

PRISM Attendance System: Administrator Document

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Overview

PRISM Attendance System is a Visual Basic 6 and MS Access application that is designed to make managing attendance and sign-in systems easier for instructors. It places the responsibility on the student to ensure that they are in class and on time. The report of late and absent students can be generated into the period at a custom defined time, or by default, 30 minutes.

The system is heavily slanted towards a four-period day and as a result more or less periods than this cannot be implemented on the fly. This is a drawback to the application that is discussed in the Drawbacks section. However, the system has the ability to recognize the weekday that the application is running on, and thus the computer running the system can either be turned off or left on continually with no ill effects to PRISM.

Benefits

- Students become responsible in yet another way for their own attendance. They initiate the procedure that marks them as "present" or "late"; failure to sign in on a specific date counts as an absence and is logged to the student's individual profile identifier number.
- Teachers are able to check attendance and determine who was late or absent for a specific day slightly less than halfway into a period. The task of filling in bubble sheets becomes slightly less onerous when an alphabetical listing of absent students is listed in the day's report.
- Aggregate report tracking with customized statistics is possible. Now, viewing all students in a specific period that have greater than x absences is possible with a minimum of work.

Drawbacks

- The computer running PRISM must have Access '97 or greater and the MDAC 2.8 components installed (5.39MB EXE installer, available from Microsoft's website and included with the PRISM code.)
- The system is slanted towards certain conditions, such as a four-period day. Although schedules can be customized with specific start times, bell intervals and absence thresholds, the day must still have four periods or the last two periods will be marked as absent. The interim solution is to close PRISM on days that have less than four periods.
- Security in this version of the code is limited to the program's front end. A skilled user could manually open the Access database and edit values for students,

schedules, etcetera. It is possible to secure the database itself with a password, but this would require the password on startup of PRISM to ensure security. This functionality is currently dormant but can be activated if need be.

- The system is robust and stable, but is not a substitute for common sense.

Use of PRISM (Student Point of View)

PRISM Class Management System

PRISM
Class Management System

2:03:20 AM
Period 1
Schedule 1

Scan your Student ID card using the barcode scanner.
If you do not have a Student ID card, type in your network
user name.

If you were marked as late, your teacher will be notified.

Student ID:

Signin Results
Waiting for Student Signin

The interface for PRISM is relatively simple. In the top right, the current system time (accurate to +/- 1000ms plus any processing delay time) appears, along with the current "period" and "schedule" values. PRISM treats any time after the "cutoff" for the end of a period to be the next period's start value, or in this case, 2:00AM counts as "period 1" because it begins the day.

If a barcode scanner is hooked up to the computer, the student cards can be scanned into PRISM for quick and easy authentication. If not, simply typing in the last five digits of the Student ID Number and the first three letters of the last name will activate the program. Results are displayed in a colour-coded frame at the bottom: white means "no action taken"; red indicates a blocked account or an account that exists, but not for the current period. Yellow indicates accounts that do not exist or have already signed in. A blue background indicates an outdated program control code was used.

UI Note: The user does not need to press Enter when manually inputting the Student ID number. The program will not function until eight characters have been entered in the Student ID box.

PRISM – Administrator Control

The Administrator interface of PRISM is the instructor’s key to reports, adding/editing students, modifying schedules and calendar logs, and manage the program. By default, PRISM comes with several built-in administrator accounts, and new ones can be added to be “promoted” to Administrator-level, not acting as students.

The easiest way to access the Administrator interface is to type in:

/PRADMIN

or scan the following barcode:



(Barcodes can be generated at this site:

<http://www.barcodesinc.com/generator/index.php> - use “Code 39” as the type of barcode to generate, it’s the same one used on the student cards. This could be used for people who don’t have a student card for whatever reason.)

Once the Administrator barcode or account is entered, a dialog box will appear in the top left of the screen:



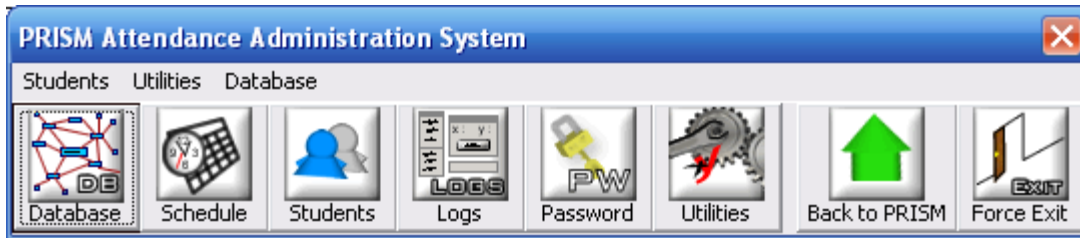
A dialog box titled "Attendance System Login" with a close button (X) in the top right corner. It contains a yellow padlock icon and the text: "Enter a user name and password to log in to PRISM. If you only want to confirm your attendance, choose Cancel." Below this text are two input fields: "User Name:" and "Password:". At the bottom right are two buttons: "OK" and "Cancel".

