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Product information

# Com4Tel

Version B4.2



**TENOVIS**

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***Com4Tel***  
***Version B4.2***

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We reserve the right to make modifications and improvements to the product to reflect advances in technical development.

***Tenovis***  
***Documentation PN/MID3***

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## **1.0 Product concept**

### **General information**

Com4Tel is a newly developed second-generation telephony software package for Windows™-based PCs which can be used on Integral 3 and Integral 33 telecommunication systems. The features provided are matched to the actual system.

Com4Tel allows you to operate the most important telephone features from a PC and to make use of the PC's special capabilities, such as dialling out from applications, database integration or displaying customer data during a call.

Com4Tel supports the international computer telephony standard TAPI and also provides you with specific features of the Tenovis telecommunication systems. The software is used as a local application in conjunction with T1 terminals via AEI adapters.

With effect from version B, "third party" solutions for CTI are also supported. In this case the software is used in conjunction with special CTI software as a local application that communicates with the Integral 33 telephone system over a CTI server.

Com4Tel distinguishes itself by its innovative, strongly Windows™ 95 oriented operator interface.

Com4Tel has been optimally integrated into the operating philosophy and functionality of other Tenovis CTI products. It distinguishes itself from other products by its above-standard features and its graphical, intuitively operated user interface.

### **Using the product**

Com4Tel is supplied on a CD with an installation guide. You can install it without special prior knowledge and put it to use immediately. When third party solutions are installed, configuration of the CTI system is handled by DP specialists.

Thanks to the Windows™ 95 / NT oriented operator interface, you need no special introduction to operate the system.

The status of Com4Tel (Dialling, Connection, Call etc.) is always shown on the screen. The control elements are explained in Quickinfo fields. Online Help is available for all functions and procedures, so operating instructions are not necessary.

There are different variants available, and these enable you to personalise the operator interface.

## 2.0 Features provided

We list below all the features offered by Com4Tel.

The exact extent of the features available depends on the type of terminal used as well as on the type and software version of the PBX to which it is connected.

In addition to the features available on Integral 3 PBXs, the features marked with ★ are available with a T1 terminal on Integral 33 PBXs.

### Telephony

#### *Dial*

- via mouse or keyboard
- from database
- with destination/partner key
- from journal
- from ToDo List, also time-controlled
- from office applications (macros)
- from private telephone book
- from e-mail address book (exchange)
- code dialling ★
- destination dialling
- block dialling
- call back ★

#### *Refer back* ★

- transfer
- toggle
- switch

#### *Multiple connection* ★

#### *Conference*

#### *Status display* ★

- display PBX system messages (e.g. confirmation of call diversion)

#### *Status display per connection*

- display connection status
- display connection costs
- display faults

#### *Incoming / outgoing call number display*

- call number display can be deactivated (number withheld function on outgoing connections)

#### *Name display*

- source: databases
- source: T1 terminal ★
- name display can be deactivated

#### *Incoming / outgoing call number mapping*

- expansion of international prefixes
- show/hide prefix

#### *Journal*

- indicating new entries
- accepting into ToDo list
- Automatic redialling, modifiable
- Time-controlled dialling from ToDo List
- accepting into local telephone book/onto destination key

#### *Call diversion*

- call forwarding
- Call Diversion When Busy

#### *Call pick-up* ★

#### *Partner functions* ★

- user-defined partner group compilation
- up to 16 subscribers in a partner group
- call pick-up in group
- speed call within group

#### *T1 terminal configuration* ★

- configuring T1 terminals as a module of Com4Tel

#### *Handling T1 features* ★

- barring
- no second call
- number withheld function
- ringing tone on / off
- second call on / off
- call charge factor settings

### PC integration

#### *Journal*

- Detailed incoming/outgoing journal with call number, name, date, time, units/connection charge information
- Incoming/outgoing journal: with choice of filters for calls (e.g. outgoing only or successful only)
- Allocation of simple memos to calls in the journal
- Sorting journal entries
- Accepting journal entries into ToDo list
- All calls that have still to be dealt with are shown in a user-activated ToDo List, so that calls which are not assigned to a particular time are dealt with in turn, until you have handled all the calls or you press the cancel button to cancel the jobs in the ToDo list.
- Exporting journal entries to a file
- Deleting journal entries

