



Purpose:

The purpose of this document is to describe the initial setup process and on-going usage of TimeKeeper-SQL and Impronet-SQL integration. This document is complementary to the "TK-ImproX setup Integration" document.

Concept:

The TKSQ - Impronet-SQL integration supports the same functionality of TK-ImproX integration:

- **Operation & control of the badge scanners** i.e. ProxMate
- **Import of all clock punches from the TRANSACK** table of Impronet-SQL into TKSQ. In TKSQ, all transactions are read directly from the TRANSACK table of Impronet-SQL to ImTRANS table of TKSQ.
- **Manual polling** – The end-user will be able to poll manually the TRANSACK file. This option is required to provide the same functionality as the "Read backup punch file" option in TK2000 (i.e. the option of specifying a date range for the polling program in order to manually re-read the TRANSACK file).
- **Report generation** – Generating access control reports.

Enhancement:

- **Tags Audit Trail** – An audit trail report of tag management was added to the system.



Setup steps

- 1. Installing Impronet-SQL**
- 2. Upgrade TKSQL database (CompareDB)**
- 3. Specifying general system parameters within TKSQL's system Configuration File**
- 4. Specifying parameters within TKSQL's Employee File**
- 5. Synchronizing tables.**



Steps 1 - 2 are relevant ONLY FOR EXISTING TKSQL INSTALLATIONS i.e. when it is required to implement\integrate IMPRONET-SQL with an existing TKSQL system. In all other cases, the updated TKSQL release will include the relevant programs/files.



Adding Impronet-SQL integration to an existing TKSQL installation:

We strongly recommend upgrading TimeKeeper SQL using the CompareDB program with the latest SQLDATASET and the most updated programs, rather than manually adding the relevant files.



Setup

Step 1: Installing Impronet-SQL

- Impronet-SQL is a product of Impro Technologies South Africa. Please follow their instructions for installing and configuring of Microsoft SQL server for Impronet.

Step 2: Upgrade TKSQL database

Follow the CompareDB procedure to fully upgrade the TKSQL database:

- Download the latest SQLDATASET and restore it to the MS-SQL server.
- Download the latest programs, restore them to the TKSQL directory and register them.
- Run the CompareDB program to update the TKSQL database.
- Run the related scripts\stored procedures to the CompareDB.

The updated programs of TK-SQL for the integration are:

Program	From [Date] and Later
LAVLBSQL.dll	9 th August 2004
DEmploySQL.dll	4 th August 2004
DImCardsSQL.dll	12 September 2004
DImReadSQL.dll	18 th August 2004
IMSyncFLSQL.dll	18 th August 2004
RImTransSQL.dll	26 th August 2004
SYSCNFSQL.dll	23rd August 2004
TKSQL.exe	29 th July 2004
TRXSQIM.exe	23rd August 2004
RAUDITSQL.dll	19 th September 2004
PROXMATE.dll	30 th August 2004



Step 3: Specifying system parameters within TK's System Configuration (SYSCNF) File

1. ImproNET Integration Activation i.e. "IMPRO System" tab (figures 1-2)

The "Impronet (MS-SQL) System installed" definition has been added to the System configuration file, distinguishing the connection between an Interbase database and a SQL database:

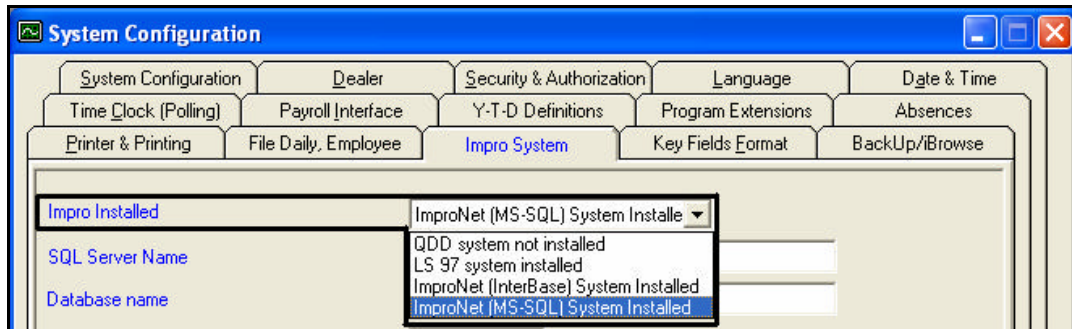


Figure 1

- Set "Impronet (MS-SQL) System installed" in the 'Impro Installed' field
- Specify the 'SQL server Name' (where the Impronet database resides).
- Specify the Impronet MS-SQL database name in the 'Database Name' field.
- SQL database Username and Password – The username and password are used for accessing Impronet-SQL database in order to retrieve and/or update data e.g. updating tag numbers, specifying expiration date, retrieving reader names etc.

