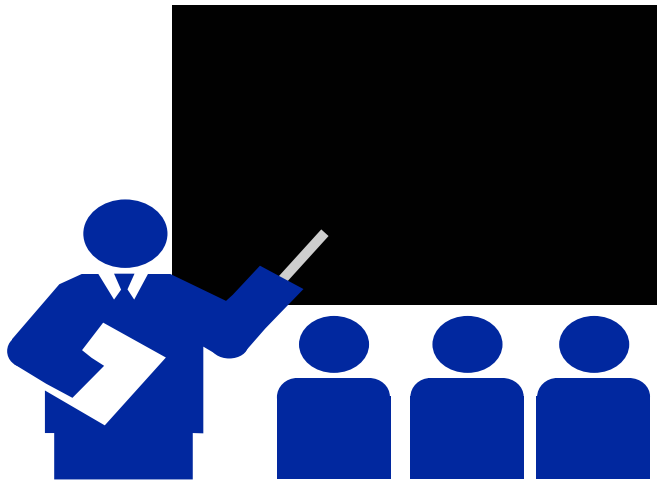


# Trousers 2.2 User Manual



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*Author suggestion: Read these sections before beginning to use Trousers.*

*Author suggestion: Reference these sections as needed.*

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*Copyright Notice*

Trousers is copyright 1998 and 2003 by the author, James Crispin, Wheaton, IL USA. Subsequent upgraded versions continue this copyright.

The author gladly provides Trousers without charge to schools that preach the gospel of the Lord Jesus Christ as the sole atonement for the sin of mankind. Such schools may use Trousers freely and copy Trousers software and user manual to other such schools. In response, each school using Trousers should register with the author. The author is committed to supporting these schools by supporting Trousers

Observance of the copyright benefits Trousers users. Among other things, it helps ensure that users obtain any necessary support and receive enhanced versions of the software.

## 1. Introduction

Greetings in the name of the Lord Jesus Christ.

This document is the Trousers User Manual. "Trousers" is an acronym for tro(pical) u(ser-friendly) se(minary) r(eporting) s(ystem). This Microsoft Windows software application allows you to do the following:

- Maintain information about students, instructors, classes, enrollment, etc.
- Perform ad-hoc inquiry into this data
- Generate special reports such as grade sheets, transcripts, and enrollment confirmations

The author of Trousers is Jim Crispin, a business computer systems analyst by occupation who lives near Chicago, IL, USA. Trousers was designed originally for the Caribbean Graduate School of Theology/Jamaica Theological Seminary of Kingston, Jamaica, and was subsequently augmented to be useful to other schools.

Trousers for DOS was first used at CGST/JTS, where the author installed version 1.0 while visiting in the fall of 1988. Improved versions followed. By the early 1990s it began to appear that other schools might use records-keeping software. So the author decided to modify Trousers to make it suitable for wide distribution, trusting the Lord with the result. Word of Trousers spread, and in time Trousers/DOS gave way to Trousers/Windows. Before long the author found himself to be CEO and chief bottle-washer of a part-time, one-man mission project made possible by phone, e-mail, a PC, a room in the basement, friends in Christian ministry, and the grace of God.

May the labor of your school's faculty, students, and administration bring glory to God.



James D. Crispin  
January 1 2006

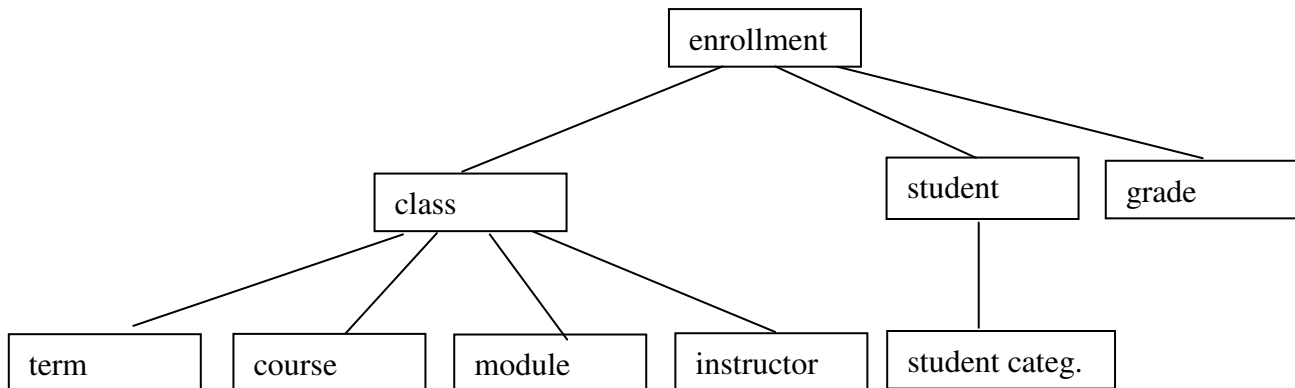
## 2. Things to Know Before You Begin

### 2A -- Trousers Vocabulary

<i>School</i>	A self-contained collection of students, instructors, classes, and enrollment. A Trousers site may have one or more schools; data of each school is separately maintained by Trousers in its own database. See <i>Multiple Schools, Multiple Database Files</i> for additional information.
<i>Term</i>	A portion of an academic year. Typically a term is several weeks or more in length and an academic year has two or more terms.
<i>Course</i>	A body of study which a school may offer once per term, once every several terms, or in multiple sections per term.
<i>Class</i>	An instance of a course during a term. Sometimes individuals new to Trousers initially confuse Class with Course. An example may help: Suppose that a school offers a course called Introduction to Biblical Hebrew, and suppose that for one particular term the school offers two sections of the course, one to accommodate day students and another to accommodate evening students. In Trousers vocabulary, the school offers two classes of Introduction to Biblical Hebrew that term.
<i>Module</i>	An integer which uniquely identifies each class when two or more classes of a particular course are offered during one term.
<i>Student</i>	An individual who is, has been, or will be enrolled in one or more classes.
<i>Student Category</i>	A way to classify students. The Trousers user determines what these categories are. Examples might be major, minor, citizenship, nationality, denomination, and language. Trousers allows you to define up to 10 student categories.
<i>Instructor</i>	An individual who is teaching, has taught, or will teach one or more classes.
<i>Enrollment</i>	The associating of a student to a class or a class to a student.
<i>Grade</i>	The mark representing a class instructor's evaluation of a student's performance in a class.
<i>Variable Credit / Fixed Credit</i>	A variable credit course is one for which amount of student credit is awarded on a case-by-case basis. In contrast, a fixed credit course is one for which successful completion always results in a certain amount of credit. Most or all courses at most Trousers schools are fixed credit courses. Examples of potential variable credit courses are student practicum and independent study.
<i>Plan</i>	A list of courses (that is courses, not classes) intended to represent those that a student must complete. Trousers allows up to 15 plans to be defined; each student may be associated with one plan. You can ignore the Trousers concept of plan if it is not useful in your context.
<i>Global Parameters</i>	Settings within Trousers which allow certain options to be customized to a school's preferences and needs. Global Parameters Maintenance is on the Administration Menu.

## 2B -- Hierarchy of Data

Consider the following conceptual hierarchy of registrar activity:



Logically speaking, one cannot enroll a student in a class unless the class exists, nor can one define a class unless the appropriate term and course exist. Similarly, removing a class (for example, if student interest is low) implies removing any enrollment of students to that class.

Trousers forces data to be consistently logical. Put more technically, Trousers enforces data referential integrity. Trousers will not let you define a class unless the term and course are already defined. And it will allow entry of enrollment information only if the appropriate classes, students, and grades are defined.

Sometimes Trousers will not permit data to be deleted. For example, Trousers will not permit deletion of a term or course if the term or course partly defines one or more classes. Similarly, Trousers will not let permit deletion of a grade in Grade Maintenance if at least one student has that grade assigned for at least one class.

Note for techies: The above diagram is not the Trousers Entity-Relationship diagram, although it resembles one. A Trousers database E-R diagram is available for download from the Trousers web site.

## 2C -- Window Layout and Behavior

Trousers has the look and feel of Windows applications generally. If you are familiar with Windows word processing or spreadsheet programs, you will find it simple to use Trousers.

Except for the Trousers Welcome Screen, you will always see five sections of the screen. Top to bottom they are: Title Line, Menu, Toolbars, Body, and Microhelp.

