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Phone Manager Installation

This document covers installation and maintenance support for IP Office Phone Manager 3.0. It covers installation of Phone Manager from the IP Office User Applications CD.

What's New in 3.0

The following changes relating to Phone Manager 3.0 installation have occurred within IP Office 3.0 software.

- **Client Deployment CD**
  Phone Manager (and other applications in the IP Office User suite) can now be installed from the IP Office Client Deployment CD. This CD is designed for installation to a central shared folder during which the IP address or the IP Office system is pre-configured. This folder can then be accessed from user PC’s to perform a network based installation of IP Office user applications.

- **User Phone Manager Setting**
  In the IP Office configuration as displayed in IP Office Manager, the user's **Phone Manager Type** field has been moved from the **User | Telephony** tab to the **User | User** tab.

- **Profiles**
  All user Phone Manager configuration, for example the layout and speed dials, is now stored in a Profile file. By default, the profile file is saved and loaded from the current My Document folder and matches the user's extension number. Options exist to save and load a profile file from other locations.
Phone Manager Modes & Licences
Phone Manager software is a single application that can be run in three modes: Lite, Pro and IP Enabled (VoIP).

The mode for each user is set through the IP Office configuration (see Setting the User Phone Manager Type). However the modes available are additionally controlled by the Phone Manager licenses also entered into the IP Office configuration.

- **Phone Manager Lite**
  No license required.

- **Phone Manager Pro**
  A 'Phone Manager Pro' license key is required for each Phone Manager Pro user. If insufficient licenses are available the users Phone Manager will run in Lite mode.

  - **Agent Mode**
    In this mode the Phone Manager user has access to several agent related functions as toolbar icons. This mode is a selectable option available to users configured for Phone Manager Pro mode.

  - **Login Mode (Hot Desking)**
    Starting/stopping Phone Manager can be used to also log the user on/off an extension. The extension is specified when starting Phone Manager. While logged on, the Phone Manager user's own extension number overrides that physical extension. This mode is a selectable option available to users configured for Phone Manager Pro mode.

- **Phone Manager Pro IP Audio Enabled**
  Both a 'Phone Manager Pro' and a 'Phone Manager Pro IP Audio Enabled' license key are required for each iPhone Manager Pro (VoIP) mode user. If insufficient licenses are available the users Phone Manager will run in Lite mode.

The licenses are unique to the serial number of the Feature Key dongle being used by the IP Office system.

Checking Licenses Through Phone Manager
The number of licenses available and the number still free (unused) can be checked through any running copy of Phone Manager.

1. Select Help | About.
2. Hold down the Ctrl and Shift keys and click on the software version number. A list of licenses is shown.
User PC Requirements
The minimum recommended PC specifications for Phone Manager are:

- **Minimum PC specification for Phone Manager:**
  - Pentium 266Mhz or above with 64MB RAM minimum.
  - The following operating systems are supported provided all service packs have been installed.
    - Windows 98.
    - Windows NT4.
    - Windows XP.
  - Sound card if audio features are required (PC ring on answer, CLI specific wav files).
  - 50MB of free disk space.

- **Minimum PC specification for Phone Manager VoIP:**
  Note that VoIP operation of Phone Manager is subject to the same requirements of VoIP network assessment as for any other IP Hardphone or Softphone installations. For remote PC VoIP operation, only VPN connections are supported. None VPN connections may work but will be subject to issues with firewalls, end to end QoS support and other factors.
  - Pentium 400Mhz (700Mhz recommended) or above with 128MB RAM.
  - Sound card and microphone installed.
  - 50MB of free disk space.
  - QoS setup is recommended. See VoIP Quality of Service (QoS).
Citrix/Thin Client Phone Manager
Phone Manager 2.1 has been tested with Citrix. It is supported in Phone Manager Lite and Phone Manager Pro modes but not in iPhone Manager Pro (VoIP) mode.

Features Supported
- Phone Manager Lite and Phone Manager Pro.
- Screen popping to Outlook, Goldmine and Maximizer (not Act!).
- Call recording and mailbox access to Voicemail Pro.

