Definitions:

TimeKeeper–PC (TK-PC): a Time and Attendance software application. A product of Lavie TimeTech Ltd.
Impro LS97 (LS97): an Access Control System, which includes software and hardware. A product of Impro Technologies South Africa.
LSEngine97: the LS97 software, which creates, controls and maintains the Access Control System. LSEngine97 uses three databases:

- LSDBASE.MDB – system and personal data.
- ZONEOCC.MDB – current anti-pass-back status data.
- TRANSACK.MDB – logged transactions and alarms.

The requirement:

Integrate TK-PC and LS97 by making the required interface between TK-PC and LS97 seamless and non-redundant.

The required interface includes:

a. Card Access maintenance.
b. Processing Logged Transactions.
c. Access Control Reports.

Introduction:

Purpose:
The purpose of this document is to describe the initial setup process and on-going usage of the TK-PC and LS97 interface.

Concept & Background:
The LS97 interface supports the following functionality –

- Operation & control of the badge scanners.
- Import of all clock punches from the TRANSACK Access data file of LS97 Access into TK6. The system converts the contents of the TRANSACK.MDB file into a TRANSACK.DBF/ CDX file. The file will hold **all** the entries & exits received from the clock (including access control entries & exits which are needed for access control reports).
- "Manual" polling of the TRANSACK file. This option is required to provide the same functionality as the "Read backup punch file" option in TK6 (i.e. the option of specifying a date range for the polling program in order to manually re-read the TRANSACK file).
- Generating LS97 access control reports.

Programs and Files required:

DEMPLOY.EXE	
DLSCARDS.EXE	
SYSCNF.EXE	
SYNCFILE.EXE	
TRXFERQD.EXE	
USERS.EXE	
CARDSCAN.DLL	
LAVLIB6.DLL	
LAVDLL32.DLL	
L63_32.DLL	
RCLTRANS.DLL	
TRXF.INI	
TK5WIN.EXE	

Data files required:

TRXFER.EXE	
TRANSACK.*	
SYSEXT.DBF	
LEVEL.*	
SET.*	
READERS.*	
USERS.*	
MES40.DBF	
MES80.DBF	
SYSNAMES.*	
ERRORS.DBF	
IMAGE.*	
SELECT.*	

To add the LS97 interface to an existing TK6 installation:
Please note that, as a rule, it is strongly recommended that the system be fully installed through TK6.02 (which will include all the relevant updates) rather then adding manually the above files.

- Copy the following files into the TK6WIN directory: DEMPLOY.EXE, DLSCARDS.EXE, SYSCNF.EXE, SYNCFILE.EXE, TRXFERQD.EXE, USERS.EXE, CARDSCAN.DLL, LAVLIB6.DLL, LAVDLL32.DLL, L63_32.DLL, RCLTRANS.DLL, TRXF.INI.

- Copy the following files into the \TK6WIN\DATA directory: TRANSACK.*, LEVEL.*, SET.*, READERS.*, IMAGE.*.

- Copy the following files into the \TK6WIN\DATA\ENGLISH directory: MES40.DBF, MES80.DBF, SYSNAMES.*, ERRORS.DBF.

- Upgrade the following files (See explanation below in section 3): SELECT.*

- Expand the following files (See explanation below in section 3): SYSEXT.DBF, USERS.* (note that the USERS.* files are located in the system's CNF\SYSTEM\ folder).

Important! – Several of the additional modules and added capabilities are 32 bit programs that require changes at the WIN95/ 98 system level:

1. The following files should be copied into the WINDOWS\SYSTEM directory.

   NOTE! Do NOT copy these files if newer versions are already present in the SYSTEM directory.

SSDW3B32.OCX	
COMCAT.DLL	
COMCT332.OCX	
COMDLG32.OCX	
LTOOLBAR.OCX	
MFC42.DLL	
MSCHRT20.OCX	
MSCOMCT2.OCX	
MSCOMCTL.OCX	
MSVBVM60.DLL	

MSVCRT.DLL	
OLEAUT32.DLL	
OLEPRO32.DLL	
ASYCFILT.DLL	
SSMEDT32.DLL	
SSPRN32.DLL	
STDOLE2.TLB	
TABCTL32.OCX	
VBAME.DLL	

2. In case of any problems - the MDAC_TYP.EXE file should be installed.

3. Upgrade/Expansion of data files (VIA TK6 MENU):

   Upgrade of files: is performed through the "Update System Files" utility (located in the Maintenance-Utilities menu) -
   Source path = location (folder) of new data files.
   Destination = location (folder) of existing data files.

