CTS *Collaborative Transplant Study*

TaXi

CTS – Data Management System

Version 1.2

User's Manual – August 2001

Contents

1   Installation and Uninstallation

The installation of the **TaXi** Program is accomplished through use of the "setup.exe" file found on the installation CD, which will install both the application and the database.

The installation requires no special Windows (NT, 2000) administrative access, since no files will be copied into the Windows folder.

After installation, the **TaXi** program can only be used if a valid user-id and password are available.

If multiple users will be working with the **TaXi** program or if the data entry windows for center specific data will be used, the program should be configured according to the procedures described in Chapter 5.

1.1   Installation

The installation program can be started through both of the following methods:

- in Windows "Explorer": double-click on the file "setup.exe", found in the folder corresponding to the drive in which the installation CD is located,

- in the Windows "Start" menu click on the "Run…" menu option, in the "Open:" dialog box enter the file name and appropriate drive letter e.g. "D:\setup.exe".

The default installation folder for the **TaXi** program can be changed during the installation process ("Destination Directory"). A currently existing folder can be chosen or a new folder name can be entered.

A new program item named "TaXi" will be created in the "Cts" menu option of the "Programs" menu option of the Windows "Start" menu, with which the program can be started. Alternatively, the file "TaXi.exe" can be dragged onto the desktop in the form of a shortcut icon. The symbol for the **TaXi** desktop shortcut icon is:

Restarting the computer after completion of the installation procedure is not required.

Notes for Network Installation

There are no special installation procedures for network installation. The **TaXi** program can be installed on a drive of the desired network server and started from this location. Entry of **TaXi** into the Windows "Start" menu or creation of a desktop shortcut can then be manually accomplished on network clients, where the program will be run.

The loading time, required for starting **TaXi** from a network server, can be shortened by copying the "vfp6r.dll" and "vfp6renu.dll" files into the Windows system folder on respective client computers.

## 1.2   Uninstallation

The following options are available for the removal of the **TaXi** program from your system:

- Delete the software program through the normal Windows procedure by using the Windows "Start" menu, option "Settings", option "Control Panel": "Add/Remove Software" or

- Run the "Unistall" program found in the "Cts" menu option of the "Programs" menu of the Windows "Start" menu.

2   Data Entry

2.1   User Login

Working with the **TaXi** program requires a valid user-id that is immediately entered in the "Login" window after starting the program. If multiple individuals will be using the program, each user should possess his/her own login information so that each modification of database information will be saved in association with the appropriate information (see 5.1 Individual User Configuration).
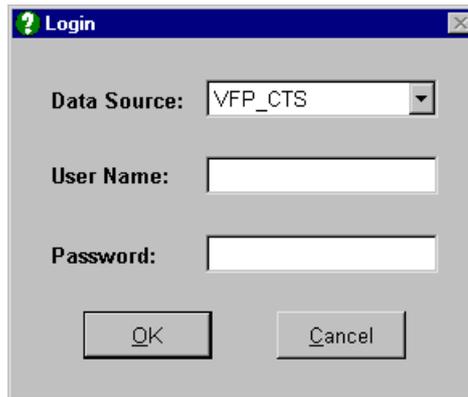
During login, the database of interest is selected in the "Data Source" field. There are two databases available:

- "VFP_CTS":   Visual FoxPro database of the center's **CTS**-data,

- "VFP_TEST":   Visual FoxPro database with test data (10 records).

The test database can be used to thoroughly acquaint yourself will all program functions, without risking the inadvertent modification of **CTS**-data.

The login name should be entered in the "User Name" field followed by the corresponding password in the "Password" field.

Since the password is case sensitive, pay special attention in regards to case during password entry, and ensure that "Caps Lock" is not activated!

2.2 Screen Layout and Program Operation

2.2.1 Screen Layout

The following **TaXi** program main window appears after login:
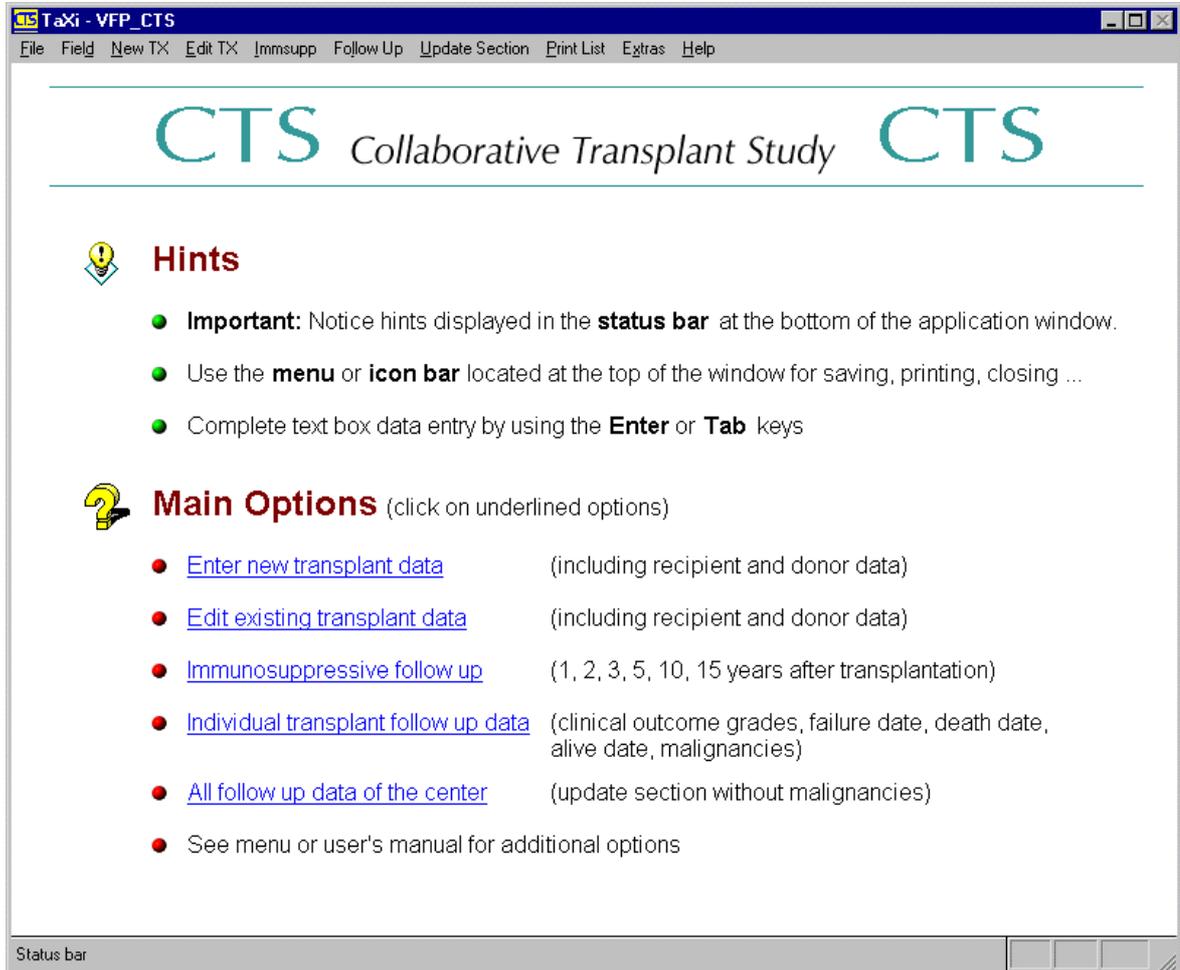
The window contains the following areas, which are listed from top to bottom:

- the title bar displaying the name of the active database,

- the menu bar with access to submenus for specific menu options,

- the **CTS**-logo,

- important tips for working with **TaXi** ("Hints" section),

- links to the most frequently used functions ("Main Options" section),

- the status bar ("Status bar").

Common functions, generally accessible through mouse clicks or Windows shortcut key combinations, can be used during program operation. The selection of individual menu items is accomplished through a single mouse click on the appropriate item or the use of the key combination "ALT+underscored letter".

The most frequently used functions can be selected through a single mouse click on the underscored category.

The following information will be displayed in the left side of the status bar:

- information for working with tables or

- entry field formats,

- description of coded values and

- functions associated with additionally available shortcut key combinations.

The three boxes on the right side of the status bar display the activated keyboard input states:

- "OVR" – Overwriting activated   ("Ins" key),

- "NUM" – Numerical keypad lock activated   ("Num" key),

- "CAPS" – Caps Lock activated   ("⇩" key).

During data entry, an icon bar, containing the most frequently used functions, will appear above the data entry window, e.g.:

CTS Collaborative Transplant Study

Moving the mouse over the icons will display explanations of the functions of these symbols. All of the functions displayed in the following table, with the exception of "Switch to Window …" and "Help" can be found in the "File" menu.

Icon	Function	Key(s)
	Check	F9
	Save	F10
	Print	F12
	Find Recipient Name	Ctrl+F
	Delete	
	Close Form	ESC
	Browse Recipient	Ctrl+R
	Browse Donor	Ctrl+D
	Browse Transplant	Ctrl+T
	Switch to Window "Edit TX"	F3
	Switch to Window "Edit Specific TX Data"	Shift+F3
	Switch to Window "Follow Up"	F4
	Help	F1

2.2.2 Program Operation

All entry fields within the data entry window require alphanumeric entries that correspond with database entries.

The status bar will always display the appropriate format required for the entry: "9" to represent that a number must be entered or "X" to represent that data should be entered in the form of a letter.

Values from fields, connected to a data table, can be selected with the "F7" key, or the "Select Code..." menu option, which is found in the "Field" menu or the context menu (displayed by clicking with the right mouse button key).

Fields with data tables will be automatically completed when the meaning is clear from the beginning of the entry, e.g. "TR" in the "Donor Death" field will be completed as "TRAUM".

With the exceptions of the comments and the free-text fields, found in the center specific data entry windows, all letters entered will automatically be capitalized.

No foreign letters or accents will be allowed in the donor and recipient name fields.

In order to continue onto the next entry field, the entry must be completed by using the Enter (↵) or Tab (⇆) keys.

It is possible to move between the entry fields by using the cursor keys (←, ↑, →, and ↓).

The fields are organized into groups separated by frames, in which you can jump to the first entry field by using the "Ctrl+↑" or "Ctrl+↓" key combinations.

You can switch between index cards (pages) in a window by clicking on the header or by using the single keys "Page↓" and "Page↑" or the key combinations "Ctrl+Tab" and "Ctrl+Shift+Tab".

Dates can be entered using two-digit day and month numbers without separation, or can be entered separated by periods or forward slashes, combined with 2 or 4 digit numbers for the year. Some examples of correct entry formats for dates are: "290601", "29.6.01", and "29/6/01".

A raised dot (·) will be displayed in the empty fields within the entry window.

In tables, such as "Cross match" in the transplant category ("New TX" and "Edit TX" menus) or "Clinical Outcome Grades" and "Malignancies" in the follow up section ("Follow Up" menu), new lines can be inserted by using the "Enter" key in the last field or the "↓" cursor key in the last row.

Menu items in the "Field" menu can also be selected from the context menu, which is opened by clicking with the right mouse button key on the input field:
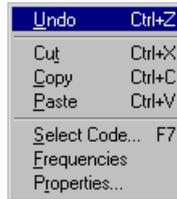
The menu contains common Windows commands that are normally found in the "Edit" menu of other applications, such as Word or Excel, specifically:

- undo the last action undertaken ("Undo"),

- delete the selected text and copy it into the clipboard ("Cut"),

- copy the selected text into the clipboard ("Copy"),

- insert text from the clipboard ("Paste").

In addition, the menu contains options for selection of the possible values ("F7") and for opening of the "Properties of Field ..." window, which contains the description of the entry field (see also 5.2). Except for the center specific data entry windows, this window only contains informative items with inactive entry fields.

The "Frequencies" menu option creates a frequency table calculated from data entered in the input field. A table is displayed, showing the value in the "Value" column and the absolute frequency in the "Count" column. For example, in the case of blood types, the following table could be displayed:


Transplantations, in which the field is blank, will also be counted and then displayed with a raised dot (·) in the "Value" column.

If a menu or menu option is selected with a mouse click or the key combination, "Alt+underscored letter", the corresponding description will be displayed in the status bar.

