A. Introduction

This document provides instructions for installing direct together with the TeamCall Express middleware component. TeamCall Express is a windows program that can communicate with telephone switches (PBXs) using TAPI functions. The Mac telephone program "direct" requires TeamCall to communicate with TAPI-enabled telephone switches.

TeamCall Express must be installed on a computer connected to the PBX via network cable or USB. Because TeamCall Express is not a resource intensive program, it must not be run on the latest hardware.

direct is the Mac OS X based CTI client application. It should be installed on individual Mac OS X computers or on a central server, depending upon how applications are installed at your site.

These instructions deal mainly with the Installation of TeamCall Express. They assume that a Windows XP based PC is used. Windows 2000 and Windows 2003 Server work equally well, but details of screenshots and navigation within the operating system may differ. These slight differences between Windows versions should be obvious and pose no problem.

The TeamCall Express installation package is shipped as a ZIP file. Windows 2000 has no native utility to unpack ZIP files, so an external tool like **WinZip** (a free trial version of which can be downloaded at http://www.winzip.com) must be installed. This is not necessary under Windows XP or Windows 2003 Server which include ZIP functionality.

B. Requirements

Installing ilink TeamCall Express requires the following:

Windows-PC

• ilink TeamCall Express must be installed on a PC running Windows 2000, Windows 2003 or XP, that is capable of running around the clock and is protected against being inadvertently disturbed or turned off. This computer must be attached to the network and reachable by all Mac OS X computers on which direct is installed.

Telephone switch

• The phone system must be capable of TAPI signaling. Consult your hardware provider if necessary.
• The firmware of your phone system should be up-to-date, or you should be aware of this as a possible source of problems. It is not necessary to update the firmware preemptively if no issues arise.
• The TAPI drivers for your PBX are required (preferably from 3rd party suppliers) for your Windows version. Consult your PBX hardware provider if necessary.

Mac

• Mac OS X 10.3.9 or 10.4
• PowerPC or Intel

**C. Preparations**

Connecting the Windows computer with the phone system

Most phone systems (PBXs) include a serial or USB cable for connecting to a PC. Larger phone systems can be directly connected to the network or to a PC through an ISDN card. If you have questions about which method is right for you, consult your hardware dealer.

Checking if a TAPI driver is installed

Just as every printer requires a special driver, controlling a phone system also requires a driver, in this case a TAPI driver. You can find installed TAPI drivers under **Start** I **Settings** I **Control Panel** I **Phone and Modem Options**. In the example below you can see a list of installed drivers, including one for a Panasonic system.
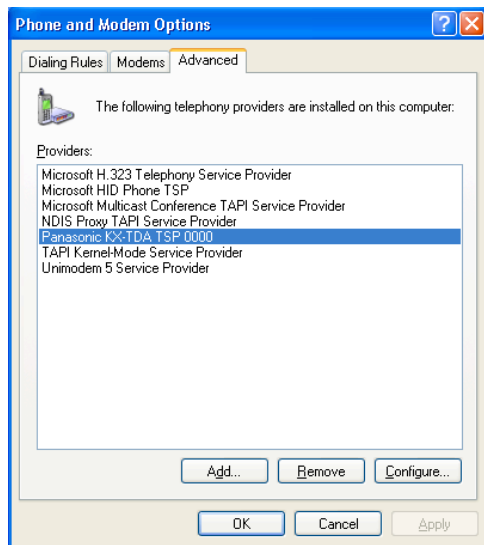
We strongly recommend installing the newest TAPI driver for your phone system. Drivers included on the manufacturer's CD are often out-of-date. For smaller phone systems you can usually find driver updates on the manufacturer's website, or through your dealer. For some phone systems, it may be necessary to configure individual telephones in the driver after installation. If you aren't familiar with your phone system, seek advice from the manufacturer or your dealer.

Testing the TAPI driver

Start the program "Phone Dialer"

You should place a test call after installing the TAPI driver, just as you would print a test page after installing a new printer. Do this with the Windows program "Phone Dialer". To launch "Phone Dialer", choose **Start I Run...,** type "Dialer" and click on "OK".

