Database Program to Manage Slides and Images for Teaching and Presentations

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Abstracts

English: A compiled program for DOS/Windows manages a collection of pictures such as photographic slides, overheads, or computer images in one or more databases. A database is comprised of a list of lines (screen width) beginning with the letter–number of the slide, for example, and a short description. The program places pictures in alphabetical order so they can be edited or marked if missing from the collection. Key words can be searched for in the database using Boolean logic. An associated file can contain 10 lines of details about each picture as edited by a built-in word processor. This database can also be searched. Presentations can be saved in a files with specific lists of pictures for later recall and viewing or updating. The time to present slides in a particular talk can be calculated and saved for later editing. Context-sensitive help is available and the contents of this paper can be read from the program.

Français: Un programme conçu pour DOS/Windows met en œuvre une collection d'images telles que diapositives, transparents, images d'ordinateur dans une ou plusieurs bases de données. Une base de données comprend une liste de lignes (largeur d'écran) commençant par une lettre et un numéro de la diapositive par exemple et une brève description. Le programme place les images en ordre alphabétique afin qu'elles puissent être éditées ou marquées si elles manquent dans la collection. On peut rechercher par mots-clé pour les bases de données utilisant la logique de Boolean. Un fichier associé peut contenir 10 lignes de détails sur chaque image comme si elle était éditée par un processeur à mots intégré. On peut aussi faire des recherches sur cette base de données. Les présentations peuvent être conservées dans des fichiers avec des listes spécifiques pour pouvoir être reprises, revues et mises á jour. Le temps nécessaire pour présenter les diapositives pour un exposé donne peut être calculé et conservé pour une autre présentation. Une aide est fournie dans le contexte et le contenu de cet article peut être lu à partir du programme.

Deutsche: Ein kompiliertes Program für DOS/Windows verwaltet eine Sammlung von Bildern wie Dias, OHP-Folien oder im Computer erzeugten Bildern in einer oder mehreren Datensammlungen. Ein Datensatz besteht aus einer Zeilenliste (Bildschirmbreite), die mit der Signatur z.B. eines Dias sowie einer kurzen Beschreibung beginnt. Das Programm ordnet die Bilder nach dem Alphabet, so daß sie bearbeitet oder auch markiert werden können, wenn sie in der Sammlung fehlen sollten. Mit Hilfe Boolescher Formeln kann nach Schlagwörtern in der Datensammlung gesucht werden. Mit einem eingebauten Editor kann ein zehn -Linien umfassender Datensatz für jedes Bild erstellt und zugeordnet werden. Diese Datenbase kann ebenfalls gesucht werden. Präsentationen können in einem Datensatz mit einer spezifischen Bilderliste für einen späteren Aufruf bzw. ein Update gespeichert werden. Die Zeit, die benötigt wird, ein Dia in einem bestimmten Zusammenhang zu präsentieren, kann berechnet und zum späteren Editieren gespeichert werden. Kontextsensitive Hilfe ist verfügbar, der Inhalt kann ausgelesen werden.

Introduction

Presentations at scientific meetings and conferences, as well as teaching lectures often utilize pictures such as photographic slides, overheads, or computer images to illustrate the topics. Hereafter, I will refer to such pictures as slides, since managing slide collections is one of the most likely uses of the database program. Over the course of one's career many hundreds of slides may be taken and organized into a collection covering several subjects. Without special efforts, the details concerning a particular slide may become fuzzy or even incorrect over time. Furthermore, slides can be misplaced, forgotten, and hard to find when needed among several volumes of slides.

For those seminars that are well received and finish on time, it would be efficient and productive to note the order and type of slides so they could be used in identical talks later. These notes are usually not taken and thus any triumphant slide show becomes vague and half-forgotten when the slides are returned to their plastic viewing folders or slide trays. Much time can be wasted reconstructing essentially the same slide show next year, with the feeling that maybe the order is not even as good as that presented earlier. Another common problem is running

out of time during a slide presentation because of too many slides. The program described here solves these common problems by keeping a permanent record of slides in a database that can be updated easily. The slides used in any successful presentation can be saved for later recall and updating. A running total of time for a particular talk can be kept in an associated file, also for later recall and possible modification.

Slide, overhead and image manager program

The compiled program, SLIDES.EXE, can be run from DOS or Windows, and begins by opening a file called DATABASE.DBD. If this file is not present, it is created and the user is asked to enter a name for the slide database, eg SLIDES.LST. The three letter extension must end in 'LST'. If the DATABASE.DBD file contains a name, then this name is used to open the file with the database. The opening screen with a sample database and the pop-up help window is shown in Figure 1.