### Title Line

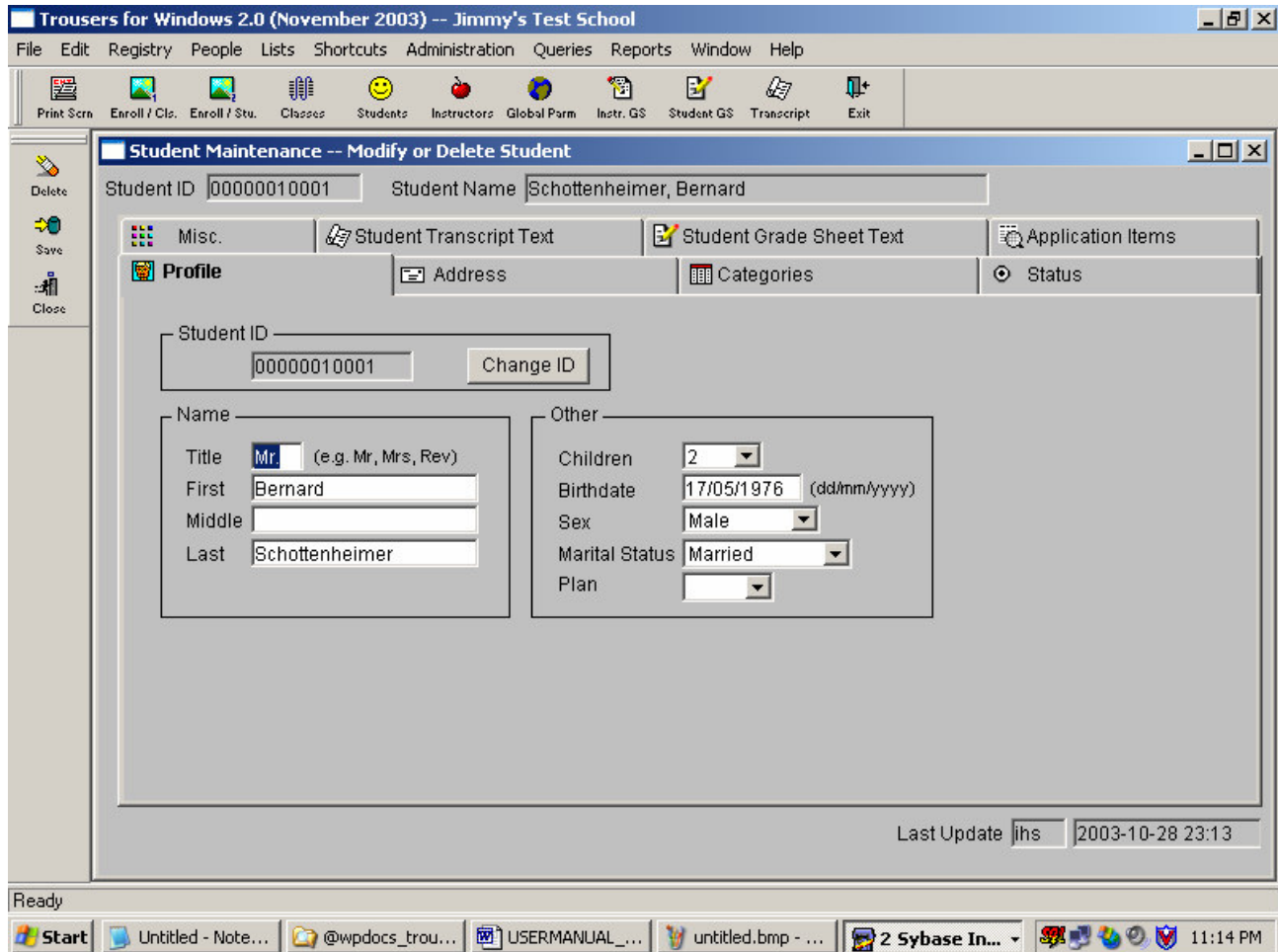
It states the name of this software and has buttons to minimize and maximize the application.

### Menu

This is the Trousers menu.

*File:* This includes general Microsoft Windows functions such as Print Setup, Close (of the current window), and Exit (of the application). It also includes the Print Screen option.

*Edit:* This includes general Windows Cut/Copy/Paste functions. Depending on context, options may include Sort, Insert, and Delete.



**Registry:** This is where you define classes, enroll students, and assign grades.

**People:** This is where you maintain information about students and teachers.

**Lists:** This is where you maintain certain lists such as the list of all valid Courses, Terms, and Grades. These lists are largely static; once you set them up you will infrequently revisit them.

**Shortcuts:** This is a group of alternative ways to do things you can do elsewhere in Trousers. Shortcuts are often time-savers.

**Administration:** These are administrative and data import/export/migrate functions.

**Queries:** These functions allow you to inquire into Trousers data according to parameters you specify. Query results appear in spreadsheet-style format. You can manipulate a query result or save it into various formats for use with other software.

**Reports:** These functions create formatted reports, most prominently the Student Grade Sheet and the Student Transcript.

**Window:** These are standard Microsoft Windows Cascade, Tile, etc. commands.

**Help:** A future version of the application may contain Trousers Help. For now, it contains the Trousers About box.

## 2C -- Window Layout and Behavior (cont.)

### Toolbars

The toolbars are the rows of pictures near the top and at the left edges of the window. Each toolbar item relates to an item on the Menu. Windows applications often have toolbars because clicking a toolbar item is a small convenience over manipulating through a menu. As with Windows applications generally, the most common menu options (not all menu options) are represented on the toolbars.

The top toolbar never changes. It allows you to invoke the most often-used Trousers functions.

The left toolbar has options that are relevant to the window that has focus. If no Trousers window is open, the left toolbar does not appear.

### Body

This is where you add, change, delete, and view data.

### Microhelp

At bottom-of-screen is the Microhelp line. Typically it provides status information, and the status usually is "Ready." When you move the mouse over toolbars it also provides a longer phrase describing the toolbar option.

## 2D -- Student ID, Instructor ID

In Trousers, each student has a unique student ID and each instructor has a unique instructor ID. No two students may have the same student ID and no two instructors may have the same instructor ID. However, it is fine if an instructor ID happens to be identical to any student's student ID.

Global Parameters Maintenance allows you to specify your choice of student ID format and instructor ID format (the two formats may be the same or different). Format options are:

- *Trousers-assigned numeric:* These IDs are 11 digits long. The first one you add will be 00000010001, the second one 00000010002, and so on.
- *Trousers-assigned alphabetic:* These IDs are 5 digits long. The ID consists of the first three letters of the last name plus the first two letters of the first name. For example, if you add an instructor named (last name) GLASSPOLE (first name) FLORIZEL, Trousers assigns an ID of GLAFL.
- *User-assigned:* These IDs must be between 5 and 11 digits long and can contain any combination of letters and numbers.

Author suggestions:

- Smaller schools tend to find alphabetic IDs to be more convenient, whereas larger schools may prefer numeric IDs.
- Because student ID appears on the Student Grade Sheet and Student Transcript, a USA school may hesitate to use Social Security Number for student ID.
- Your choice of format is largely a matter of preference and convenience. Before beginning to use Trousers, it is worthwhile to take the step back to consider this decision, but then to stick with it.

An individual who is both a student and an instructor at the same school must be added to Trousers as a student and added as an instructor.

## 2E -- Student Status

In Trousers, each student has a status of one of these: Prospective, Active, At Large, Inactive, Graduated.

You may elect not to use all five. For example, you may prefer not to include prospective students in Trousers at all. Or perhaps your school has no graduation per se; in that case, you would not classify any students as graduated.

Classifying students by status makes it easier for you to use Trousers. Scrollable lists of students are accompanied by check boxes, enabling you to restrict the display to those students of the status(es) you select. This reduces the number of students in the list, making it easier to find any one student. Also, student status is a selection criteria for some queries. This helps restrict query results to that which you most wish to see.

You can change student status in the Student Maintenance function or the Student Status Update shortcut function.

## 2F -- Queries and Reports

Queries and reports are similar in that you specify the data to appear before seeing the results. But they have some differences:

- Queries are best suited for quick lookup and data analysis. Reports are more formal documents such as transcripts and grade sheets.
- Query results are presented spreadsheet-style so that you can sort data, rearrange column order, etc. Reports have a fixed format (although the transcript and grade sheet format can be modified using Global Parameters Maintenance).
- Query results are always routed to the Trousers Report Manager; Reports are either printed or routed to the Report Manager according to the related setting in Global Parameters Maintenance.

