



KX-TDA TSP

Installation Manual

Revision: 2.1.011

Date: 22nd September 2005

(C) Copyright 2004 - 2005 Panasonic Communications Co., Ltd. All Rights Reserved.

Panasonic TAPI* Service Provider for TDA Series (Panasonic KX-TDA TSP) is a driver that provides you with a TAPI Interface.

* TAPI (Telephony Application Programming Interface introduced by joint development of Microsoft® and Intel®) is a standard interface that enables a computer application to control the PBX.

Panasonic KX-TDA TSP System Requirements:

<Hardware Requirements >

- PBX (KX-TDA30/50/100/200/600) is needed.
If you use TSP with MultiPBX connection, you need to use PBX Version 2.0 or later.
You may need **SD Memory Card for Software Upgrade to Enhanced Version** depending on your application.

PBX	Required SD Card
KX-TDA30	KX-TDA3920
KX-TDA50	KX-TDA5920
KX-TDA100/200	KX-TDA0920
KX-TDA600	KX-TDA6920

- PC is needed.
- If you use USB connection, USB cable is needed.
- If you use LAN connection, LAN cable is needed.

<PC : Software Requirements >

- Microsoft Windows® Server 2003 Standard Edition / Small Business Server(ServicePack is not necessary)
- Microsoft Windows XP Professional (SP2)
- Microsoft Windows 2000 Professional /Server(SP4)
- Minimum System Requirements of the application that you use with Panasonic KX-TDA TSP.
- If you use TSP with **USB connection**, you need to use **USB driver(Version 2.0.0.2 or later)** for PBX.

<PC : Hardware Requirements >

- Windows has to work on the PC
- Hardware Requirements of the application that you use with Panasonic KX-TDA TSP.
- If you use USB connection, USB Interface is needed.
- If you use LAN connection, LAN Interface is needed.
- HDD 400 Mb free disk space
Note : Additional HDD space may be required in case logging capabilities of Panasonic KX-TDA TSP are enabled.

Panasonic KX-TDA TSP System Recommendation:

- Panasonic KX-TDA TSP Minimum System Requirements at the very least. The total minimum free disk space you need is the Panasonic KX-TDA TSP minimum plus the Application minimum.

Trademarks:

- Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- All other trademarks identified herein are the property of their respective owners.

Table of Contents

Section 1	4
1.1 BEFORE INSTALLING PANASONIC KX-TDA TSP.....	4
Section 2	5
2.1 INSTALLING PANASONIC KX-TDA TSP	5
2.1.1. <i>How to install Panasonic KX-TDA TSP on your computer</i>	5
2.2. UNINSTALLING PANASONIC KX-TDA TSP	12
2.2.1. <i>How to remove Panasonic KX-TDA TSP Version 2.0.2.x installed on your computer</i>	12
2.3 OVERWRITING PANASONIC KX-TDA TSP	15
2.3.1 <i>How to overwrite TSP</i>	15
Section 3	19
3.1. SETTINGS OF THE PANASONIC KX-TDA TSP (IF YOU CONNECT MULTI PBX).....	19
3.1.1. <i>Important Information in case you connect TSP to Multi PBX</i>	19
3.1.2. <i>Before setting Multi PBX Connection</i>	19
3.1.3. <i>How to set Multi PBX Connection</i>	20
3.2. ABOUT MULTIPBX CONFIGURATION SCREEN	25
3.2.1. <i>Panasonic KX-TDA TSP MultiPBX Configuration Screen</i>	25
3.2.2. <i>Instance "Panasonic KX-TDA TSP XXXX" Settings Screen</i>	26
3.2.2.1. Link Parameters	26
3.2.2.2. TSP Log Settings	29
3.2.2.3. Version Info	31
3.2.2.4. Other Parameters.....	32
Section 4	37
4.1. NOTICE FOR INSTALLING/UNINSTALLING PANASONIC KX-TDA TSP FROM WINDOWS 2000/ WINDOWS XP/WINDOWS SERVER 2003 STANDARD EDITION OPERATING SYSTEM.....	37
Section 5	41
5.1. IF "KX-TDA MAINTENANCE CONSOLE" CAN NOT USE USB TO COMMUNICATE WITH THE PBX	41
5.2. IF FIREWALL PROTECTION SOFTWARE IS INSTALLED AND TSP USE IP TO COMMUNICATE WITH PBX.....	42
Annex A	43
HOW TO CHECK IF PANASONIC KX-TDA TSP WAS ALREADY INSTALLED IN YOUR COMPUTER	43
Annex B	45
PANASONIC KXTDA TSP CONNECTION MONITOR TOOL.....	45

Section 1

1.1 Before Installing Panasonic KX-TDA TSP

Panasonic KX-TDA TSP uses USB or TCP/IP to connect and control the TDA PBX.

In order to use the USB connection, USB drivers for TDA PBX must be installed on the computer. For more details about installation of the TDA PBX USB driver, please consult related installation manual.

At installation time Panasonic KX-TDA TSP will check the presence of TDA PBX USB and will prompt you to use TCP/IP. See **section 2.1** in this manual for further details.

In order to use TCP/IP, before installation please make sure you know the IP address of the TDA PBX and its CTI port. By default the CTI port is 33333. Please make sure that your computer has a properly configured network card and that TCP/IP is installed and correctly configured.

Note:

The CTI Link Card must be installed in the TDA PBX in order to use TCP/IP (LAN) connection. In order to check the TDA PBX presence in the LAN, a <ping> command is recommended.

Section 2

2.1 Installing Panasonic KX-TDA TSP

Notes:

When you install Panasonic KX-TDA TSP using Windows2000/WindowsXP/Windows Server 2003 Standard Edition, please make sure to log in at the “Administrator” account type.

If other version of TSP is already installed in your PC, please refer to section 2.3.

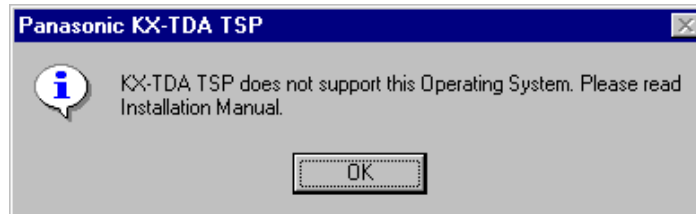
2.1.1. How to install Panasonic KX-TDA TSP on your computer

1. Double-click the setup file (panasonic_kx-tda_tsp_inst****.exe)

Notes:

If your PC's operating system is windows 95, 98, NT or Me, TSP cannot be installed.

Following dialog is displayed and installation process is aborted

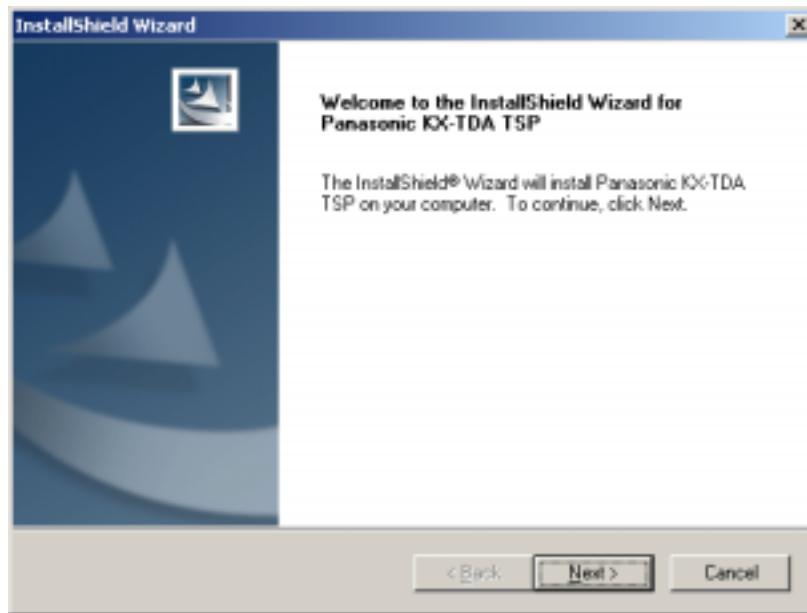


And if your PC's operating system is windows NT and the Service Pack is older than 4, following dialog is displayed. In this case, installation process is aborted too.

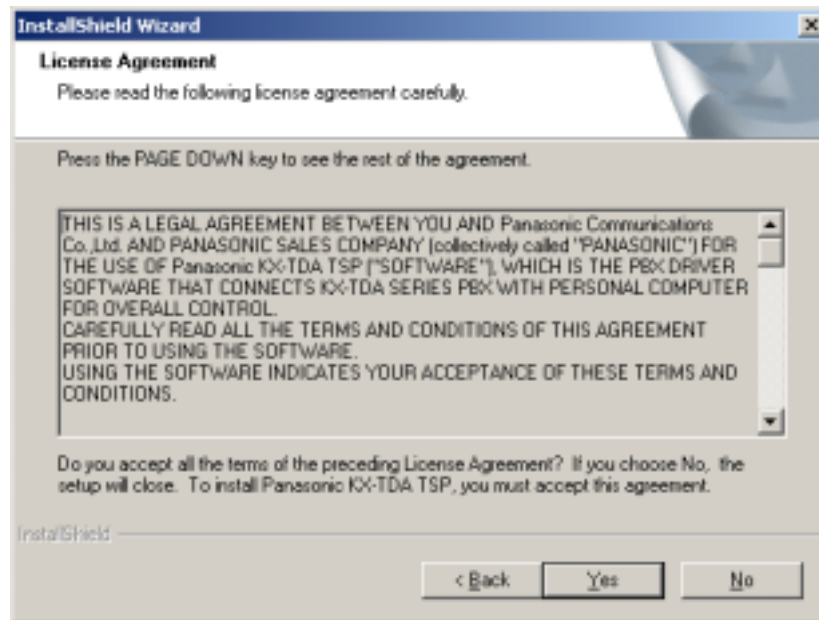


Please refer to page 2 about TSP support operating system

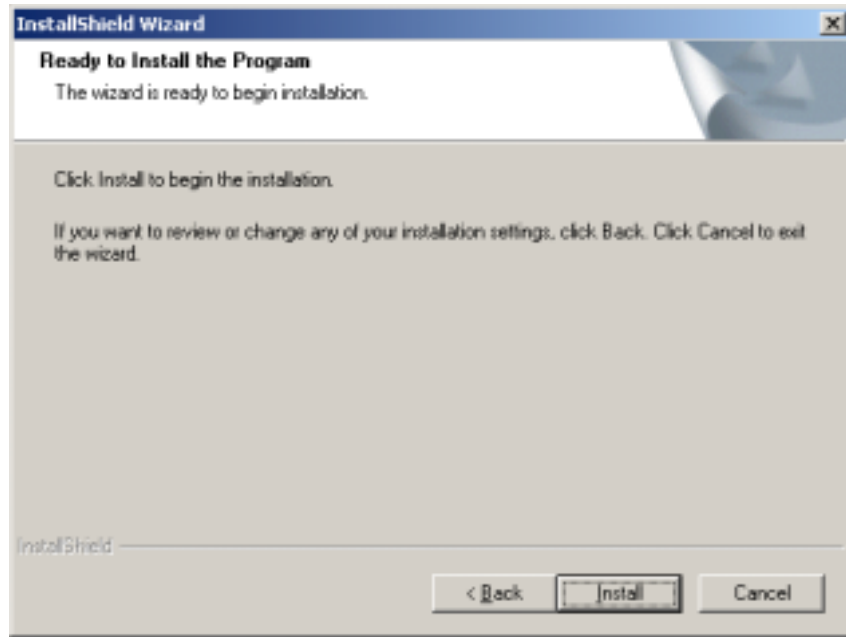
2. Click "**Next**" to continue installation. Click "**Cancel**" to abort.



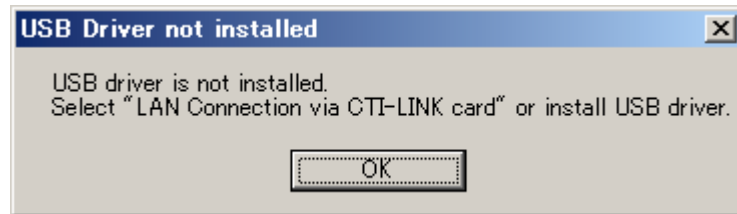
3. Click "**Yes**" to continue installation after you have read the agreement. Click "**No**" to abort installation. Click "**Back**" to go back to previous step.



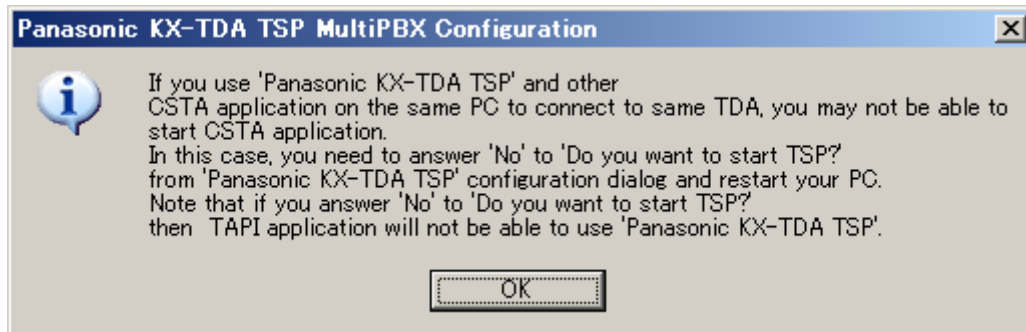
4. Click **“Install”** to start installation. Click **“Cancel”** to abort installation. Click **“Back”** to go back to previous step.