#### *Telephone book function*

- Choice of 2 telephone books from different sources prioritised for database search functions (i.e. for an incoming call the local database is searched first to identify the caller and then if this is unsuccessful, the global database)
- Convenient search functions in a choice of fields
- Display can be sorted by fields
- Action fields can be defined in databases for starting an application or going straight to a data record
- Click on databases shown in database window to switch between them
- Number-dependent display of customer data for incoming and outgoing calls
- Dial from telephone book/Transfer to telephone number in the display
- Macros supplied for integration in Microsoft® Word for Windows (7.0 or 8.0) are copied to the appropriate directories during installation. You can then dial out directly from this program.
- An add-in is supplied for integration with Microsoft® Access (7.0 or 8.0) and this allows an Access form to be opened during an incoming or outgoing call.

#### *Local telephone book*

- Integrated telephone book in standard database format
- Create new entry in telephone book by accepting call number from incoming/outgoing journal

#### *Global telephone book*

- Facility to access external databases over ODBC, DAO or ISAM interface. Menu-driven facility to select database fields for inclusion in the telephone book window

#### *Actions on incoming call*

- Number-dependent display of customer data
- Number-dependent jump to customer data or data record in database, according to incoming and outgoing calls
- Indication of non-accepted calls in the program window or in the program icon in the taskbar

#### *Context-sensitive Help*

## 3.0 System requirements

### PC hardware

The hardware platform is a PC with industry-standard components that are compatible with the operating systems defined below.

#### Requirements

- Intel Pentium 100 MHz compatible processor or higher
- Min. 16 MB RAM
- Hard disk: min. 8 MB free memory space
- Internal or external CD-ROM (for installation only)
- Graphics card, min. resolution 640 x 480 pixels (standard VGA)
- Free V.24 serial interface (COM1 – COM4) for “Telephony” interface connection (not for third party)
- Network card for communicating with the CTI server over LAN (for third party only)

### Operating system

The Com4Tel software product is set up as a 32 Bit PC application for the following operating systems:

- Microsoft® Windows™ 95/98/2000
- Microsoft® Windows™ NT 4.0

### Adapter

AEI adapter complete with terminal – PC connector cable (AEI with RJ45, V.24 with RJ45/DB9) for connecting T1 terminals (not for third party)

### PBX systems, terminals, servers

The PC is connected to the following PBX systems by means of the Com4Tel software product:

(Features differ, depending on the functions of the PBX)

#### *Integral 3*

- via telephone TH13.24 AEI interface
- via telephone TM13.24 AEI interface
- via telephone TS13.24 AEI interface

#### *Integral 33*

- via telephone TH13.x1 AEI interface
- via telephone TM13.x1 AEI interface
- via telephone TS13.x1 AEI interface

All the terminals listed are connected to an  $S_0$  interface (Integral 33 also  $Up_0$ ) on the PBX and have an AEI interface.

#### *Integral 33 with conneCTIon [NT]/[NW]*

The CTI server conneCTIon [NT]/[NW] is connected to the Integral 33 PBX over  $S_0$  and to the CTI clients over LAN.

The conneCTIon product is based on the principle of the “third party call control model”, in which there is only a logical connection, not a physical one, between the two components of the workstation, the PC and the telephone.

Com4Tel is used on a CTI client:

- with telephone TH13
- with telephone TM13
- with telephone TS13

The available features depend on the terminal used, the software version on the Integral 33 and the CTI system.

## 4.0 System description

### System components, typical connection modes

As well as the Com4Tel telephony software, you need telephone-specific control hardware using standard interfaces and proprietary enhancements. The diagrams below illustrate how the system components are adapted.

#### Connection to T1 terminal with AEI

Com4Tel is installed on a single-workstation PC. It is connected to the T1 terminal via an AEI adapter. This

links the AEI interface on the terminal to a V.24 interface on the PC. No other components are necessary (see Fig. 4.1).

In order to use PC programs simultaneously for the purpose of ISDN data transmission (e-mail, Intranet/Internet, fax, etc.) select configuration  $S_0$  and connect a Tenovis ISDN card in parallel to the T1 terminal on the  $S_0$  bus. It is connected to the T1 terminal via an AEI adapter.