## 2G -- Trousers Report Manager

The Report Manager is a window that displays a query result or report and allows you to do other things:

	<u>Query Result</u>	<u>Report</u>
zoom in/out	yes	yes
scroll up/down/left/right	yes	yes
print	yes	yes
sort data	yes	no
rearrange/resize columns	yes	no
save to a file	yes	no

The Help! button on the Report Manager window explains how to use each Report Manager option.

## 3. Install / Upgrade Instructions

### For New Users Installing Trousers 2.2

Simply run the install routine, accepting defaults.

The first time you run Trousers you will be invited to import Trousers 1.0 data into Trousers 2.2. Being a new user you would decline.

### For Current Users Upgrading from Version 1.0 to 2.2

Step 1: Back up existing Trousers 1.0 database (.DB) file(s) as routine precaution.

Step 2: Run file INSTALL\_TROUWIN22.EXE (obtainable from the Trousers web site, from the author via e-mail, or from the author via CD-ROM). This file creates directory C:\TROUWIN2 and installs itself into that directory.

Step 3: Perform the following activities in any order:

- Migrate data from Trousers 1.0. If the Trousers 2.2 database is empty, Trousers invites you to do this just after you click "OK" at the Welcome Screen. You can also invoke this process from the Administration Menu. Please see *Migrate Data from Trousers 1.0*.
- [Optional] Update TROUSERS.INI parameters to preference. See *TROUSERS.INI Maintenance*.
- [Only if you configured Trousers 1.0 to create reports in languages other than English] Copy LANGUAGE.INI and any other language-related .INI files you created from the Trousers 1.0 directory into C:\TROUWIN2\.

Step 4: [Only if your Trousers 1.0 implementation involves multiple schools] Start Trousers, specifying school TROUWIN2 on the Welcome Screen. For each school additional to TROUWIN2 that you wish to define, run the Administration Menu "Define New Trousers School" function. Then, for each new Trousers 2.2 school, migrate data from Trousers 1.0 as explained above.

Step 5: When you are satisfied that Trousers 2.2 is properly installed and working, remove Trousers 1.0. Please do not run the "Uninstall Trousers" program installed with Trousers 1.0! Please see *How to Uninstall Trousers* for instructions to remove Trousers 1.0.

Trousers 1.0 and Trousers 2.2 have different database structures. This is why Trousers 2.2 must convert data from Trousers 1.0 into Trousers 2.2 format.

### For Current Users Upgrading from Version 2.0 / 2.1 to Version 2.2

Run file UPGRADE\_TROUWIN22.EXE (obtainable from the Trousers web site, from the author via e-mail, or from the author via CD-ROM).

This file is a self-extracting Zip file. Running this file updates Trousers 2.0 / 2.1 software to Trousers 2.2 but does not affect Trousers data.

### 4. Trousers Welcome Screen

The Trousers installation routine defines one Trousers school named TROUWIN2. When you first install Trousers, TROUWIN2 is the default school name and is the only school you can select. See *TROUSERS.INI Maintenance* if you are implementing multiple schools and wish to change the Welcome Screen default school name.

The Trousers installation routine sets security as disabled so that you need not specify an ID and password. See *Trousers Security* if you wish to enable Trousers security.

The first time you start Trousers, you will be prompted for a 13-character Registration Key. This Key is available from the author.

### 5. Making a Short Learning Curve Shorter

There is no one-size-fits-all formula for becoming an expert Trousers user – nor does there need to be, as the Trousers learning curve is not steep. Having said that, the author suggests this 20-40 minute exercise to provide a new user with a very good frame of reference:

1. Global Parameters Maintenance (from Administration Menu): This function allows you to tailor Trousers to your school's requirements and preferences. View each tab, looking at options on each tab and changing those that jump out at you. Some will be clear in purpose right away, others perhaps not. Do not worry if some do not seem immediately intuitive – you can always revisit this function. But you will want these to be correct from the start:
  - Reports tab: paper size
  - Student Misc. tab: birthdate format
2. Course, Grade, and Term Maintenance (from List menu): Complete these lists. After doing so, you will infrequently modify them.
3. Student Maintenance (from People menu): Add 2-3 students to get the hang of this.
4. Class Maintenance (from the Registry menu): Define 2-3 classes for a previously-defined term.
5. Enrollment Maintenance (from the Registry menu): Use Class View to choose a class, then enroll several students in that class. Then use Student View to choose a student and enroll that student in several classes.
6. Student Transcript Maintenance (from the Reports menu): Choose a student, then create a transcript for that student. Optionally print it.
7. Enrollment Query (from the Queries menu): Run the Enrollment Query 3-4 times, accepting all defaults the first time and the next few times experimenting with changes.

## 6. Description of Each Trousers Function

### 6A1 -- Enrollment Maintenance

Enrollment Maintenance allows you to enroll students in classes and assign grades. You can also record remarks about a student's performance in the class, and for variable credit classes you can assign appropriate credit for each student.

Enrollment Maintenance has two flavors. Your choice between them is strictly a matter of convenience:

- Class View: All students enrolled in a specified class.
- Student View: All classes in which a specified student is enrolled for a specified term.

Author Recommendation: Global Parameters Maintenance has two tabs for you to set default options for Enrollment Maintenance sorting and filtering. If you set your most common preferences there, you will find yourself adjusting them less often when you use Enrollment Maintenance.

#### Class View

When you choose this, the first thing you will see is a popup window prompting you to select a class. The top box lists all terms for which you have defined at least one class. The bottom box lists all classes for the term selected in the top box. Choose a class, then click OK.

After selecting a class, you will see a window with three boxes. The top box states the class you selected. The middle box is a scrollable list of students selectable for enrolling in the specified class. The bottom box lists the students enrolled in the class.

There are four ways to enroll a student in the class. You can choose a student in the middle box and then select Edit/Enroll from the Menu. Or you can choose a student and click the Enroll button on the left toolbar. Or you can drag-and-drop the student from the middle box into the lower box. Or you can doubleclick the student in the middle box.

Unenrolling is the opposite. You can choose a student in the lower box and then select Edit/Unenroll from the Menu. Or you can choose a student and click the Unenroll button on the left toolbar. Or you can drag-and-drop the student from the lower box into the middle box. Or you can doubleclick the student in the lower box.

Note the useful Group feature. This can be a time-saving alternative to enrolling students in this class one at a time. It allows you to identify a group of students, then press OK to enroll them into the current class. The group can either be all students enrolled in a different class or all students who meet other student criteria.

#### Student View

When you choose this, the first thing you will see is a popup window prompting you to select a term (top box) and a student (bottom box). To the right of the bottom box are options for sorting students and limiting display to those of the student statuses you select.

After selecting a class, you will see a window with three boxes. The top box states the term and student you selected. The middle box has a list of all classes defined for the specified term. The bottom box lists the classes in which the specified student is enrolled for the specified term.

There are four ways to enroll this student in a class. You can choose a class in the middle box and then select Edit/Enroll from the Menu. Or you can choose a class and click the Enroll button on the left toolbar. Or you can drag-and-drop the class from the middle box into the lower box. Or you can doubleclick the class in the middle box.

### 6A1 -- Enrollment Maintenance (cont.)

Unenrolling is the opposite. You can choose a class in the lower box and then select Edit/Unenroll from the Menu. Or you can choose a class and click the Unenroll button on the left toolbar. Or you can drag-and-drop the class from the lower box into the middle box. Or you can doubleclick the class in the lower box.

### 6A2 -- Class Maintenance

Class Maintenance allows you to maintain the school's list of classes.

To avoid confusion between the concept of Class and Term, please note these quick review points from *Things to Know Before You Begin*.

- A course is just that, a course.
- A class is a course offering. During a particular term, a course may be offered once, more than once, or not at all.
- A class is defined by a combination of term, course, and module.
- Module has exactly one purpose: To permit a unique identification to each course offering when a course is offered more than once per term.

When you choose Class Maintenance, the first thing you will see is a popup window prompting you to select a term. Chose a term, then OK.

If your school never offers a course more than once per term, the author suggests that you assign each class the Trousers-defaulted module number of 1.

If your school offers a course more than once per term, you must assign the two classes different module numbers. Module number can be any number from 0 to 999. Trousers defaults the module number to 1; typically a second class is assigned module number 2, 3 for a third, etc.

A class is always identified by a combination of term, course, and module. Therefore, in this function, course and module are required fields; other fields are optional.

Only Active instructors are included in the instructor picklist unless you check the box near top-of-screen. See *Instructor Maintenance* for more information about Active/Inactive instructors.