By default, the Administrator username is *admin*. Initially the password will be given to you on installation. You can change it afterwards in the Administrator Panel.

WRITE DOWN YOUR ADMINISTRATOR PASSWORD HERE:

Cut off the page at the line and keep this document in a safe place. Don’t use the same password as for your network account.

Once you’ve signed into the Administrator Panel, here’s how it looks and its functions:



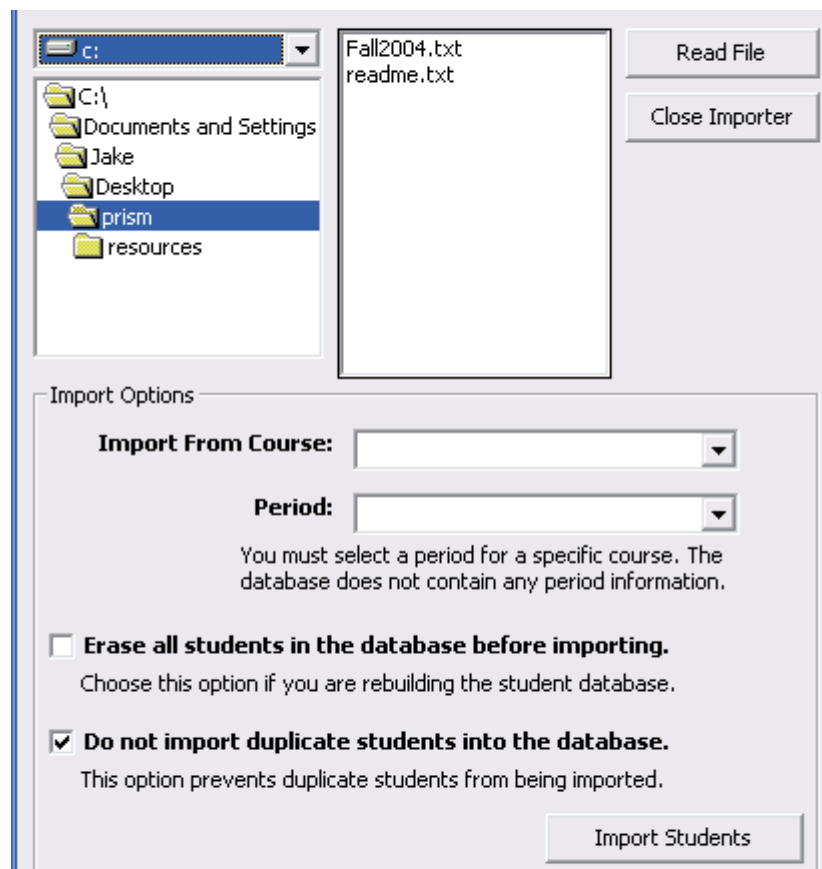
Database: Brings up a menu with the following options:

√ Database Connection:

Unchecking this option will cause PRISM to disconnect its main database link. It will reestablish it when the next user signs in. Useful for debug testing and checking for errors.

Import Students from File:

Brings up the Import Extension window:



The Import window allows you to select a student database (Fall2004.txt) and import all students from a specific course into PRISM. You will have to indicate the period to put the students in, as that information is not available in the database. There are also options for clearing the database and ignoring duplicate student entries.

features here was the addition of custom text for each schedule (TAG, half-day), which explains this development version's extended unused space.

Calendar

To find out whether a schedule is set for a future or past date, enter the requested date in the top fields in the mm/dd/yyyy format. If a schedule is set, the information below the fields describes which schedule number has been planned for the day. (By default, if a day does not have a schedule, PRISM sets the schedule to "Schedule 1", or the default schedule automatically.)