Features Not Supported
- iPhone Manager Pro (VoIP) mode.
  This is due to the inability to allow upstream audio on a Citrix server with Client Audio Mapping.
- Play Sound functions.
  Some support is possible if the -nosoundcheck command line option is used and client machine has an audio card correctly mapped. However some delay in the playing of sound may be experienced.
- No other IP Office User CD applications have been tested on Citrix.
Installing Phone Manager

1. Planning Forms
Completing the following details will assist in the installation of Phone Manager at a site.

- Site Name: ______________________________________
- Customer Contact Name: _________________________
- Contact Telephone Number: _______________________

- IP Office System:
  - IP Address: ___:___:___:
  - Sub-Net Mask: ___:___:___:

- Feature Key Dongle:
  Required if any users are to use Phone Manager Pro or iPhone Manager Pro (VoIP) modes.
  - ☐ Already installed / ☐ Being installed at same time.
  - Dongle Type: ☐ Serial / ☐ Parallel / ☐ USB.
  - Dongle Serial Number: ____________________________
  - Feature Key Server PC:
    (Required for parallel or USB port feature key dongle).
    - IP Address: ___:___:___:
    - Sub-Net Mask: ___:___:___:

- License Keys:
  It is recommended that the Phone Manager license keys, if used, are obtained in the form of an electronic document from which they can be cut and pasted. This reduces the chance of errors during license key entry.

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2. Entering License Keys

This section assumes that the IP Office system's feature Key dongle has already been installed and setup (plus the Feature Key server software if required). If this is not the case refer to the IP Office Feature Key Server manual.

1. Ensure you have the list of licences ready and that they match the serial number of the dongle being used by the IP Office.
   - Preferably the licences should be in an electronic document from which they can be cut and pasted into the configuration. This reduces the chances of errors in the license entry.

2. Start IP Office Manager.

3. Click and load the IP Office system configuration.

4. In the left-hand panel click on License. Any existing licenses are shown in the right-hand panel.

5. Right-click on the right-hand panel and select New.

6. In the menu that appears, enter the license key. Click OK.

7. Repeat the previous step for any additional licenses. The Status of the newly entered license will be Unknown.

8. Click and send the configuration back to the IP Office. If the only changes made were to add license keys, this can be done using a merge.

9. Click and load the IP Office system configuration again.

10. In the left-hand panel click on License. Check that the Status of the licenses has now changed to Valid.
    - If the license are listed as Invalid, check that they have been entered correctly. If necessary refer to the IP Office Feature Key Server manual.
3. Setting the User Phone Manager Type
By default Phone Manager will run as Phone Manager Lite. To select another mode the user configuration must be changed.

1. Start IP Office Manager.
2. Click and load the IP Office system's configuration.
3. In the left-hand panel click User . The right-hand panel will display a list of the IP Office users.
4. In the right-hand panel, locate and double-click on the user whose Phone Manager type you want to change.
5. Select the User tab.
   - In Phone Manager Type select the mode required; Lite, Pro or VoIP.
   - If the system has an IP Office Conference Center server installed, selecting Book with Conference Center in Phone Manager provides the user with icons to start conference booking and conference web access.
6. Select the Telephony tab. We recommend the following options are selected for Phone Manager users:
   - **Call Waiting On: Recommended setting = On**
     Causes an audible tone when an additional call arrives whilst already on an existing call. Phone Manager allows the user to see details of both calls and to switch between calls if required. Note that this option is ignored for users logged on to phones with multiple call appearances.
   - **Busy on Held: Recommended setting = On**
     When a call is placed on hold, it may be inconvenient to receive any further calls. Switching Busy on Held on will return busy tone to any further callers until the held caller is cleared. Note that this option is ignored for users logged on to phones with multiple call appearances.
   - **Off Hook Operation: Recommend setting = On for Avaya digital phone users.**
     This option allows actions in Phone Manager, such as answer or make a call to be mirrored by the handset hook switch of the users telephone. Depending on the phones handsfree capabilities this allows the user to answer, end and make calls purely using Phone Manager.
7. Click OK.
8. Repeat for any other users.
9. Click to send the configuration back to the IP Office system.
4. Removing Old Phone Manager Software
It is recommended that any previous installation of applications from the IP Office User suite are removed before installation.

**WARNING:** This process will remove all installed components of the IP Office User Suite. Note if the user has any of the following other IP Office applications installed and ensure that they are reinstalled from the new IP Office User suite.

- TAPI.
- DevLink.
- MS-CRM.
- SoftConsole.