2.3   Transplant Data

2.3.1 New Entry

New entry of transplant data is accomplished through the link "Enter new transplant data" in the main window, or alternatively through the "New TX" menu found in the menu bar.
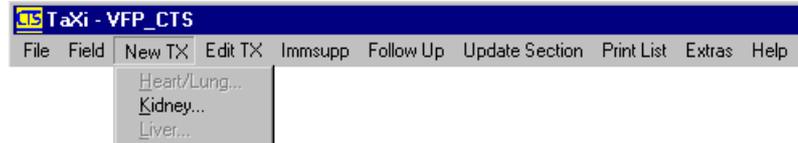
The menu contains an entry respective to the transplant organ and the respective CTS study:

- CHTS – heart and/or lung   (Heart/Lung),

- CTS   – kidney and/or pancreas   (Kidney),

- CLTS   – liver   (Liver).

The format of the data entry window is orientated according to the study's hardcopy forms.

Menu entries are only active if at least one transplant center is available in the database for that respective study.

The entry window is thematically separated into three pages for recipient ("Recipient"), immunosuppressive medication and transplantation ("Immsupp Protocol/Transplant"), and donor ("Donor") data.

The database is transplant and not patient orientated, which means that individual data is available for the donor and recipient for each transplant. In the case of retransplant, however, the recipient data from the previous transplant record should be overtaken. Data transfer for the recipient is accomplished through the "Browse Recipient... " menu option found within the "File" menu, or alternatively through use of the "Ctrl+R" key combination or the ![icon] icon, in that the table with the search result of the previous transplant is selected with the "Enter" key, the "F2" key, the ![icon] icon or by double clicking on the **CTS**-key. If donor data is already available, this can be analogously transferred with the "Browse Donor... " menu option in the "File" menu, the key combination "Ctrl+D", or the ![icon] icon.

The recipient date of birth can be saved by opening the following entry window through use of the "F6" key within the recipient date of birth entry field, ("Recipient" page, "Age" field):
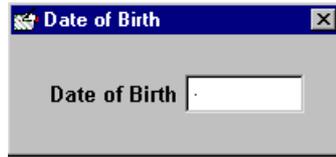
Fields for the transplant center ("Recipient" page, "Center" field), the recipient name ("Recipient" page, "Last Name" field) and the transplant date ("Immsupp Protocol/Transplant" page, "Transplant Date" field) must contain data.

A blank recipient or donor field will be automatically completed, upon exiting the entry field, with the entry "UNKNOWN".

The "+" and "−" symbols, in the "Highest Serum" and "Latest Serum" columns, will automatically be converted into the letters "P" and "N" in the cross match test table (Cross match).

All entries are verified and appropriate error messages or warnings will be displayed, for example, incompatible blood groups would be displayed in the following warning message:
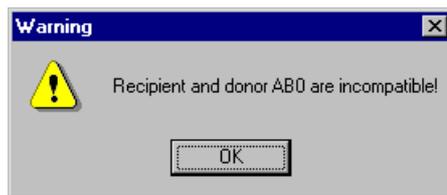
The saving of the data record for a new transplant is completed by selecting the "Save" menu option from the "File" menu or alternatively by clicking on the 🖫 icon or using the "F10" key. A **CTS**-key will automatically be assigned and displayed in the window entitled "Record saved":
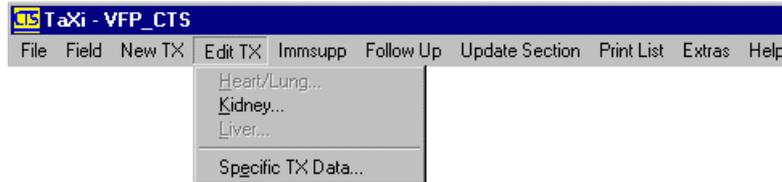
When closing the data entry window, the message window entitled "Unsaved Data" will appear (regardless of whether data has been entered or not),
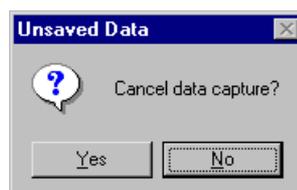
and can be closed by selecting "Yes".

## 2.3.2 Editing, Viewing, Printing, and Deleting

The "Edit TX" menu can be used for the modification and completion of a previously entered transplantat record.

The entry windows for the three studies, CHTS (Heart/Lung), CTS (Kidney/Pancreas) and CLTS (Liver) are identical in regards to new entry.

The selection of a transplantat record can be accomplished through entry of the **CTS**-key or through the search applications "Find... ", "Browse Recipient... ", "Browse Donor... ", or "Browse Transplant...", which can be activated through the "File" menu or by use of the appropriate key combinations found in the shortcut list.

A simple search on the recipient name is accessible through the "Find... " menu option in the "File" menu, the "Ctrl+F" key combination, or the 🔍 icon.
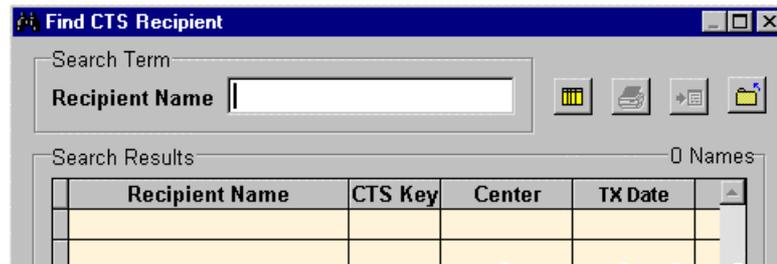
The beginning of the surname, for the desired recipient record, should be entered in the "Recipient Name" field. The following wildcard symbols are allowed:

- _ (Underscore) – any letter,
- % (Percent) – character string of indeterminate length.

The search is initiated through the 🔍 icon or the "Ctrl+Enter" key combination.

The order of the returned search results can be modified through a double-click on the appropriate column header. The selection of the specific transplant record is accomplished by double-clicking on the name or by highlighting it and then using the "Enter" key, the "F2" key, or the ⬛ icon.

When a subsequent search is initiated, the results of the previous search will initially be shown.

For **TaXi**-users with the appropriate level of access (see 5.1), transplant records can be deleted by using the "Delete" menu option in the "File" menu or the ❌ icon.

> **Transplant data that has already been reported to CTS should not be deleted, or should only be deleted after consultation with CTS administration, since this could affect transplant data in other CTS-projects such as the DNA-study.**

The "Print" command ("File" menu and select "Print", 🖨 icon, or "F12" key) prints the currently selected data in **CTS**-data collection format.