5. The following screen may appear if USB driver is not installed in your computer. Press **“OK”** to continue.

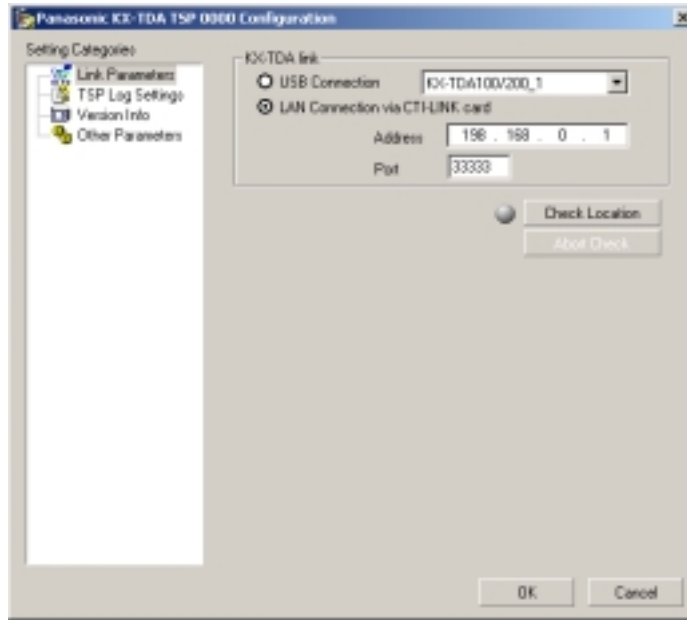


6. The following message will appear in order to note that TSP and CSTA Application cannot be used at the same time. Press **“OK”** to continue.

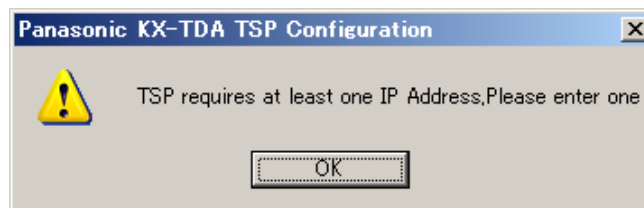


7. By default one instance will be installed and registered with TAPI. This default instance has no license registration requirements.

After registration with TAPI is completed following dialog will prompt you to configure parameters. Pressing “OK” will update settings you have just changed. Pressing “Cancel” will leave default configuration.



By default IP address is empty. In case LAN connection is selected and IP address is left blank, and you press “OK”, Panasonic TDA TSP will prompt you to input one IP address:



Please make sure it is same address as PBX CTI-LAN card is configured to use.

In case of USB connection, please select “USB Connection”.

In case of KX-TDA PBX Version 2.0 or later, information of connected KX-TDA PBX is displayed to next field of “USB Connection”.

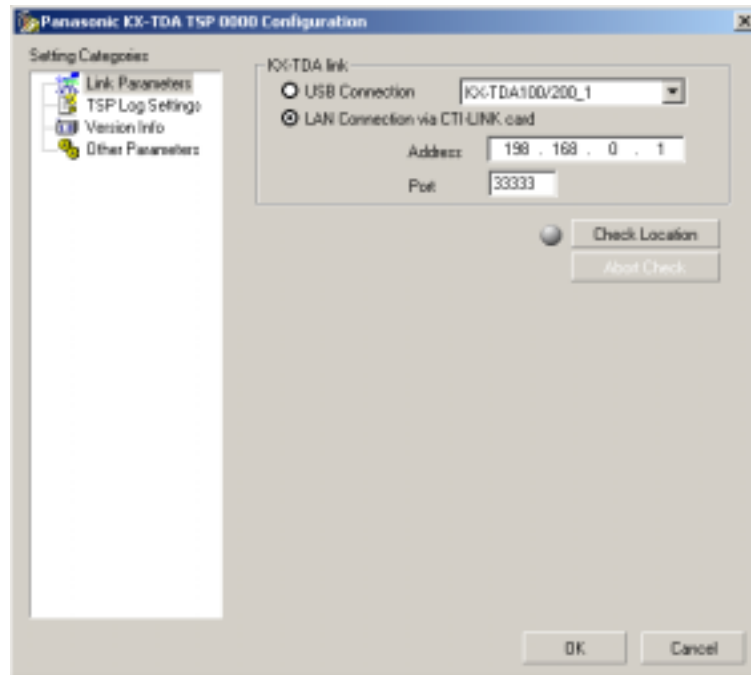
If you use KX-TDA PBX Version 1.1 or earlier, this field is blank.

(TDA TSP can be connected to PBX.)

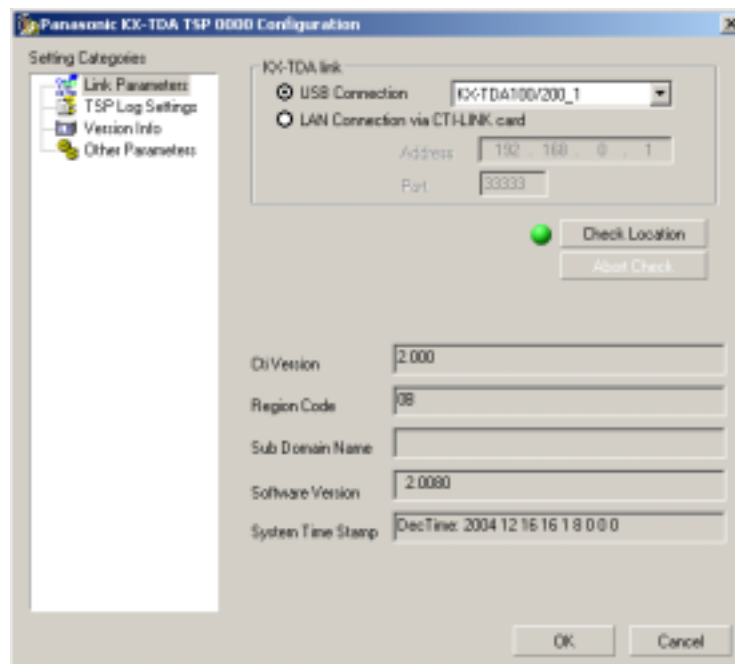
Notes:

If you connect multiple PBXs to your PC by using USB, you need to select “USB Connection” and select which PBX you want to use. Please refer to section 3.2.

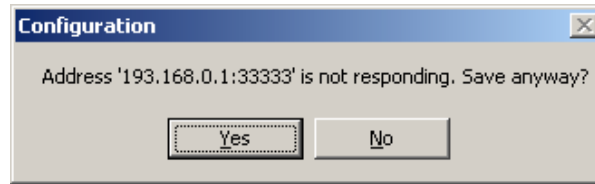
8. After entering the PBX Location, click “**Check Location**” to verify the connection with the TDA PBX.



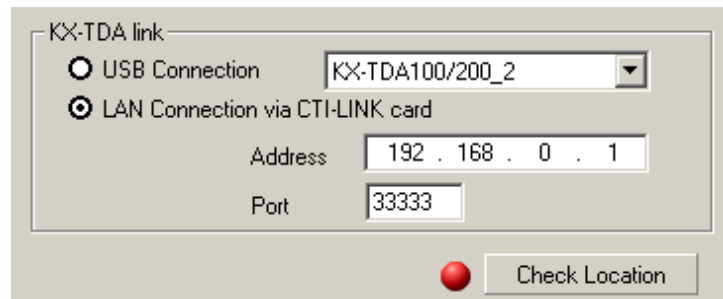
If the connection is successful, the following screen will appear, containing system information gathered from TDA PBX: CTI Version, Region Code, Sub Domain Name, Software Version and System Time Stamp. System information gathered from TDA PBX may help you identify the TDA PBX that you will use. When the connection is successful, the GRAY LAMP to the left of “**Check Location**” button will turn to GREEN LAMP.



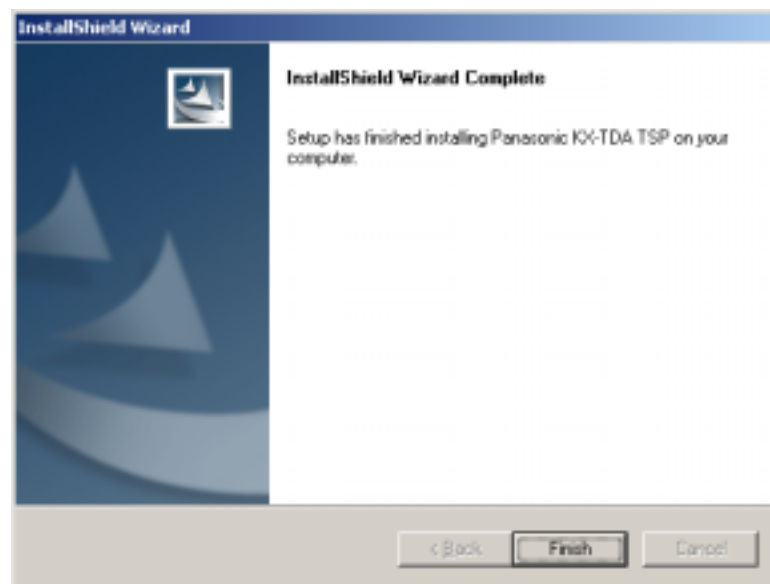
If the connection with the TDA PBX was not successful, a message box will appear.



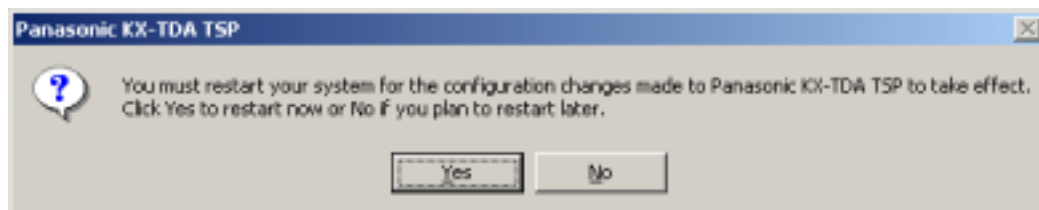
Then the GRAY LAMP to the left of "**Check Location**" button will turn to RED LAMP.



9. Click "**Finish**" to complete the installation.



10. Install program prompt user to reboot PC: Press "**Yes**" to reboot PC.



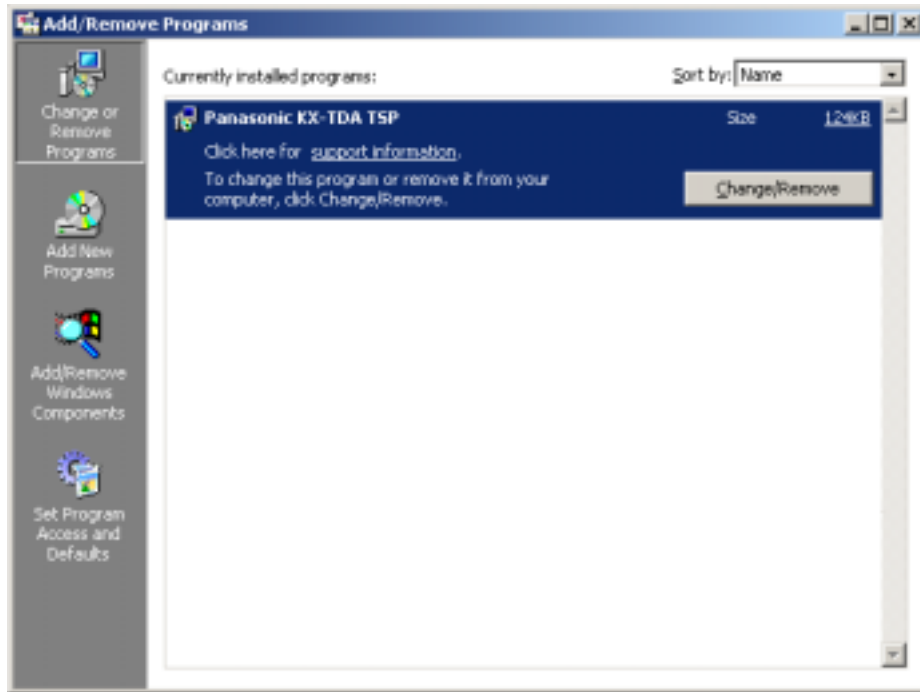
Notes:

At installation time a default folder is created under <Program Files>\Panasonic\KX-TDA TSP. This folder contains release notes and End User License Agreement.

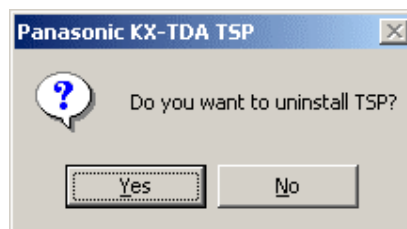
2.2. Uninstalling Panasonic KX-TDA TSP

2.2.1. How to remove Panasonic KX-TDA TSP Version 2.1.0.x installed on your computer

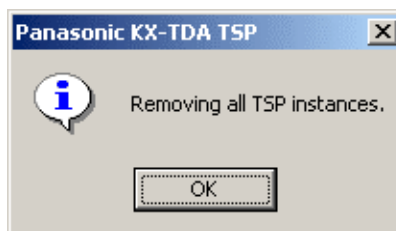
1. To do that, go to Control Panel, Add/Remove programs, select Panasonic KX-TDA TSP and click “Change/Remove”.