### 6B1 -- Student Maintenance

Student Maintenance allows you to record information about students. All fields except student name, student ID, and student status are optional.

When you choose this, you will immediately see a popup window asking if you wish to Add, Change, or Delete a student.

*Add Student:* You are prompted for first name (required), middle name (optional), and last name (required). In addition, you are prompted for a student ID if you chose user-assigned Student ID (as opposed to Trousers-assigned student ID) in Global Parameters Maintenance.

*Modify or Delete Student:* You must choose a student from the list.

### 6B1 -- Student Maintenance (cont.)

#### Profile

Change ID button: You must click this button to change a student ID. This guards against accidental changing of an ID.

Birthdate: Format is dd/mm/yyyy or mm/dd/yyyy according to the Global Parameters Maintenance setting.

Plan: A plan is a list of courses (that's courses, not classes) that a student must complete. Trousers allows you to define up to 15 plans and to associate a student with one plan. This field allows you to associate the student with the Plan. Plan Maintenance (on the Administration Menu) is where you define the actual plans.

#### Address

The address lines are free-form text. One benefit to recording student addresses is that you can use Trousers to print mailing labels. See the *Mailing Labels* function for more information.

#### Categories

Categories are ways to classify students. Via Global Parameters Maintenance you define the categories themselves, and via Student Category List Maintenance you define the acceptable values for each category. On this tab you select the value for each category appropriate for the student.

Student Category is a selection option for the Student Query. Also, any of these categories can appear on the Student Transcript according to settings in Global Parameters Maintenance.

#### Status

Student status is a required field. New students are initially assigned a status of Active.

See *Things to Know Before You Begin* for a discussion of Student Status.

#### Misc.

This is where you can record student information that doesn't fall elsewhere in Student Maintenance. Using Global Parameters Maintenance you can define the names of these fields.

These fields do not appear on the Student Transcript or Student Grade Sheet. However, they are selection options for the Student Query.

#### Transcript

This field allows you to specify up to 1000 characters of free-form text which appears at the end of the student's Student Transcript.

Global Parameters Maintenance also allows you to define text which appears at the end of every transcript.

#### Grade Sheet

This field allows you to specify up to 1000 characters of free-form text which appears at the end of the student's Student Grade Sheet.

Global Parameters Maintenance also allows you to define text which appears at the end of every Student Grade Sheet.

### 6B1 -- Student Maintenance (cont.)

#### Application Items

This field allows you to indicate items relative to a student's transcript which have/have not been received. The Application Status Query reports on this information. You define the field names via Global Parameters Maintenance.

### 6B2 -- Instructor Maintenance

Instructor Maintenance allows you to record information about instructors.

When you choose this, you will immediately see a popup window asking if you wish to Add, Change, or Delete an instructor.

*Add Instructor:* You must specify a first name and last name; middle name is optional. You will also see a prompt for instructor ID if the Global Parameters Maintenance instructor ID is set for user-assigned ID, as opposed to Trousers-assigned ID.

*Modify or Delete Instructor:* You must choose an instructor from the list.

Change ID button: You must click this button to change an instructor ID. This guards against accidental changing of an ID.

Instructor Degrees button: If you click this button, you will be able to record instructor degree information. Instructor Degree information can be reported upon with the Instructor Query.

Trousers instructors have a status of Active or Inactive. An instructor marked as Inactive does not appear in the Class Maintenance instructor dropdown listbox (although you can override this in Class Maintenance). This tends to speed selection of an instructor in Class Maintenance. Therefore the author suggests that you classify instructors who are likely to teach classes not yet defined in Trousers as active and classify other instructors as inactive.

### 6C1 -- Student Category List Maintenance

With this function you establish a list of valid values for each Student Category. See the vocabulary section of *Things to Know Before You Begin* for a definition of Student Category.

At the top of this window is a box of radiobuttons. Each radiobutton corresponds to one Student Category. When you click a radiobutton, you see the maintainable list of valid values for that category.

Global Parameters Maintenance allows you to define the categories themselves. It also allows you to indicate whether a category is active. If a category is inactive, the corresponding radiobutton is grayed and labeled "inactive."

The Code you assign to each value is important behind the scenes, but you will not see it elsewhere in Trousers. Rules for defining codes are simple:

- Within a category, each value must have a unique code.
- Each code must be 1-3 characters long. Characters may be letters or numbers.

### 6C2 -- Term Maintenance

With this function you establish the Trousers list of terms.

When you begin with Trousers, you should define one entry for each term going back as far as you wish to record enrollment data in Trousers, plus entries for terms a few years into the future.

Term Name is the name of the term as you wish it to appear throughout Trousers.

Term ID is a code that you assign in this window but will not see elsewhere in Trousers. Term ID is important behind the scenes; therefore it is important to follow these simple rules for term ID:

- Each term must have a unique Term ID.
- Each Term ID must be exactly six digits long.
- Digits 1-4 are a year. This can be a school year or a calendar year.
- Digits 5-6 are sequential numbers 01, 02, 03, ... such that within a year, the 01 term precedes the 02 term, the 02 term precedes the 03 term, etc.

Examples: 199901, 199902, 199903 ... 200001, 200002, 200003 ... 200101, 200202, 200303 ...

### 6C3 -- Course Maintenance

With this function you establish the Trousers list of courses. Each course must have a unique course ID.

If your school's curriculum has changed over time, some reflection may be needed to determine just what the school's list of courses should be. For example, at some point two courses may have merged into one, or one course split into two. In either case you would define three courses to Trousers. Your guideline is that you want one unique entry for each distinct course which is now or ever was defined as being a course.

The expression for measure of credit can be "Hours," "Units," or another word. You specify this expression in Global Parameters Maintenance and it carries through to the rest of Trousers.

A variable credit course is a course for which amount of student credit is awarded on a case-by-case basis. In contrast, a fixed credit course is one for which successful completion always gives a certain amount of credit. Most (often all) courses at most schools are fixed credit. Sometimes student practicum or independent study courses are variable credit courses.

Concerning course ID, a common convention is to have the first 2-3 characters signify a body of study. So a school might have Biblical Studies course IDs of BIB101, BIB102, etc.

Completing the range of Valid Terms for each course is optional. The benefit of completing this range is in Class Maintenance. As years go by, a school may add some courses and retire others. Using Class Maintenance is faster and easier if the dropdown list of courses includes only courses which are active for the user-specified term.

## 6C4 -- Grade Maintenance

With this function you establish the Trousers list of valid grades. Any grade which a student may earn must be defined with this function. This is a good place to be careful. A student's GPA is computed according to the way you define grades. Trousers is intended to support the grading requirements of virtually any school.

Columns are as follows:

*Grade:* This is the mark that a student earns. This mark appears on the student's transcript.

*Description:* This is a comment. It is optional.

*Points:* Grade points for the grade.

*Use in GPA:* Check this box if a class in which a student earns this grade should figure into student GPA.

*Course Credit:* Check this box if the class should count toward total hours or units earned.

If your school uses an A/B/C scale, you would set up grades as follows:

- *Grade*            Grade: A, B+, etc.
- *Points*            grade points (should be zero for failing grade)
- *Description*      optional remark
- *Use in GPA?*      checked
- *Credit*            checked for passing grade; unchecked for failing grade

If your school uses a numeric scale, perhaps 0-100, you would set up grades as follows:

- *Grade*            Grade: 100, 99, 98, 97 ...
- *Points*            identical to grade points (should be zero for failing grade)
- *Description*      optional remark
- *Use in GPA?*      checked
- *Credit*            checked for passing grade; unchecked for failing grade

Grade policies of your school may require you to define other marks such as these:

<u>Grade</u>	<u>Description</u>	<u>Points</u>	<u>Use in GPA</u>	<u>Credit?</u>
CR	Pass -- Credit	0.0	unchecked	checked
AU	Audit	0.0	unchecked	unchecked
IN	Incomplete	0.0	unchecked	unchecked
WP	Withdrawal Passing	0.0	unchecked	unchecked
WF	Withdrawal Failing	0.0	unchecked	unchecked

Failing grades should be defined as follows:

<u>Grade</u>	<u>Description</u>	<u>Points</u>	<u>Use in GPA</u>	<u>Credit?</u>
(mark)	Fail	0.0	checked	unchecked

### **6D1 -- Course ID Change Shortcut**

This is a quick way to reassign a course from one course ID to another course ID. This can be helpful if you decide you should rework your scheme of designating course IDs for specific courses.

