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Itelpop Simple Screenpop Web Application Installation & Configuration Guide Version 1.0

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0. PRELIMINARIES

0.1 PUBLISHED BY

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0.2 COPYRIGHT

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0.3 DOCUMENT HISTORY

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BIBLIOGRAPHY

0.3.1 Referenced Documents

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1. INTRODUCTION

Within an hour you can be up-and-running with a fully functional web based telephony application, Itelpop Simple Screenpop Web Application. This application provides call control and screenpop. Call control allows a user to perform telephony actions such as making a call, transfer a call, hold, hangup, etc without touching any hardware. Screenpop works the other way round. The telephone system drives you. As a call starts to ring on your phone, Itelpop detects the caller and can present this number to a web application and lookup the caller.

So in summary, Itelpop can tell you who is calling before you even pick up the phone. It can also allow you to dial a number from your computer. So saving you misdialling and having to enter large dial strings on your phone.

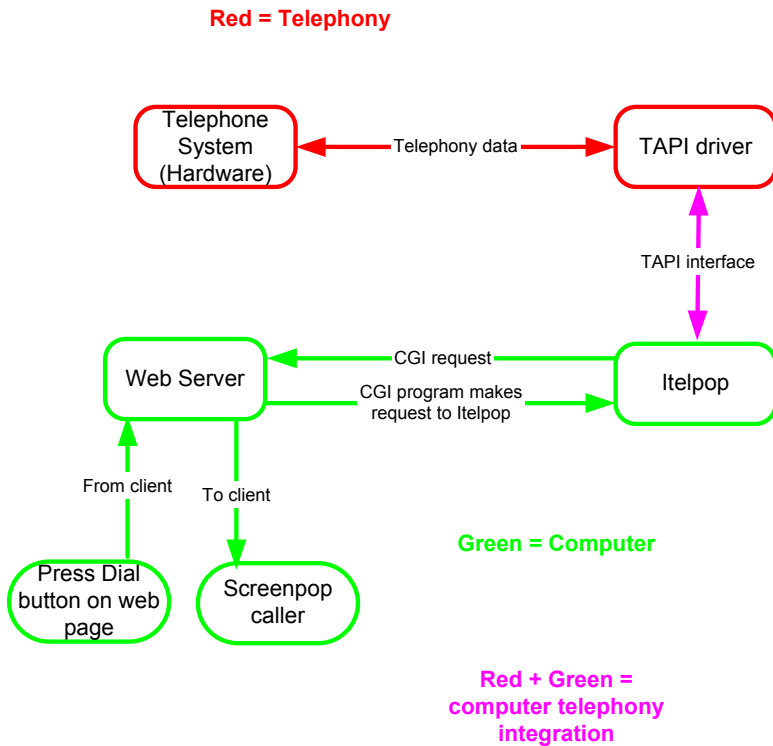
This installation guide is designed to get you up and running with Itelpop Simple Screenpop Web Application quickly and relatively effortlessly. Within the hour you should have fully deployed a basic web based screenpop application using Itelpop.

All the components discussed in this document apart from the telephony hardware and TAPI driver are free of charge items. Many telephone systems providers also provide their TAPI drivers free of charge. So not only will you be on your way to call centre heaven, but your wallet will not be lightened in the process.

This document will only address screenpop. Performing telephony actions such as dialing the phone from a web form will be discussed in the next version of this document. This document will be regularly updated to expand the functionality of the web application. Watch out for future updates which will include connecting the screenpop application to a database and producing a fully functional web contacts application.

2. OVERVIEW

Itelpop provides computer telephony integration by providing a link between your telephone system and your computer. The diagram below describes the components graphically.



2.1 TELEPHONE

This is the red bit. There are many brands of telephone system available with a multitude of different interfaces. Thankfully, most telephone systems support a common interface standard, TAPI. If your telephone system does not support TAPI we may be able to provide a solution. Please email us at support@iteloffice.com with details of your system.

A TAPI driver is a little like the printer driver you install to print from your computer to your specific printer. The TAPI driver basically converts from the telephone system proprietary 'protocol' to a standard protocol known as TAPI.

It is most important that you have the TAPI driver correctly installed and configured before Itelpop can communicate with your telephone system. Itelpop can communicate with a TAPI driver installed in first or third party mode. If you are unaware of the difference, don't worry, it will not affect you.

2.2 COMPUTER

.This is the green bit. Two software components are used here: Itelpop and a web server. Itelpop is a Windows application which communicates with telephone systems via the TAPI interface. It can also interface with a web server via the http protocol. What this means is that Itelpop can be used as web to telephone middleware.

3. HOW TO INSTALL THE COMPONENTS

Each required component will be discussed in turn.