1. Select **Start | Settings | Control Panel**.
2. Select **Add/Remove Programs**.
3. From the list of **Currently installed programs** select **IP Office User Suite**.
4. Click **Change/Remove**.
5. The **InstallShield Wizard** for this software suite is started. When the option screen appears select **Remove**.
6. Click **Next >**.
7. You will be asked to confirm, click **OK**.
8. Once the suite has been removed, click **Finish** and close **Add/Remove Programs**.
9. You may be asked to restart the PC.
5. Installing Phone Manager Software

This process assumes that the user's PC is connected to the LAN and able to see the IP Office. To install onto a PC not currently connected to an IP Office network, see 6. Off-Line Installation

1. If Phone Manager or an earlier suite of IP Office User suite of software is already installed, this must be removed first. See Removing Phone Manager.

2. If the current IP Office User suite is installed but without the Phone Manager component, continue with this process.

3. Insert the IP Office User Applications CD. The CD should auto-start the InstallShield Wizard.

4. Click **Next >**. A menu appears that allows you to select from those IP Office systems detected. The drop-down box top-right can be used to filter the list to show only a particular type of IP Office system.

5. Select the IP Office system on which the user is based. Click **Next >**.
   - The **Manual Setup** option is used when installing the suite onto a PC that is not currently connected to the same LAN as the IP Office, see Installing Phone Manager (Alternate Method).

6. This menu allows you to select an existing user on the IP Office system.
7. Click **User Name** and select the user from the list.

8. Enter the user’s password if one has been set in the IP Office configuration.

9. Click **Next**.

10. Leave the directory setting at default unless absolutely necessary. Click **Next**. The menu that appears allows you to select which components of the IP Office User suite to install.

- **Tick Phone Manager** and any other components required.
- **Warning:** Unticking a component that is already installed will cause it to be removed. Only untick a component if it is not required.
- Click **Next**.
11. Click **Next >**.

12. This option is **only** used by hot desking users who log on and off during the course of their work.

   - For all other users do not enter a value, i.e. those users who do not log on/off and who normally work from the same physical extension.

   - For hot desking and call center agents, enter the extension number of the physical extension at which they normally log on - this may differ from their own extension number when logged on. Doing this will cause Phone Manager to reconfirm the extension at which the user is logging on whenever they restart Phone Manager and log them off when they close Phone Manager.

13. Click **Next >**.
14. Leave the program folder at its default unless absolutely necessary. Click **Next >**. The process of installing the files for the selected IP Office User suite components will begin.

15. When installation is complete the following screen is displayed. Click **Finish**.

16. If TAPI was installed you may be asked to reboot the user PC.
6. Off-Line Installation
This method is used when the user PC is not currently connected to the same LAN as the IP Office system.

1. Follow steps 1 to 3 of the standard installation process.

2. At step 4, tick Manual Setup as shown below.

3. Click Next >.

4. The following details must be entered and match those of a user on the IP Office system or a user that will be created on the IP Office system.
   - IP Address of the IP Office control unit.
   - User Name.
   - User Password.
   - Extension. This is only used for hot-desking users and call center agents who regularly log on/off - see the notes on step 11 of normal installation. No value is required for normal users.

5. Click Next >.

6. Continue as from step 9 of Installing Phone Manager above.
Maintenance Notes

General Notes

- Under Windows 95 if there were no bitmaps in the toolbar you may need to update your COMCTL32.dll. This can be done by running 401comupd.exe which is found on the IP Office User Applications CD.

- Phone Manager indicates it is connected to the switch by showing the user name inside a pair of square bracket ‘[ ]’. If the title bar displays ‘Phone Manager’ only it is not connected to the switch.

- Only one instance of Phone Manager can be run at a time. When starting Phone Manager, if an existing instance of Phone Manager is detected, the additional Phone Manager will exit silently.

- Do not connect 2 or more Phone Managers to the switch using the same user name, especially when PhoneManager is operating in VoIP mode. This will lead to unpredictable or incorrect operation of PhoneManager.

Play Sounds Option

The Play Sounds option within Phone Manager plays various sound through the user’s PC multimedia setup to announce calls ringing and waiting.

The following wav files are used for the Play Sounds option. They are located in the Phone Manager application folder (c:\Program Files\Avaya\IP Office\Phone Manager). These can be replace with custom recordings as long as they are 16 bit mono wav file format.

- **NewCall.wav**: Ringing.
  - Separate files NewCall_eng.wav and NewCall_enu.wav can be used to replace the file with either UK or US ring tone respectively.