### **6D2/6D3 -- Student ID Change Shortcut / Instructor ID Change Shortcut**

This is a quick way to update student ID (Instructor ID) for a group of students (instructors). This can be especially helpful if you decide you should rework your entire scheme for assigning student or instructor ID.

### **6D4 -- Grade Assignment Shortcut**

This is a quick way to record grades (plus add notes and, for variable-credit courses, specify amount of credit) for any/all students in any/all courses of a user-specified term. Particularly at end-of-term when you have a lot of grades to record you may find it much faster to use this function than to record this information with Enrollment Maintenance.

### **6D5 -- Application Status Update Shortcut**

This is a quick way to update application status information for a group of students. You may find it much faster to use this function to update application status than to do so one student at a time using Student Maintenance.

### **6D6/6D7 -- Student/Instructor Status Update Shortcut**

This is a quick way to update status for many students/instructors. Particularly at end-of-term when some students graduate, you may find it much faster to use Student Status Update than to do so one student at a time using Student Maintenance.

### **6D8 -- Class Copy Shortcut**

This function copies some or all classes (not enrollment) from one user-specified term to another. This is a helpful time-saver if your school tends to offer a group of courses term after term.

### **6D9 -- Grade Reassignment Shortcut**

For a user-specified range of terms, this function allows you to change all occurrences of a given grade assignment to another grade. Most likely you will not use it. But if you ever need to rework your grade scheme to accommodate a change in school policy, this would save you boatloads of time.

### 6E1 -- Global Parameters Maintenance

With this function you tailor Trousers for best use in your context. Changes you make here affect only the current school. If you are using multiple schools (*see Multiple Schools, Multiple Database Files*), you will need to set Global Parameters for each school.

#### General

School Name: This is the school name as it appears on all Trousers windows and reports.

#### Language

Report Substitutions for English: For an explanation of the options, Please reference *Reports in Languages Other than English*.

Font: This is inactive. It is a placeholder for an upcoming version of Trousers.

#### Enroll – (Class View) and Enroll (Student View)

These are defaults for Enrollment Maintenance. You can change these options when you are actually using Enrollment Maintenance. It is convenient to specify your preferred setting here.

#### Mailing Labels

These are the specifications for printing mailing labels. By adjusting these settings you can print mailing labels on any variety of mailing label paper stock. All measurements are in inches.

Label Size: The length and width of one label, excluding the space between labels.

Spread: The number of labels horizontally and vertically on a page.

Paper Feed: Check “continuous” if label stock pages are perforated or “sheet” if they are separate.

Margins: The distance from the edge of the paper to the edge of its nearest labels, and the distance between labels.

Arrangement: Whether labels are sorted top-to-bottom or left-to-right.

#### Reports

These settings pertain to all reports, including transcripts and grade sheets. Note that the page size (letter, legal, A4) MUST agree with the page size defined for your printer in Windows itself.

#### Enrollment Confirmation

These settings pertain to the Enrollment Confirmation.

## 6E1 -- Global Parameters Maintenance (cont.)

### Transcript 1 and 2

These tabs allow you to format the Student Transcript.

The first question to answer is this: Do you wish to print transcripts on preprinted or blank stock? This decision guides the rest of what you do with these tabs.

Some schools use preprinted stock with items such as school name and logo at top-of-page and potentially other text at bottom-of-page. Preprinted stock and Trousers can partner to create transcripts with a highly polished, professional appearance. Even everyday school stationary can make for a sharp-looking transcript. However, many schools use blank stock to create transcripts and consider transcript appearance to be perfectly acceptable.

### *Top-of-Page Fields*

In this section you define what Trousers includes at the top of each page of each transcript. Three items appear on the transcript only if you check the "include" box next to each item. In addition, Student ID always appears, as does Student Name (which immediately follows Student ID on the printed transcript but is omitted from this tab for simplicity).

If your school uses preprinted stock, you would want to exclude any pre-printed items. Schools using blank stock probably would include all three items except perhaps the user-specifiable second item.

"Inches from Top" is the distance in inches from the item to the top edge of the page. "Style" and "Size" behave as one would expect.

### *Bottom-of-Page Fields*

In this section you define what Trousers includes at the bottom of each page of each transcript. An item appears on the transcript only if you check the "include" box next to the item.

"Inches from Bottom" is the distance in inches between this item and the bottom edge of the page. The Horizontal Line is a separator line which stretches from page-left to page-right. The author suggests that including the Horizontal Line may contribute to transcript appearance; of course this is a matter of opinion. The Page Number and Current Date, if they are included, appear just below this line on the printed transcript. If you choose to exclude the Separator Line, you can still control the distance of Page Number and Date to bottom-of-page by modifying the Horizontal Line "Inches from Bottom" field.

If your school uses preprinted stock with preprinting at the bottom of the page, you would want to increase "Inches from Bottom" so that these fields do not overlay the preprinting.

### *Items on Page 1*

In this section you identify items which appear on Page 1 of the Transcript. You may include Term Entered, Term Graduated, Birthdate, Class Year, Student Status, and any of the Student Categories enabled on the "Student Categories" tab of Global Parameters Maintenance.

### *Body of Transcript*

Enrollment Notes: The notes you enter in Enrollment Maintenance appear on the student transcript if you check this box.

### 6E1 -- Global Parameters Maintenance (cont.)

#### End-of-Transcript Verbiage

In this section you type any verbiage which is to appear at the end of every transcript. You may include up to 1000 characters, including spaces, carriage returns, etc.

This verbiage is not to be confused with end-of-transcript verbiage associated with a student in Student Maintenance.

#### Grade Sheet 1 and 2

(Formatting options for the Student Grade Sheet are identical to those of the Student Transcript.)

#### Other

Instructor ID: It can be of one of three formats. See the discussion of student and instructor IDs in *What to Know Before You Begin*.

Measure of Course Credit: This sets a vocabulary preference. The course credit unit of measure can be Hours, Units, Credits, or another preferred expression.

Default Term: This is a matter of user convenience. On scrollable lists of terms, the default term is pre-selected for you. This spares you the small (but perhaps annoying over time) need to scroll through the list time after time when you are working primarily with one term.

#### Student Categories

Student categories are ways to classify students. Trousers allows you to have up to 10 student categories. On this tab you determine the actual category names.

The lists of acceptable values for each category are maintained by Student Category List Maintenance which is on the Lists menu. Using Student Maintenance you assign category values to each student.

#### Student Application

On this tab you define the items required for a student applying to the school. Using Student Maintenance you can record a student's compliance to each item, and using the Student Status Query you can report on this information. You can ignore this tab if you prefer not to use Trousers to record student application information.

#### Student Misc.

This tab allows you to set parameters for other matters pertaining to Student Maintenance.

#### Instructor Grade Sheet

On this tab you set parameters pertaining to the Instructor Grade Sheet.

## 6E2 -- User Maintenance

Before reading this, please read *Trousers Security* to obtain the appropriate frame of reference.

With this function you maintain the IDs, Passwords, and profiles of each individual who is authorized to update the current school's data with Trousers. You can ignore this function if you prefer security to be disabled for this school.

- ID/Password: If security is enabled, the user must successfully supply these fields on the Trousers Welcome Screen.
- User Name: The individual who is assigned the ID and password. This field is optional and is not used elsewhere in Trousers.
- Permissions: Check a box for each group of functions which the user may perform.
- Password Clue: If security is enabled and the user specifies a password that does not match the specified user ID, the user sees a prompt with this memory-jogging text. Example: Password is "GREENACRES" – Clue is "What is my all-time favorite TV show?"

## 6E3 – TROUSERS.INI Maintenance

Trousers uses a text file named TROUSERS.INI to hold several parameters that affect your use of Trousers on a PC. The Trousers installation routine places TROUSERS.INI in the C:\TROUWIN2\ directory. This function starts Windows Notepad with TROUSERS.INI ready for edit.

Following is an explanation of each TROUSERS.INI parameter:

General      *Security*: Valid values are Y (security is enabled) and N (security is disabled). See *Trousers Security* for more information.

*Default\_Database*: This text appears on the Welcome Screen as the default School name.

About      Line1...7: The author's name, address, and contact information. These lines appear when you choose Help, then About from the Trousers menu.

You can always use Notepad or another text editor outside of Trousers to edit TROUSERS.INI.

TROUSERS.INI settings affect a PC's use of Trousers irrespective of the number of Trousers schools defined.