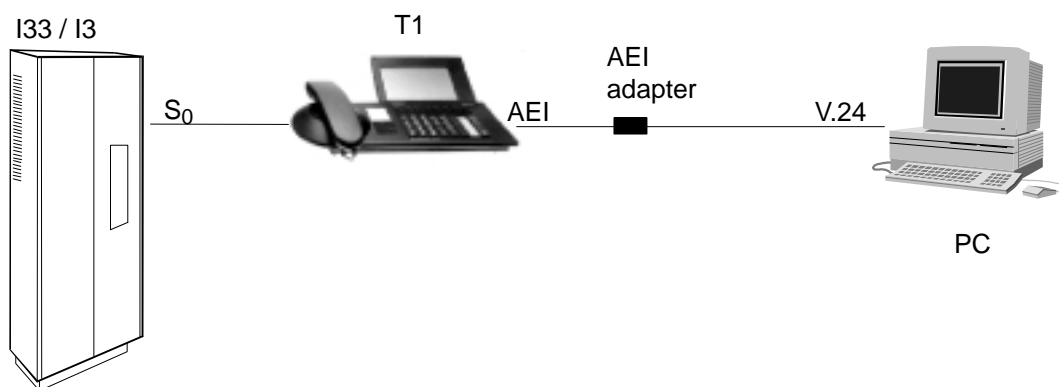


Fig. 4.1 Com4Tel T1 terminal connection with AEI

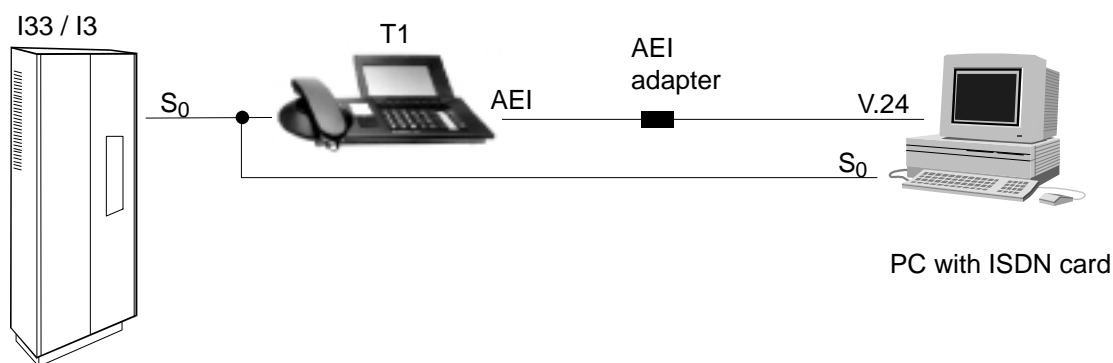


Fig. 4.2 T1 terminal with Com4Tel and PC on the  $S_0$  bus



## Use in the CTI system

Com4Tel is installed on a CTI agent. This is a PC connected via LAN to a CTI server and to further servers in appropriate cases. The CTI server is connected to the PBX over an ISDN CSTA link. There is only a logical connection, not a physical one, between the CTI

agent and the T1 terminal. The T1 terminals are connected to the PBX via  $S_0$  or  $U_{p0}$ .

The CTI functionality results from the interworking of the CTI agent/PC with the Com4Tel, CTI server and PBX. Tenovis provides solutions that conform to the "third party call control model", in the form of CTI servers connection [NT]/[NW]