1. Telephone system. Currently, Itelpop works with telephone systems and some other telephony devices. Itelpop, however, does not work with modems. We may support modems in the future but our experience with modems paints a fairly bleak picture of pain. The important requirement is that a TAPI driver is available for the telephone system. This document assumes that your telephone system is fully operational and Itelpop users have an extension or device implemented in either hardware or software or both available to them.
2. TAPI driver. As discussed above the TAPI driver translates between telephone system proprietary protocol to TAPI speak. The TAPI driver must be installed on each workstation using Itelpop. Generally, TAPI configuration requires the identity of the telephone system and the extension each user is using. Refer to your TAPI documentation provided with the driver for specific implementation details. Some basic TAPI configuration information is available on www.iteloffice.com
3. Itelpop. The free version of Itelpop can be downloaded from <http://www.iteloffice.com/products/itelpop.html> . For the purposes of this document, the main configuration items are (a) selecting your telephone extension, and (b) configuring web page and parameters to screenpop.
 - a. Select Extension. Right click on the Itelpop systemtray icon and select the Open... menu. In the list of telephone devices check your extension. Click Apply or Close button to commit your selection. If Itelpop is able to communicate correctly with this extension you should see OK in the status field for this device. If not, there is likely some TAPI problem.
 - b. Configure web screenpop. Right click on the Itelpop systemtray icon and select Open... menu. Check 'Pop third party program...'. Enter the URL to your web application. In the example discussed later, a perl script is used so the path would be: <http://webserver/cgi-bin/screenpopdemo.pl> Note that webserver is the web server host. If you were using an internal web server with hostname PetersComputer then substitute that name for webserver. Itelpop will pass parameters to this string as:
?callerid=<CallerID>&calledid=<CalledID> where CallerID is the caller id picked up from the call by Itelpop and Called ID is the called number picked up from the call by Itelpop.
As an example if the caller was 0201112222 and the number called was 0800444444 then the complete string passed into your web browser would be:
<http://webserver/cgi-bin/screenpopdemo.pl?callerid=0201112222&calledid=0800444444>

Check bypass minipop if you do not want the Itelpop minipop window to appear and instead immediately pop the web application.

Click Apply or Close button.
4. Web Server. Itel Office recommend using the free Apache web server. Download from <http://httpd.apache.org> . This document details the Windows installation. If you have already installed another web server you should un-install this now. To uninstall Microsoft IIS, go to Control Panel, Add/Remove programs, Then Add/Remove Windows Components and ensure Internet Information Services (IIS) are deselected. Now download Apache and install. To test that Apache web server is working correctly simply navigate to <http://localhost> and if you see It Works everything is fine. Edit the httpd.conf file as follows:

Find the string in httpd.conf like this:
Options Indexes FollowSymLinks

And change to:

Options Indexes FollowSymLinks ExecCGI

Add this line if you don't have one already or edit if you do:
AddHandler cgi-script .cgi .pl

Restart Apache web server.

5. Web Application. To provide a dynamic, interactive web application, this document uses Perl to implement a CGI web application. Users wishing to take the functionality further can take the concepts discussed here with PHP, Ajax, or whatever seems appropriate. Our simple application uses Perl. So the next step is to download and install Perl. Download ActivePerl from www.activestate.com.

To test that your Apache web server can run Perl scripts correctly, create the following test Perl script:

```
#!c:\perl\bin\perl.exe
use strict;
use CGI;
my $q = new CGI;
print $q->header( "text/html" ),$q->start_html( "hello from perl cgi!" );
print $q->h2("Hello World!");
print $q->end_html;
```

Save file as test.pl (if you are editing in Windows notepad, when you save the file enclose double quotes around the file when you save, ie save as "test.pl" – this ensure notepad does not try to name the file test.pl.txt.

To perform the test:

Copy test.pl to your Apache cgi-bin folder.

Launch a web browser and in the address field enter <http://localhost/cgi-bin/test.pl>

You should see Hello World! Displayed. If not you have an Apache or Perl configuration problem you need to fix. Fix this problem before moving onto the next step.

Perl Script. Now create the following script:

```
#!c:\perl\bin\perl.exe
use strict;
use CGI;
my $q = new CGI;

my $callerid;
my $calledid;
my $contact;

$callerid = $q->param('callerid');
$calledid = $q->param('calledid');
if ($callerid eq "02088787367") {
    $contact = "Itel Office";
}

print $q->header( "text/html" ),$q->start_html( "Itelpop Demo" );
print $q->h1("Call details");
print $q->blockquote("CallerID: ");
```

```
print $q->blockquote($callerid);
print $q->blockquote("<br>");

print $q->blockquote("CalledID: ");
print $q->blockquote($calledid);
print $q->blockquote("<br>");

if($contact ne "") {
print $q->blockquote("Contact: ");
print $q->blockquote($contact);
}

print $q->end_html;
```

Save this script as screenpopdemo.pl and copy to your Apache cgi-bin folder.

Test the script by typing the following command into a web browser address field:

<http://localhost/cgi-bin/screenpopdemo.pl?callerid=02088787367&calledid=0800123456>

The generated web page should display the CallerID, CalledID and as there is a caller id match with 02088787367 the contact "Itel Office".

If you are not running the web browser on the machine Apache is installed on and your apache host is named webserver then your url would be:

<http://webserver/cgi-bin/screenpopdemo.pl?callerid=02088787367&calledid=0800123456>

4. SIMULATING CALLS

If you would like to test screenpop but do not currently have the necessary telephony hardware and software configured, it is possible to simulate inbound calls to test functionality.

To simulate a call right click on the Itelpop systemtray icon and select the Simulate call menu. A simple Simulator dialog appears where you can enter a caller and called number. Clicking the OK button simulates a live incoming call and will exercise the screenpop functionality you have configured.