The data entry window can only be closed when no unsaved data is present.

If an attempt to close the data entry window is made in the presence of data modifications that have not been saved, the following "Unsaved Data" warning will appear:
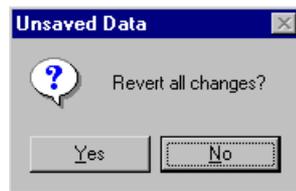
If "No" is selected, data can be saved or further changes can be made. If "Yes" is selected, the changes will be discarded and data will revert to the original pre-modified values. In both cases, the data entry window will remain open.

2.3.3 Center Specific Data

In the "Edit TX" menu, selection of the "Specific TX Data... " option will allow for the entry of center specific data for the transplant, recipient or donor.

The creation of a user-friendly data entry window requires configuration by the **TaXi**-administrator (see section 5.2). An appropriate configuration process consists of:

- the sensible naming of entry fields,

- the definition of field data ranges, and

- the deactivation of unnecessary fields.

The entry window will be displayed in a form appropriate to the configuration after entry or selection of the study in the "Study" field.

The selection of a transplant, the saving of entered data, and the completion of the entry process occurs analogously to the entry of the **CTS**-data (see 2.3.2).

2.4   Follow Up Data

The completeness and quality of the follow up data play a large role in the statistical analysis of transplant data. Because of this, in addition to the data entry table for individual transplant (see 2.4.1 and 2.4.3), a table is provided in the program for entry of missing clinical assessments of transplant function (see 2.4.2). Furthermore, print-outs can be obtained that list the individual transplants, from which follow up data is missing (see 3.1).

2.4.1 Transplant Function and Patient Status

The "Follow Up" menu is used for entry of follow up data in respect to transplant function and patient status.

An individual transplant is selected, in the same way as in the case of editing of a transplant, through entry of the **CTS**-key or with help of the search window (see 2.3.2).

Transplant Function

In the "Clinical Outcome Grades" table, values can only be entered in the "Gr" (clinical score for transplant function) column; the year post-transplantation will be automatically displayed in the "Yr" column. A new row will be created, if the "Enter" key or the "↓" cursor key is pressed while the cursor is positioned in the last row.
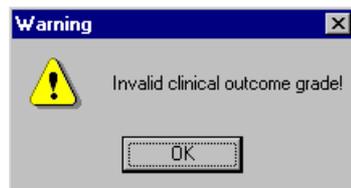
The entry of the date of transplant failure ("Failure Date") is only possible if the code for transplant failure is entered as the clinical grade ("Clinical Outcome Grade"), signified by the value 1 in the "Failure" column of the "F7" selection table.

The entry of a date of death ("Recipient Death Date" field) and the cause(s) of death ("Causes of Death" fields) requires the entry of a date for transplant failure and of the code "N" in the "Recipient Alive Code" field. If a patient with a functioning transplant dies, the date of death should be entered as the date of transplant failure with the cause of transplant failure entered as "N" ("Non-immunological Failure").

The entry of the date of the last contact with the patient in the "Alive Date (Last Seen)" field requires an entry for transplant failure. The "Recipient Alive Code" field, specifically the question as to whether the patient is still alive, must be answered as "Y".

In the case of retransplantation, the values for the recipient, such as the date of death for example, will not be automatically transferred from the previous transplant(s), but rather must be entered for each transplant!

When incorrect data is entered for clinical assessment of transplant function ("Grade After 3 Months", "Grade After 6 Months", "Clinical Outcome Grade") a warning will be displayed on the screen:


All data in the "Recipient" group and the date of the transplant failure ("Failure Date") must first be deleted, in order to reverse the entry of a transplant failure.

Malignancy

A key focus in present scientific transplantation research is the incidence of malignancies in transplant patients. Therefore an accurate and complete documentation of these illnesses (ICD 9: 140-208, ICD 10: C00-C97) is very important. Additionally, malignancies of uncertain or unknown character (e.g. Myelodysplastic Syndrome, D46) should also be documented. Moreover, in-situ malignancies (D00-D09) and non-malignant tumors (D10-D36) can also be entered into the record.

Diagnoses of malignancies should be entered into the "Malignancies" table.

A date of diagnosis ("Diag Date" column) that proceeds the transplant date must be confirmed by selecting "Yes" in the "Confirmation" window:
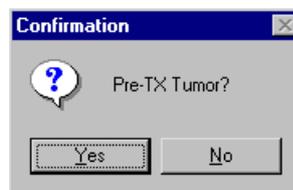
The text "PRETX" will automatically be entered in the "Diagnosis" column, and the number "1" will be entered as the code in the "ICD" column.

Non-malignant tumors can be entered with the code "0", but the diagnostic text should still begin with the word "BENIGN".

If the diagnosis date is unknown and the acquisition of this information is not possible, a "Y" should be entered in the "Unkn" column ("Unknown Diag Date Confirmed").

If a more in-depth description for a malignancy, such as the localization or type, is expected, the respective field in the "Type" column ("Tumor Localisation or Type") will be activated.

The stage of the malignancy can be entered into the "Stag" column.

A further characterization of the malignancy can by accomplished through the "Subt" column ("Tumor Subtype"), for example the cell type for malignancies in the lymphatic tissues.

2.4.2 Follow Up Data for all Transplants at a Center

A list can be generated, using the "Update Section" menu, that lists each individual transplant with incomplete data in regards to transplant function or patient status.
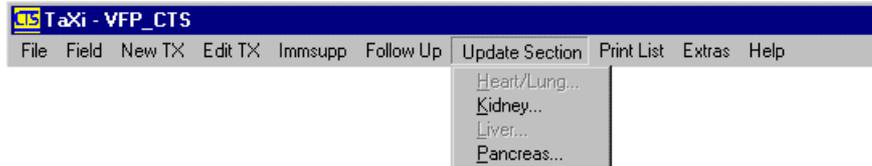
The follow up data is entered in a table formatted for one row per transplant. In order to be able to display all possible columns, the **TaXi** program window will be converted to full-screen display when the update section window is opened.

The transplant center ("Center" field) and a reference date ("Qualifying field") must be entered for selection of the transplants; in addition, the sorting criteria of the table can be selected in the "Order" field.

