the Contacts name, this will produce the context menu with a Dial option, Tap the Dial Item this will produce a Screen with all of the phone numbers Tap the number you wish to dial.

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## Speed Dial

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- Press the directories  icon to Access or configure your 10 speed dial choices.
- Click on any of the defined buttons to start a call to the speed dial number.
- To program a speed dial
  1. Click the Tools menu to define the Speed dial buttons.
  2. Speed dial numbers can be configured with leading special characters.
  3. Exclamation sign (!) works as a Flash token
  4. Comma (,) as 1 sec delay.

E.g. if speed dial number is "!9,12125551250", the software will send Flash message, Dial 9 wait 1second, dial 12125551250.

---

## Call Log (History)

---

**Click** on the Call History  icon to open the Call History window. Sort and display calls based on:

- All Calls
  - Inbound
  - Outbound
  - Answered
  - Missed
  - Completed
  - Incomplete
  - Busy
- 

## Tools Menu

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All program Configuration and features are configured under this menu item.

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## Extension

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## User Login

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VTGO Supports **Extension Mobility** for use with Call Managers 3.n and 4.n. When this menu item is opened, VTGO will check the login status of the phone and provide status.

- To login enter your Cal Manager User ID and PIN from the soft keyboard, then click the Login button. If successful the softphone will reset display the Directory Number associated with your UserID.
- To Log out , open Tools|User Login Info from the Menu bar and click the logout button. The phone will reset with the default profile.
- Press the Cancel button to continue with existing device ID.

VTGO! 2:43 ok

### User Login

For Extension Mobility, please enter user ID and PIN:

User ID:

PIN:

Current status: LOGGED OUT

## Speed Dial



Opens the Speed Dial Window. 10 Speed Dial Buttons can be defined.

Click on any of the defined buttons to start a call to the speed dial number.  
Click the Tools menu to define and edit the Speed Dial buttons.



## Edit Speed Dial

To Edit a Speed Dial button, Tap the entry in the list and enter the name to be displayed and the phone number to be dialed in the spaces provided.

Speed dial numbers can be configured with special characters, Exclamation sign (!) works as Flash token, Comma (,) as 1 sec delay. Example: if speed dial number is entered as "!,,1250", the software will send a timed Hook Flash Message, wait 2 sec, then dial 1250. this is useful when the softphone is operating on Call Manager Express in Keyswitch mode behind another PBX and the PBX needs to see a hook flash to transfer a call.



## Directory

Opens the directory window.

## Call Log

Opens the call log window.

## Configuration

By selecting **Tools | Configuration** you are presented with four tabs of information that can be configured to personalize VTGO.

- **Network Tab** This tab is used to define IP network information.
  - TFTP Server:- Enter the IP address of the TFTP server, VTGO will use this to locate the Call Manager Server.
  - Primary CM address and Port: This is your Call Manager IP address. Generally you do not modify this and the following three settings as VTGO usually can configure them automatically using information stored on the Call Manager through TFTP.
  - Secondary CM address and port: Alternative Call Manager IP address for fail-over situation.
  - Client MAC address: The string that identifies your extension on the Call Manager. See your system administrator.
  - IP address : Select the Audio IP address used when registering with Call Manager. This address's address Audio UDP/ RTP will be sent to during a call.
  - Use IP Address: Check this box to enable automatic discovery of the Globally Routable NATed IP Address and Port Mappings that may occur through the NAT device. The discovered IP address will replace the local IP address when registering with Call Manager.
  - This can be used to manually override an address as well.
  - The RTP ports used for sending and receiving are calculated by taking the real IP address of the device multiplying time 2 and adding 16000. This will allow multiple VTGO softphones to operate from behind the same NAT without port conflicts.

The screenshot shows the 'Network' configuration window in VTGO. The title bar reads 'VTGO!' and the active tab is 'Network'. The configuration fields are as follows:

TFTP server:	192.168.30.7
Primary CM:	192.168.30.7
Secondary CM:	
MAC address:	000B6C168C7D
IP address:	192.168.35.9

Below the fields are two checkboxes: 'Use IP addr' (unchecked) and 'Enable Diagnostic Trace' (unchecked). A 'View Tr' button is located to the right of the 'Enable Diagnostic Trace' checkbox. At the bottom of the window, there are four tabs: 'Network', 'Directory', 'Licensing', and 'Multicas'. Below the tabs is a 'Tools' section with five icons: a checkmark, a list, a folder, a document, and a phone.