The database is a random access file of 80 characters (or bytes) for the letters and numbers of the slide plus a short description, plus 7 bytes not shown on the screen (1 byte for marking and 6 bytes for numbers. The numbers point to records in an associated file containing up to 10 lines for detailed descriptions of each entered slide. The associated file has the same parent name and must end in 'DTA'. The program begins by displaying the first 23 lines of the slide list, unless no slides are present, whereupon the program enters a one-line word processor so the user can enter the first slide of the collection.

Organizing the database

Slides entered into the main database list should begin with letters followed by numbers. Letters can be used to categorize the collection into topics, and numbers for ordering slides within a topic. The same letters-numbers should be applied to the actual borders of the slide which is stored in plastic folders or similarly labeled slide trays in the order labelled on the slides. In the database, the entries are ordered alphabetically among those already present by the program, if a mistake is made then the entry is easily deleted or edited where it is automatically inserted alphabetically. Context-sensitive help (Figure 1) can be obtained anywhere in the program by pressing the [F1] key. The common scrolling keys are used to rapidly move to any slide, even in a list of several thousand slides.

Figure 1 *Opening screen with sample database and help window*

The maximum number of slides that can be listed in a database is 32,767; but essentially there is no practical limit if one uses more than one database (given 8 English letters, DOS allows 2.17×10^{11} possible ones). Pressing [F5] changes the current database to a new one or one that already exists. Pressing any letter on the keyboard also will take one to that category of slides, if present in the current database.

Searching the databases

A text string can be searched for in the main slide list a simple text-string search or a complex search using Boolean combinations of *OR* and *AND* type of up to 10 word strings (usually only two or three strings are used). A case-insensitive search is then performed, meaning that any combination of lowercase and uppercase letters are found (unless they are non-English letters). The first such occurrence of the matching search words are highlighted in the appropriate section of the database, and the next occurrence is instantly found by pressing [F4]. In the associated database of detailed descriptions only a single text string is allowed, as well as when reading this paper.

Database of detailed descriptions of pictures

Pressing [Enter] while in the main database will open the associated database of detailed descriptions about slides and start a word processor. This database, ending in .DTA, is a random access file of records of 800 bytes (10 lines) with any number of records (up to 32,767). Entries in the main database have hidden numbers which tell which 800 byte record to associate with. It is optional to use this database, and usually not all slides will have associated detailed descriptions. If a description has already been entered for a slide, then the text can be edited, and pressing [Enter] again saves the revised record.

Files with slide shows for talks

If the [Tab] key is pressed, then the first slide show file is opened for editing with the name SEMINAR.1, and successive presses of [Tab] will toggle between additional files, if present, and the main database. A maximum of 999 SEMINAR files are possible. The slide show file editor is visible in a window on the left of the screen so that the main slide list is still visible. A word processor allows the specification of a title for the talk and then a series of slide letters-numbers separated by commas are typed in the order of desired presentation for a talk. Pressing [Tab] or [Enter] will return the user to the main slide list, while the left arrow key returns one to the current SEMINAR file.

Keeping track of time for slides in talks

Pressing [F4] while in the slide show editor will open an associated file, named SEM-TIME.1 of the same extension number which lists the slides in the appropriate SEMINAR file; and allows entry of estimated times needed to present the slides giving a running total time for the talk as updated after each time entry. With this facility there is no reason to run out of time again and the facility aids in organizing and refining the crucial ideas of the talk.

In all sections of the program there is a pop-up help window that shows the appropriate help for the section. There is also a pop-up calendar which can be made to show the date and weekday for any month during this century, and even the next century (to the year 2080). This is beneficial when recording dates and recollecting details about the scenes in the slides.

Other programs

Commercial slide scanners are now becoming widely available at reasonable prices and packaged software often allows cataloging and viewing of slides. However, the databases of the text descriptions in these programs are usually limited and there are no facilities for listing slides for talks or time estimations. In comparison to the actual slides, the thumbnail images, as they are called, are of much less quality due to the low resolutions. Also, often there are usually many more slides in the collection than that scanned and stored in the computer so the only really complete database is the slide collection itself. A high resolution scan of 1600 x 2400 pixels, which is still less than a slide, takes up 30 megabytes of disk space which is a drawback for many without writable CD-ROMs.

Graphical monitors and advanced operating systems, e.g. Windows 95, that can be expensive in some countries are not required for the software. The program operates entirely in color text mode and DOS, although it can be used from Windows 95. The program will bridge the time until software and hardware make slide scanning and

storage economical and easy. It can be obtained as a ZIP file on the internet at (http://www.vsv.slu.se/johnb/gensoft.htm).

Biographical note

John Byers was educated at Colorado State University (BS and MS) and University of California at Berkeley (PhD) before becoming an Associate Professor of Insect Chemical Ecology at the Swedish University of Agricultural Sciences at Alnarp. His main research interests are in insect behaviour and chemical ecology, and in computer simulation of behavioural and ecological models.

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