The default value for the reference date is the current date.

Transplants are displayed according to the following criteria:

- It is 3 months, 6 months, or 1, 2, 3, ... years past the transplant date and the corresponding entries for clinical assessment of transplant function are missing, or

- It is 1, 2, 3, ... years past the transplant date and corresponding entries for the recipient (date of death or date of last contact) are missing.

365 days per year with a tolerance of 16 days are used in the selection of transplants for the generation of this list.

The **CTS**-number (i.e. the **CTS**-key without the last three digits) is displayed in the first column ("No.").

The clinical assessments of transplant function for the periods "¼, ½, 1, 2, 3, ..., 20" year(s) post-transplantation are entered in the "¼, ½, 1, 2, 3, ..., 20" columns.

Entries and changes to clinical assessment entries for transplant function will be shown in bold type as long as the data has not been saved.

Entries can only be made to the clinical assessment in the activated blank fields, whereby in the last highlighted field only a code for transplant failure can be entered (because follow up for that year is not yet completed).

The abbreviation "AC" in the column heading refers to "Alive Code", i.e. whether the patient is still alive.

The cause(s) of death are entered into the "Cause1" and "Cause2" columns.

The "Ctrl+←" and "Ctrl+→" key combinations can be used to jump to the first and last field within a row.

If the "Enter" (↵) key is used while the cursor is positioned in the last field of a row, the cursor will move to the next empty entry field in the following row.

2.4.3 Follow Up Data for Immunosuppressive Therapy

The entry and editing of follow up data for immunosuppressive therapy is accomplished through the "Immsupp" menu. The data entry window is arranged according to the same format as the hard-copy "Questionnaire" i.e. "Immunosuppressive Follow up".

Data for immunosuppressive therapy for each year post-transplantation can be documented using this menu, whereby **CTS** Heidelberg currently requires data for the year(s) 1, 2, 3, 5, 10, and 15 post-transplantation. A list can be created, containing the individual transplantats in which data for immunosuppressive therapy are missing for these post-transplant time-points, by using the "Print List" menu and the menu options "Basic List... " and the list type "Immsupp Missing" (see 3.1).

The entry window is composed of two pages: "Basics/Treatment/Therapy" and "Other/ Evidence":


After entry of the year post-transplantation ("Year" field), the transplant is selected through entry of the **CTS**-key or through use of a search function ("Find...", "Browse Recipient...", "Browse Donor...", or "Browse Transplant..." found in the "File" menu or in the icon bar).

Data entry is only possible if a clinical assessment of transplant function is scheduled for that respective year.

If data for immunosuppressive therapy is already present for the respective year, it will be displayed and can be modified.

If a **CTS**-key has already been entered or selected, a previously entered record can be selected in the "Year" field using the "F7" key. The use of this key will result in the display of a selection window in which the year post-transplantation and the date of the creation of the record are shown.

If the number entered is too large, it will be replaced with the largest number possible after the following warning is displayed:
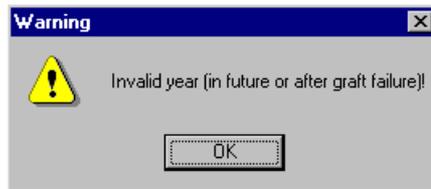
Through use of the Print command (option "Print" of "File" menu, 🖨 icon, or "F12" key) a completed **CTS**-questionnaire can be printed.

The entry window can only be closed if no unsaved data is present.

If an attempt to close the data window is made while unsaved data is present, the following "Unsaved Data" warning will be displayed:

If "No" is selected, the data can be saved or further changes can be made. If "Yes" is selected, all changes will be discarded and data will revert to the original form. In both cases, the entry window will not be closed.

2.4.4 Center Specific Follow Up Data

Center specific follow up data can be entered with use of the "Specific FU Data..." menu option, found in the "Follow Up" menu.

A further 99 records per transplant that are assigned a number from 1 to 99 in the "No." field can be entered, using this entry window. The meaning of this assigned number is user-defined and can refer to, for example, the date post-transplantation or an abstract number with an in-house specific meaning. Sequential order is not a requirement for the record numbers.

Configuration of the entry window by the **TaXi**-administrator (see 5.2) is required for a user-friendly format. Configuration should be made so that

- entry fields are meaningfully labeled,

- the data range for each field is defined,

- unnecessary fields are deactivated.

After entry of the study in the "Study" field, a **CTS**-key can be entered or a transplant can be selected from the search window.

The number of a previously entered data record can be entered into the "No." field in order to edit previously entered data, or a new number can be entered for creation of a new record.

It is also possible to select a previous record by using the F7-key in the "No." field. The number and the record creation date will then be displayed in the appropriate window.

3 Printing

The "Print List" menu can be used to print the familiar hard-copy forms and lists usually produced by **CTS** Heidelberg.
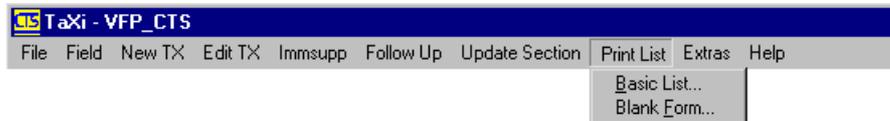
3.1 Lists

The "Basic List... " menu option within the "Print List" menu requires a minimum **TaXi**-user access of level 3 (see 5.1).

The entry or selection of the study in the "Study" field and the transplant center in the "Center" field are required.

In the "List Type" field, the following lists can be selected:

- the number of transplantations per year ("Data Status"),

- the available immunosuppressive therapy follow up data ("Immsupp Follow Up"),

- the missing immunosuppressive therapy follow up data for the post-transplantation years 1, 2, 3, 5, 10, and 15 ("Immsupp Missing"),

- available data on malignancies ("Malignancies"),

- transplant data, including data pertaining to the recipient and the donor (Section 1 to 4),

- clinical evaluation of transplant function, patient status, and malignancies for those transplantations, in which data is missing ("Update Section").

The output device can be specified in the "Device" field. If the "Printer (PCL)" option is chosen, data for PCL-driver sequences will be incorporated into the list, so that the printer must be a PCL-printer or a printer with PCL-Emulation. If no such printer is available, the

list can also be saved in ASCII-file format ("Device" field, "File" option) and then formatted and printed with the word-processing software of your choice.