## 6E4 -- Export or Import Trousers Data

This function allows you to export data from Trousers or import data into Trousers. Among the reasons to export and/or import Trousers data are these:

<i>Process</i>	<i>Reason to Perform the Process</i>
Export	Utilize Trousers data in another application such as a financial accounting program.
Export	Use spreadsheet software to manipulate data in ways Trousers does not, perhaps creating your own custom reports.
Export then Import	Save typing by transferring data from one Trousers database to another Trousers database.
Export then Import	Save typing by changing the exported data, then reimport the changed data into a Trousers database (you may consider conferring with the author before doing this).
Import	Convert data from another system into Trousers.

### 6E4 -- Export or Import Trousers Data (cont.)

If you wish to export Trousers data and subsequently reimport the data into Trousers, be sure to save the exported data as Text (not Text with Headers) format.

#### Exporting Data

To export data means to copy data from the Trousers database to file(s) of another format, such as text or spreadsheet. To perform this action, a) select a Trousers data table from the "Trousers Table" groupbox, b) choose Export Data from the "Action to Take" groupbox, and c) click OK. You will then see a dialogue box prompting you for the name of the file to create and the "save as" type, i.e. the format of the output file. Specify both, then click Save.

#### Importing Data

To import data means to copy data from a file outside of Trousers into the Trousers database. To perform this action, a) select a Trousers data table from the "Trousers Table" groupbox, b) choose Import Data from the "Action to Take" groupbox, and c) click OK.

Converting data from another system into Trousers can be a significant project. The actual import process is simple, but most of the work is determining how the external data elements map to Trousers data elements, then formatting the external data accordingly. Trousers tries to make the process as straightforward as possible:

- The layout of each Trousers table is documented on the Import/Export window itself. When you choose a table in the "Trousers Table" box, documentation about that table (including the file layout) appears in the scrollable "Information About" box. Suggestion: Highlight this documentation as needed with the mouse, then use Ctrl/C to copy this text to the Windows clipboard and Ctrl/V to paste it elsewhere.
- The table to import must be in (ASCII) text tab-delimited format with no column headings. This is a highly universal medium of data exchange. Any contemporary mainstream spreadsheet or database product can create data in this format.
- Trousers field and table names are substantially self-descriptive.

If you are performing a full-blown data conversion from another product into Trousers, the author invites you to contact him for school-specific advice. You might also ask a technically-inclined local friend for assistance.

### 6E5 – Migrate Data from Trousers 1.0

This function allows you to import data from a Trousers 1.0 database into the current database. The dialogue walks you through the process of selecting a Trousers 1.0 database, confirming the choice, displaying results of conversion to Trousers 2.2, and finally choosing "Accept" (i.e. commit to importing data) or "Cancel" (i.e. do not import data.)

Please look carefully at the results of conversion before committing to import data. For each Trousers data table, you want the "Attempt" and "Succeed" columns to be identical. "Fail (Duplicate)" should be zero unless some data you are importing already exists in the new database. Any non-zero value for "Fail (Other)" indicates an unexpected problem; contact the author if this occurs.

Note 1: When the dialogue prompts you to select a Trousers 2.2 database, it defaults to the directory in which Trousers 2.2 resides. You will need to change the directory to the directory in which your Trousers 1.0 database resides.

Note 2: If you select a Trousers 1.0 database which resides on a CD or DVD, Windows may complain with a confusing-to-most-users ODBC error. This is a Windows issue, not a Trousers issue. Simple workaround: Copy the Trousers 1.0 database to the C: drive, then import.

### 6E6 -- Plan Update

If you prefer not to use Trousers plans, you can ignore this function.

This function enables you to define up to 15 plans. A plan is a list of courses. By associating a student with a plan, you can compare a student's actual academic progress against the student's intended academic progress. Via Student Maintenance you assign a plan to a student, and via the Student Plan Progress Report you can reveal a student's academic progress relative to the student's plan.

If your school's curriculum requires that students complete, for example, two of a group of three courses, or one of a group of courses, the Trousers concept of "plan" may be too simplistic for your use.

### 6E7 -- Create .BAT Files to Backup and Restore Data

This function creates .BAT files which you can run outside of Trousers to perform Backup and Restore of Trousers data. The .BAT files are custom to your PC and setup of Trousers. The .BAT Backup file can write to diskette, memory stick, or Zip drive, but not to a CD or DVD writer.

You can use the Windows command prompt or the Windows Explorer to execute the .BAT files. But to make backing up data brain-dead simple, you may consider keeping these .BAT files on your Windows desktop. This enables you to backup or restore data by clicking the desktop icon.

Note: Please be sure to exit Trousers before backing up or restoring Trousers data.

### 6E8 -- Define New Trousers School

First of all, please read *Multiple Schools, Multiple Database Files*.

This function defines a new Trousers school. Specifically it creates an empty Trousers database file and defines the database file to the Windows Registry. After you do this, you can immediately begin to use the new school by exiting Trousers, then starting Trousers again, choosing the new database at the Welcome Screen.

For the user this is very simple. You specify the new database file name (actually just the part before the period; the suffix is always ".DB") and then click the button. It takes Trousers less than a second to create the new database and Registry entry.

### 6E9 -- Delete Current Trousers School

You will rarely if ever use this, but here is one possibility: You defined a new Trousers school and then began to reconsider the database name you specified. This function allows you to "undo" that error. Specifically this function deletes the database file and Windows Registry entry for the current school.

Running this function is also very simple. You click the button, then click again at the warning prompt. In less than a second Trousers deletes the current school and gracefully exists.

### 6E10 – Run Dynamic SQL

Do you know SQL? Do you want to directly query or update the Trousers database? If so, this function may interest you.

This function contains a prompt for you to type and run a valid SQL statement against the Trousers database, allowing you to directly select, insert, update, or delete Trousers data.

Author suggestions: You may find it simplest to use a text editor to write a SQL statement, then copy/paste the statement into the window to run. Also, you can use the *Export or Import Trousers Data* function to view (and optionally copy for subsequent paste) the layout of any Trousers data table.

This function bypasses Trousers referential integrity. There is no "undo" or "rollback" option; changes are applied immediately to the Trousers database. A SELECT statement will do no harm, but one must not be reckless with SELECT INTO, INSERT, UPDATE or DELETE statements. The author is glad to advise. In short, this function is powerful but you need to be careful.

For help with SQL syntax, ask the author or reference the Sybase Adoptive Server Anywhere 7.0 reference:

<http://sybooks.sybase.com/onlinebooks/group-sas/awg0700e/dbrfen7/>

### 6F -- Queries

Each query is unique. But this is the pattern:

Step 1: You will see a window which prompts you for the range of data to appear. Most prompts are from/thru fields. This is how they work:

- Complete "from" leaving "thru" blank: Data less than the "from" value is excluded from the query result.
- Complete "thru" leaving "from" blank: Data greater than the "thru" value is excluded from the query report.
- Complete both "from" and "thru": Data less than the "from" value and greater than the "thru" value is excluded from the query result.
- Complete neither "from" nor "thru": Query results are not restricted by values of this field.

In short, all data is selected unless you exclude it by competing "from" and/or "thru" fields.

You may complete as many fields as you wish. If you leave them all blank, nothing is excluded.

Some windows will feature a button which opens another window for additional selection criteria.

Step 2: You will see a window of check boxes. Check the box next to each field which you wish to appear. You must check at least one box.

Step 3: You will see the query results in the Report Manager window.

Step 1 may feel counterintuitive at first. But it works with the other steps to provide a highly flexible means of creating specialized query results.

### 6G -- Reports

**Instructor Grade Sheet:** This report lists all students enrolled in a user-specified class. Typically the report is issued to an instructor at beginning-of-term. It naturally follows that an instructor can use the grade sheet to record student grades and return it to the school's administrative office at end-of-term. Global Parameters Maintenance offers options for the appearance of the Instructor Grade Sheet.

**Student Grade Sheet:** Sometimes called a report card, this report lists classes taken and grades received for a user-specified student and term. Global Parameters Maintenance offers many options for the appearance of the Student Grade Sheet.

**Confirmation of Student Enrollment:** This report lists all classes in which a student is enrolled for a user-specified student and term. Typically it is given to a student at beginning-of-term.

**Student Transcript:** For a user-specified student, this report lists all classes taken and grades received. Global Parameters Maintenance offers many options for the appearance of the Student Transcript.

**GPA Report:** This highly flexible report lists all courses taken, grades received, and GPA for a user-selected range of students and classes. Although it is a report, it resembles a query in that you can specifically delineate a range of data to be included in the report and, hence, resulting GPA computation. Data can be sorted by student name, student ID, or GPA. This report can be quite helpful in performing GPA analysis. Among its uses:

- For a specified term, identify all students whose GPA is above (or below) a certain level.
- List the GPA for all students for a particular range of classes.
- Compare GPA of a range of courses across different terms.