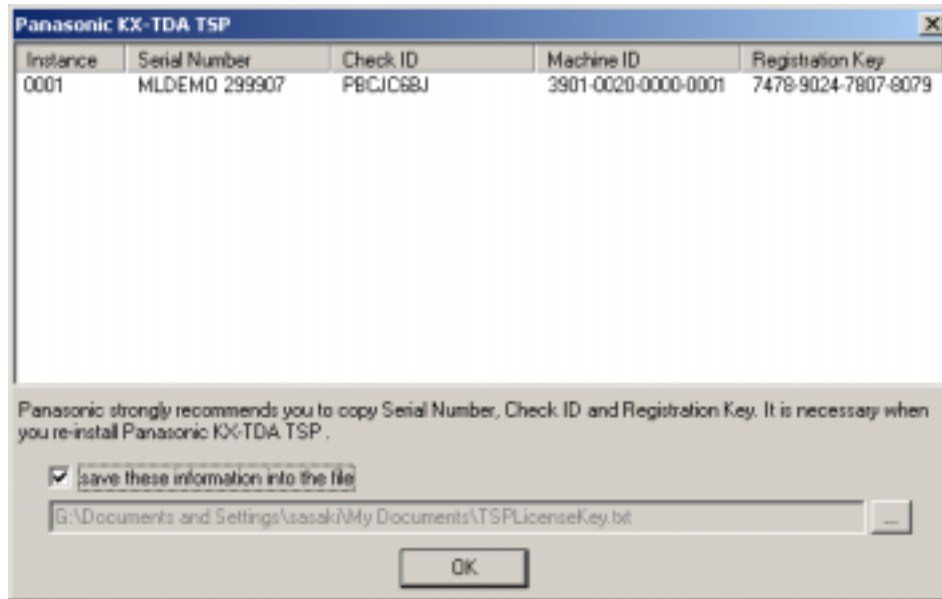
2. Click “Yes” to uninstall, or “No” to abort uninstallation process.



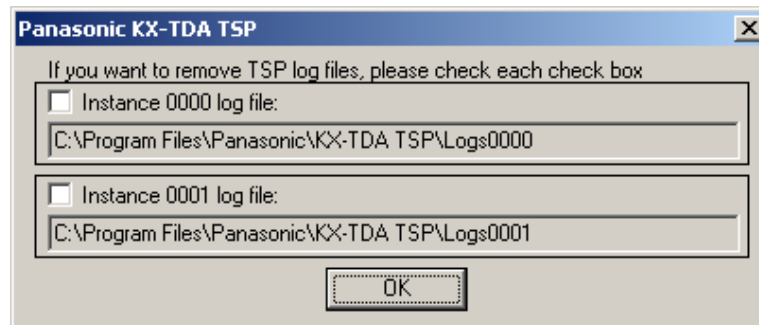
3. Click “OK” to continue installation.



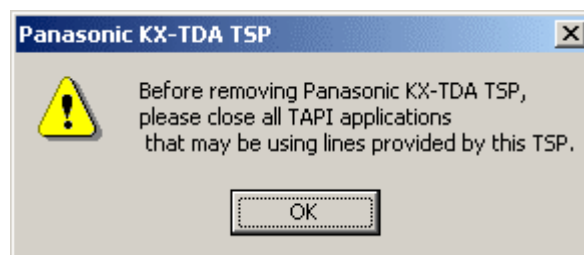
4. If you set 2 instances as “enable”, the following dialog is displayed. Check “save these information into the file”, press “...” to specify the path and press “OK” if you want to save license information in text file



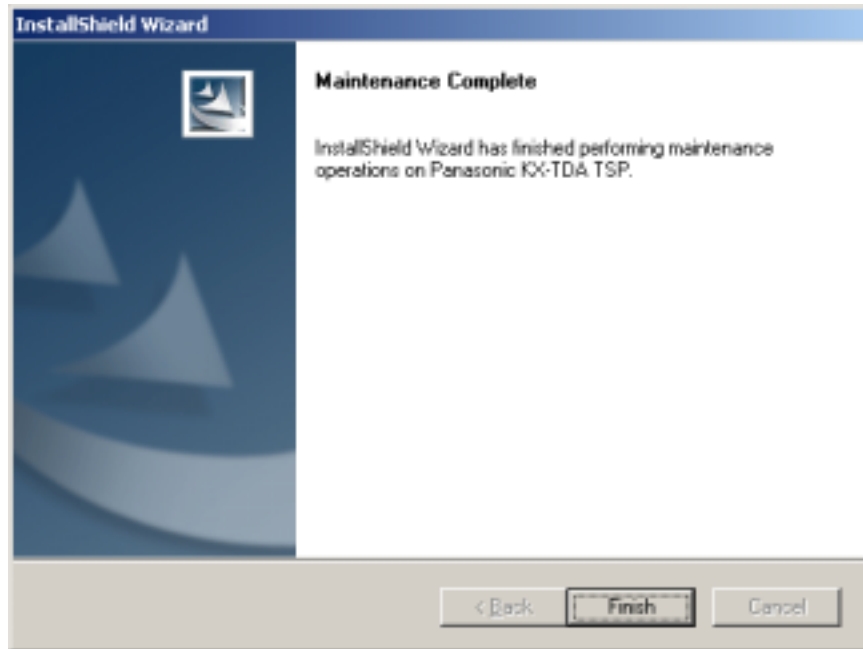
5. If you set TSP to generate log, the following dialog is displayed. If you want to remove specified log files, check each check box and press “OK”.



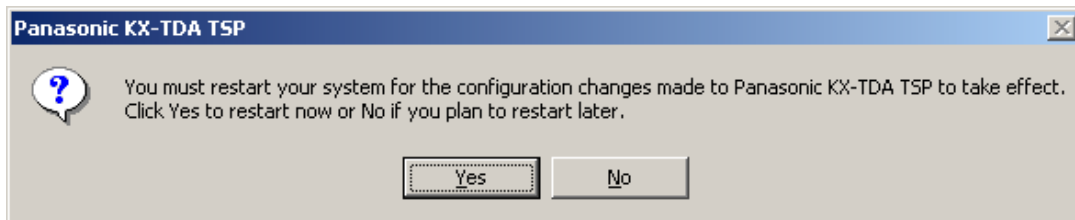
6. For TSP instance Registered with TAPI user is prompted to close any application that may use Panasonic KX-TDA TSP. Press “OK” to continue.



7. Click **“Finish”** to complete the installation.



8. User is prompted to restart computer. Press **“Yes”** to restart.



2.3 Overwriting Panasonic KX-TDA TSP

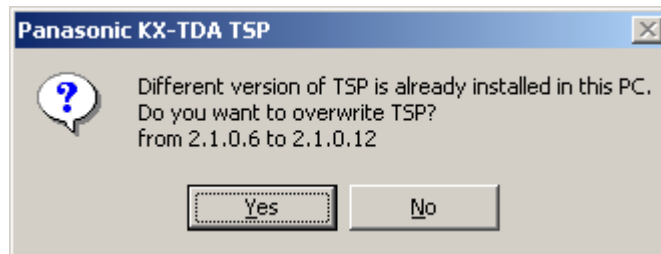
Important

TSP V2.0.2.13 or later can overwrite other version. However, older version of TSP cannot overwrite other version.

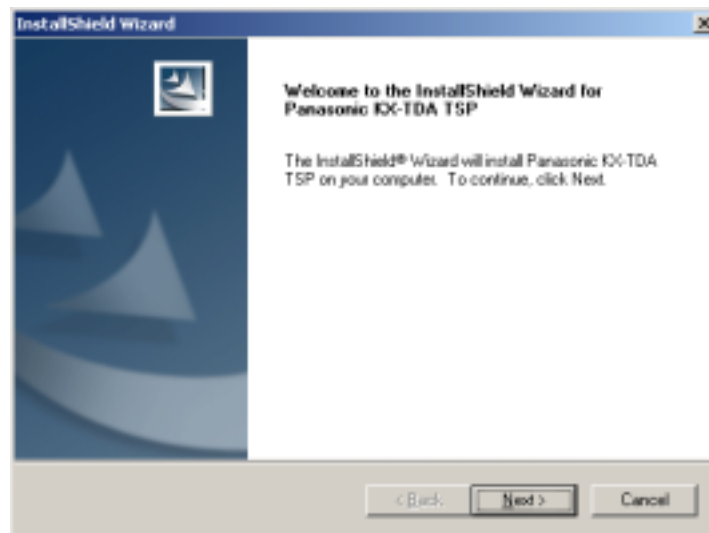
E.g: 2.0.3.1	to 2.1.0.12	OK
2.1.0.6	to 2.1.0.12	OK
2.0.0.27	to 2.1.0.12	NG
2.1.0.12	to 2.0.0.27	NG

2.3.1 How to overwrite TSP

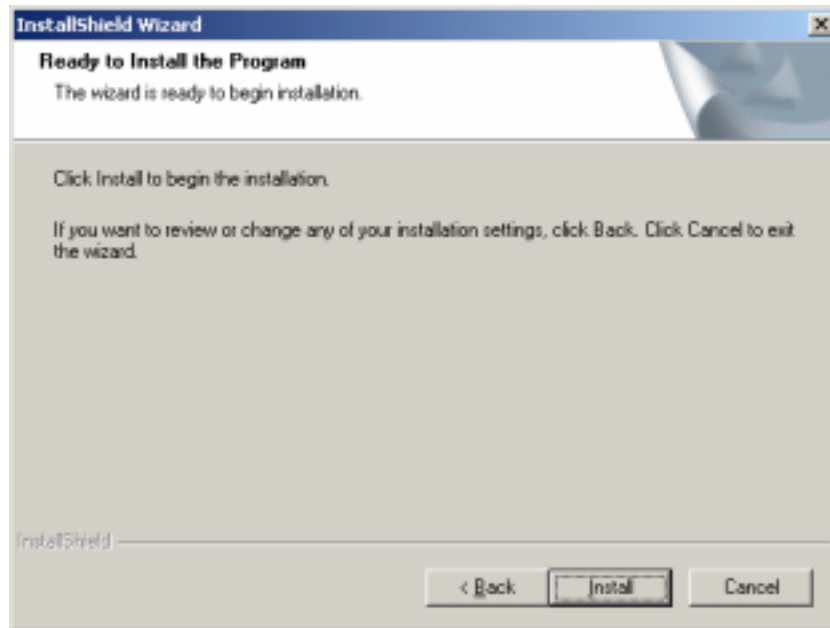
1. Double click a setup file of TSP which you want to install newly on PC that other version of TSP has been installed on.
2. Click “OK” to continue the overwrite installation or “Cancel” to abort.



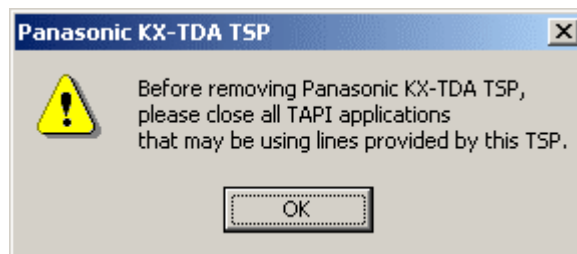
3. Click “Next” to continue the overwrite installation or “Cancel” to abort.



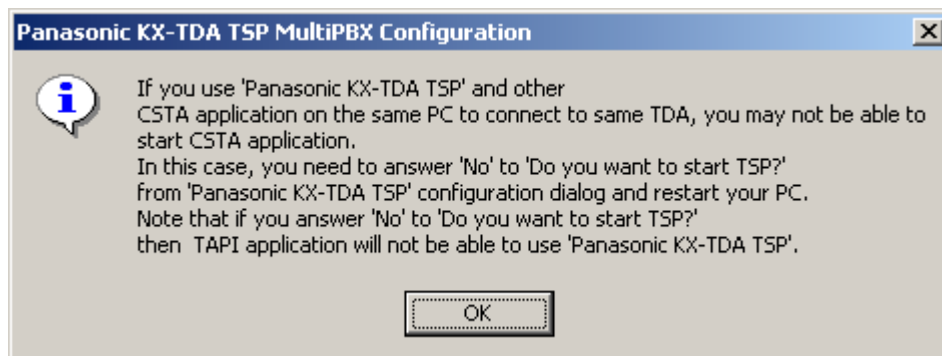
4. Click **“Install”** to start installation. Click **“Cancel”** to abort. Click **“Back”** to go back to previous step.



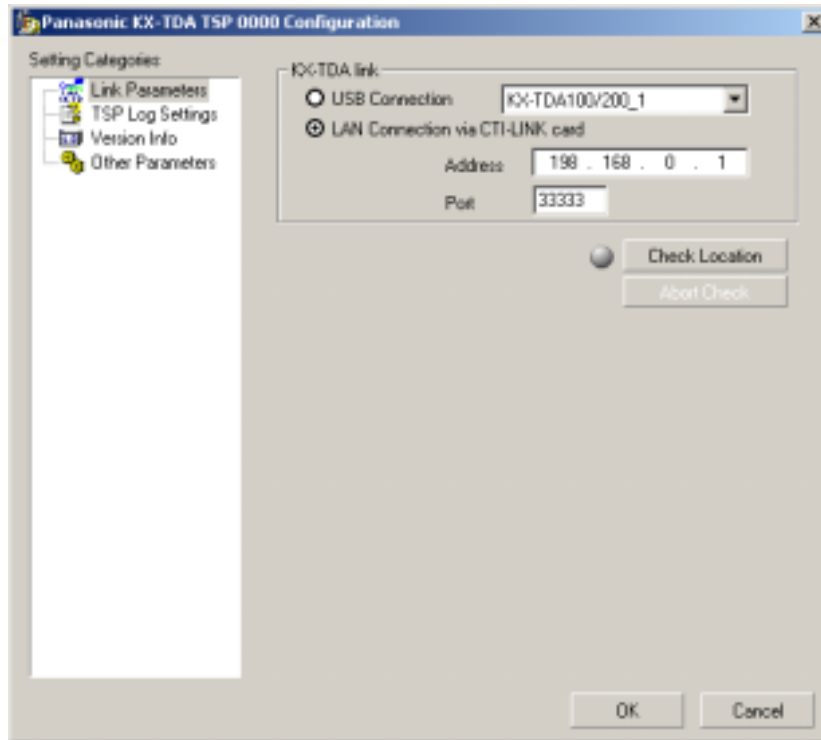
5. For TSP instance registered with TAPI user is prompted to close any application that may use Panasonic KX-TDA TSP. Press **“OK”** to continue.