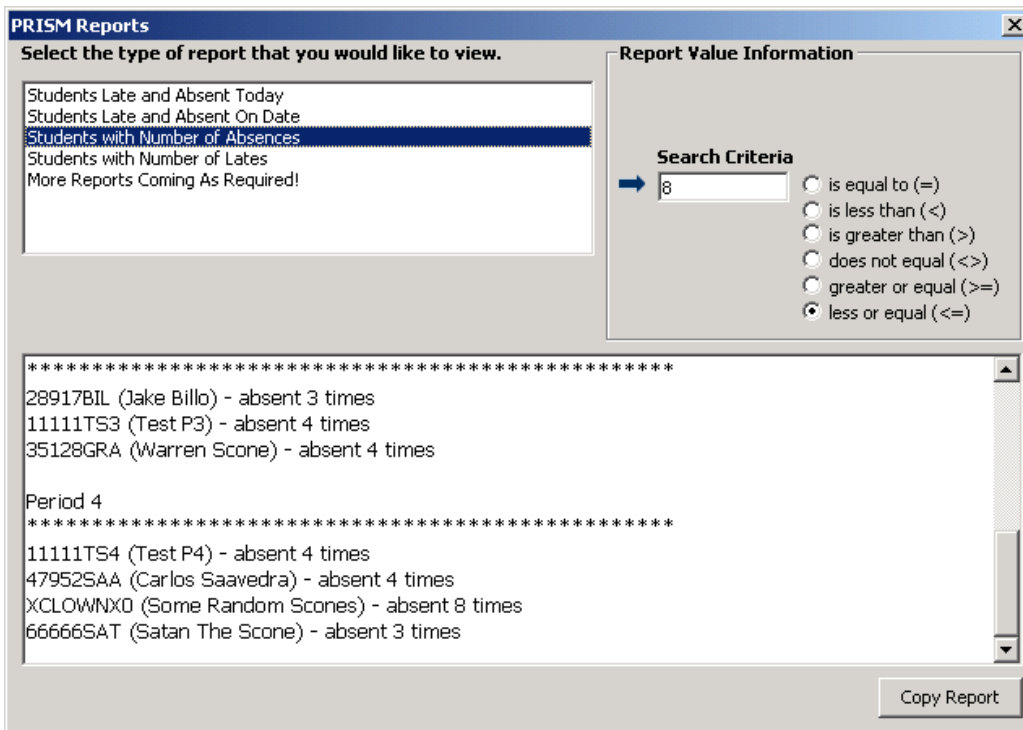
If no schedule is set, the text will read "No schedule found. Click New to add." Clicking New enables selection of a specific schedule; Save Changes saves the updated value. If a schedule is already set and needs to be changed, make the change to the schedule in the dropdown box, and then hit Save Changes.

Schedule/Times Editor

If none of the available schedules in the list suit your needs, you can find out what times each schedule uses by selecting it in the Schedule Editor dropdown box. The times will become available in the bottom boxes. To create a new schedule, enter the times you want and then select "Create New Schedule". If you're editing an existing schedule's times, click "Save Changes".

Logs

Logs brings up the PRISM Logs and Report Viewer. *This screen is subject to change.*



Report Types List

There are currently four functional report types that PRISM can generate. Additional report types must be added within the program's code, unless they involve static SQL. (Requested feature for next revision.) To select a report, double click on it. If information is required, a pane will appear on the right. Enter the information and double-click the required report again.

Some reports may display the message:

The report you tried to access does not exist. If a date is required, please enter it. If you have entered all required information, there may be no available data for this date.

The message indicates that there was either nothing to report, or that PRISM needs some information (a date, or number of absences/lates) before it can generate the report. To solve this problem, enter the data and then double click on the report you want to view again.

Reports

Reports will come in different styles, depending on the data being requested. A typical absence report will read as follows:

Period 1 – 11/7/2004

Student(s) Late:

12345XXX (Test User1), currently has X absences and Y lates

12345YYY (Test User2), currently has J absences and K lates

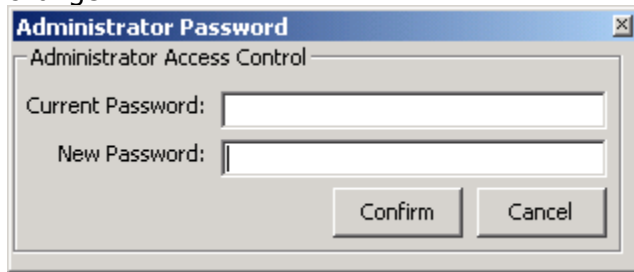
Student(s) Absent:

12345ZZZ (Test User3), currently has A absences and B lates

Reports will usually arrive sorted by last name. Custom sorting options are another requested feature.

Password

PRISM has options to change the default Administrator password. Enter a new password, as well as the existing Administrator password, to complete the change.



The image shows a Windows-style dialog box titled "Administrator Password". Inside the dialog, there is a section labeled "Administrator Access Control". Below this section, there are two text input fields: "Current Password:" and "New Password:". At the bottom of the dialog, there are two buttons: "Confirm" and "Cancel".

Utilities

Generate MD5 Hash: PRISM uses the MD5 encryption algorithm to create and store passwords. To generate your own ciphertext, you can use the Generate MD5 Hash tool.

Shell Application: PRISM can launch other programs. Typically not required on standalone system, the option is available for networked PC's that need applications launched.

Set System Time: PRISM can set the computer's system time to a specific value without requiring the administrator to use the Windows time interface.