   Expansion of files: is performed by the same utility –
   Source path = location (folder) of existing data files.
   Destination = location (folder) of new data files.
   After the expansion is complete, the new files should be copied into the DATA directory (overwriting the existing files).

Setup and operational procedures -

Setup of the LS97 interface requires the following steps:

- Defining System Configuration (SYSCNF). Defining general system parameters (LS97 interface initialization & database location) and clock polling parameters.

- Defining Users (USERS). Defining the clock type and COM port parameters assigned to each user group.

- Employee file setup (EMPLOYEE). Assigning employees clock badge(s) definitions and defining access levels.

System Configuration File.

1. Impro System tab (see **Fig. 1)**. To initialize the LS97 interface enter the following definitions:

   - Enter the system configuration password (in order to unlock the following features).
   - Mark the "Impro installed" check box.
   - LS97 database full path – path to the LS97 Engine data directory (example - H:\IMPRO\LSENG97\LS97DATA)

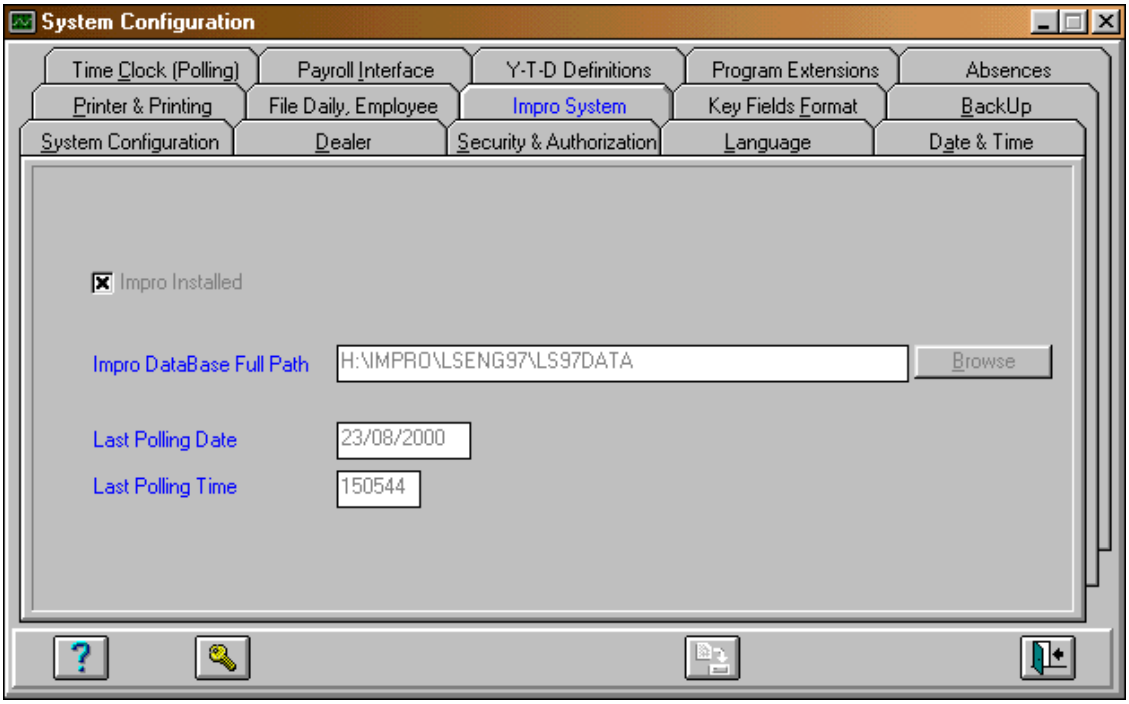

Fig. 1

2. Time Clock (polling) tab (see **Fig. 2**). The Time Clock (polling) tab setup defines TK6's linkage to the LS97 database.