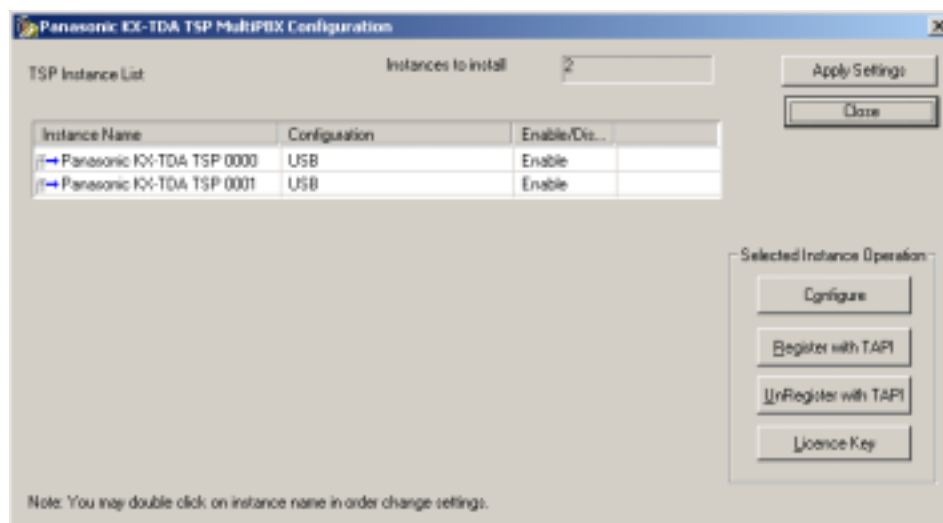
6. The following message will appear in order to note that TSP and CSTA application cannot be used at the same time. Press **“OK”** to continue.



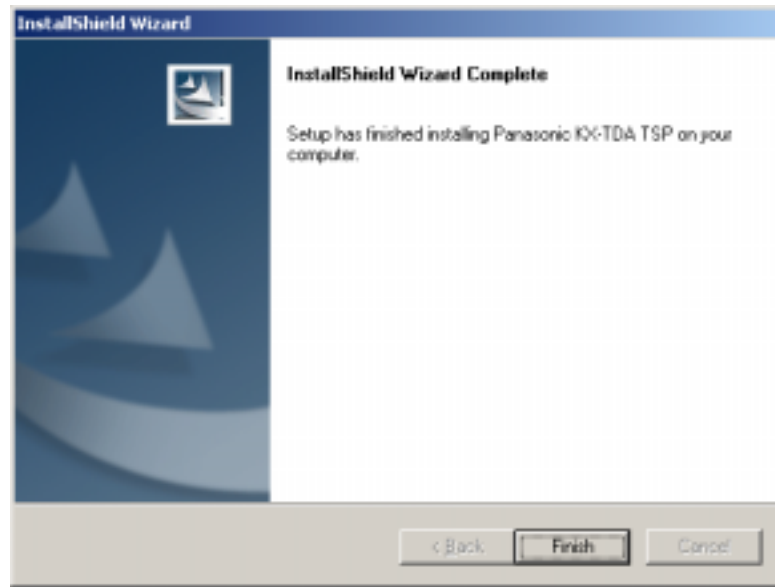
- If you use only 1 instance, the following dialog is displayed. Please refer to section 2.1.1 for the configuration. Previous configuration is kept. If you do not need to change the configuration, press “OK”.



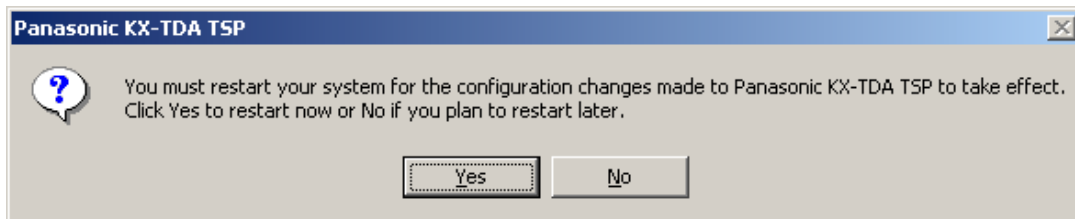
- If you use multiple instances, the following dialog is displayed. Please refer to section 3.1 for the configuration. Previous configuration is kept. If you do not need to change the configuration, press “Apply Settings”.



9. Click **Finish** to complete the installation.



10. Install program prompt user to reboot PC. Press **Yes** to reboot PC.



Section 3

3.1. Settings of the Panasonic KX-TDA TSP (If you connect Multi PBX)

Important

Section 3 describes how to connect TSP on one PC to MultiPBX. If you connect TSP to only one PC, you do not have to read this Section 3.

3.1.1. Important Information in case you connect TSP to Multi PBX

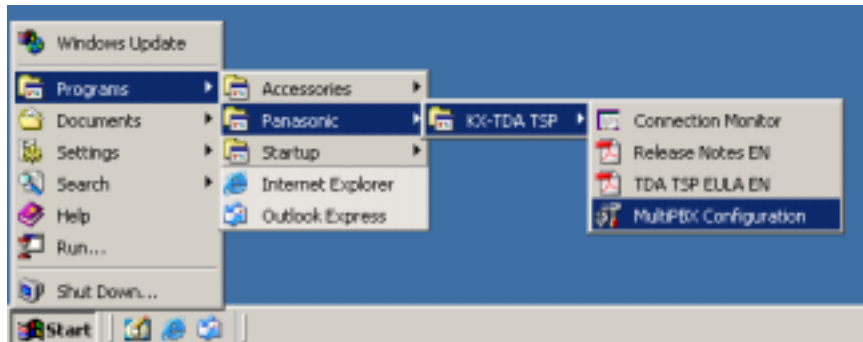
- 1) In case of multi PBX connection, please make sure to use **PBX Version 2.0 or later**.
- 2) Please connect PC to PBX by LAN or USB before multi PBX connection.
- 3) Please use **USB driver Version 2.0.0.2 or later**, if you use USB.

3.1.2. Before setting Multi PBX Connection

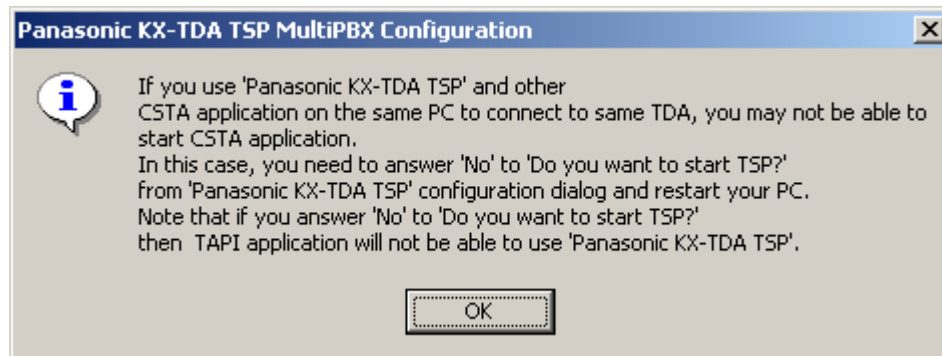
- 1) Please connect PC and PBX by LAN or USB for multi connection.
Note) In case of LAN connection, please configure IP Address in PBX before connecting.
- 2) Please install TDA-TSP(latest version) in advance. (See Section2)

3.1.3. How to set Multi PBX Connection

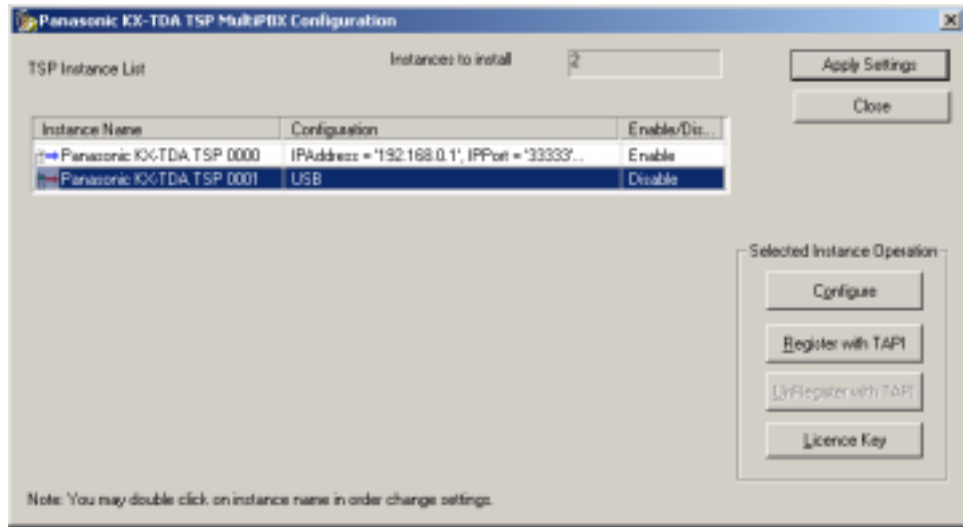
- 1 In order to start Panasonic KX-TDA TSP MultiPBX Configuration you need to follow: **“Start->Program->Panasonic->KX-TDA TSP->MultiPBX Configuration”** like in the next image.



- 2 The following message will appear in order to note that TSP and CSTA Application cannot be used at the same time. Press **“OK”** to continue.



- 3 Panasonic KX-TDA TSP MultiPBX Configuration dialog will appear:
Select **"Panasonic KX-TDA TSP 0001"** and press **"Register with TAPI"** button.



- 4 "License Key Code" screen is opened. Please inform Panasonic of your MachineID to receive "Serial Number", "Check ID" and "Registration Key".

Serial Number

Check ID

Machine ID

Registration Key

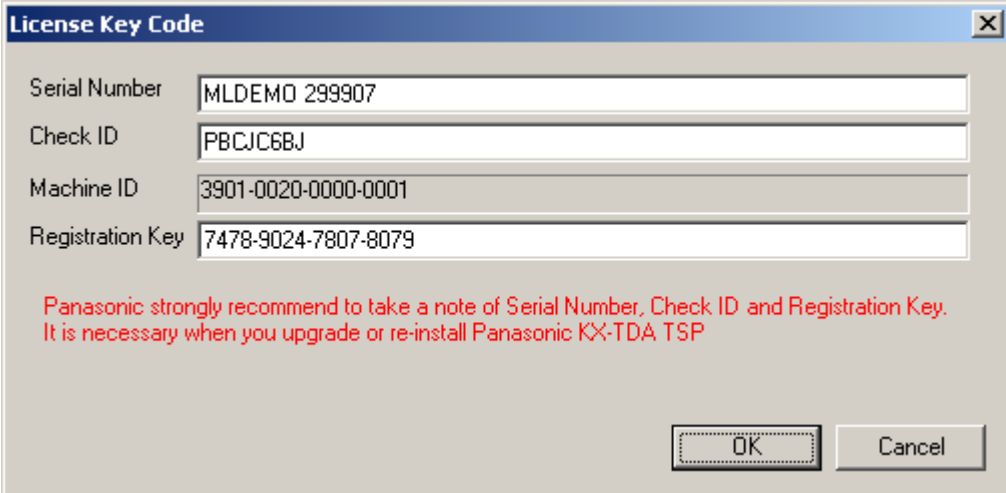
Panasonic strongly recommend to take a note of Serial Number, Check ID and Registration Key.
It is necessary when you upgrade or re-install Panasonic KX-TDA TSP

OK Cancel

Note:

Please obtain **"Serial Number"**, **"Check ID"** and **"Regist Key"** from Panasonic.

- 5 Enter "Serial Number", "Check ID" and "Regist Key" and press "OK".



The dialog box titled "License Key Code" contains four input fields:

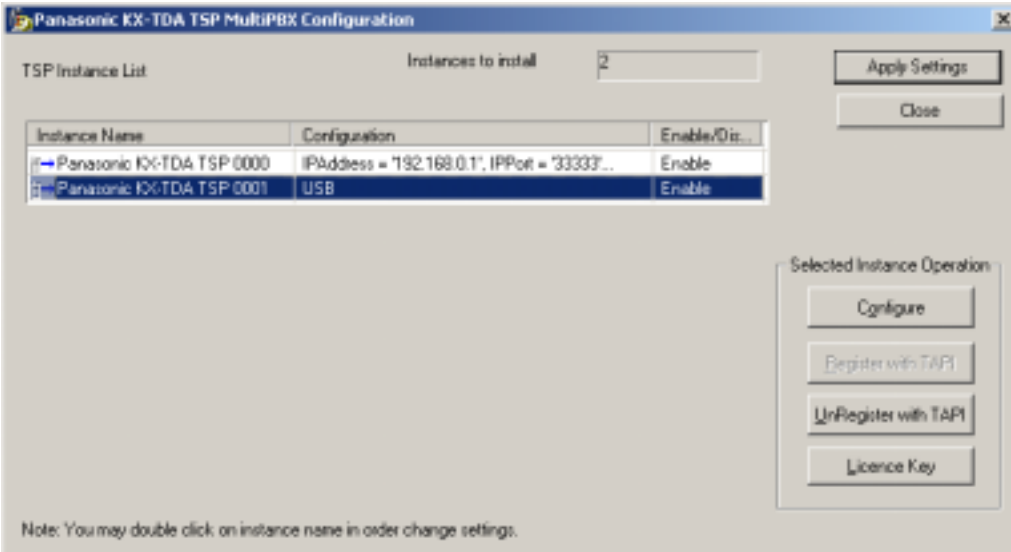
- Serial Number: MLDEMO 299907
- Check ID: PBCJC6BJ
- Machine ID: 3901-0020-0000-0001
- Registration Key: 7478-9024-7807-8079

Below the fields, a red message reads: "Panasonic strongly recommend to take a note of Serial Number, Check ID and Registration Key. It is necessary when you upgrade or re-install Panasonic KX-TDA TSP". At the bottom right are "OK" and "Cancel" buttons.