- **NewCallWaiting.wav**: Ringing.

- **NewMessage.wav**: “You have a new message” supplied in appropriate language variants.

- **Ding.wav**: Ding.
**User Settings/Profiles**

For Phone Manager 3.0 onwards, all user settings except local directory numbers are stored in a single local profile file. The profile file name matches the user's extension number, for example 212.xml. By default, the files are stored in `My Documents\Avaya\IP 400\PhoneManager\Profile`.

This file is created when a user with that extension number first uses Phone Manager. The file is not deleted by removal of the Phone Manager application and a separate file is created for each extension number using Phone Manager on that PC and that particular PC log on.

Within Phone Manager, the Configure | Profile menu can be used to save a copy of the profile file to a different location or load a profile file from a different location. When loading a file, the file name must match the user's extension number.

**Directory**

User directory entries entered through Phone Manager are saved to the file `PhoneManagerDirectory.txt`. This file is stored in `My Document\Avaya\IP Office\PhoneManager`.

The file is a CSV format file in the following format:

```
"name", "number", "wavfile", "scriptfile"
```

- **Name**: The name to display in the directory.
- **Number**: The telephone number.
- **wavfile**: The path to the wav file to associate with the directory entry.
- **scriptfile**: The path to the script file to associate with the directory entry. This file can be a plain text file or an RTF format file.

Within Phone Manager, the **Configure | Directory** menu can be used to edit the contents and to import/export directory files.
Phone Manager and Voicemail

- Phone Manager checks with the switch once every minute for the availability of the Voicemail Server and enables/disables the record and messages panes accordingly. If the messages pane is unavailable, check the status of the voicemail server.

Live Communication Server

The Instant Messaging function of Phone Manager was developed and tested against Microsoft's Live Communication Server (LCS) 2003. They have also been run using LCS 2005.

The LCS server requires both a Microsoft LCS server license and a LCS client license for each user. In addition, it requires each Phone Manager user to also have Windows Messenger installed and running.

In summary, required on the LCS server PC are:

- LCS 2003 or 2005 with LCS Server license.
- LCS client license for each user.

Required on the user PC are:

- Windows Messenger.
- Phone Manager.

Once these requirements are meet, Phone Manager instant messaging support can be activated by running Phone Manager on the user's PC and under Configure | Preferences selecting the Instant Messaging tab.
Phone Manager Ports and Firewalls

Phone Manager uses the following IP ports for communication with the IP Office. Therefore if a firewall is placed between the user PC and the IP Office, traffic on these ports should be allowed.

- **Port 69 on the IP Office and the Phone Manager PC - TFTP**
  This is used by the Phone Manager to obtain data from the IP Office such as user name lists and the switch directory. TFTP is also used during the application log on.

- **Port 50796 on the IP Office - IPO PC Partner**
  This port is used by Phone Manager and Soft Console applications to establish communication with the IP Office for call signalling, configuration changes, etc.

- **Port 50799 on the Phone Manager PC - IPO BLF Updates**
  Used by Phone Manager to receive status updates for internal speed dial icons. These are sent from the IP Office using the 255.255.255.255 broadcast address.

- **VoIP**
  iPhone Manager Pro uses ports 1719 and 1720 for H323 Gatekeeper discover and then a range of ports for VoIP. Therefore we can only recommend iPhone Manager Pro operation across a firewall when using VPN to tunnel the connection.
VoIP Mode Operation

VoIP Phone Manager

The presence of the and icons indicate that Phone Manager is running in VoIP mode. The title bar should also state Phone Manager iPro or Phone Manager SoftPhone.

To set Phone Manager running in Phone Manager iPro (VoIP) mode:

1. The user must be associated with a VoIP extension within the IP Office configuration.
2. The user must have their Phone Manager Type set as VoIP within the IP Office configuration.
3. There must be both a Phone Manager Pro and a Phone Manager Pro IP Audio Enabled license available when the user starts Phone Manager.
4. The PC must be enabled for audio playback and recording via an installed soundcard or USB microphone headset. Phone Manager checks for this when started.
5. Within Phone Manager, click 
   • On the Phone Manager tab, Enable VoIP and Play Sounds should be selected.
   • On the Audio Codec tab, adjust the order of codec preference if necessary. The default order matches that used by the IP Office for VoIP extensions, ie. G.729a, G.723.1, G.711 U-Law, G.711 A-Law. If any changes are made on this tab, Phone Manager must be closed and restarted.
6. QoS support from the users PC is optional but is highly recommended. Windows 2000 and Windows XP are able to provide the user with QoS that can be configure to match the QoS settings of the IP Office. See VoIP Quality of Service (QoS).