**Student Plan Progress Report:** For a user-specified student, this report lists all courses taken (with term and grade earned) and NOT taken relative to the student's Plan. It is suitable for distribution to a student. You would ignore this report if you are not using Trousers plans.

**Mailing Labels:** This report is a mailing label-formatted list of addresses for a user-specified range of students. You can print either student home or school addresses. Global Parameters Maintenance has a tab on which you can format labels to line up properly with any label stock.

## 7. My Trousers (Troubleshooting)

Are you stumped because Trousers began to behave unexpectedly? Click the My Trousers button on the Welcome Screen. This creates a report that captures information relevant to running Trousers on a PC (Windows environment, Registry settings, directory listing, etc.) and can help you and/or the author diagnose the problem.

**Suggestion #1:** When prompted, save this report to Text file format as per the default. This creates a tab-delimited file which can be opened by Notepad (or other editor or word processor) or by spreadsheet software such as Microsoft Excel.

**Suggestion #2:** If you need to contact the author about a problem, send this report. This is particularly true if the problem concerns database connection, multiple schools, or Trousers on a LAN.

### 8. Backup! Backup! Backup!

A hard drive can break down. An electrical surge can turn a PC into mush. And any highly conscientious user can fumblefinger away a boatload of data. Therefore the author strongly recommends that you regularly back up Trousers data to diskette, CD, or other media. The same holds for other important non-Trousers files including word processing documents, spreadsheets, and data files of other applications. Backing up files is inexpensive in time and cost, easy to do, and a wise way to prevent needless grief.

These are the Trousers files to back up:

- All Trousers database files. Each Trousers "school" corresponds to one database file. Database files have an extension of .DB and reside in the PC's C:\TROUWIN2\ directory.
- All .INI files in the C:\TROUWIN2\ directory.

You need not back up Trousers software which can be reinstalled from CD or the install file.

#### High-Capacity Media

The commercial market offers backup options with far more capacity than needed to back up Trousers data, among them: CD-RW, DVD-RW, tape backup systems, Zip drives, and USB flash memory. No doubt others will become mainstream after this writing.

#### 3.5" Diskettes

They have limited capacity and are disappearing from the PC landscape, but for now they are inexpensive and handy. A freshly-installed Trousers database will fit easily onto a diskette. However, over time a Trousers database will grow in size. A database of 50-100 or more students, each of whom has taken several classes, is likely to exceed the capacity of a 1.44MB diskette – unless you zip (i.e. compress) the database file. Some zip alternatives:

- *WinZip or PKZip file compression utilities.* See <http://www.pkzip.com> or <http://www.winzip.com>. Cost for each is US\$29 as of this writing.
- *Zip alternatives:* See <http://www.filzip.com/en/> and [http://www.trans4mind.com/personal\\_development/zipper/](http://www.trans4mind.com/personal_development/zipper/). Cost is free with optional donation to their authors.

### 9. Technical Specifications

#### System Requirements

- Intel Pentium or higher processor
- 64 MB memory (128 preferred)
- 15 MB hard disk space
- SVGA or higher monitor
- Microsoft Windows 98, ME, NT 4 (SP 6a or higher), 2000 (SP 2 or higher), or XP

#### Technical Information

Trousers software is written in PowerBuilder 8.0.3, a product of Sybase, Inc. One Sybase Drive, Dublin, CA 94568 USA. The Trousers database is a Sybase Adaptive Server Anywhere 7.0 single-user database. The database and database drivers are also supplied by Sybase, Inc.

## Technical Specifications (cont.)

Following are changes made to a PC if the user accepts defaults when installing Trousers:

- Directory C:\TROUWIN2\ is created and populated with ALL Trousers files including software, database files, and database drivers.
- Windows HKEY\_LOCAL\_MACHINE ODBC.INI and ODBCINST.INI Registry entries are updated for the default Trousers school. Trousers does not use HKEY\_CURRENT\_USER.

When the user uses Trousers to define an additional school, the application adds additional “school” entries to HKEY\_LOCAL\_MACHINE ODBC.INI and ODBCINST.INI.

### 10. Trousers and the Windows Registry

Few if any users need to understand how Trousers uses the Windows Registry. Even so this section is included for completeness.

Each Trousers database is defined as a System Data Source in the Windows Registry. Assuming that xxxxxxxx represents a Trousers school name, the Registry key is as follows:

```
HKEY_LOCAL_MACHINE | SOFTWARE | ODBC | ODBC.INI | xxxxxxxx
```

The key contains a set of registry values, each of which corresponds to a database connection parameter. A site running Trousers on a network may update the DatabaseFile registry value via the Control Panel (see *Trousers on a LAN and Multi-User Access*):

<i>Value Name</i>	<i>Value Type</i>	<i>Value Data</i>
Autostop	String	Yes
DatabaseFile	String	Path\xxxxxxx.db
Description	String	{remarks go here}
Driver	String	c:\trouwin2\dbodbc7.dll
PWD	String	SQL
Start	String	c:\trouwin2\rteng7.exe -c 8m
Trousers version	String	2
UID	String	DBA

The System Data Source also exists in the list of data sources in the registry. The key is:

```
HKEY_LOCAL_MACHINE | SOFTWARE | ODBC | ODBC.INI | ODBC Data Sources
```

The key contains the following set of values:

<i>Value Name</i>	<i>Value Type</i>	<i>Value Data</i>
xxxxxxx	String	Adaptive Server Anywhere 7.0

Trousers also creates Registry entries to define the database software itself. These entries are for Adaptive Server Anywhere:

```
HKEY_LOCAL_MACHINE | SOFTWARE | ODBC | ODBCINST.INI
```

If a user elects to import data from a Trousers 1.0 database into a Trousers 2.2 database, Trousers creates a System Data Source in the Windows Registry for the Trousers 1.0 database, to wit:

```
HKEY_LOCAL_MACHINE | SOFTWARE | ODBC | ODBC.INI | MIGRATE_FROM_T1
```

Trousers uses HKEY\_LOCAL\_MACHINE, not HKEY\_CURRENT\_USER.

You can see all relevant Registry settings in the My Trousers report. See *My Trousers (Troubleshooting)*.

### 11. Trousers on a LAN & Multi-User Access

Strictly speaking, Trousers is a single-user application because the Trousers utilizes database software which is intended to support one concurrent user (this enables Trousers to be free, by the way). However, Trousers certainly can reside on a LAN, and there are ways for a Trousers site to realize much of the benefit of a true multi-user system. Of the following two alternative approaches, the author favors #1.

#### Approach #1: One Database for All Users

**Benefits:** A user at any LAN PC can access current Trousers data.

**Drawbacks:** Only one user can access the database at a time – supposedly. In practice, two users generally can run queries and reports concurrently, and if one user is updating data another user may be able to view unrelated data. However, these practices push the envelope and the author hesitates to completely endorse them. Two users absolutely cannot update the same database simultaneously.

**Procedure:**

- 1) Install Trousers on each PC that will use the application.
- 2) Identify a PC and directory which is to contain the production Trousers database and copy the Trousers production database file to that directory.
- 3) Update ODBC on each PC so that the PC “knows” the location of the production Trousers database file.
  - a) Invoke the Windows Control Panel
  - b) (If using Windows XP) choose Administrative Tools, then Data Sources. (If using Windows 98/ME) choose ODBC Data Sources 32-bit.
  - c) Choose System DSN tab
  - d) Select the Trousers school, then click Configure.
  - e) Click the Database tab.
  - f) At this point you want to change the Database File name to the directory and file name to which you copied the file in Step 2. Please click “Browse,” then find that file, then click the (misleadingly-named) “Open” button.
  - g) Click OK several times to save changes and close the Control Panel.
- 4) Ensure that the directory in which you placed the Trousers database is shared so that the file is available to all users.

#### Approach #2: One Database for each PC, one being the “Master” Database

**Benefits:** Multiple users can access data of one Trousers school simultaneously.

**Drawbacks:** One PC must contain the “Master” database. Data can only be entered into that “Master” database only. Other PCs use copies of the “Master” database which are as up-to-date as the last time they were refreshed.