- 6 The following message will appear, if "Regist Key" is correct. Then press "OK" to continue.



- 7 Select "Panasonic KX-TDA TSP 0001" and press "Configure".

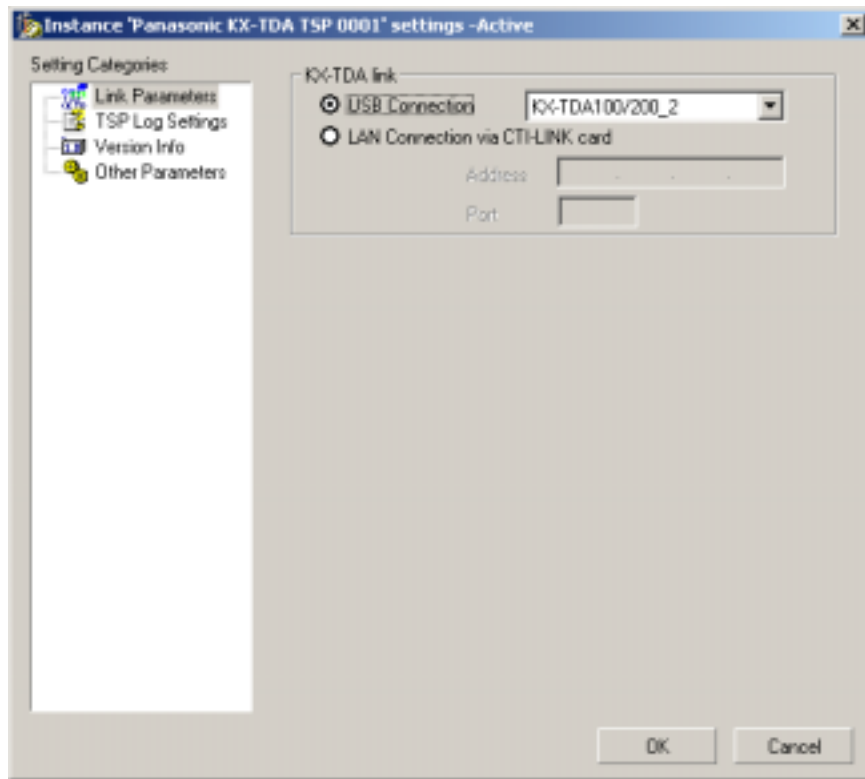


The dialog box titled "Panasonic KX-TDA TSP MultiPBX Configuration" shows a "TSP Instance List" table with two rows:

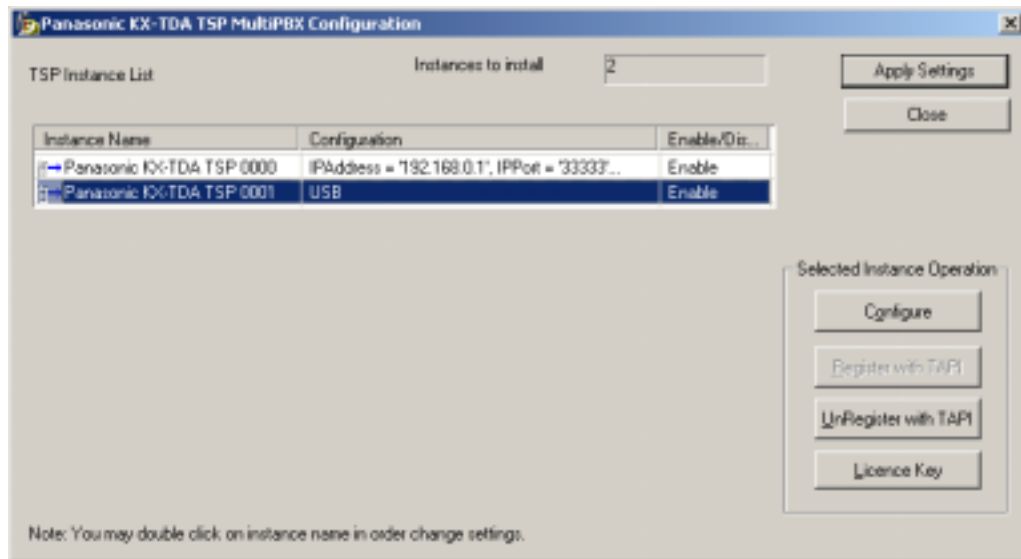
Instance Name	Configuration	Enable/Disc...
Panasonic KX-TDA TSP 0000	IPAddress = '192.168.0.1', IPPort = '33333'...	Enable
Panasonic KX-TDA TSP 0001	USB	Enable

The "Instances to install" field is set to 2. Buttons for "Apply Settings" and "Close" are in the top right. A "Selected Instance Operation" panel on the right contains buttons for "Configure", "Register with TAPI", "UnRegister with TAPI", and "Licence Key". A note at the bottom states: "Note: You may double click on instance name in order change settings."

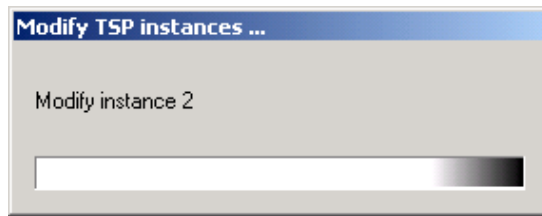
- 8 If Instance “Panasonic KX-TDA TSP 0001” setting” screen is opened, configure KX-TDA Link in Link Parameters and press “OK”. (See 3.2.2.1 Link Parameters)



- 9 After finishing to setup configuration press “Apply settings”



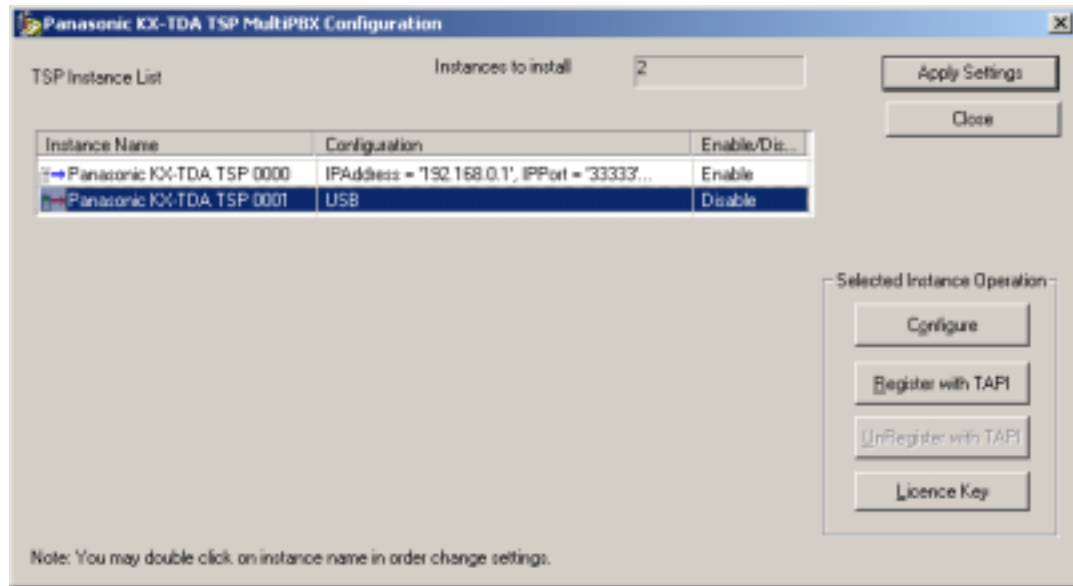
10 MultiPBX Configuration Tool will show operation progress:



11 After finishing MultiPBX Configuration Tool will exit. Then please **reboot PC manually**.

3.2. About MultiPBX Configuration Screen

3.2.1. Panasonic KX-TDA TSP MultiPBX Configuration Screen



TSP Instance list contains following information:

- “Instance Name” - This is TSP Instance Name same as Control Panel | Phone and Modems Options | Advanced displays.
- “Configuration” - Sample informative configuration string.
- “Enable/Disable” - “Enable”: After “Apply Settings” is pressed TSP instance is registered with TAPI
“Disable”: After “Apply Settings” is pressed TSP instance is unregistered with TAPI.

At startup this field contains current registration status of TSP Instance. “Enable”: TSP instance is registered with TAPI. “Disable”: TSP instance is not registered with TAPI.

MultiPBX Configuration Tool allows to:

- Specify parameters of each instance
- Register/Unregister each TSP instance with TAPI (Telephony System).

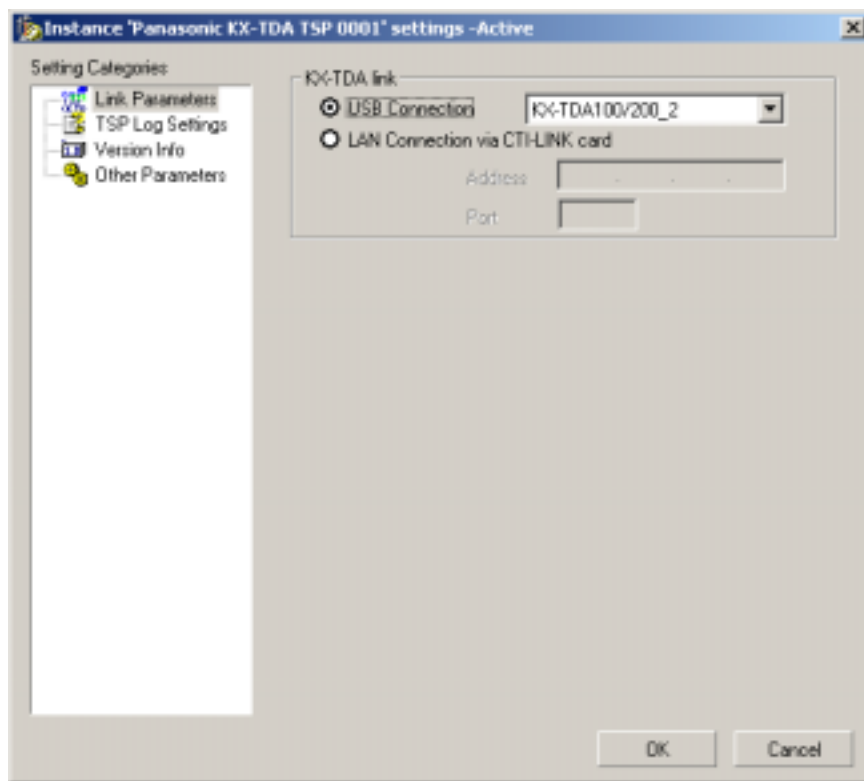
Each TSP instance allows TAPI applications to control/monitor one TDA PBX unit.
Each instance must connect to distinct TDA PBX

3.2.2. Instance “Panasonic KX-TDA TSP XXXX” Settings Screen

Instance “Panasonic KX-TDA TSP XXXX ” settings screen is opened if you press “Configure” button in Panasonic KX-TDA TSP MultiPBX Configuration screen. Please see the following explanation of each screen.

3.2.2.1. Link Parameters

The “**Link parameters**” configures how Panasonic KX-TDA TSP will establish communication with the TDA PBX.



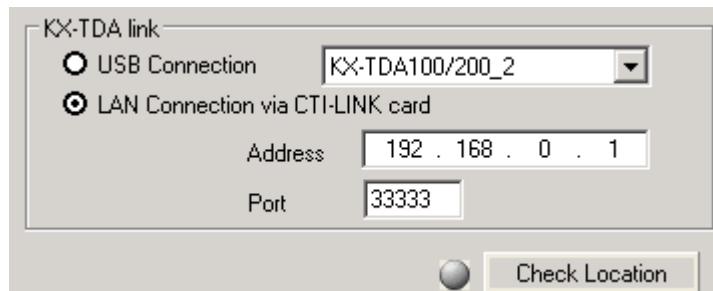
1. LAN connection

When Panasonic KX-TDA TSP uses LAN to communicate with the PBX, select "**LAN Connection via CTI-LINK card**" and enter "**Address**" and "**Port**".

"Address" is the IP address of the PBX in dot format, and "Port" is the port at which the PBX is listening. By default the address is blank. Please make sure to configure correct address of CTI-LINK card.

Example of setting an IP address:

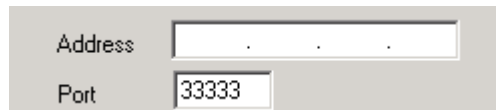
E.g.: Address=192.168.0.1 Port=33333



The screenshot shows a dialog box titled "KX-TDA link". It has two radio buttons: "USB Connection" (unselected) and "LAN Connection via CTI-LINK card" (selected). To the right of the radio buttons is a dropdown menu showing "KX-TDA100/200_2". Below the radio buttons are two text input fields: "Address" containing "192 . 168 . 0 . 1" and "Port" containing "33333". At the bottom right of the dialog is a "Check Location" button.