VoIP Phone Notes

• Phone Manager Pro VoIP cannot register with an IP Office that does not have a System Name (this applies for all VoIP extensions). Ensure the switch has a name before connecting to it.
• If the audio codec is changed in Phone Manager, the application must be restarted for the change to take effect.
• If the main window does not appear after a long time this may be because Phone Manager is trying to communicate with the VoIP server and the server is not responding. Use the task manager to terminate the process 'iClaritySrv.exe' and 'phonemanager.exe' and restart the phone manager.
• VoIP Phone Manager is not supported under Windows 95. VoIP features are automatically disabled if Phone Manager is installed on Windows 95.
• Phone Manager checks for the presence of a sound card and if none is installed the speaker and the microphone icons are disabled. To use VoIP the microphone must be selected as the recording device and not muted. On some soundcards this is not the default and must be set manually.
• The speaker and microphone mute feature is only available if the sound card supports it.
• 'Enable faststart' and 'Use direct media' should be set for the VoIP extension and 'Offhook station' should be set for the user associated with this VoIP extension.
• Phone Manager does not allow the user to specify which audio device to use for VoIP Phone Manager. It always uses the default device specified under the multimedia tab in the control panel.
• When using the VOIP feature make sure the 'Use only preferred devices' tick box under the multimedia tab in the control panel is selected.
VoIP Quality of Service (QoS)

iPhone Manager Pro can support DiffServ QoS when running on Windows 2000 and Windows XP. However, it requires QoS to be enabled within Windows as detailed below and is still dependent on QoS being supported at all hub/routing points between the user and the IP Office.

- Note: The default DSCP (DiffServ Control Point) value used by Windows is 40 unless overridden as detailed below. This differs from the IP Office system default 46, set on the System | Gatekeeper tab.

Windows XP

1. The network card/interface being used must support 802.1p.
2. The Windows QoS Scheduler must be installed.
3. To change the DSCP value:
   1. Select Start | Run and enter gedit.msc.
   3. For the Guaranteed Service Type enter the required DSCP value.

Windows 2000

1. The network card/interface being used must support 802.1p.
2. The following DWORD registry key must be added and set to 0 to enable DSCP marking.

   HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Tcpip\Parameters\DisableUserTosSetting

3. To change the DSCP value to match that being used by the IP Office network, add the following DWORD registry key set to the required value.

   HKEY_CURRENT_USER\Software\Avaya\IP400\PhoneManager\DSCP
Command Line Options

A number of command line options exist which can be used with Phone Manager shortcuts. These are applied by right-clicking on the Phone Manager shortcut and selecting Properties.

- Logging In
- Disabling Buttons
- No Sound Check

Disabling Buttons
Some customers have requested that the conference calls button and transfer call buttons be disabled. The reason was to minimize the risk of accidental conference/transfer in some sensitive environments where conflicting parties may be held at the same time. The call functions are still accessible via the Functions menu when required.

1. Right-click on the Phone Manager shortcut and select Properties.
2. Select the Shortcut tab.
3. The Target will be similar to:
   "C:\Program Files\Avaya\IP Office\Phone Manager\PhoneManager.exe".
4. After the closing quotation mark, add -disable:ConferenceButton and/or -disable:TransferButton as required. For example:
   "C:\Program Files\Avaya\IP Office\Phone Manager\PhoneManager.exe" -disable:ConferenceButton -disable:TransferButton
5. Click OK.
6. Test the shortcut.

Logging In As a Specific User
In situations where users share a PC without logging off/on to Windows, it may be more convenient to have several shortcuts to Phone Manager, each shortcut configured for a different user. This can be done by adding the user name and password to the separate Phone Manager shortcuts rather than changing it each time through Configure | PBX.