The ESC-driver sequences for the PCL-printer are saved in the "printer.ini" text file found within the **TaXi**-installation folder.

The list can be displayed directly on the screen ("Device" field, "Screen" option).

The last two fields ("TX Year "..." to "..." ") allow for the entry of a range for transplant dates, thus narrowing the transplant list selection criteria.

3.2 Forms

The printing of blank forms is accomplished through use of the "Blank Form" menu option.
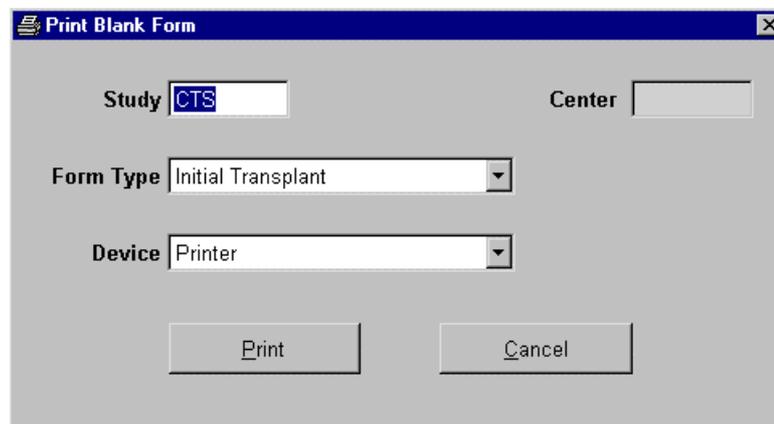
The entry or selection of a study in the "Study" field is required. The entry or selection of a center is not required, but will be displayed on the form if entered.

Using the "Form Type" field, the type of form can be selected for either the entry of new transplant data ("Initial Transplant") or for immunosuppressive therapy follow up data ("Immsupp Questionnaire").

If the form for the immunosuppressive therapy follow up data is chosen, the post-transplantation year can be entered in the "Year" field. This entry field is only visible if the form type "Immsupp Questionnaire" is chosen.

Selection of the "Printer" or "Screen" options in the "Device" field determines whether the form will be, respectively, printed or displayed as a preview on the screen.
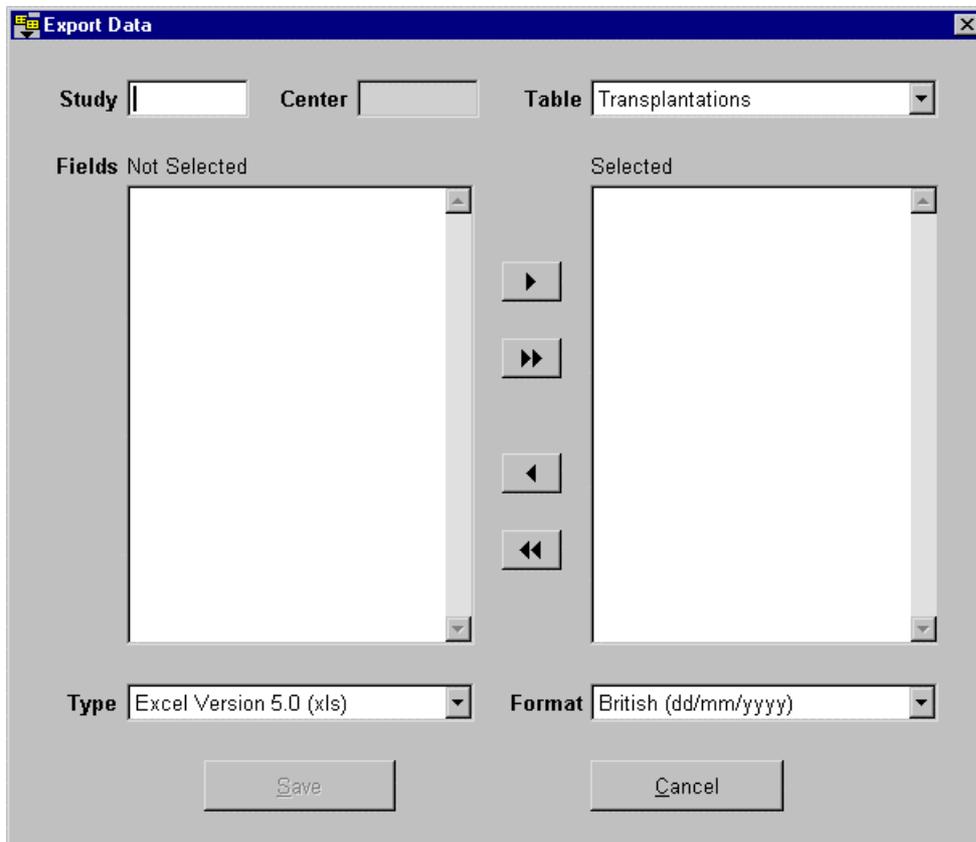
4   Data Exchange

The option for the transferring of data to **CTS** Heidelberg or other applications is found in the "Extras" menu.
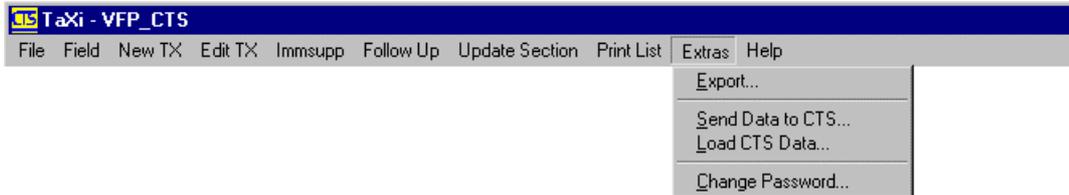
4.1   Exporting of Data

Data can be exported using the "Export.... " menu option. The use of this option is restricted to **TaXi**-user access level 4 or **TaXi**-administrator status (see 5.1).

The selection of the study and transplant center ("Study" and "Center" fields) is required for the export of data.

According to the configuration of the database, the following tables can be exported ("Table" field):

- transplantation data, including recipient, donor, and center specific data, without crossmatch test results ("Transplants"),

- clinical evaluation of transplant function ("Clinical Outcome Grades"),

- immunosuppressive therapy follow up data ("Immsupp Follow Up"),

- center specific follow up data ("Specific FU Data"),

- data on malignancies ("Malignancies"),

- Crossmatch test results ("Crossmatches"),

- table columns descriptions ("Field Descriptions"),

- description of the coded values ("Look-up Tables").