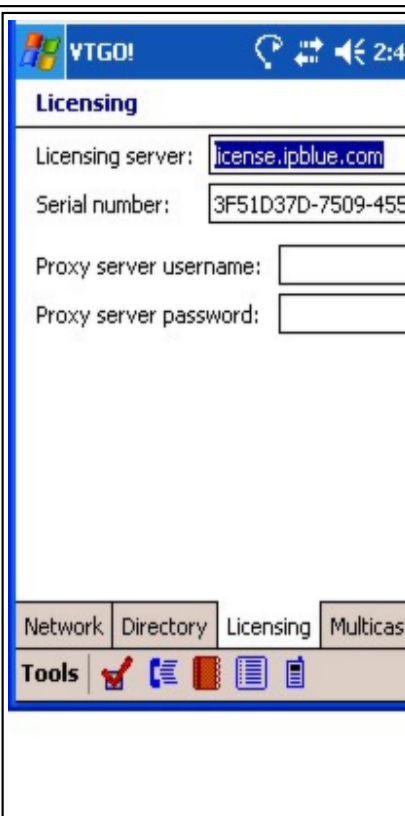
- **Directory Tab:** The Directory Tab allows you to configure LDAP directory access. The LDAP Directory will be listed under the Directory Icon.
  - Address:Port Enter the IP address and port of the LDAP server . (Cal Manager's Directory is on Port 8404)
  - Base DN: Enter the Base DN Information for the LDAP Server
  - User DN: Enter your user DN ( cn=myUserD, ou=users, o=cisco)
  - Password: Enter your password (mypassword)
  - Filter: Enter any additional filtering for the LDAP lookup.
    - Valid search Filters include:
    - (cn=jane doe)
    - (! (cn=Tim Howes))
    - (&(objectClass=Person) (!(sn=Jensen) (cn=Babs J\*)))
    - (o=univ\*of\*mich)
  - Show Last Name First. Check this box show the last name first.

**Notes:**

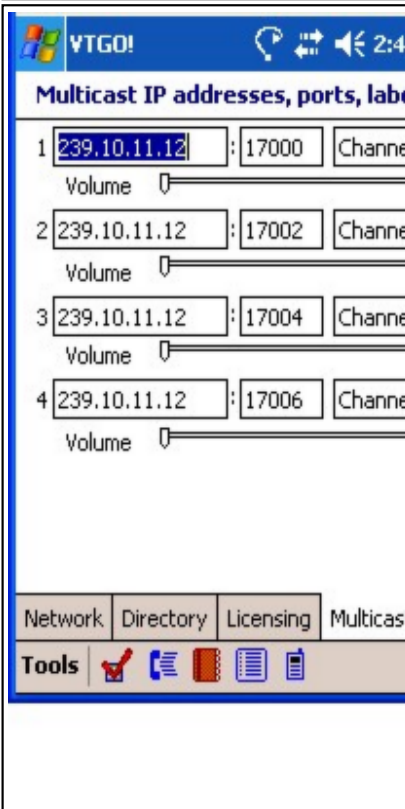
- Note 1 : The directory lookup delay is fixed at 1 second, this will allow a user to enter several characters before firing a lookup sequence to the server.
- Note 2 : The User Login Info values for userD and PIN will be used as User DN: cn=userD, and Password.
- Make the PIN and Password the same to simplify Directory Access.
- Search Filter details can be found at the following URL: <http://www.faqs.org/rfcs/rfc2254.html>
- You may need the assistance of your administrator in order to access LDAP directories. You will need the LDAP IP address and port, the Base DN, and a valid User DN and password. By default, VTGO has the Cal Manager directory set as Cal Manager Directory. If you know your ccmuser name and password, enter them in the appropriate spaces under UserDN and password, and you should be able to pull up the directory using the Directories button on VTGO-PC.
- **Setting up for Active Directory as an LDAP directory**
- First, the user's properties (in Active Directory Users and Computers) must have at least the first name, last name, and telephone number defined in the General tab section. If all three are not filled in, VTGO-PC directory will not display the entry.
- If your Active Directory allows anonymous login (set by the system administrator), then under the User DN field, you can enter "cn=Anonymous", and leave the password field blank. If you must be an authorized user, then you must enter a credential that identifies a valid user in the User DN field, and that user's password in the password field. This credential is the fully qualified domain name of the object, which can be found in Active Directory under the user's properties in the Object tab. The name is the display name. In Active Directory, the fully qualified name appears as domain.com/users\_name .
- IMPORTANT NOTE: All settings used in Active Directory are case sensitive.



- **Licensing Tab** This tab is used to configure license settings.
  - License server: This is the URL to the license server. The standard URL Format and name is: license.ipblue.com (HTTP:// is not required)
  - Secondary server: This is the alternative URL to the license server.
  - Serial number: Put your VTGO! license code here, including the dashes.
  - Proxy server username: Proxy server user login name.
  - Proxy server password: Proxy server user login password.