   Unlike "regular" polling (where TK6 "polling" actually runs a communication program) during the "LS97 polling" process TK6 will perform the following:

   a) Search the Transack.mdb file and extract all entry & exit punches that occurred following the previous "polling" session into the Transack.dbf / cdx files (i.e. the system converts the Access database into a FoxPro database.)

b) Filter (extract) the relevant attendance entries & exits from the Transack.dbf / cdx files into TK6's Daily file and TR*.* backup file (i.e. the system identifies the clocks that generate attendance information, as opposed to clocks that generate only access control data. and transfers the entries & exits received from those clocks into the TK6 database).

The following definitions are required in the Polling tab of the System configuration file -

- Punch Type – set to "Lavie".
- Punches File Name – this determines the name and location of the PUNCHES.TXT file. This definition is completely at the user's discretion. Any location and/ or filename can be selected (as long as they are valid).
- Type of Polling Program – set to "Other Batch".
- Name of Polling Program – set to "TRXFERQD" (this is one of the programs located in the TK6WIN directory).
- Path of Polling Program Directory – set to the location (directory) of the "TRXFERQD" file (normally this is the TK6WIN directory).
- All other polling definitions have not changed.

NOTE! The "Halt TK6WIN operations for Batch Polling" check box should **NOT** be marked.

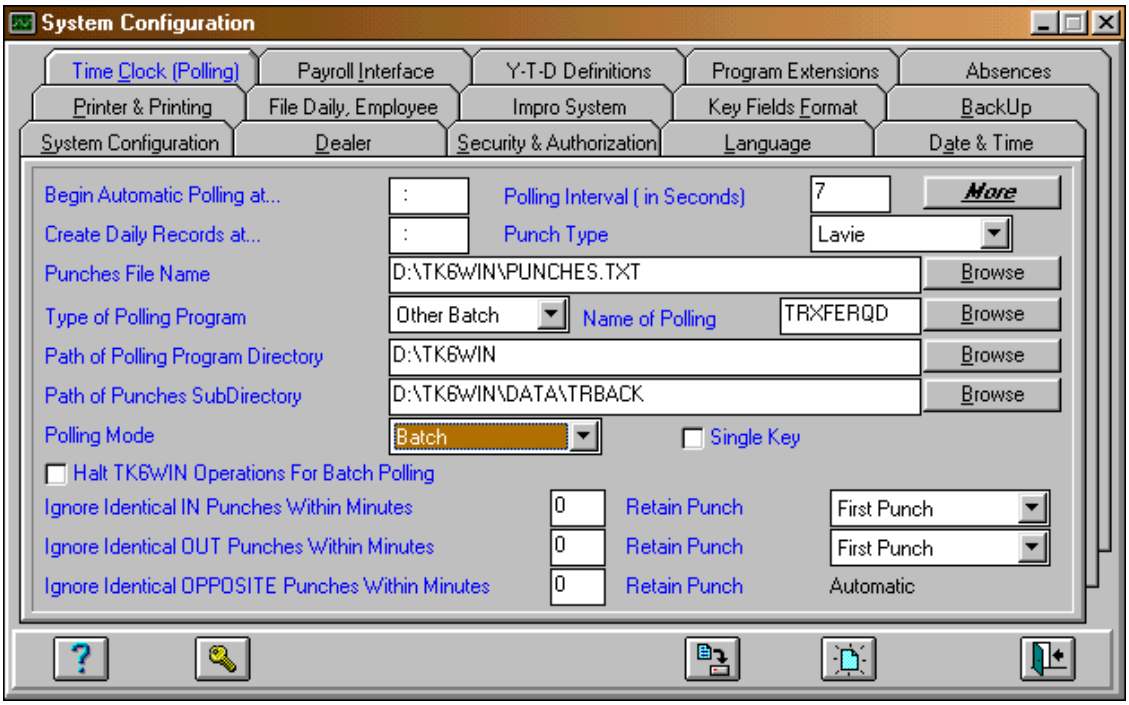

Fig. 2

User Definitions.

User definitions are required to determine the scanner type and connection parameters used by each user group.