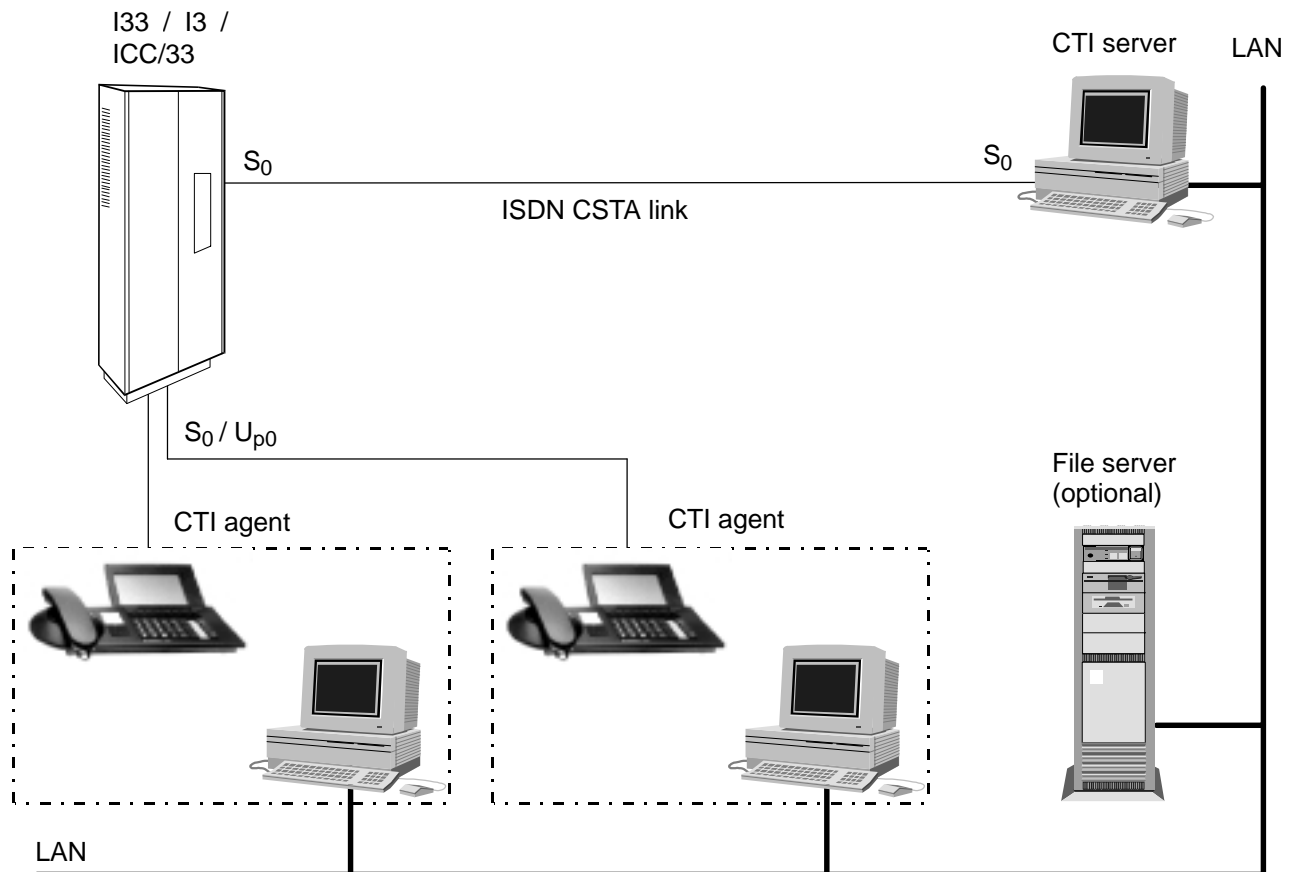


Fig. 4.3 Third party solution with Com4Tel and CTI system

## Software interfaces

Com4Tel provides interfaces to various external applications and files (Fig. 4.4).

### TAPI

Communication with the T1 family of system terminals takes place over the TAPI interface in the licence-free version 2.1 provided by Microsoft®.

A TSP service-provider is necessary for connection to the AEI interface on T1 terminals. This is included in the Com4Tel software package.

### Starting applications

This interface is used for opening applications for the Windows™ operating system, including when there are parameters, as for example in the case of a call.

### Mail

This interface lets you open a transmission window and transfer the e-mail address from the Com4Tel telephone book.

### Databases

You can access existing databases over various interfaces which form an integral part of Com4Tel. The

package provides you with these in the form of a global telephone book. Since access is in read-only form, it is impossible to make an accidental change from within Com4Tel.

### Microsoft® Access

You can browse Access databases (7.0 or 8.0) with the help of the add-in provided for the purpose. For an incoming or outgoing call, the system opens a form which clearly displays predefined data.

### Microsoft® Word for Windows™

A specially provided macro allows you to dial from Word for Windows™. As in the case of Com4Tel itself, this macro accesses the T1 terminal over TAPI and TSP.