- **Multicast Tab:** Define the Multicast Audio Channels by entering the IP address, Port and Label. The IP address should be a valid Class D address in the range 224.0.0.0 through 239.255.255.255



## NAT Traversal Note

VTGO supports NAT traversal when located behind a NAT. In the Tools|Configuration item **Use IP Address:** Check this box to enable automatic discovery of the Globally Routable NATed IP Address and Port Mappings that may occur through the NAT device. The discovered IP address will replace the local IP address when

registering with Call Manager. When this option is set the softphone will periodically rediscover the IP address and Port mappings.

The RTP ports used for sending and receiving are calculated by taking the real IP address of the device multiplying time 2 and adding 16000. This will allow multiple VTGO softphone to operate from behind the same NAT without port conflicts.

IP blue hosts an iNat Server at 67.106.179.150 is used to provide public IP address information and RTP/UDP port information to the softphone client located behind a NAT device. The IP blue softphone will try to reach the iNat server using UDP port 4301.

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## Settings

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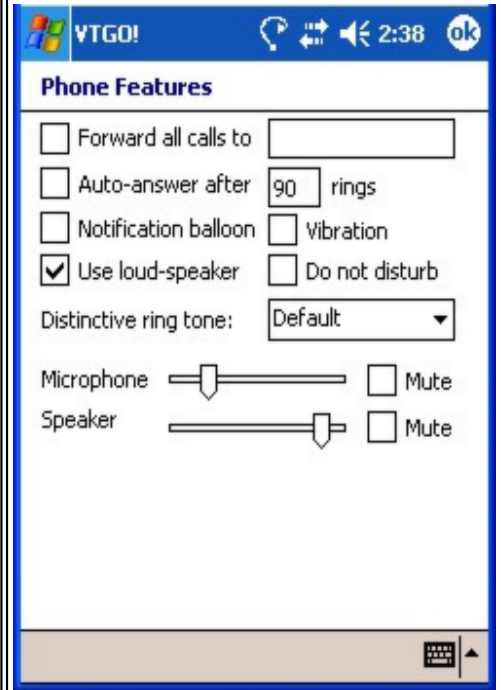
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## Phone Features

---

This window contains the following additional phone features:

- Forward all calls to [                    ] Select this checkbox and enter the destination number including Access Codes.
- Auto-answer after (n) rings -- This option can be selected if you want VTGO! to answer incoming calls automatically after a set number of rings.
- Notification Balloon-- Check this box if you want to pop up a Notification Balloon with Caller ID and Answer or Ignore Button.
- Vibration - Check This box if you want the Pocket PC to vibrate when it Rings. ( Not all Pocket PCs have a vibrate capability.)
- Microphone volume control/mute control -- Click on the sliders to control the microphone/speaker volumes.
- Click on the Microphone or Speaker icons to activate/mute the corresponding device.
- Set the Microphone sensitivity here to reduce echo in Handset Mode.
- Distinctive Ring Tone: Select the ring tone you want played when a new call arrives. The ring tone will be played as you select it.
- Use loud-speaker: Check this box to enable the Speaker Phone function (on units equipped with Audio routing capabilities). The speaker phone will activate automatically with auto answer

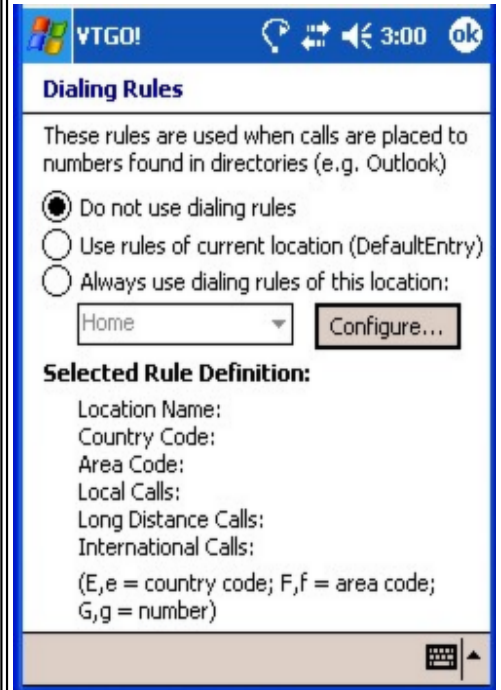


## Dialing Rules

**Dialing rules** are used when dialing from Outlook and LDAP Directories. The dialing rules are integrated with the dialing rules of Windows Mobile. The user can define a Location and the attributes necessary to complete calls from the location including Country Code, Area Code, LocalPrefix, Long Distance Prefix, International Prefix.