Enter the following definitions for each user group (in the "ImPro System" tab see **Fig. 3**):

- Clock type – defines the scanner type used ("Uni-scan" or "Host Link").
- COM port number – defines the COM port to which the scanner is connected.
- COM port Baud rate – the COM port's baud rate (should usually be set to 9600).

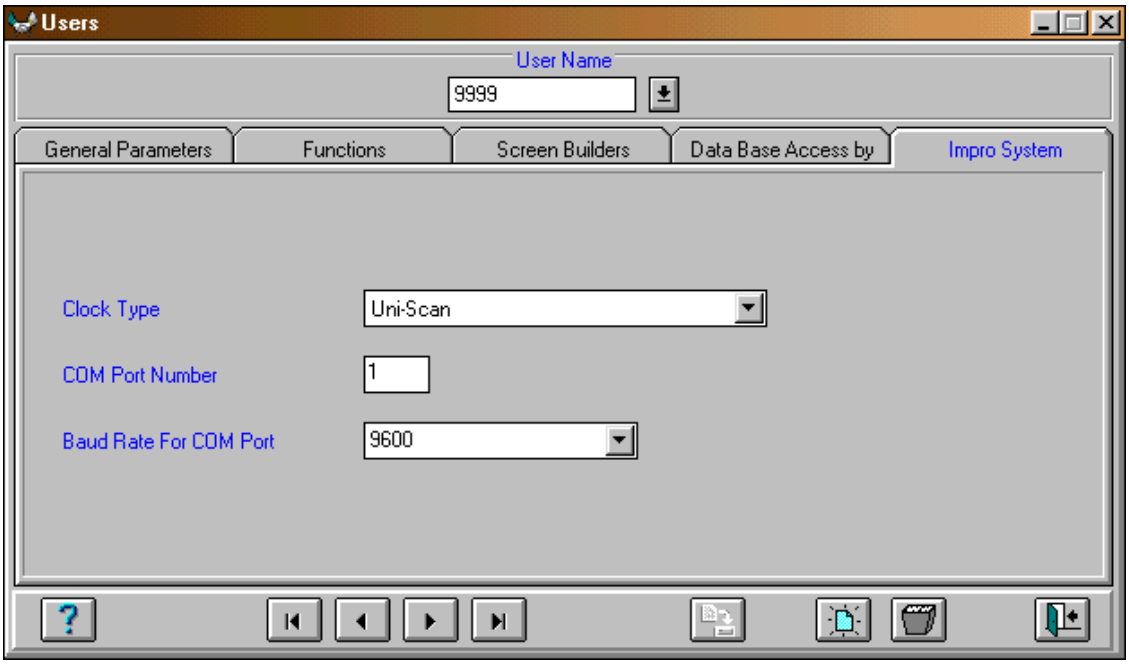

Fig. 3

Employee file setup.

I. Access definitions setup.

The following fields need to be added into the employee file (see **Fig 4**.) –

- Third Sort (SORT2): is used to set the "First-In/Last-Out" functionality for the employee. Two options are available –
    1. Disabled - "First-In/Last-Out" functionality is not used.
    2. Enabled - "First-In/Last-Out" functionality is in use.

- User Field 2 (USER2): is used to set the employee's access level. As the access level determines which clocks are used as attendance clocks, it determines which punches will be

transferred into the Daily file (i.e. punches received from clocks that belong to access levels) and which punches are used only for access control (i.e. punches received from clocks that do not belong to the access levels).

Note:

a) The access levels are designated by alphabetic letters (example - A,B,C …Z).
b) More then a single access level can be assigned per employee. Groups need to be separated by commas (example: A,C,H etc).
c) Leaving this field blank will automatically set the employee with access level A.