### TSP

The TSP service-provider makes an interface available between TAPI and a T1 terminal. It uses a standard AEI interface to facilitate communication between Com4Tel and the T1 family of terminals.

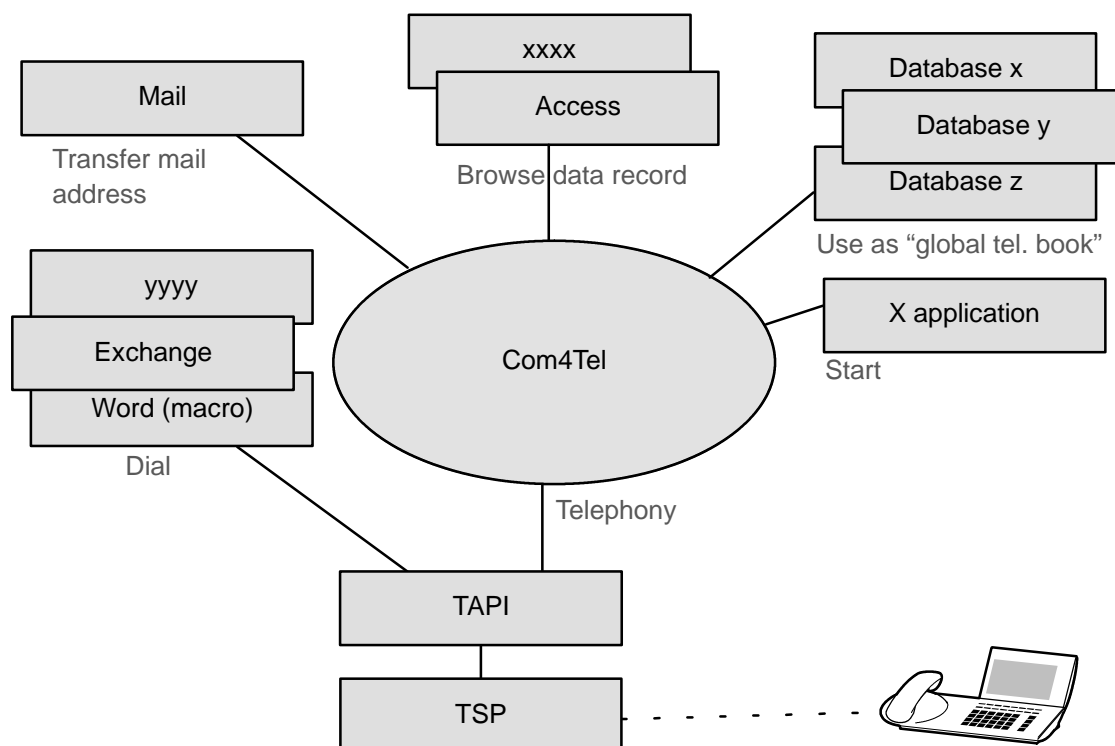



Fig. 4.4 Com4Tel software interfaces

## 5.0 Using the product

### Installation

The following notes refer exclusively to the "first party" version, that is, connecting the T1 telephone over the AEI interface. When third party solutions are installed, configuration of the CTI system is handled by DP specialists.

Please note the system requirements which your PC must fulfil!

 Please note the instruction manual for your AEI adapter.

- Connect your telephone to your PC via the AEI adapter.
- Close all programs currently running.
- Insert the CD in the CD drive.
- Click on the "Start" button.
- Select function „Run“.
- Enter the following in the command line of the dialog box:  
**x:\setup**  
Note: **x:** is your CD drive.
- Confirm with "OK".  
The installation program starts.
- Follow the instructions in the installation program.  
You may cancel the installation at any time.

The installation program copies the program files to the hard disk and makes the necessary changes to the system files. You are then prompted to restart Windows™.

- Confirm with "OK", and the changes that have been made to the system files then take effect.

After a successful installation you need to complete the licence and send it to the licensing centre.

### Operation

You can operate Com4Tel according to the same rules that apply to all applications for Windows™.

#### Window

A detailed description is given in Help, which you can call at any time by pressing the F1 key.