- To **Review** the current Dialing Rule settings open **Tools > Settings > Dialing Rules**.
- To **Create** or **Edit** a Dialing Rule:
  1. Open **Tools > Settings > Dialing Rules** and click **Configure**. This will bring you to the Connections Setting Dialog of the Pocket PC.
  2. Tap Dialing Rules
  3. Check Use Dialing Rules
  4. Tap New
  5. Enter a Location Name [VoIP] for example.
  6. Then enter the Country Code and Area Code in the spaces provided.
  7. Tap Dialing Patterns
  8. For Local dialing enter the Local Access code, 9 for example; if the Area code must be added enter F; G represents the remaining number. So, if the number to be dialed from the directory is (212) 555-1234 and you need to dial 9 to get an outside line from your PSTN gateway you would enter 9,G. This would create the following dialing string 95551212. The area code is dropped. If you need to dial the area code you would enter 9FG.
  9. For Long distance dialing enter the Long Distance Access Codes. 91FG for example.
  10. For International dialing enter the prefix. 9011EFG for example.

E, e = Country code; F,f = Area Code; G,g=number; Comma (,) = 1 second delay.



## Hot Keys

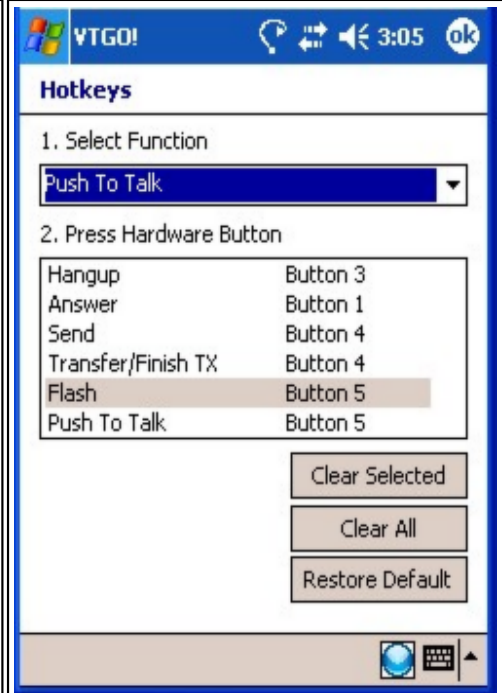
VTGO can map hardware buttons to softphone functions.

To map a button, first select the Function from the pick list, then touch the Hardware Button. The same button can be used for more than one phone function. VTGO will re-register the buttons when focused, this allows other programs to take the buttons when they are focused. VTGO will unregister the buttons when exted.

Functions that can be mapped are :

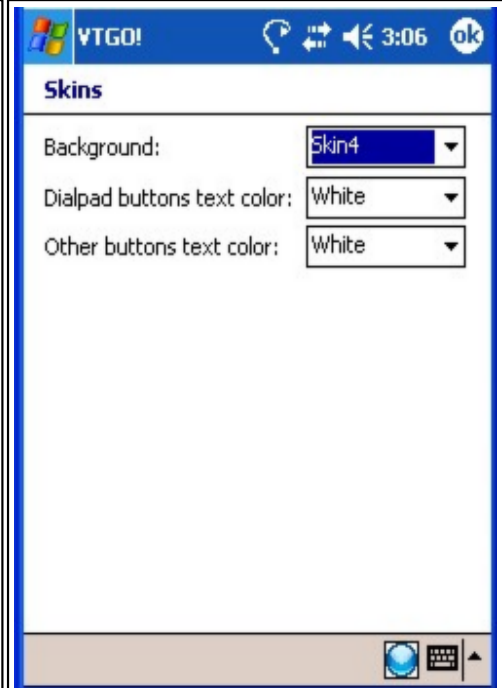
- Hold/Resume
- Hang-up
- Answer
- Send
- Transfer/Finish Transfer
- Conference
- Speaker Phone