Configure the line

Phone Dialer needs to know which telephone to use for the test call. To configure the TAPI line, go to **Edit I Options**. There you will find a selection box with phone lines to choose from.
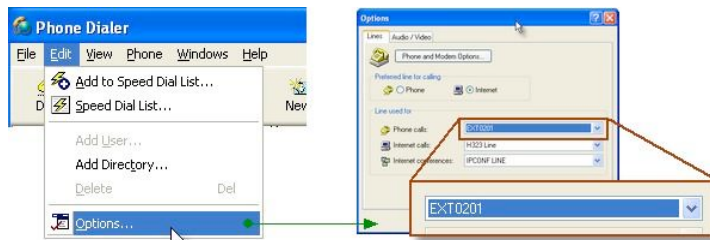

Place a test Call

Click on the Dial button to open a dialog window. Enter the number you would like to dial. Remember, when dialing an outside extension you may have to add an additional digit to reach the outside line. Place test calls to both internal and external numbers. When the call is connected (ringing) then the TAPI driver is functioning correctly.
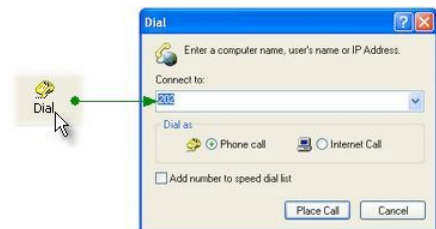

Should any of your test calls fail, contact your phone system dealer or the phone system manufacturer. ilink TeamCall Express can only be successfully installed when the TAPI driver has been installed and is functioning properly. The driver is a part of the phone system and falls under the responsibility of the phone system dealer or the manufacturer.

D. Installing TeamCall Express

1.
Disable anti-virus programs or set them to "learn" mode so they don't interfere with the installation.

2.
Unpack the file TeamCallExpress.zip (e.g. by double clicking this file). This should create a new folder.

3.
Double-click on the .msi installer package. The TeamCall Express installer should start. Follow the instructions provided.

4.
After the installation a window with the TeamCall Express settings will appear. You can reach the TeamCall Express settings at any time through **Start I Control Panel I TeamCall Express**.

TeamCall Express must be stopped so that changes can be made. If TeamCall Express is still running, the button "Start" in Service will be deactivated. To Stop TeamCall Express, click "Stop".
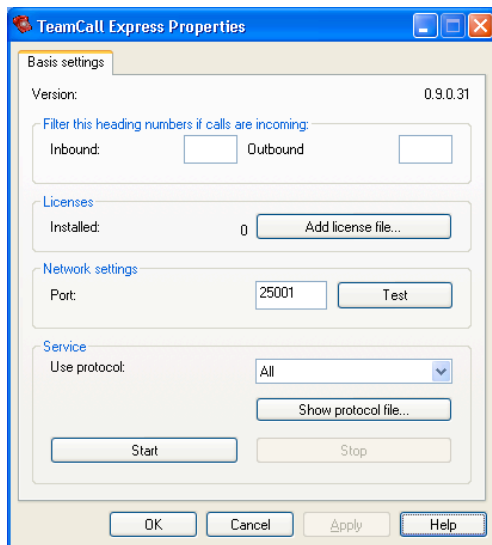
Click on "Add licence file..." to install your TeamCall Express licence file. Choose your license file in the dialog window "TeamCall -> ilinklicense" and click on "Open". The number of installed licences is displayed after "Installed". In the example this number is 10.
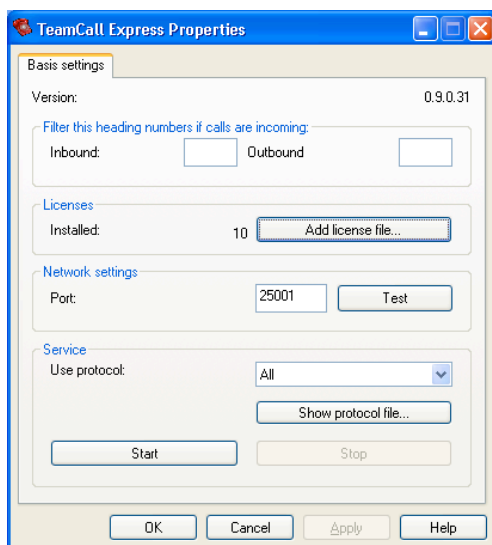
5.
We will come back to the setting "Leading numbers for external number filters" later, after direct has been installed.