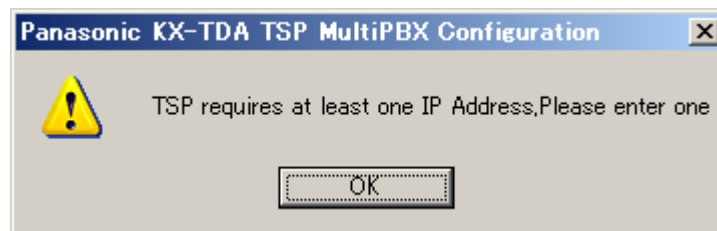
Note:

If Address is left blank and "OK" button is pressed,



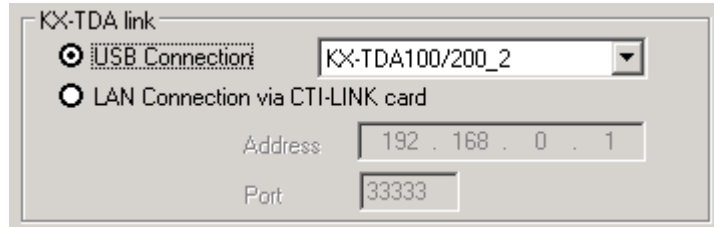
The screenshot shows a close-up of the "Address" and "Port" fields. The "Address" field is empty, showing only the dots ". . ." as placeholders. The "Port" field contains the value "33333".

Panasonic KX-TDA TSP will prompt to fill an IP address.



2. USB Connection

When Panasonic KX-TDA TSP uses USB to communicate with the PBX, select “**USB Connection**”.



KX-TDA link

USB Connection KX-TDA100/200_2

LAN Connection via CTI-LINK card

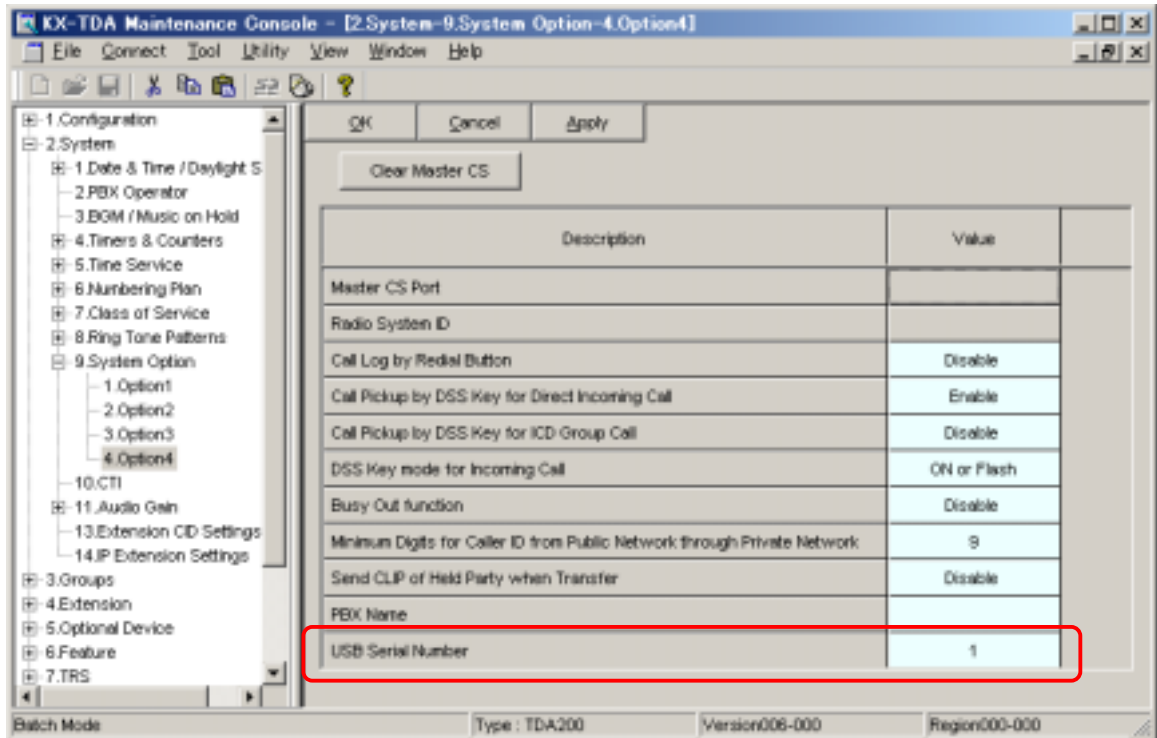
Address 192 . 168 . 0 . 1

Port 33333

Remark:

- 1) In case of multi PBX connection, please make sure to use **PBX Version 2.0 or later**.
- 2) Please use **USB driver Version 2.0.0.2 or later**.
- 3) If you use two PBXs by USB connection, please see “**Panasonic KX-TDA Maintenance Console Ver2.0 - 2.System - 9.System Option - 4.Option4**(see following picture)” and set different **USB Serial Number** to each PBX.
(e.g. if USB Serial Number is “**1**”, it is “KX-TDA100/200_1”.
if USB Serial Number is “**2**”, it is “KX-TDA100/200_2”.)

Using Panasonic KX-TDA Maintenance Console Ver2.0



KX-TDA Maintenance Console - [2.System-9.System Option-4.Option4]

File Connect Tool Utility View Window Help

OK Cancel Apply

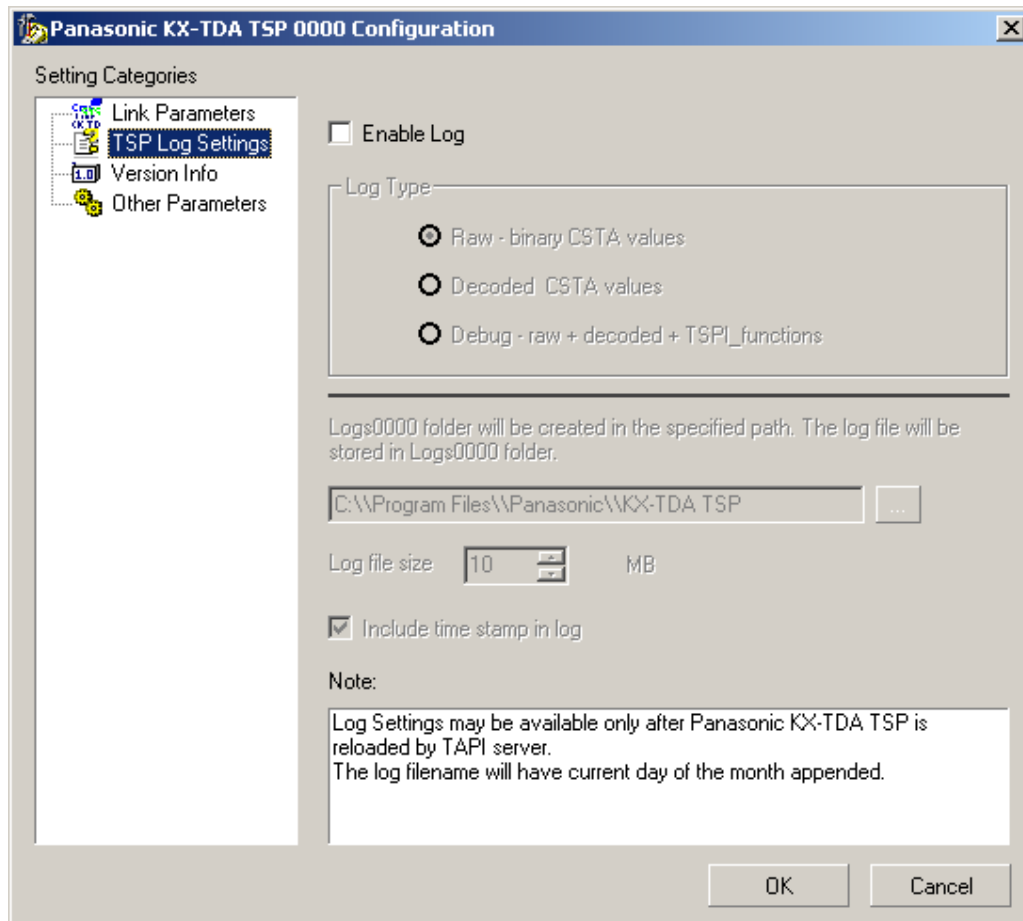
Clear Master CS

Description	Value
Master CS Port	
Radio System ID	
Call Log by Redial Button	Disable
Call Pickup by DSS Key for Direct Incoming Call	Enable
Call Pickup by DSS Key for ICD Group Call	Disable
DSS Key mode for Incoming Call	ON or Flash
Busy Out function	Disable
Minimum Digits for Caller ID from Public Network through Private Network	9
Send CLIP of Held Party when Transfer	Disable
PBX Name	
USB Serial Number	1

Batch Mode Type : TDA200 Version006-000 Region000-000

3.2.2.2. TSP Log Settings

The “**TSP Log Settings**” configures how Panasonic KX-TDA TSP will output log with the TDA PBX.



1. Log Type

Panasonic KX-TDA TSP has logging capabilities in order to enable discovery of irregular situations that may cause problems in TSP. Panasonic KX-TDA TSP has 3 log levels:

- Raw log: only binary CSTA values (data exchanged with TDA PBX).
- Decoded CSTA values: contains binary CSTA values and their human readable form.
- Debug: this is the debug log that is the most effective when trying to solve an irregularity. It contains the Decoded CSTA values log as well as TSPI function calls and TSPI messages sent to TAPI.

2. Log File Path

logs<xxxx> folder is created in the path which user specified and log files are stored in the folder. Default path is <Program Files>\Panasonic\KX-TDA TSP.

The log file name will be composed of the base file name and 0 through 3.

(0->1->2->3->0->1->...)

When the 4 days arrive the previous log files is overwritten.

Default of log file name is "KXTDA????? (**).txt. "***" is 0 through 3.

3. Log file size

When log file size grows greater than established Log file size, then the log file is restarted from the beginning.

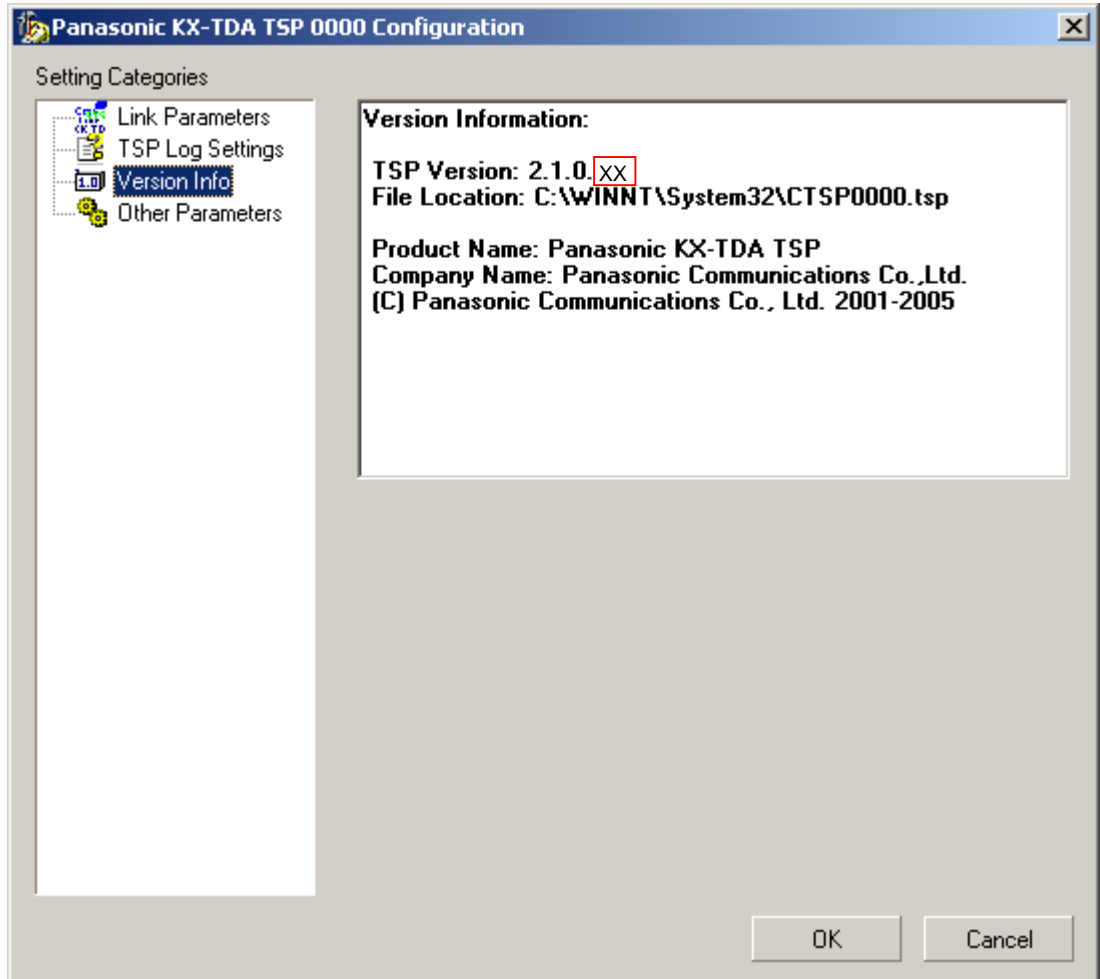
4. Include time stamp in log

By checking this box the log file will contain a time stamp for each operation logged.

3.2.2.3. Version Info

The “**Version Info**” is **read only** and contains version information about the Panasonic KX-TDA TSP you are using.

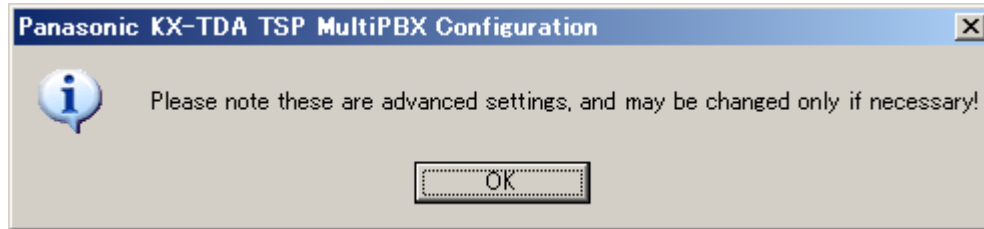
Please see “Note” if you want to know License identification information of Panasonic KX-TDA TSP.