**Tip:** You can assign a hard-button to run VTGO when pressed from the Start>Settings>Buttons Icon.



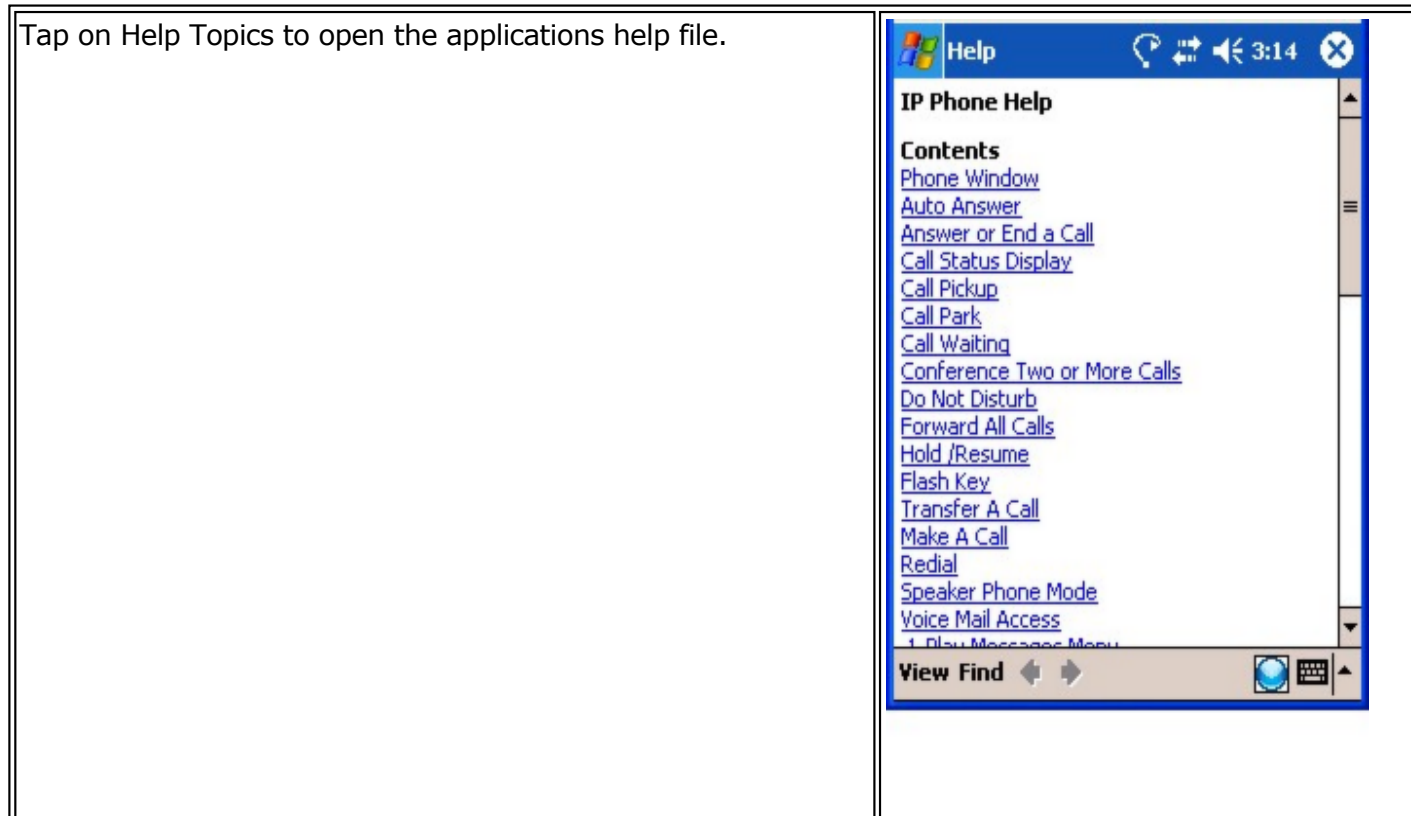
## Skins

- The **Skins Panel** is used to customize the background and text colors:
  - Apply this background: Choose a background scheme for VTGO! and its buttons. You can customize this list by adding files to, deleting files from or replacing files in your unit's **Windows folder**. These files, except "Default", are resource only DLLs, and must bear the names "VTGOSkin\_\*.dll". These DLLs contain three bitmap resources named "background", "dialpad" and "function" respectively. These resources will be stretched on VTGO! and its buttons' backgrounds. You have to use Visual Studio to make these DLLs.
  - Dialpad buttons' text color: Choose a color for the dialpad button text.
  - Other buttons' text color: Choose a color for the functional button text.



## Help

### Help Topics



## Statistics

The Call Statistics Screen is useful in diagnosing problems and will show current device registration and call session RTP information.  
Statistics include:

### Device

IP address:

The local IP address used to register with Call Manager

MAC address:

The MAC address used to register with call manger

Call Manager:

The DNS name or IP address and port of the CallManager Server.

Phone Type:

The Phone type used for registration 7910, 7940, 7960, PC

### Audio

Sending to:

The IP address and port of the far end.

Receiving From:

The IP address and port of the far end.

Send Port:

The local RTP sending port.

Receive Port:

The local RTP receive port.

Bytes Sent:

number of bytes sent, should be incrementing during a call

Bytes Received:

number of bytes received, should be incrementing during a call.

---

## Support

---

This is used by the administrator to unlock the configuration options of the softphone. enter the admin password and tap ok.

---

## About VTGO!

---

The about VTGO screen will display version and copyright and licensing information.

---

## Exit Program

---

To close the program, click **Tools | Exit** or from the soft keyboard press **Ctrl+q**.