In addition to the descriptive table, all tables receive a column for the study, center, and the **CTS**-key. In this manner, the **CTS**-key can be used to link separate tables with one another.

The exported fields and their order can be specified with the arrow buttons or mouse drag and drop.

Three formats are available for the export of the data that can be selected using the "Data Type" field:

- XLS-Format (Excel Version 5.0),

- CSV-Format (text files with fields separated by commas and character strings contained within quotations ("")),

- dBASE-Format.

The data format can be adjusted for exports in the CSV text file format using the "Date Format" field. The following formats can be selected:

- British (dd/mm/yyyy),

- German (dd.mm.yyyy),

- American (mm/dd/yyyy),

- USA (mm-dd-yyyy),

- ANSI (yyyy.mm.dd).

In this case "dd" refers to the two-digit day, "mm" the two-digit month, and "yyyy" the four-digit year.

After selecting the "Save" button, the filename and the destination path can be entered; as a default value, data will be saved in the "output" subfolder located within the installation folder.

4.2   Data Exchange with CTS

Data transfer with **CTS** Heidelberg is accomplished with the menu options "Send Data to CTS..." and "Load CTS Data...." and is most easily carried out using email. The use of email for data transfer can be carried out without concerns regarding data security, since the data is encrypted using a RC4-Algorithm prior to transfer.

> **The "Send Data to CTS" menu option is also a simple option for the backing-up of data, when the data is saved to diskette or another computer!**

4.2.1 Sending of Data

The "Send Data to CTS... " menu option is used to send data to **CTS** Heidelberg. The use of this menu option requires **TaXi**-user access level 4 or **TaXi**-administrative access (see 5.1).

If **TaXi** is to be used for **CTS**-data transfer, the data should be sent to **CTS** every three months, preferably approx. 2 – 3 weeks before the release date of the Heidelberg data update.

The data from the VFP_TEST test databank cannot be sent by email.

The entry or selection of the study and transplant center ("Study" and "Center" fields) is required prior to the sending of data.

The date of the last successful sending of data by email or the backing up of the VFP_CTS database is displayed in the "Last Send or Save Date" field.

A subject can be entered in the "Subject" field and an accompanying message in the "Message" field. When the data is saved to diskette the message is saved as a separate text file.

The current status for entry of new malignancies should be entered in the "Cancer Confirmation" section. If the date for the entry of new malignancies is not changed, the following warning will be displayed:
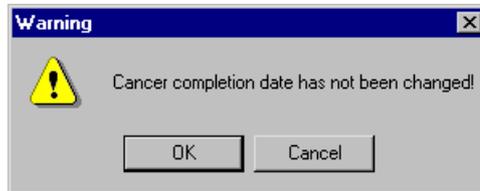
A compressed and encrypted file with the name format "SEND#.CTS", where the number symbol ("#") refers to a four-digit number, is created from the database tables when the button options "Diskette", "Send Email", or "Save As" are selected. When the data is to be automatically sent by email, a "Confirmation" window will appear
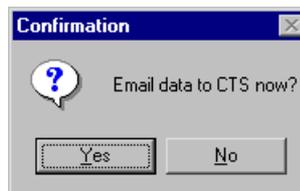

in which the action must be confirmed. If "No" is selected, the file can be saved to the folder of your choice.

4.2.2 Loading Data

A database update from **CTS** Heidelberg or a back-up copy of your database can be loaded using the "Load CTS Data... " menu option. Administrative access is required for the use of this option in the **TaXi** program.

A **TaXi** program-created file with the name format "SEND#.CTS", where the number symbol ("#") refers to a four-digit number, must be present in order to load a new **CTS** Heidelberg database update.
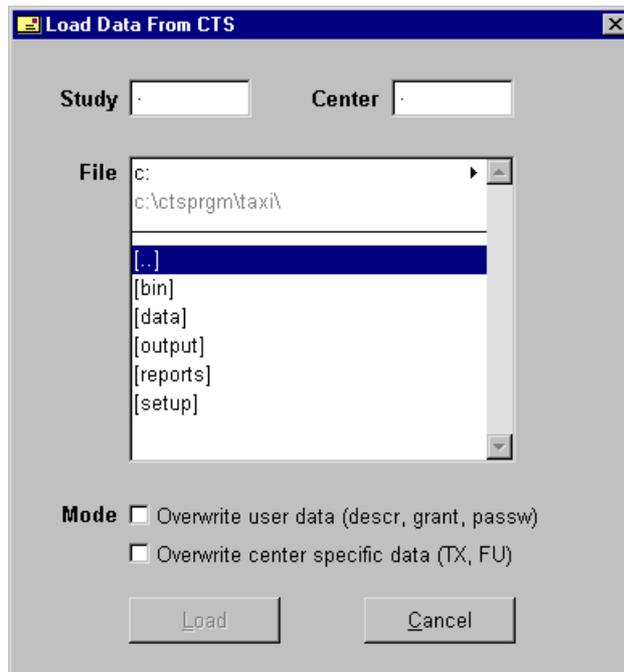
The entry or selection of the study and the transplant center in the "Study" and "Center" entry fields is required. The drive can be selected by clicking with the mouse on the first line in the "File" field. The second line displays the current folder. A folder or file can be selected by clicking on the folder name (shown in square brackets) under the horizontal line or on the appropriate file name.

If a file with the "SEND#.CTS" format is highlighted, the "Load" option button is then activated for the importing of the selected file. After selecting "Load" the confirmation window is displayed.
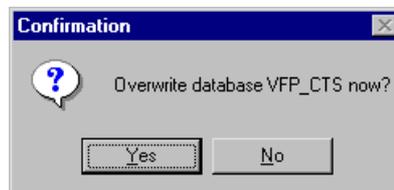
Selection of "Yes" will irreversibly overwrite all data in the database!

A T T E N T I O N !
Using "Load CTS Data..." will overwrite all previous existing data.

---

5   Configuration and Technical Support

A **TaXi**-administrator login and nine user logins are available for the operation of the **TaXi** program. The **TaXi**-administrator is solely responsible for allocation of user access rights and changing of user passwords. After installation, users must be configured by the administrator according to the following section 5.1.