1. Right-click on the Phone Manager shortcut and select Properties.
2. Select the Shortcut tab.
3. The Target will be similar to:
   "C:\Program Files\Avaya\IP Office\Phone Manager\PhoneManager.exe".
4. After the closing quotation mark, add the IP Office IP Address, the User Name in quotation marks and the user password in quotation marks. If the password is blank add "". For example:
   "C:\Program Files\Avaya\IP Office\Phone Manager\PhoneManager.exe" 192.168.42.1 Extn201 ""
5. Click OK.
6. Test the shortcut.
No Sound Check

There are some installations where, even though no Phone Manager sound features are being used a "Mixer Not Detected" error appears each time Phone Manager is started. This can be suppressed using the -nosoundcheck command line option.

1. Right-click on the Phone Manager shortcut and select Properties.
2. Select the Shortcut tab.
3. The Target will be similar to:
   "C:\Program Files\Avaya\IP Office\Phone Manager\PhoneManager.exe".
4. After the closing quotation mark, add -nosoundcheck. For example:
   "C:\Program Files\Avaya\IP Office\Phone Manager\PhoneManager.exe" -nosoundcheck
5. Click OK.
6. Test the shortcut.
Popping Applications & Screen Popping

Screen Popping
Phone Manager Pro is able to screen pop with a number of applications. This section covers how that popping works and resolution of some commonly encountered issues.

Screen popping is set through pressing and selecting the Screen Pop tab. The current supported applications are:

- **Act! 6.**
- **Goldmine 6.0.**
- **Maximizer 7.5 Enterprise.**
- **Microsoft Outlook (98, 2000, 2003 and XP).**
- **Pop External Application**
  This is a special option that allows the passing of call data from Phone Manager Pro to a custom application, see Popping External Application.

The order in which the applications appear is the order of preference if more than one is selected at any time. For example if both Act! and Goldmine are selected, only ACT! would be used for attempted screen pops.

The screen pop action is based on calling number (ICLID) matching. Screen popping on DDI can be enabled, see Screen Pop on DDI.

Screen popping requires the selected application to be running with the appropriate database at the same time as Phone Manager Pro.

Screen Pop on DDI
In default screen pop is based on ICLID (CLI/CLID) matching. This can be switched to DDI matching if required. To do this requires a Windows registry edit.

Screen pop on DDI does not currently work with Outlook. It will work with Act!, Goldmine and Maximizer.

- Editing the Windows Registry should only be done by experience Windows maintainers.
- Ensure that a backup of the registry has been taken. If you are not sure how to do this you should not attempt to edit the registry.

1. Select **Start** and then **Run**.
2. Enter **regedit** and click **OK**.
3. Within the left-hand panel, open the path:  
   **HKEY_CURRENT_USER/Software/Avaya/IP400/PhoneManager**.
4. Right-click on the right-hand panel and select **New DWord**.
5. Change the name to **PopOnDDI**.
6. Double-click **PopOnDDI**.
7. Change Value data: to **1** and click **OK**.
8. Close the **Registry Editor**.
Microsoft Outlook Notes

Phone Manager disables Outlook related functions if a suitable version of Outlook 98, 2000, 2003 or XP is not found during installation. Outlook 98 or higher must be installed to enabled these functions. Outlook Express is not supported.

- To use the Pop Outlook feature under Windows 95 or NT4, Windows messaging must be installed. If not, you will get the message 'MAPI32.DLL can not be located' or 'ReInstall Windows Messaging' when pop outlook is selected. Re-installing Outlook will also install Windows Messaging.

- Phone Manager uses MAPI to perform a CLI match for pop outlook. If the user does not have a default profile or no profile exist then this function will not work.

Phone Manager only screen pops against the user's personal mailbox contacts, mailbox contacts and public folder contacts. Where duplicate entries exist that order is the order of preference. For this to work, in Outlook, select Contacts | Properties | Outlook Address Book | Show this folder as an email address book.
Popping External Applications

Phone Manager Pro can be set to pop an external application whenever an incoming call arrives (alerts at the Phone Manager).

In addition to starting an external application, Phone Manager Pro also passes some basic call data to that external application. The data passed is:

- **Calling Party**
  The number of the calling party if available.

- **Called Party**
  Usually the number of the Phone Manager Pro extension.

- **Tag**
  Any name or other information associated with the call. Phone Manager and SoftConsole can be used to add a tag to a call before it is made or transferred.

- **Account Code**
  Any account code matched against the CLI of the call in the IP Office configuration directory.

- **Display Text**
  Similar to the text string shown on display phones by IP Office when calls ring.

In order to demonstrate external application popping I have included details of example batch file applications. These take the call data passed by Phone Manager and write it to call logs.