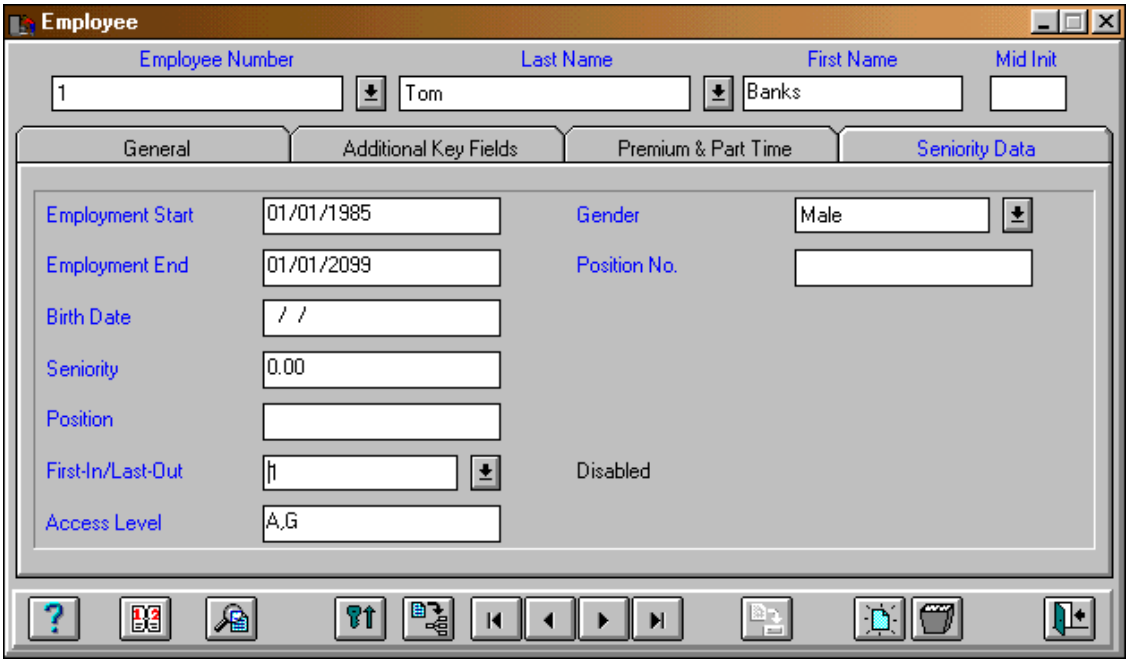

Fig. 4

II. Badge parameters setup.

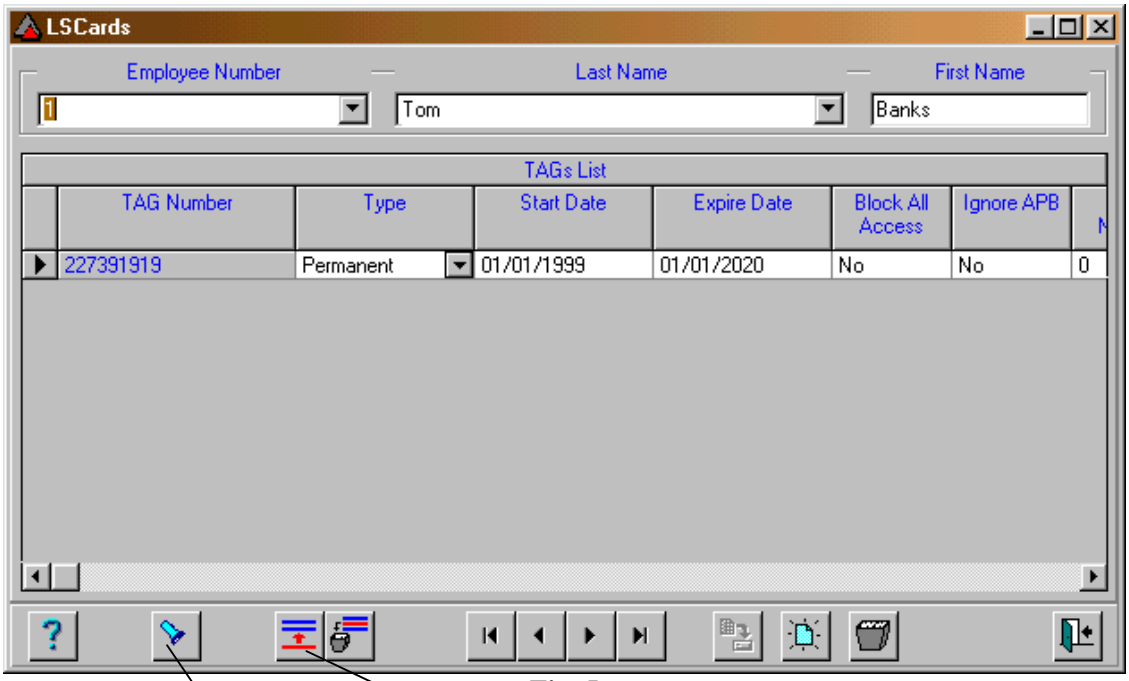

Fig. 5

Find Employee by Tag

Add New Tag

To assign an employee his badge number and access control definitions, perform the following steps:

1. Set-up and save the standard employee details (employee number, name, organizational assignment, contract number etc).