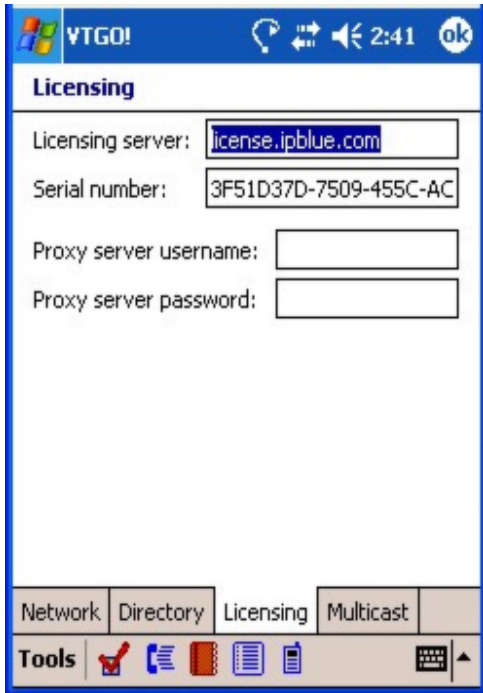
---

# Installation and Removal

## License Control

---

Use of VTGO is controlled by a product license. If you do not have a valid license, VTGO will run in demo mode, runs for 20 minutes in a session, and a call can only last for 2 minutes. To License the softphone enter the serial number provided by IP blue in the Serial Number space provided.



## Program Start Up

---

The Program will run automatically when the Pocket PC is reset. To Run the Softphone Tap on the VTGO on in the Start Menu or in the Program Folder also The Program can be run directly from the \Program Files\IP blue\vtgo.exe

---

## How Do I ... ?

### Add Additional Ring Tones

---

VTGO uses standard wave files for ring tones, any wave file can be used but short recordings are recommended. Add the ringtones to the \Program Files\IPblue\Sounds directory.

---

### Reduce or Eliminate Echo

---

Acoustical Echo can occur on Pocket PC when the Microphone gain setting is too sensitive and or if the Speaker Volume is too loud. If a participant in a conversation complains that they can here there own voice echoed back do the following:

1. Switch to a headset. Some Pocket PC models as Identified in the Tested Models section of this help file will support a full headset jack allowing the Microphone and Speaker to be extended to the headset. This will eliminate ech in almost all situations. It will also albw you to view the screen and use other applications while talking.
2. Open the More Feature menu and reduce the microphone and speaker volume until the other end reports

the echo is gone. This is effective on models that physically separate the microphone and speaker and support a handset mode.

---

## Use Phone while PDA is in Cradle

---

VTGO can be used while the Pocket PC is cradled. In order to do this you must change the Active Sync configuration on the PDA so it does not use the USB connection to the PC while cradled. If this is not set correctly the PDA will change IP address to a dummy Peer To Peer address of 192.168.55.101 and disconnect as you cradle it. To change this setting open Active Sync on the PDA, Tap Tools -> Options -> Advanced and uncheck the "When Cradled" check box.

---

## Activate Key Switch Mode

---

Softphone can operate in a mode called Keyswitch Mode. This is used in conjunction with the keyswitch pass-through mode configuration of Call Manager Express. In KeySwitch mode:

1. Press the Send key to go off hook, dialtone will come from the attached switch line or trunk. Answer Supervision will cut through and connect the audio path.
  2. Call Manager based Conference, Transfer, Park & Pickup keys are disabled and hidden.
  3. Flash, Call Log and Speed dial buttons replace the disabled buttons. Press Flash to transfer a call.
  4. Last dialed number is not popped/redialed when Send button is clicked two or more times.
  5. To enable KeySwitch mode the software expects a new string registry value called "KeySwitchMode" under the [HKEY\_CURRENT\_USER\Software\Pblue\VTGO key. Set this key's data value to "1" to enable this mode; any other value or absence of this key will tell VTGO to work as with regular Call Manager. This key needs to be created by setup program.
- 

## Program Recovery

---

VTGO supports redundancy and will automatically recover from connection failures with the Call Manager when the connection is re-established. Such failure can be caused by the wireless connection being lost or user walks out of range; the Pocket PC going into suspend (sleep) mode; or the Call Manager going off line.

VTGO will also re-register with the Call Manager when it receives a Reset command from the Call Manager during configuration control sessions.

---

## Ports and Protocols

---

The following table represents the ports and associated protocols used by VTGO-PC.