Two entry windows are available for entry of center specific data:

- "Edit TX" menu, "Specific TX Data... " option,

- "Follow Up" menu, "Specific FU Data... " option.

If these entry windows are to be used for entry of data, they must be configured by the **TaXi**-administrator (see 5.2).

5.1   Individual User Configuration

Configuration of the user is accomplished using the "Change Password...." menu option, found in the "Extras" menu.
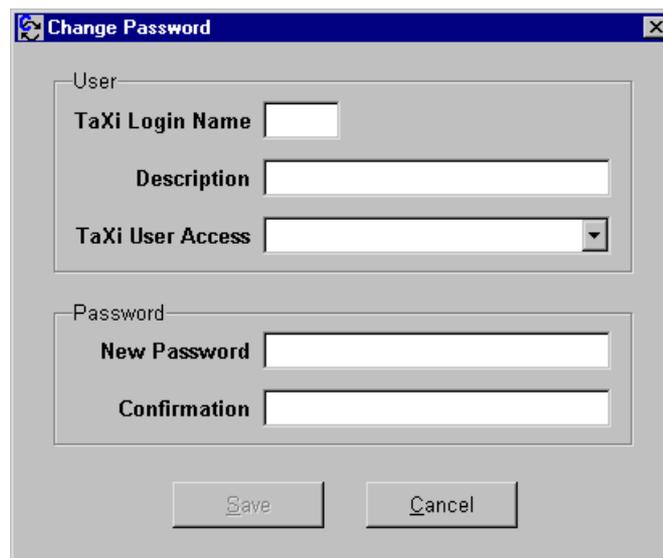
The user name must be entered, or selected from the user table using the "F7" key, in the "Local Login" field.

The administrator enters the appropriate access to be granted in the "User Access" field and the password in the "New Password" field, which must then be reentered in the "Confirmation" field.

TaXi user access is separated into the following levels:

0 = Nothing	no access (user inactive),
1 = Read	read-only-access,
2 = (1) + Write	reading and writing access,
3 = (2) + Delete + Print	access to reading, writing, and deletion functions and the printing of lists,
4 = (3) + Export + Send	access to reading, writing, and deletion functions, printing of lists, data back-up and the exporting of data (e.g. sending data to **CTS),**
9 = Administrator	Administrator access (user configuration, configuration of data entry forms, loading of data).

A user cannot change his/her own password!

<div style="border:1px solid black; text-align:center;">

Special attention should be paid to the administrator password!
Please consider that the password is case-sensitive!

</div>

5.2   Configuration of the Data Entry Windows for Center Specific Data

The **TaXi** program can be used for the entry and management of center specific data. A comments field and 25 additional configurable fields are made available for the "Specific TX Data..." entry window in the "Edit TX" menu, and in the "Specific FU Data..." entry window in the "Follow Up" menu, including:

a) 3 date fields,

b) 6 fields for whole numbers, without decimal places, in the range 0 to 999999,

c) 6 fields for numbers, with a maximum of 2 decimal places, in the range of 0.00 to 9999.99,

d) 6 fields for coded values with a maximum allowance of 5 capital letters,

e) 4 free-text fields with a maximum of 32 characters of choice.

After entry of the study and selection of a transplant, through the entry of the **CTS**-key or the recipient name with use of Ctrl+F (or "Find..." option of "File" menu), the following characteristics can be defined in the "Field Properties of..." ("Field" menu "Properties..." option) entry window:

- data entry hints that are displayed when the mouse pointer is positioned over the entry field ("Description"),

- the label of the entry field in the entry window ("Label"),

- the length of the entry field for numerical fields, including the decimal places in the case of decimal fields ("Length"),

- the number of decimal places allowed for decimal fields ("Decimals"),

- the minimum and maximum allowable values for numerical fields ("Minimum" and "Maximum"),

- the possible values for coded fields ("Values" table).

If two decimal places are not adequate for the value to be entered, the next smallest unit of measurement should be used. Decimal fields can be transformed to whole numbers in the same manner. Consequently, a total of 12 fields are available for the entry of numerical data.

The "Properties..." option in the "Field" menu can also be accessed by a single right mouse button click on the entry field.

Each of the 25 configurable entry fields can be deactivated by double-clicking on the label, in the case that the entry is unnecessary. The activation of an entry field is also accomplished through double-clicking on the label.

5.3   Technical Support

Despite extensive testing, the absence of errors within the **TaXi** program cannot be guaranteed. Please consider that the **TaXi** program is not commercial software and thus, due to considerations regarding personnel capacity, no telephone hotline is being made available. Should problems with **TaXi** arise, please contact us exclusively through email at:

<div align="center">taxi.cts@med.uni-heidelberg.de</div>

Before contacting **CTS** Heidelberg, please try the following alternatives:

- If problems are encountered with operation, try to first resolve the problem with help of this user's manual.

- Consult the "FAQs" section on the **TaXi** homepage, in which questions of general interest and currently known problems will be published:

<div align="center">http://www.ctstransplant.org/taxi</div>

- In the event that **TaXi** updates are available, they can, likewise, be obtained as downloads from the above listed internet site ("Downloads" link).

- It has been observed that irregularities may occur while working with the **TaXi** program, without the display of error warnings, that can be corrected be closing and restarting the **TaXi** program.

- Program errors can only be resolved when they are reproducible. Consequently, please make a detailed documentation of the steps taken, after restarting the **TaXi** program, which lead to the error.

5.4   License Agreement

By obtaining **TaXi** from **CTS** and using this software, you agree that you have read, understood, and will comply with the following terms and conditions:

- The software **TaXi** is distributed "as is", without any guarantee made as to its suitability or fitness for any particular use.

- No warranty of any kind is expressed or implied. You use at your own risk. **CTS** will not be liable for data loss, damages, loss of profits or any other kind of loss while using or misusing this software. The entire risk as to the quality and performance of this software is with you. Should this software prove defective, you assume the cost of all necessary servicing, repair or correction.

- **CTS** reserves the right to update the contents of this software and its associated files, documentation and/or other elements, at its discretion from time to time, without the consent of or any obligation to any users.

- **TaXi** is not commercial software and thus there is no right of technical support and any other services for using this software.