2. Assign the employee his badge number by selecting the Badge Number "More" button.

   Selecting this button, accesses the LSCards screen (see above Fig 5). This screen displays all of the employee's badge related information (badge number, type, start & end date etc).

   To assign the employee a current badge, click on the "find employee by tag" button. The pop-up screen that appears enables the user to "link" the employee with an existing badge or scan a new badge number into the system (by clicking "scan").

3. Set the Badge Access Level by clicking the "Access Level" field (located at the end of the LSCards record). The access level definitions screen will appear.

Each badge must have access level definitions. If no access level definitions are defined, the badge will be rejected by the system as an invalid badge.

Menu options & Reports.

Menu options.

To enable users to re-read punch data, a (LS97 specific) manual polling option must be added to the system..

In the Activities Menu, an additional menu option named "Read Backup Punch File ("Impro Format)" should be added with the following values (see Fig 7):
Program name - set as "TRXFERQD".
Program Parameter – set to 0.
Program Type – set as "Program".
Menu Attributes – set as Enabled and Visible

Running this option will enable importing LS97 punch data (for a user selected date range) into the system.

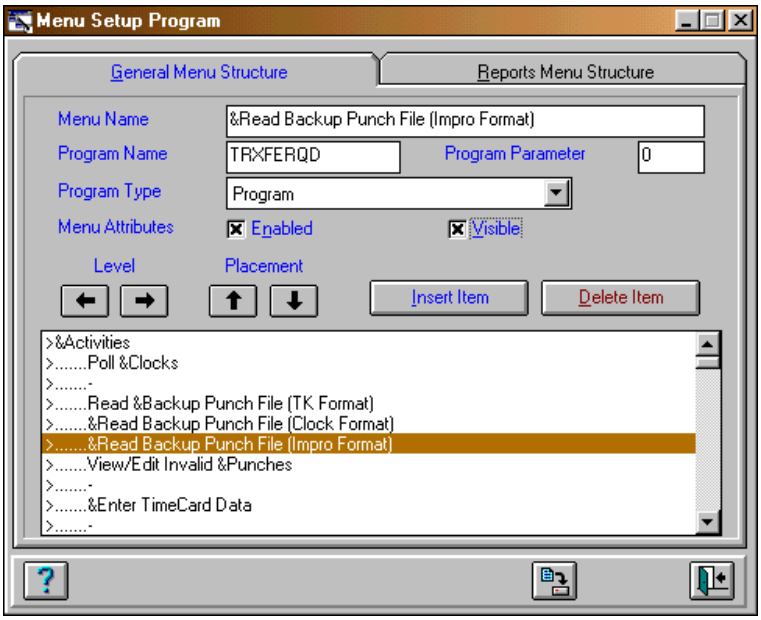

Fig. 7

Reports.
The following reports were added to the system:

- RCLTSITE (On-site & Off-site report). Lists employees which were either on-site or off-site at a particular Time/ Date. The report combines the capabilities of two LS97 reports designated "on site" and "off-site".

- RCLTRANS (Clocking Transactions report). Lists all entries & exits occurring at a particular Time/ Date. The report's select options include levels, readers and status.

- RCLTRAN4 (T&A & Access Control Pattern report). Lists employees who have an Access In or Out without a T&A In or Out.

- RCLTRAN5 (T&A & Access Control Variance report). Lists employees who have a predefined time difference between their Access transactions and their T&A transactions.

- RCLTOUT (Access Off-site report). Lists employees who have a predefined time difference between their Access Out and In times.

- RCLBREAK (T&A Break report). Lists employees who have not taken a break within a predefined time zone at a particular Time/ Date.