Local Port	Remote Port	Protocol or Service	Direction	Usage
TCP dynamic	2000	SCCP	Both	Control Signaling

UDP Dynamic 16000 + 2x IP last octet	UDP Dynamic	UDP/RTP	Both	Media Streaming
TCP dynamic	389, 8404	LDAP	Both	Real LDAP Directory
UDP dynamic	69	TFTP	In	Get TFTP Files
	3587		Out	Response
TCP 80	80	HTTP	Both	HTTP Server HTTP Client
UDP 67	68	DHCP	Both	Used for DHCP Scope Requests
UDP dynamic	53	DNS	Both	Used for DNS Lookup Requests
UDP	4301	iNAT Server	Both	Public IP address discovery

## Application Programming Interface ( API)

### API Reference

#### API Reference

APIs have been designed to be extremely easy to use, allowing the developer to concentrate on the function of the application rather than being bogged down in technical details concerning the APIs.

Since VTGO softphone is providing all telephony functionality, VTGO!.exe has to run on the Pocket PC device for 3rd party application to be able to use it. A subset of API functions makes it easy to control VTGO (RunProgram, ShowProgram, ExitProgram), while another subset allows to request VTGO application to perform telephony commands (MakeCall, AcceptCall, others).

For developer's convenience, APIs are implemented both as a standard DLL (VTGO\_Proxy.dll) and a COM DLL (VTGO\_Proxy\_Com.d). COM DLL methods provide one-to-one mapping to the functions exposed by standard DLL. There are no callbacks or events in this API release. Callbacks and events might be supported in future versions.

Third party applications can use either standard DLL or COMDLL, depending on developer's preferences or requirements.

VTGO for PocketPC API - Programmer's Reference Guide 3

#### MakeCall

**Declaration** long MakeCal(BSTR sPhone)

##### Parameters

sPhone - Specifies the destination phone number

##### Returned Value

0 if success, 1 if failure (if softphone was not running)

**Remarks** Causes VTGO softphone to make call to specified phone number.

#### AcceptCall

## **Declaration long AcceptCall()**

### **Parameters**

None

### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

**Remarks** Causes VTGO softphone to accept incoming phone call. Has no effect if there is no incoming phone call.

## **EndCall**

### **Declaration long EndCall()**

#### **Parameters**

None

#### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

#### **Remarks**

Causes VTGO softphone to end active call.

## **TransferCall**

### **Declaration long TransferCall(BSTR sDestination)**

#### **Parameters**

*sDestination* – Specifies the destination phone number to transfer call to

#### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

**Remarks** Causes VTGO softphone to perform one-step transfer of the active call to the specified destination number. Has no effect if there is no phone call in progress.

VTGO for PocketPC API - Programmer's Reference Guide 4

## **SendDTMFDigits**

### **Declaration long SendDTMFDigits(BSTR sDigits)**

#### **Parameters**

*sDigits* – DTMF digits to send

#### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

#### **Remarks**

Causes VTGO softphone to send specified digits (DTMF tones) to the switch. *sDigits* parameter can be 1 or more characters from this list: 0-9, a-z, A-Z, #, and \*. Characters will be converted to dialable digits before sending (e.g. "a" will sent as 2, "d" as 3, etc).

## **HoldCall**

### **Declaration long HoldCall()**

#### **Parameters**

None

#### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

#### **Remarks**

Causes VTGO softphone to put active call on hold. Has no effect if there is no active call in progress.

## **ResumeCall**

### **Declaration long ResumeCall()**

### **Parameters**

None

### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

### **Remarks**

Causes VTGO softphone to resume call that was placed on hold.

## **RunProgram**

### **Declaration long RunProgram()**

#### **Parameters**

None

#### **Returned Value**

0 if success, 1 if failure

#### **Remarks**

Starts VTGO softphone application. Fails if VTGO application can not be found on the device. If VTGO application was already running, returns with success.  
VTGO for PocketPC API - Programmer's Reference Guide 5

## **EndProgram**

### **Declaration long EndProgram()**

#### **Parameters**

None

#### **Returned Value**

0 if success, 1 if failure

#### **Remarks**

Shuts down VTGO softphone application. If there are any phone calls in progress, they will be disconnected. Has no effect if VTGO application was not running.

## **ShowProgram**

### **Declaration long ShowProgram(bool bShow)**

#### **Parameters**

*bShow* – show or hide VTGO application

#### **Returned Value**

0 if success, 1 if failure (if softphone was not running)

#### **Remarks**

Shows or hides running VTGO softphone application.

## **IsProgramRunning**

### **Declaration bool IsProgramRunning()**

#### **Parameters**

None

#### **Returned Value**

True if VTGO application is running, False if not.

#### **Remarks**

Detects if VTGO application is currently running on the device.