Known problems:

- In default operation the data fields are delimited with spaces. This means that blank fields and fields with spaces are ignored or treated as two bits of data respectively. Fortunately in Phone Manager 2.0 a fairly simple registry edit fixes this and encloses each data field in " quotation marks. See Editing the Phone Manager Registry.
Selecting Fully Delimited Data

By default the pop external application data is delimited with spaces. The action below enables delimiting with " characters.

- Editing the Windows Registry should only be done by experience Windows maintainers.
- Ensure that a backup of the registry has been taken. If you are not sure how to do this you should not attempt to edit the registry.

1. Select Start and then Run.
2. Enter regedit and click OK.
3. Within the left-hand panel, open the path: HKEY_CURRENT_USER/Software/Avaya/IP400/PhoneManager.
4. In the right-hand panel locate the registry key PopExtProgFullParam.
5. The default value is 0, which sets Phone Manager Pro to output the call data using spaces as field delimiters.
6. Double-click PopExtProgFullParam.
7. Change Value data: to 1 and click OK.
8. The user's Phone Manager Pro will now output the call data with " characters surrounding each field.
9. Close the Registry Editor.
Configuring Phone Manager Pro to Pop an External Application

1. Start Phone Manager Pro.

2. Click on or select Configure | Preferences.

3. Select the Phone Manager tab.

4. Tick Pop on Answer and Pop Phone Manager.

5. Select the Screen Pop tab.

6. In Pop External Program enter the path to the external program. The path should not include the programs file extension (.bat, .com, .exe).

7. Click on OK.
Customizing Skins

Creating Custom Skins

This section describes the requirements for creating and loading a skin for use on the IP Office Phone Manager and SoftConsole applications. However, it does not attempt to teach how to use the required Skin Development application.

To create a skin, skin development software is required. The Business Skin Form from Almediadev (SkinBuilder.exe) has been used. Trial software and a number of samples is available from www.almdev.com.

The SkinBuilder.exe application must be used to create or edit a skin. This application allows you to manipulate your skin visually and has a built-in tester to test your skin definition.

The two attached zip files contain a number of sample skins. These have not been tested with Phone Manager or Soft Console for full compatibility and are supplied for study of how skins files are defined. More up to date copies of these files can be found at www.almdev.com.
Phone Manager Skin Objects and Controls

To create a new skin make a copy of the Avaya skin definition folder in the skin directory (C:\Program Files\Avaya\IP Office\Phone Manager\Skin\) and rename. Make the necessary changes required by your design, modify the bitmaps, the skin objects and the skin controls.

There are a number of sections in the Avaya skin definition ini file. The following tables describe the various sections in the ini file.

- **Version** - Version information and comments.
- **Pictures** - Bitmap files used by the skin definition.
- **FormInfo** - Bitmaps for the main window.
- **PopupWindow** - Bitmaps for any pop up windows (menu etc).
- **HintWindow** - Bitmaps for tool tip.
- **SkinObjects** - Windows elements pertaining to the main window; caption bar, menu bar, maximize, minimize and close buttons.

The following **SkinObjects** need to be defined for the PhoneManager main window.

- **closebutton** - Bitmap for the close button in the main window.
- **maxbutton** - Bitmap for the maximize button in the main window.
- **systembutton** - Bitmap for the system menu button in the main window.
- **minbutton** - Bitmap for the minimize button in the main window.
- **mainmenubaritem** - Bitmap for each item in the menu bar.
- **caption** - Bitmap for the main window caption bar.
- **menuitem** - Bitmap for each item in the drop down menu.
- **menubarsystemmenubutton** - Bitmap for the system menu button on the main menu bar.
- **menubarclosebutton** - Bitmap for close button on the main menu bar.
- **menurarmaxbutton** - Bitmap for maximize button on the main menu bar.
- **menubarminbutton** - Bitmap for the minimize button on the main menu bar.

The following **SkinControls** need to be defined in Phone Manager.