6.
Network settings:
TeamCall Express must open a port to communicate with direct. TeamCall Express automatically suggests a free port. In most cases, this will work. To test if a particular port is in use, enter the port number in the field provided and click on "Test". Remember, anti-virus software must be deactivated / TeamCall Express must be registered as trustworthy for the installation to work.

7.
Service:
TeamCall Express can produce a log file, when desired. Set the level of detail appropriate to your needs. Log level settings are cumulative. For example, the setting "Errors only" only logs errors. The setting "Function calls" logs errors AND function calls. The setting "All" enables the collection of maximum information to help in diagnosing problems. For productive use we recommend the setting "No protocol".

Start the service with the "Start" button and stop it with the "Stop" button.

TeamCall Express runs as a service and is visible in the list of Windows Services. The service is started automatically when Windows starts.
Important: remember to stop the TeamCall Express service before you remove the TAPI driver.
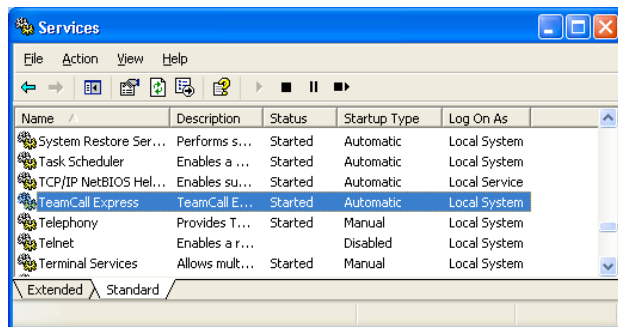
8.
You can now restart / reactivate your anti-virus software and deactivate "learn" mode for your firewall.

9.
Restart your computer.

10.
Wait 5 minutes after restarting the server before using direct. This ensures that TeamCall Express is able to completely synchronize itself with the TAPI driver.

E. Setting up *direct* on Mac OS X

This document focuses on key elements of the process. You can find a complete description of direct's functions in the direct help function. If you haven't yet installed direct, please do so now. Double-click on the direct.dmg file and copy the direct icon into a program folder.

1. Open the direct settings under **direct I Preferences…** and click on "Connections". Click on the "+" (plus) button located to the lower left to create a new connection. Choose "TeamCall" from the drop-down menu and click "OK".
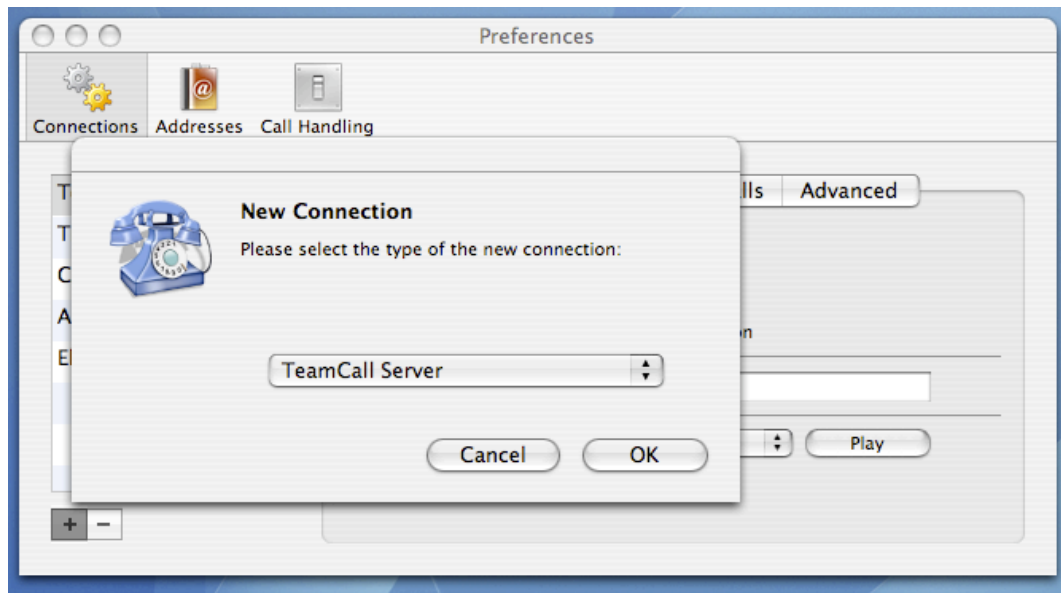
2. In the "Info" tab choose "Activate connection" and "Connection for outgoing calls". Create a name for the connection in the "Name" field.
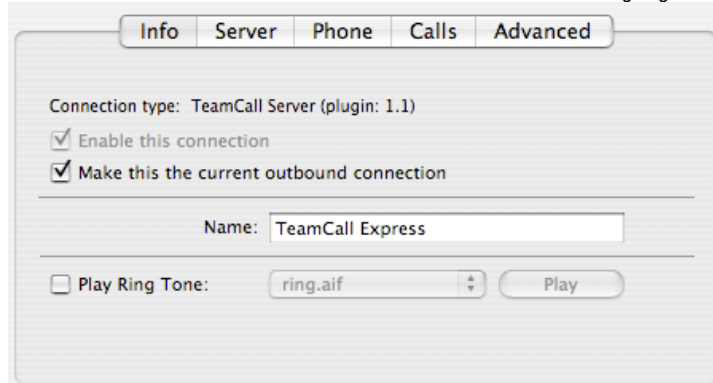
3. In the Server tab, specify the IP address of the PC that you've installed TeamCall Express on in the "Server" field. Set the port number to the port set in step 6 above.
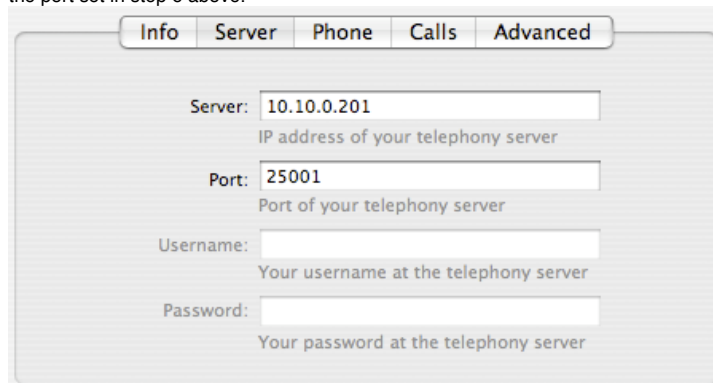
4. In the Phone tab, set the first three fields to correspond to your phone number. The grey help text contains suggestions for the proper entries.