Com4Tel distinguishes between the main window (see Fig. 5.1) and the action windows. The action window (such as the journal, telephone book or connection windows) opens when you call the corresponding functions.

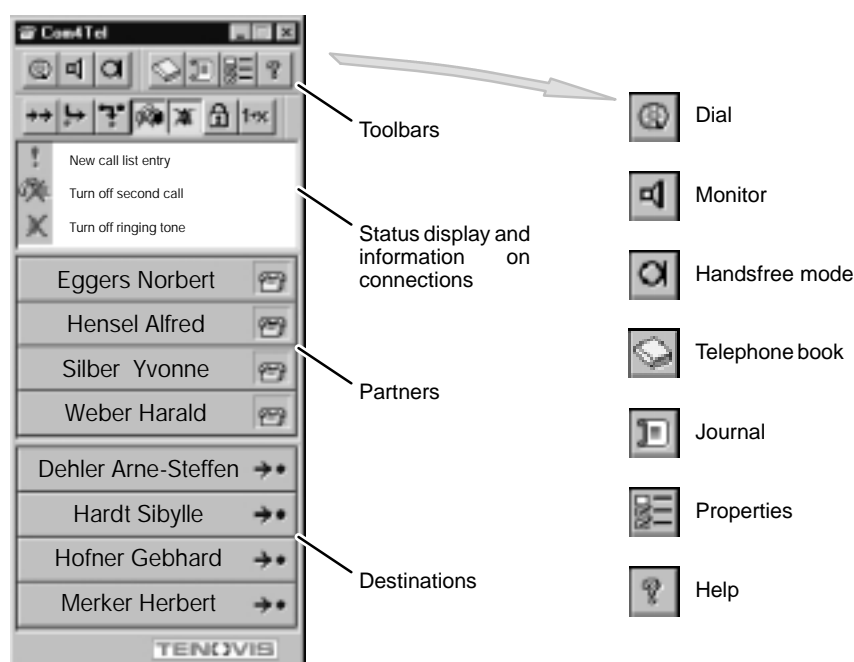


Fig. 5.1 Meaning of the symbols and icons in the main window

### ***Context-sensitive Help***

The Help system provides you with comprehensive information on Com4Tel, and goes well beyond this introduction.

- Press the F1 key.

This opens the Help for the currently active window.

Tip: Make a point of consulting Help frequently in the early stages. This will get you acquainted with Com4Tel and then you can use it to fullest advantage.

### ***Toolbar***

The toolbars contain the telephone functions. You can run these functions directly from the toolbars.

- To run a function, click on the corresponding icon.

The chosen function then runs.

- To check which function a particular icon will run, place the mouse pointer over the icon concerned.

A short QuickInfo text describes what the icon does.

### ***Status display***

The status display gives you information about the current settings or connections.

### ***Partners and destinations***

The Partner window shows you who your Partner is, provided this function is supported by your telephone and the PBX. You can also obtain this as a separate window.

The Destinations window displays your stored destinations.

- Click on the Partner or Destination key as required

The call number stored under the Partner or Destination key is then dialled.

### ***Context menu***

A context menu tells you which functions you can currently run.

- Press the right-hand mouse button.

The appropriate context menu opens.

- Click on the function you require with the left-hand mouse button.

The chosen function then runs.

**A**

**AEI** Additional Equipment Interface; Interface for connecting external telephones acc. ETS 300 254-4

**C**

**CTI** Computer Telephony Integration

**D**

**DAO** Data Access Object; Defined objects for accessing data in tables or databases

**E**

**ETS** European Telecommunications Standard

**I**

**ISAM** Index Sequential Access Method; Procedure for accessing data in tables

**ISDN** Integrated Services Digital Network

**O**

**ODBC** Open Database Connectivity; Standard protocol for accessing external databases

**R**

**RAM** Random Access Memory; Volatile main memory of a PC or in processor-supported systems and terminals

**S**

**SW** Software

**T**

**TAPI** Telephony Application Programming Interface; Standard software interface developed by Microsoft®; enables telephony functions to be controlled from Windows™ applications

**Tk** Telekommunikation (Telecommunications)

**TSP** Telephony Service Provider; Interface between TAPI and the AEI interface for a T1 terminal

**V**

**V.24** Interface for data transmission according to CCITT Recommendation V.24