VTGO for PocketPC API - Programmer's Reference Guide 6

---

## **Sample Code**

---

## Sample Code

Following is a snippet of an eVC program that makes a call for 212-555-1212 number using COM interface:

```
#import "VTGO_Proxy.dll" no_namespace named_guids
void MyClass::MakeCall(void)
{
    IPhonePtr pPhone;
    CoInitializeEx(NULL, 0);
    try
    {
        pPhone.CreateInstance(__uuidof(Phone));
    }
    catch(...)
    {
        AfxMessageBox(_T("COM Error"));
        return;
    }
    CString sPhone = _T("2125551212");
    long nRetVal = pPhone->MakeCall(sPhone.GetBuffer(0));
    if (nRetVal == 0)
        AfxMessageBox(_T("Success"));
    else
        AfxMessageBox(_T("Failure"));
}
```

VTGO for PocketPC API - Programmer's Reference Guide 7

Following is a snippet of an eVC program that makes a call for 212-555-1212 number using DLL interface. Notice that this sample is checking to see if softphone program is running before attempting to make a phone call

```
typedef long (CALLBACK* LPFNDLLFUNC_MAKECALL)(BSTR);
typedef bool (CALLBACK* LPFNDLLFUNC_IS_PROGRAM_RUNNING)();
void CMyDlg::MakeCall(void)
{
    long nRetVal;
    HINSTANCE hDLL;
    LPFNDLLFUNC_MAKECALL lpfnMakeCall;
    LPFNDLLFUNC_IS_PROGRAM_RUNNING lpfnIsProgramRunning;
    hDLL = LoadLibrary(_T("VTGO_Proxy.dll"));
    if (hDLL != NULL)
    {
        lpfnMakeCall = (LPFNDLLFUNC_MAKECALL)
            GetProcAddress(hDLL, _T("MakeCall"));
        lpfnIsProgramRunning = (LPFNDLLFUNC_IS_PROGRAM_RUNNING)
            GetProcAddress(hDLL, _T("IsProgramRunning"));
        bool bProgramRunning = lpfnIsProgramRunning();
        if (!bProgramRunning)
        {
            AfxMessageBox(_T("VTGO is not running"));
            FreeLibrary(hDLL);
            return;
        }
        CString sPhone = _T("2122221212");
        nRetVal = lpfnMakeCall(sPhone);
        if (nRetVal != 0)
        {
            AfxMessageBox(_T("Failed to MakeCall"));
        }
        FreeLibrary(hDLL);
    }
    else
    {
        AfxMessageBox(_T("Failed to load VTGO_Proxy.dll"));
    }
}
```

}

---

# Index

## - A -

Answer or End a Call 9  
About VTGO 5

## - P -

Phone Features 14, 21

## - H -

How Do I ... ? 27

## - S -

Speed Dial 14, 16

## - D -

Directories 14

## - H -

Hot Keys 23

## - M -

Menu Bar Icons 13

## - D -

Dialing Rules 22

## - H -

Hold /Resume 10

## **- T -**

Transfer A Call 10

## **- C -**

Conference Three or More Calls 9

## **- F -**

Forward All Calls 10

## **- V -**

Voice Mail Access 11

## **- 1 -**

1-Play Messages Menu 11

## **- C -**

Call Log (History) 15

## **- M -**

Make a Call 10

## **- S -**

System Requirements 5

## **- T -**

Tested Pocket PCs 5

## **- P -**

Program Recovery 28

## **- L -**

License Control 26

## **- I -**

Installation and Removal 26

## **- P -**

Phone Screens 6

## **- A -**

Add Additional Ring Tones 27

## **- 4 -**

4-Setup Menu 13

## **- R -**

Redial 11

## **- C -**

Call Status Display 8

## **- P -**

Program Start Up 27

## **- C -**

Configuration 18

## **- T -**

Tools Menu 15

## **- U -**

User Login 15

## **- A -**

Application Programming Interface ( API) 29

## **- D -**

Do Not Disturb 10

## **- E -**

Extension 15

## **- H -**

Help 25

Help Topics 25

## **- S -**

Statistics 25

## **- 2 -**

2-Compose Messages Menu 11

## **- A -**

About VTGO! 26

Activate Key Switch Mode 28

## **- S -**

Sample Code 31

## **- A -**

API Reference 29

## **- C -**

Contacts Dialing 14

## **- N -**

NAT Traversal Note 20

## **- E -**

Edit Speed Dial 17

## **- S -**

Support 26

## **- F -**

Flash Key 10

## **- P -**

Ports and Protocols 28

## **- C -**

Call Park 9  
Call Pickup 9

## **- E -**

Exit Program 26

## **- R -**

Reduce or Eliminate Echo 27  
Recommended Headsets 6

## **- A -**

Auto Answer 8

## **- C -**

Call Waiting 9

## **- U -**

Use Phone while PDA is in Cradle 28

## **- S -**

Settings 21

## **- D -**

Directory 18

## **- C -**

Call Log 18

## **- P -**

Phone Features 14, 21

## **- S -**

Skins 24

## **- 3 -**

3-Review Messages Menu 12

## **- S -**

Speaker Phone Mode 11

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