Only enter a number in "Line extension" when your extension contains at least two digits and not more than five digits.

5. In the Calls tab, set the number combinations that you must dial in order to get an outside line, or to make a long distance or international call. For example, it might be required to dial a "9" for an outside line.

6. Most business callers don't block their number when calling. Some PBXs add a leading "0" to incoming numbers. There can be differences between how incoming and outgoing calls are handled.

To configure this filtering option, start direct on a Mac OS X computer in conjunction with a telephone configured as a TAPI line. Call this telephone from an external phone, for example with a mobile phone. If direct displays one "0" too many, e.g. 00160123456, then enter a "0" in the TeamCall Express options under "Leading zero for external numbers" under "Incoming". Otherwise leave this field empty.

Now place a call from direct to the external extension. If an extra "0" is displayed then enter a "0" in the "Outgoing" field. Otherwise leave this field empty.

7. License installation
To install a direct license, double-click the file direct[…].ilinklicense. The window "Add license" appears. You can either install the license for the current user or for all local users. Choose the appropriate option. You need a separate license file for each workstation. You can view the installed licenses under **direct | Licenses…**

F. Uninstalling TeamCall Express

The uninstall process varies slightly between Windows Operating Systems (Windows 2000, Windows XP, Windows 2003 Server). The following description is based upon Windows XP.

Under **Start** | **Control Panel** | **System** | **Add or Remove Programs** you can view a list of the software installed on the computer. To uninstall TeamCall Express, first find TeamCall Express in the list and then click "Remove".
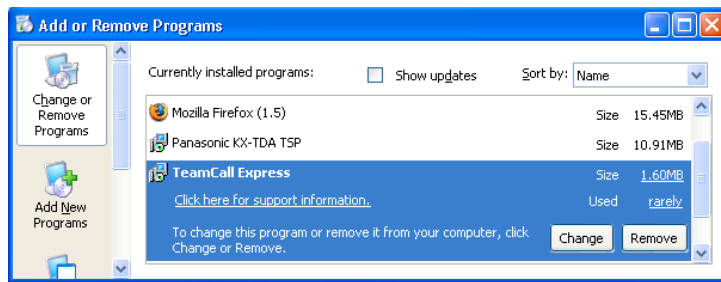
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