- **Tab** - Bitmaps for the tabs; In, Out, All, Missed, Messages, Speed dials, etc.
- **Panel** - Bitmaps for the panels used in various dialogs; Make Call, Directory, Config PBX, etc.
- **Toolbutton** - Bitmaps for buttons in the toolbar (except for the volume control, see the toolmenutrackbutton).
- **Mainpanel** - Bitmap for the background of the main window.
- **Button** - Bitmaps for push buttons in the main window.
- **Controlbar** - Bitmap for the background of the toolbar area.
- **Toolpanel** - Bitmap for the background of each toolbar.
- **mainmenubar** - Bitmap for the background of the main menu bar.
- **Checkbox** - Bitmaps for check boxes.
- **Stdlabel** - Bitmaps for labels.
- **groupbox** - Bitmaps for group boxes.
- **edit** - Bitmaps for edit controls.
- **toolmenutrackbutton** - Bitmaps for the volume control buttons on the toolbar.
- **vscrollbar** - Bitmaps for the vertical scroll bar used in various places.
- **updown** - Bitmaps for the up/down button to scroll the tabs.
- **trackbar** - Bitmaps for the volume control slider.

Phone Manager uses a second ini file called **dialog.in1** to define the appearance of the dialogs. The following tables describe the various sections in the ini file.

- **FormInfo** - Bitmaps for the dialog box.
  - **caption** - Bitmaps for the dialog box caption bar.
  - **close** - Bitmaps for the dialog box close button.
  - **button** - Bitmaps for push button in the dialog that resides inside a panel.
SoftConsole Skin Objects and Controls

The following SkinObjects need to be defined for SoftConsole.

- **caption** - Bitmap for the form's title bar.
- **closebutton** - Bitmaps for the Close button in the form's title bar.
- **minimizebutton** - Bitmaps for the Minimize button in the form's title bar.
- **maximizebutton** - Bitmaps for the Maximize button in the form's title bar.
- **mainmenubaritem** - Bitmaps for the menu items on the form's main menu.
- **sysmenubutton** - Bitmaps for the System Menu button in the form's title bar.
- **menuitem** - Bitmaps for the drop down menus of the form's main menu.

The following SkinControls need to be defined for SoftConsole.

- **panel** - Background bitmap for dialog boxes and for various panels on the main form.
- **button** - Bitmaps for standard button controls.
- **toolpanel** - Background bitmap for the Directory and Held Calls toolbars on the main form.
- **toolbutton** - Bitmaps for button controls on the Directory and Held Calls toolbars on the main form.
- **bigtoolpanel** - Background bitmap for the main tool bar on the main form.
- **bigtoolbutton** - Bitmaps for button controls on the main tool bar of the main form.
- **resizebutton** - Bitmaps for list view column headings.
- **mainmenubar** - Background bitmap for the main menu bar on the main form.
- **statusbar** - Background bitmap for the status bar controls.
- **statuspanel** - Background bitmap for panels within a status bar control.
- **stdlabel** - Attributes of label controls.
- **listview** - Bitmap for list view controls.
- **hscrollbar** - Bitmaps for horizontal scroll bar controls.
- **vscrollbar** - Bitmaps for vertical scroll bar controls.
- **bothhscrollbar** - Bitmaps for displaying vertical and horizontal scroll bar controls simultaneously.
- **vsplitter** - Bitmap for vertical splitter controls on the main form.
- **hsplitter** - Bitmap for horizontal splitter controls on the main form.
- **tab** - Bitmaps for tab sheet controls.
- **hupdown** - Bitmaps for left/right arrow controls used for navigating through tab sheets when all of the tabs cannot be displayed
- **vupdown** - Bitmaps for up/down arrow controls used for navigating through tab sheets when all of the tabs cannot be displayed
- **bevel** - Bitmap for bevel controls.
- **checkbox** - Bitmaps for check box controls.
- **radiobox** - Bitmaps for radio controls.
- **groupbox** - Bitmaps for group box controls.
Loading a Skin

Phone Manager
To load a new skin in Phone Manager;

1. Go to **Configure** and select **Load Skin**
2. Browse to the folder containing the new skin and select the skin.ini file.
   - Phone Manager skin files are located in `C:\Program Files\Avaya\IP Office\Phone Manager\Skin`
3. Click **OK**.

SoftConsole
To load a new skin in SoftConsole;

1. Select **Tools** from the main menu.
2. Go to **Options** and select **Appearance**.
3. Check **Apply Custom Skin**.
4. Enter the file path of the skin file or click **Browse**, select the skin.ini file that represents your chosen skin, then click **Open**.
5. Click **OK** on the Options form.
   - SoftConsole skin files are typically located in `C:\Program Files\Avaya\IP Office\SoftConsole\Skins`
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