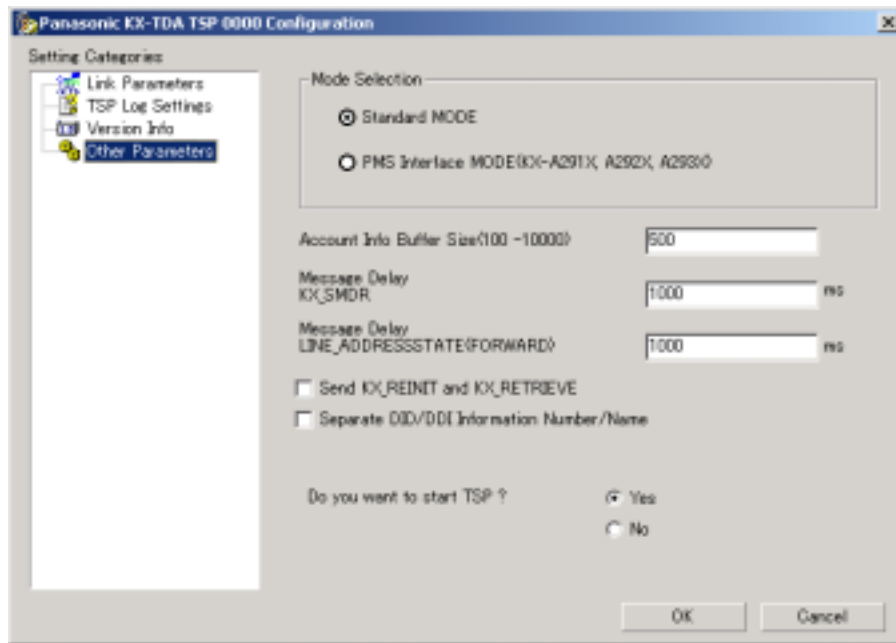
XX will be different number depending on time when TSP is released.

3.2.2.4. Other Parameters

When the "**Other Parameters**" option is selected, a message box will appear to inform the user that these settings are advanced and must be changed according to TAPI Application requirements.

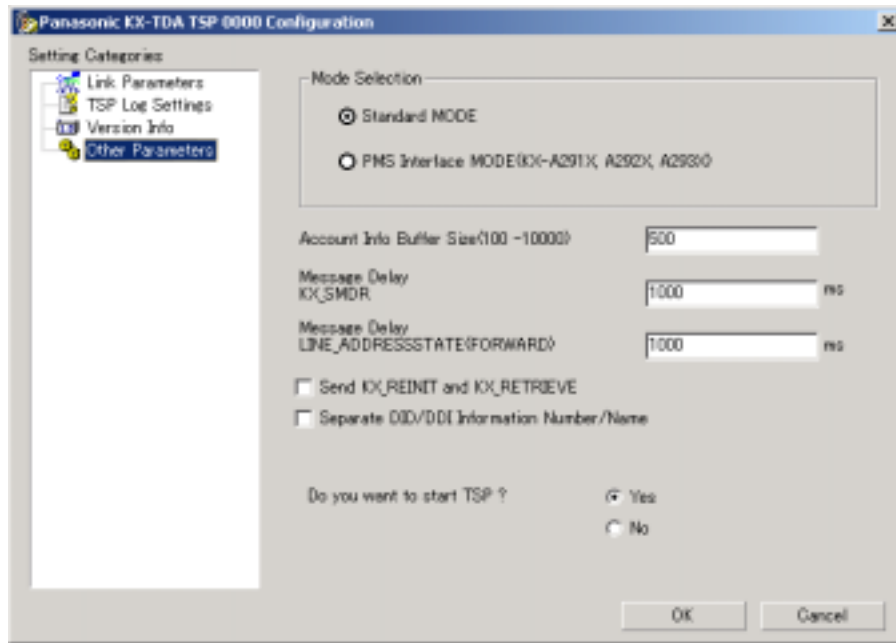


The "**Other Parameters**" configures optional parameters.



Note:

Additional TSP instances is not configured for “PMS Interface”.



The Panasonic KX-TDA TSP has the capability to let you configure other parameters related to its functionality. They are as follows:

1. Account Info Buffer Size

This parameter configures the number of account information records that the KX-TDA TSP can store on the HDD. If TSP cannot reserve its needed space to save on the HDD all account info records, then an error message will be displayed and KX-TDA TSP will not start.

2. Mode Selection

- PMS Interface MODE - The KX-TDA TSP works in compatibility mode with the PMS Interface application.
- Standard Mode - The KX-TDA TSP may work in native KX-TDA TSP mode or Standard TDA mode.

Note:

If you plan to use KX-TDA TSP for PMS Interface application please use only “PMS Interface mode” because Standard mode contains features that are **not compatible** with the PMS Interface application.

Also, if you use PMS Interface mode, multiple instances cannot be set as “enable”.

3. Message Delay (KX_SMDR)

KX-TDA TSP can be configured to queue LINE_DEVSPECIFIC (KX_SMDR) events sent to TAPI in order to let the application have enough time to process each event. Each line device that supports this kind of message has its own queue. It is recommended to use default value of 1000 ms.

4. Message Delay LINE_ADDRESSSTATE (LINEADDRESSSTATE_FORWARD)

KX-TDA TSP can be configured to queue LINE_ADDRESSSTATE (LINEADDRESSSTATE_FORWARD) events sent to TAPI in order to let the application have enough time to process each event. Each line device that supports this kind of message has its own queue. It is recommended to use default value of 1000 ms.

5. Send KX_REINIT and KX_RETRIEVE

If this option is checked and TSP works in *Standard MODE*, in case if TSP loses connection with PBX, it sends LINEDEVSPECIFIC (KX_REINIT) and begins recovery procedure.

However, TSP may fail recovery in some case. (e.g. "When PBX Setting changed between KX_REINIT and KX_RETRIEVE." etc.).

Call event is not notified while TSP sends KX_REINIT event and KX_RETRIVE event.

Otherwise TSP sends LINE_DEVSTATE (REINIT) and enters in an unknown condition waiting all Applications to reinitialize use of TAPI.

6. DID/DDI Information Number/Name

If this option is checked, TSP fills CALLINFO.DEVSPECIFIC structure with DID/DDI number and name in separated format (the number is set into dwDIDDDISize/DIDDDIOffset area and the name is set into dwDIDDDINameSize/dwDIDDDINameOffset area).

Also CLIP information including CLIP Name in transferred call is set in separated format (the number of CLIP information is set into dwTranCLIPSize/ dwTranCLIPOffset area and name of CLIP information is set into dwTranCLIPNameSize/dwTranCLIPNameOffset area).

7. Enable connection to TDA PBX "Do you want to start TSP ?"

If "Panasonic KX-TDA TSP" and "KX-TDA Maintenance Console" are set to connect to PBX by USB connection, both software cannot be used at the same time.

If you use USB connection, you cannot use "Panasonic KX-TDA TSP" and "KX-TDA Maintenance Console" at the same time.

If "Panasonic KX-TDA TSP" is installed and computer is restarted, Windows may start "Panasonic KX-TDA TSP" automatically. Therefore, "KX-TDA Maintenance Console" may not be started by installation of "Panasonic KX-TDA TSP". For this reason, to start TSP or not, you can set the switch ("Yes" or "No") in "Do you want to start TSP?".

(1)In case of "Yes"

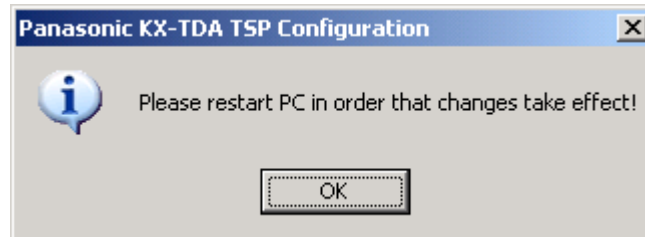
After computer is restarted, you can use "TAPI Application". However, "Panasonic KX-TDA TSP" may be started automatically after computer restart and you may not be able to start "KX-TDA Maintenance Console".

(2)In case of "No"

After computer is restarted, you can use "KX-TDA Maintenance Console". However, you cannot start "TAPI Application" after computer restart.

Note:

All settings will effectively take effect after the next restart of computer.



Section 4

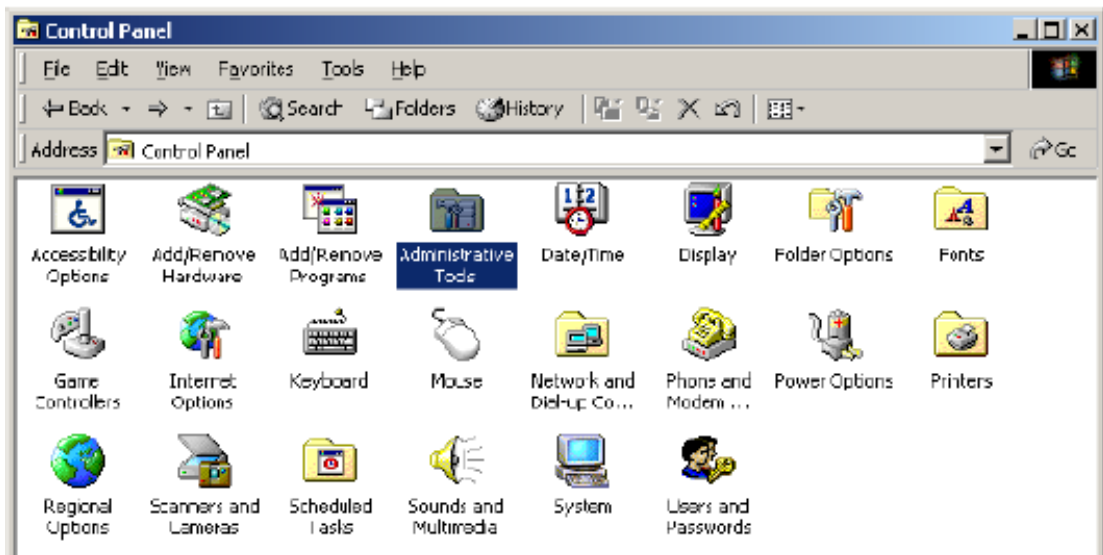
4.1. Notice for Installing/Uninstalling Panasonic KX-TDA TSP from Windows 2000/ Windows XP/Windows Server 2003 Standard Edition Operating System

If you are using the Windows 2000/Windows XP/Windows Server 2003 Standard Edition, and you are not successful in installing/uninstalling, please install/uninstall as follows.

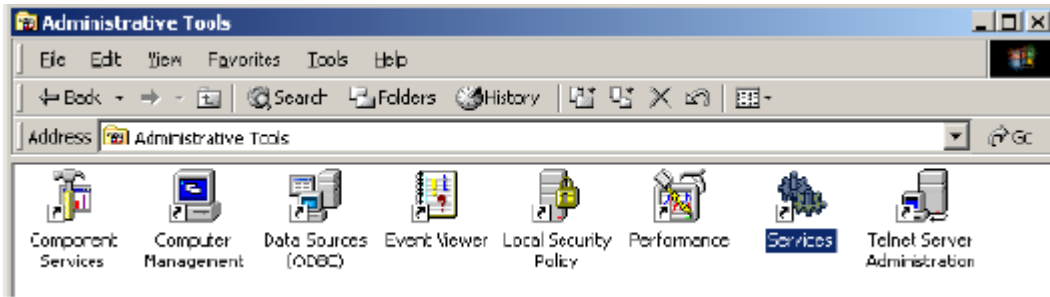
Note:

The screen in this section will be displayed when you are using the Windows 2000.

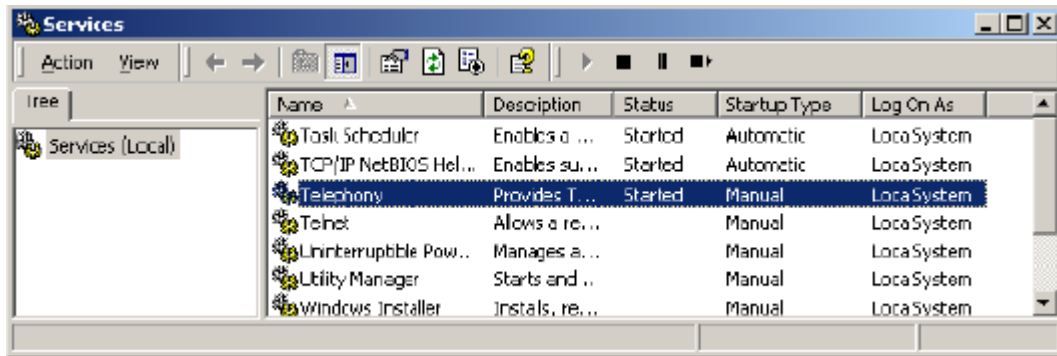
1. Choose Settings/Control Panel from the Start menu.
2. Open "**Administrative Tools**".