- RCLEXCPT (Access Exceptions report). An advanced T&A Access Pattern report that enables exclusion of certain time zones and break periods.

Example: Select options for RCLTRANS report (see **Fig. 6** below**).**

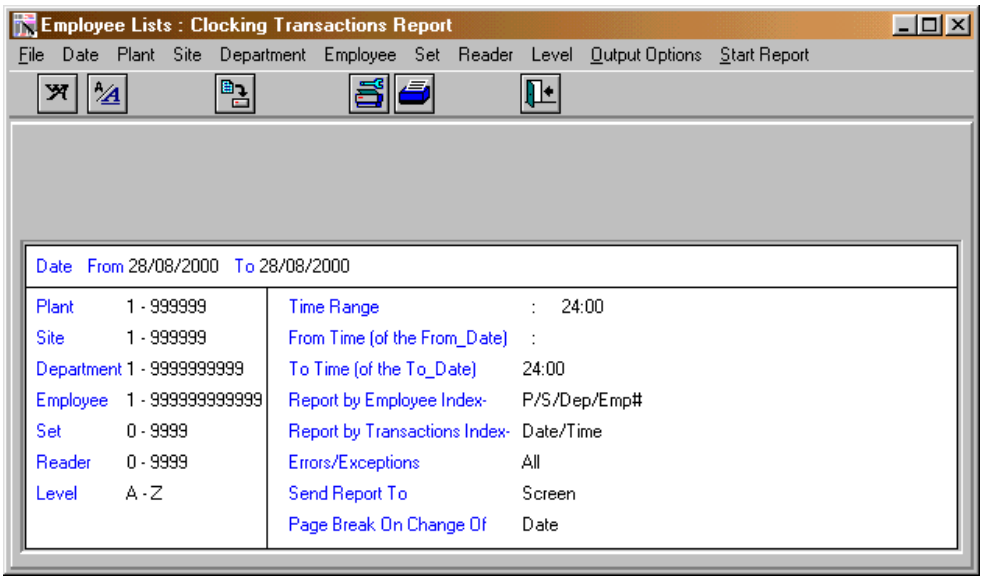

Fig. 6

Backup/ Delete Utility
The TRANSACK file can be lost or corrupted. Backing up the TRANSACK file ensures that you have a valid copy. Should the file be lost or corrupted, you can restore backed up files.

The Backup & Delete utility Backs up the selected file to a zipped archive file, and then deletes the records that were backed up from the file.

1. From the 'Maintenance' menu, choose the Back up/Restore Daily &Pay-period files.
2. From the drop-down list, select the 'TRANSACK ' file.
3. Click the 'Back Up & Delete' button. The 'Select Backup file' dialog box is displayed.
4. Choose a backup file to back up to and click OK.

Optional INI file
You may override two default settings using the (optional) TRXF.INI file. The file is a standard ASCII text file, and if required, should be located in the same sub-directory where the TRXFERQD.EXE program is stored (usually TK6WIN). It has the following format:

[TRXF_PARAM]
;Data_Path=f:\tk6win\data
;LangId = Dutch

- Use the Data_Path parameter to specify a different DATA sub-directory. The default is Data_Path = Drive:\TK6WIN\DATA (where Drive:\TK6WIN can be any name where TK is installed).
- Use the Language parameter to specify a different language. The default is LangId= English.

Note: a line beginning with a ";" is a "comment" line and is ignored by the program.

Initial Use.
The system configuration file holds the date and time of the last polling interval (within the Impro tab). These fields are updated each time a polling operation occurs.

This is done so that each time polling is performed, the system will poll only the transactions that were added since the last polling interval and not the entire TRANSACK.MDB file (mainly to save time during the polling process).

Note however, that during the **initial/first** polling session performed in TK6, these fields are empty. Consequently, TK6 will read the entire TRANSACK.MDB file.

As this is probably not desired (due to the length of the process) **WE STRONGLY RECOMMEND** that the initial/first polling process be performed **manually**.

During the manual polling process, the user can specify a (reasonable) date range for the polling process, thereby preventing TK6 from reading the entire TRANSACK.MDB file.

The manual polling process will automatically update the date and time of the last polling session (within the Impro tab).