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Operation of Auto-Update for the Mass & Fixed Dial Registers.

Purpose

The Auto Update facility was conceived to enable complex updates to be made to the Mass Dial and Fixed Dial Registers without the risk of mistakes and without the need for the process to be performed off site or for all existing data to be transferred between old and new versions each time. It also permits these complex upgrades to be made in such a way as to maintain complete program synchronism with the master development file.

Concept

Updates to the MDR and FDR are supplied (typically on CD) in the medium of a separate database named *Update.mdb*. This is prepared from the master MDR by exporting any newly developed versions of files, queries, tables etc to the otherwise blank dummy database which is then given the name *Update.mdb*.

The approach adopted to an automatic update using the data on the CD is permanently to maintain within the MDR three 'Gatekeeper' macros *mcrUpdateF*, *mcrUpdateG* and *mcrUpdateC*, any one of which, when executed, lets in (ie loads down) a 'Trojan Horse' macro called *mcrAction* into the MDR which in turn executes and, from within the MDR, performs all the necessary deletions and transfers of files associated with each upgrade. The Trojan macro then deletes itself before passing control back to *mcrUpdate* which then performs a Compact and Repair and deletes traces of the *Update.mdb* database from the host PC and finally closes.

Additional Considerations

For the update process to proceed the *Update.mdb* database file must be located in a predefined location. That chosen location is the root directory of the C:\ drive. In order to ensure that the above concept can be achieved in such a way that there might be more than one way of loading the supplied *Update.mdb* database, three options have been provided. These permit the CD containing the *Update.mdb* file to be inserted into either the E:\ or F:\ drives of the host PC or to permit a manual loading of the *Update.mdb* file into the root directory of the C:\ drive. All three approaches have to end up with the *Update.mdb* file being loaded into the root directory of the C:\ drive so it follows that where loading is to be achieved automatically from either CD drive then software to move the file into the C:\ drive must be provided.

Although this process could be achieved in a number of ways, in the present case it is achieved by the use of three batch files which permanently reside in the root directory of the C:\ drive but which can be called and executed from within the MDR/FDR by one of three Access macros *mcrUpdateE*, *mcrUpdateF* or *mcrUpdateC*. There are therefore two batch files to load *Update.mdb* from either CD drive (called *BatchLoadE.bat* and *BatchLoadF.bat*) and one batch file (*BatchDelete.bat*) whose purpose is to delete the *Update.mdb* file from the C:\ drive at the end of the whole process. These batch files reside on the C:\ drive and one is executed by the permanently resident *mcrUpdate* macro before updating begins and one before it closes.

The User Interface

An *Auto-Update* Access form is provided as part of the System Management Screen (double click anywhere within half an inch of the left edge of the splash screen) and it is in here that the User clicks on a button appropriate to the location of the *Update.mdb* database file. That action starts one of three versions of the permanently resident update macros which in turn then executes the appropriate batch file that downloads the update database file to the C:\ drive (unless, of course, the option to place it there manually has been chosen in which case that step is ignored) and then the update macro lets in the Trojan macro to perform the Update. Operation as far as the User is concerned is therefore trivial and not subject to much risk of mistake.