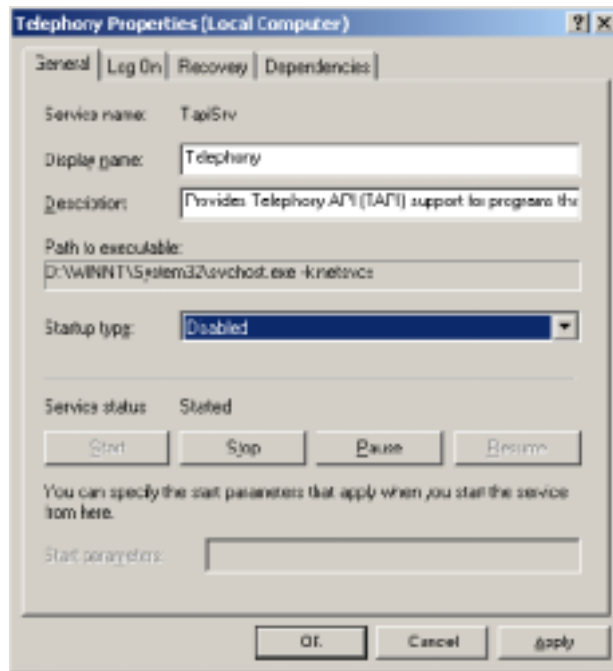
3. Double-click "Services".



4. Double-click "Telephony".



5. Please make sure to write down the current "Startup Type". Select "Disabled" for "Startup Type", and then click "OK".

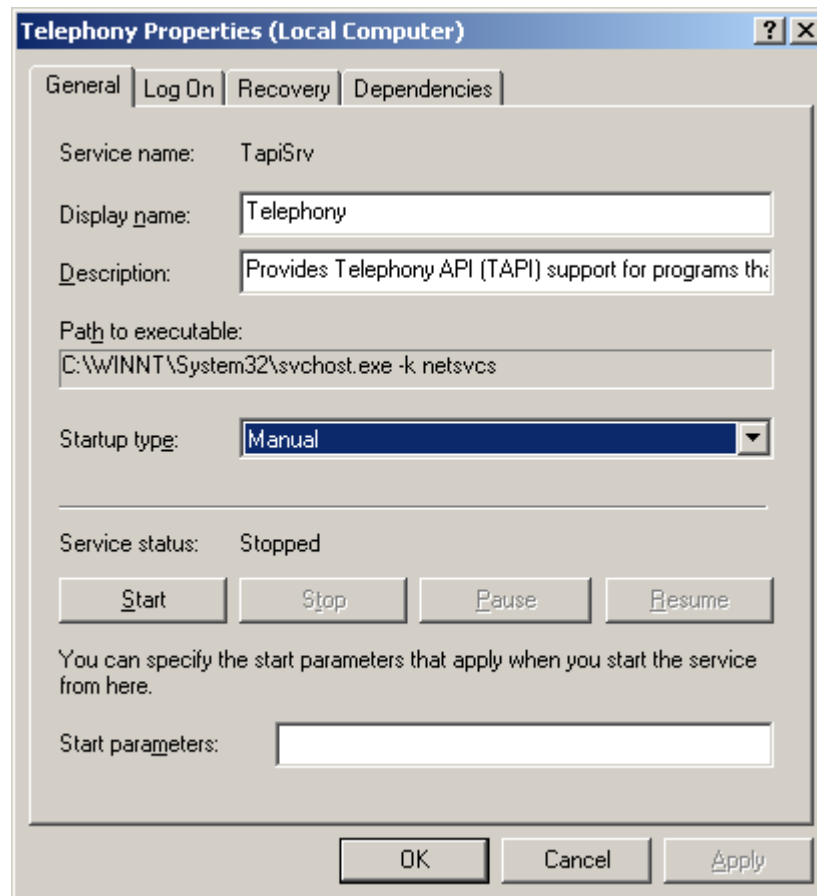


- Restart the system.



- Repeat steps 1 through 4.

- Select "**Manual**" for "**Startup Type**", and then click "**OK**".



9. Refer to "Installing Panasonic KX-TDA TSP" for installing. Refer to "Uninstalling Panasonic KX-TDA TSP" for uninstalling.
10. Repeat steps 1 through 4 after installing/uninstalling.
11. Select "**Startup Type**" that you wrote down in step 5, and then click "**OK**".

Section 5

5.1. If “KX-TDA Maintenance Console” can not use USB to communicate with the PBX

Windows2000/WindowsXP/Windows Server 2003 Standard Edition automatically may start Telephony (TSP) when the computer is started.

Specially, if you install “TSP” and “KX-TDA Maintenance Console” on the same computer and select the same connection way (USB) for “KX-TDA LINK” of “TSP” and “KX-TDA Maintenance Console”, the problem that “KX-TDA Maintenance Console” can’t connect to PBX using USB drivers may occur.

“TSP” is automatically started when the computer is started, “KX-TDA Maintenance Console” can’t use USB port of PBX because “TSP” has already been using it. For this reason, the problem occurs. If this problem occurs on your computer, please restart “KX-TDA Maintenance Console” in following procedure.

At first please restart “KX-TDA Maintenance Console” in following Procedure A.

[Procedure A]

- (1) Unplug USB cable for communication between the computer and TDA.
- (2) Plug in again.
- (3) Start “KX-TDA Maintenance Console” and select “USB” on “Connection” to connect to PBX.

If you still can’t connect “KX-TDA Maintenance Console” to PBX, please restart it in following Procedure B.

[Procedure B]

- (1) Unplug USB cable for communication between the computer and TDA.
- (2) Restart the computer.
- (3) After the computer is restarted, connect the computer to TDA by USB cable.
- (4) Start “KX-TDA Maintenance Console” and select “USB” on “Connection” to connect to PBX.

Note:

Even though you could connect “KX-TDA Maintenance Console” to PBX with USB driver after [Procedure A], you still might need to restart PC in case after operation with “KX-TDA Maintenance Console” is completed in order to operate again with TSP.

5.2. If Firewall protection software is installed and TSP use IP to communicate with PBX

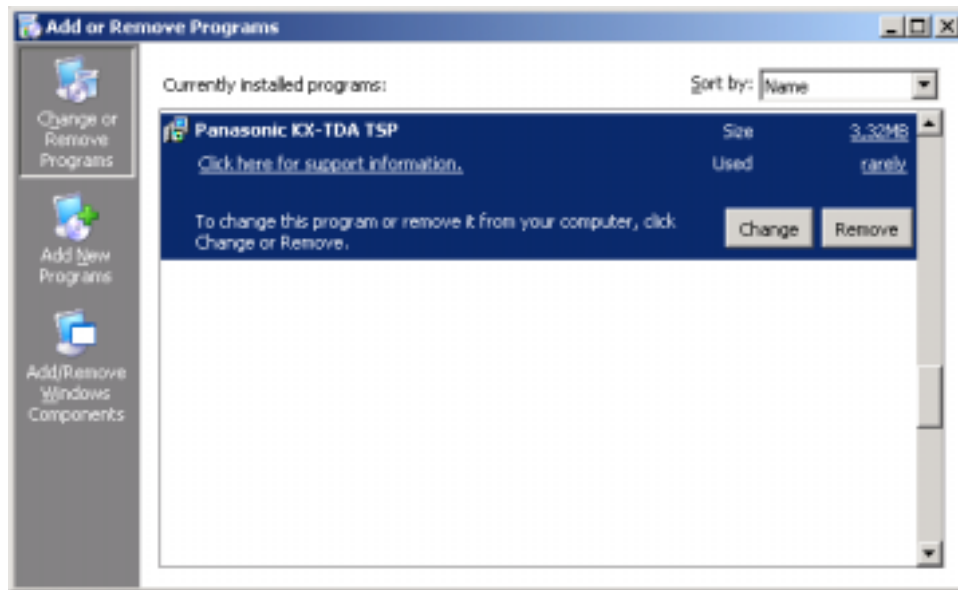
In case firewall protection software is installed on your PC and TSP is configured to use “LAN Connection via CTI-LINK card” then make sure that firewall protection software is not restricting communication with PBX. Therefore you may need to configure firewall protection software to permit communication with IP address and IP port that you have used in TSP configuration.

In case communication is restricted by firewall protection software then you will not be able to “Check Location” from TSP configuration GUI. Also TSP will report to TAPI a number of zero line devices and zero phone devices. Therefore communication is restricted by firewall protection software TAPI application will not be able to control and monitor devices on respective PBX.

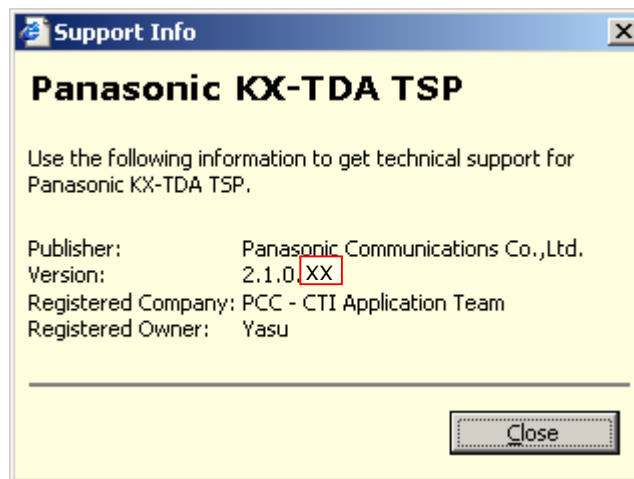
Annex A

How to check if Panasonic KX-TDA TSP was already installed in your computer

To do so, go to Control Panel, Add/Remove programs, and see if the item labeled “Panasonic KX-TDA TSP” can be found in the “Currently installed programs”. Click “**support information**” to continue.

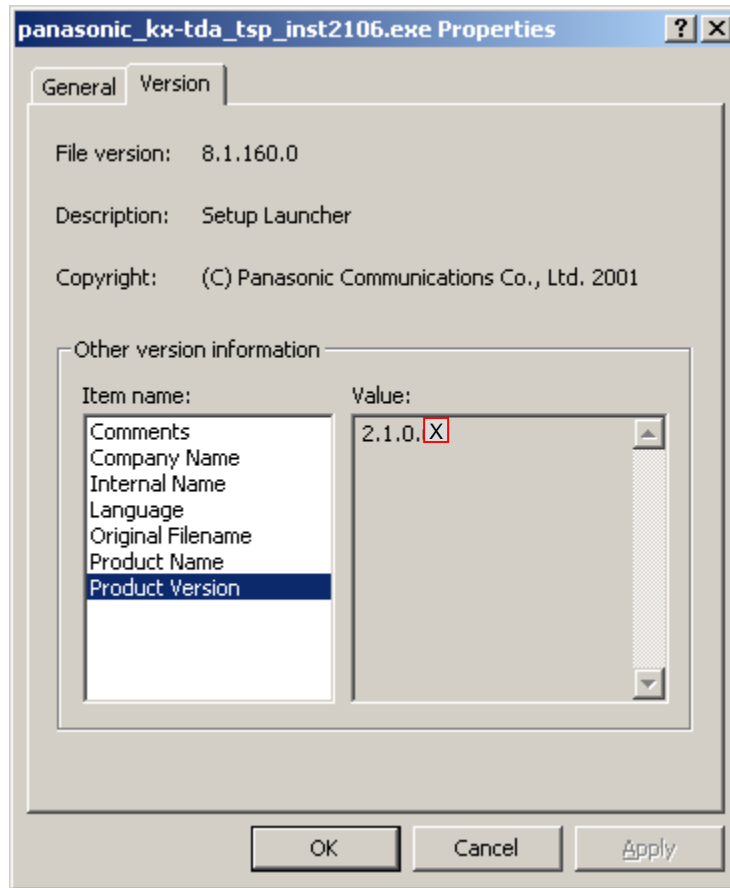


Opening Support Info window will show what version is installed on PC:



XX will be different number depending on time when TSP is released.

Opening properties of installer executable (*panasonic_kx-tda_tsp_inst****.exe*) will show what version you are about to install:



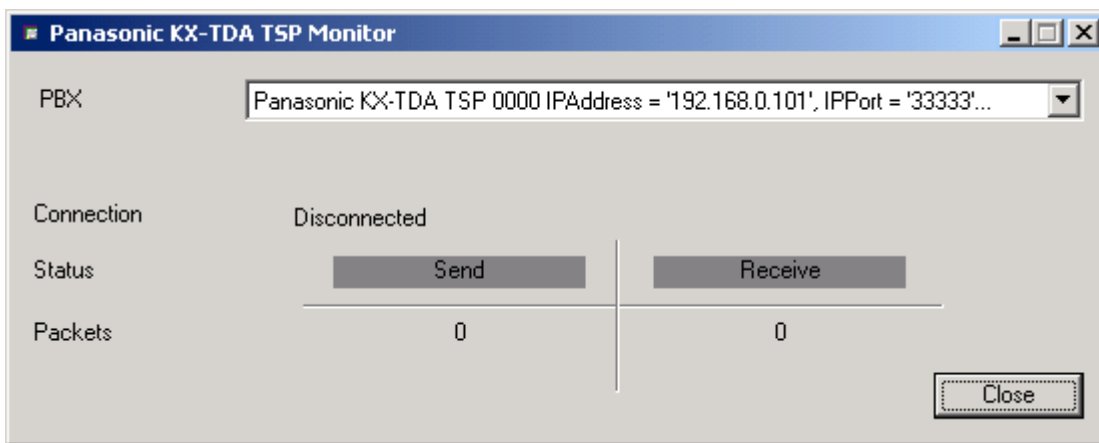
XX will be different number depending on time when TSP is released.

Annex B

Panasonic KXTDA TSP Connection Monitor Tool

This tool is provided to show state of each TSP instance.

You may use provided shortcut under “**Start Menu-> Programs-> Panasonic-> KX-TDA TSP -> Connection Monitor.**”



Use “PBX” combo box to select instance for which you to want to see status.

Connection may be:

Now Connecting – TSP instance is initializing connection with PBX.

Connected - TSP instance is connected with PBX. It is possible to control/monitor with TAPI application(s).

Disconnected – TSP instance is not communicating with PBX.

Not Registered with TAPI – TSP instance is not registered in TAPI (Telephony System).