**Procedure:**

- 1) Install the Trousers software on each PC that will use the application.
- 2) Identify a PC that is the “master” PC, defining an administrative policy that only a user at this PC can add/change/delete data and all other PCs may only run reports and queries.
- 3) Periodically copy the Trousers database from the “master” PC to each other PC (alternatively, write and periodically run a small .BAT file which does this).

Both Approach #1 and #2 involve installing Trousers on each PC. The author recommends against a different LAN configuration: Installing the application software on one machine only for use by multiple PCs. Trousers software takes up little disk space, has no seat fee license, is quite non-disruptive to a PC, and is quickly and easily upgradeable. Therefore traditional arguments in favor of this alternative do not particularly apply to Trousers. This configuration requires additional manipulation of PATH statements and the Windows Registry for each PC that would access the software and may result in slower application response time due to the additional workload moved to the network. For some applications this is the way to go, but for Trousers the author sees no benefit in this alternative to offset the drawbacks.

### 12. Trousers Security

Trousers security can be either enabled or disabled.

- **Enabled Security** – At the Welcome Screen, the user must supply a user ID and password to continue. Advantages: 1) You can restrict access to whomever you wish. 2) You can provide some people access to some functions but not others. 3) The user's ID is tied to each changed database record, so you can determine who last added/changed a given item of Trousers data. Disadvantages: 1) You have to determine who should have what access to what functions in Trousers and define it in User Maintenance. Of course, users will need to remember their IDs and passwords.
- **Disabled Security.** At the Welcome Screen, a user is not prompted for a user ID and password. Advantages: It is administratively simpler for everybody, obviating the need for IDs and passwords. Disadvantage: Anybody who can access your PC can access Trousers to view or change Trousers data.

If security is enabled and you want to disable it, use *TROUSERS.INI Maintenance* to change SECURITY=Y to SECURITY=N.

If security is disabled and you want to enable it, use *TROUSERS.INI Maintenance* to change SECURITY=N to SECURITY=Y and also use *User Maintenance* to define user-IDs and passwords.

If you are undecided between enabled/disabled security, the author suggests disabled security for simplicity. When you first install Trousers, security is disabled.

If you have Trousers security enabled but all users have forgotten their IDs and passwords, you have two options:

- You can disable security as described above.
- You can contact the author. He will inform you of the supersecret Trousers hidden ID and password.

### 13. Multiple Schools, Multiple Database Files

A Trousers "school" is a self-contained collection of students, instructors, classes, and enrollment. At a given installation, Trousers "schools" are completely independent of each other. Trousers works with one school at a time and maintains data of each school in its own database, i.e. its own file on a hard disk. This one-to-one correspondence between Trousers schools and individual data files is simple, but it is important to understand it.

The Trousers install routine places one empty Trousers database file (named TROUWIN2.DB) in the C:\TROUWIN2\ directory. For most sites that is sufficient.

Perhaps your school operates several distinct programs of study. Suppose, for example, your school offers an undergraduate degree program, a graduate degree program, and a non-degree program. For purposes of Trousers, should you treat them as one "school" or as three? This is a judgment call, but answers to these questions can help make the decision:

### Multiple Schools, Multiple Data Files (cont.)

- Are students associated with only one program at a time?
- Are instructors associated with only one program at a time?
- Are courses different from one program to another?
- Is grade policy different from one program to another? In particular, is GPA computed differently from one program to another?
- Do you want to perform inquiries and create reports for one program (as opposed to a mixture of programs?)

If the answer to most or all of these questions is yes, you probably should define one Trousers school for each program. Otherwise you will find it simplest to utilize just one Trousers school. Your key consideration is this: Trousers treats data of each school as being completely unrelated to data of any other school.

To continue this illustration, suppose you decide to treat your institution as three schools. You have two alternatives:

- Install Trousers on three separate PCs, one for each school.
- Install Trousers on one PC, employing three Trousers schools.

Suppose you decide to utilize three Trousers schools on one PC. This means that you will need three database files, one per school. Therefore you will use the Define New Trousers School function. Please see *Define New Trousers School* to learn how to do this.

## 14. Reports in Languages Other than English

Trousers dialogues in English, but it allows you to create all reports in another language such as Spanish or French (but please see limitations below). To do that, you must do two things:

- Enter data in that language.
- Configure Trousers to perform language substitutions for text which appears in report and column headings (ex. words such as Term, Grade, Transcript).

### How to Configure Trousers

Step 1: Begin by using Windows Explorer to take note of several language template files in the C:\TROUWIN2\ directory named SPANISH.INI, FRENCH.INI, and perhaps similar others. Then copy the language template file of your choice to C:\TROUWIN2\LANGUAGE.INI.

Step 2: Invoke Global Parameters Maintenance and select the Reports tab. Choose Yes to invoke the other-language features for reports and specify the file name as LANGUAGE.INI.

Step 3: From the Global Parameters Maintenance Reports tab, click Edit Translation File to edit LANGUAGE.INI as needed for geographical or dialect preferences. You will see that some of the text is formatted as "XXXXXXXXX=YYYYYYY." Trousers uses these lines to cross-reference transcript words and locations to terms of your preferred language. Being careful to leave the left side of these equations unchanged, modify the right side if/as needed. Do not type single or double quotation marks as this may confuse Trousers. Pay particular attention to the [Student Category] section which is specific to each Trousers site.

If Windows Notepad does not open when you click the button, simply invoke Windows Notepad outside of Trousers to open C:\TROUWIN2\LANGUAGE.INI.

### Reports in Languages Other than English (cont.)

#### Remarks

As you gain familiarity with this process you may see a reason to vary it. You may create several language .INI files and use Global Parameters Maintenance to direct Trousers to a given .INI file at any time. This flexibility may be helpful if some students/faculty are at home in one language or dialect and some in another. It also may be helpful as you experiment with different language equivalents. You can employ as many .INI files as you wish, but they must reside in C:\TROUWIN2\.

The author recommends that you do not directly modify SPANISH.INI, FRENCH.INI, or other language files distributed by Trousers, but instead make changes to a copy of one of these files.

From the Trousers web site you can download SPANISH.INI, FRENCH.INI, and other language files as they are developed. Also, if you create a file in a different language, say ITALIAN.INI, the author invites you to contribute it to the collection available to all users.

#### Limitations

Trousers 2.2 supports this feature only in languages which are supported by English Arial and Courier fonts. This includes Romance languages (ex. French, Spanish) and some non-Romance languages. As of this writing, the author is planning a version subsequent to Trousers 2.2 to support report creation in most other languages for which English-compatible fonts are available; examples includes Russian, Arabic, and Hebrew. Languages with many characters which require Unicode storage (ex. Japanese) pose an extra difficulty to the developer, and no plans currently exist to support these languages.

## 15. How to Uninstall Trousers

### How to Uninstall Trousers 1.0

Please do NOT run the "Uninstall Trousers" program installed with Trousers 1.0. Due to author error, it has a bug which could result in removal of certain Windows ODBC files. Instead, please do the following:

- a) Remove all files from the following directories, then delete the directories:
  - C:\SQLANY50\WIN\
  - C:\PWRS\SYSTEM\
  - C:\TROUWIN\ (not C:\TROUWIN2\!)
- b) Remove the Trousers and Uninstall Trousers programs from the Program Menu.

You can run Trousers 2.2 without removing Trousers 1.0. But the author suggests removing Trosuers 1.0 to prevent confusion.

If the "Uninstall Trousers" program was run on this PC but Trousers 2.2 runs properly, quite likely you have no problem. If you are in doubt, please contact the author who can set you right.

### How to Uninstall Trousers 2.0, 2.1, or 2.2

From the Windows Programs menu, run the Uninstall Trousers program. The Uninstall program is installed when you install Trousers.

The Uninstall program may not remove Trousers database files because these files are A(rchive) attribute-protected. Recommendation: Remove those files with Windows Explorer.

### 16. Obtaining Trousers Upgrades

Periodically the author makes available upgraded versions of Trousers. Schools are generally encouraged to use the most recent version of the product. The author tries to make upgrading versions as simple as possible.

If you have Web access and can download files, the easiest way to obtain the latest version is to visit the Trousers web site (see below) and follow instructions. If it is not practical to download files in your location, the author is glad to send what you need via e-mail or postal mail.

### 17. How to Contact the Author

The author is committed to supporting Trousers. Users are always welcome to contact the author by mail, phone, or e-mail. Send your questions, comments, and ideas, or if you would like just say hello.

You can find the author's address, phone number, fax number, and e-mail address by choosing Help from the Trousers menu. That information also appears on the Trousers web site.

As of publication of this manual, author contact information is as follows:

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