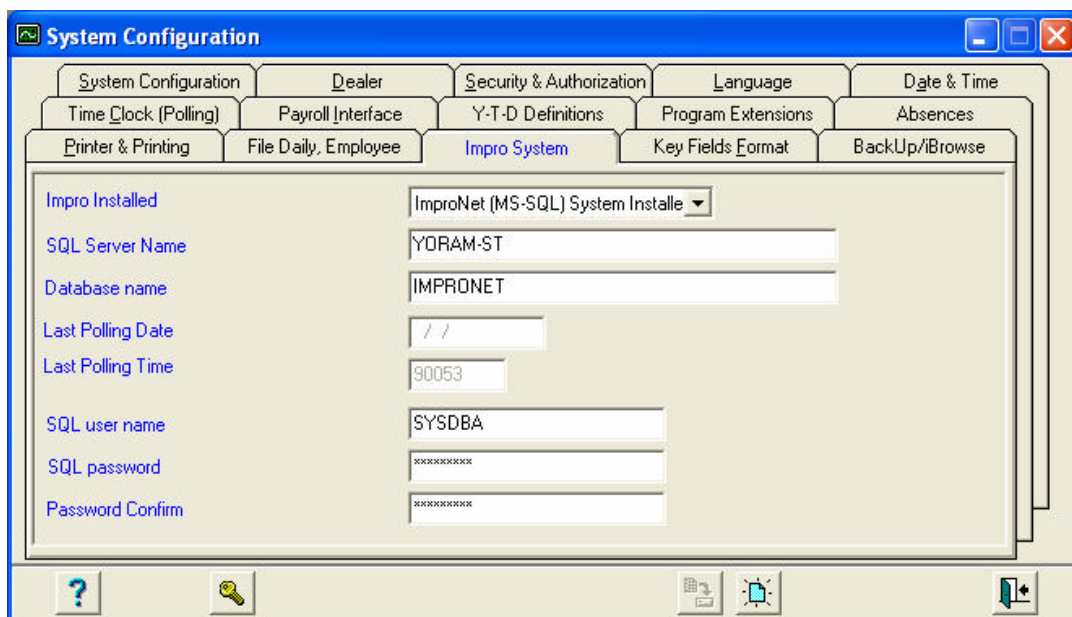


Figure 2



2. Badge Number Format

Make sure that the Badge Number format in the SYSCNF is Alphanumeric (Character).

System Configuration

System Configuration | Dealer | Security & Authorization | Language | Date & Time

Time Clock (Polling) | Payroll Interface | Y-T-D Definitions | Program Extensions | Absences

Printer & Printing | File Daily, Employee | Impro System | **Key Fields Format** | BackUp/iBrowse

Badge No. Format	Character	Badge No. Length	15
Employee No. Format	Numeric	Employee No. Masking	
Sort Code 1 Format	Numeric	Profession Format	Numeric
Sort Code 2 Format	Numeric	Plant No. Format	Character
Sort Code 3 Format	Numeric	Site No. Format	Character
Id Number Format	Numeric	Id Number Masking	
Contract No. Format	Numeric	Code Definition	Numeric
Department No. Format	Character	City Code	Numeric



Step 4: Specifying parameters within TK's System Employee File

As described in "TK-ImproX setup Integration" document ,the fields Sort2, User2 Field and Report_MSG should be added to the Employee Master file as follows:

- Sort2 field is used to set the "First-In/Last-Out" functionality for the employee.
- User2 field is used to set the employee's access level.
- Report_MSG field is used to set the ID Number for the employee.

The reason for NOT using the standard "ID Number" field in the integration with TK2000 was the requirement of 16-characters for the "ID Number" field (i.e. The standard ID field in TK2000 is a 12 character field).

In TKSQ, this field was extended to 16-characters and the ID number field can be used regularly:

Index Fields Area (Not Editable)	
Scheduler	Dates/Value
General	Additional Key Fields\Impronet
Address and Contact	
First Sort (SORT0 \ C 6)	
Employment Start (HIRE_FROM \ D)	9
Employment End (HIRE_TILL \ D)	10
Cycle Start Date (CYCLE_FROM \ D)	11
First In/Last Out (SORT2 \ C 6)	
Reader Level (USER2 \ C 10)	13
ID Number (ID_NUMBER \ C 16)	14

Employee			
Employee Number	Last Name	First Name	Mid Init
90000	Tyson	Mike	
Scheduler	Dates/Value		
General	Additional Key Fields\Impronet	Address and Contact	
First Sort	28	B. Alley	
Employment Start	01/01/2003		
Employment End	01/01/2010		
Cycle Start Date	01/01/2003		
First In/Last Out	1	Disabled	
Reader Level			
ID Number	90000		



Adding a new employee:

When adding a new employee by duplicating an existing one, make sure to change\update the ID number field of the new employee to avoid duplicate records.

For example

Employee 90007 was added by duplicating employee 90000 (The employee number and employee name were changed). The ID number was not changed or erased and in the following example, both employee 90000 and employee 90007 will hold the same ID number:

NOTE:

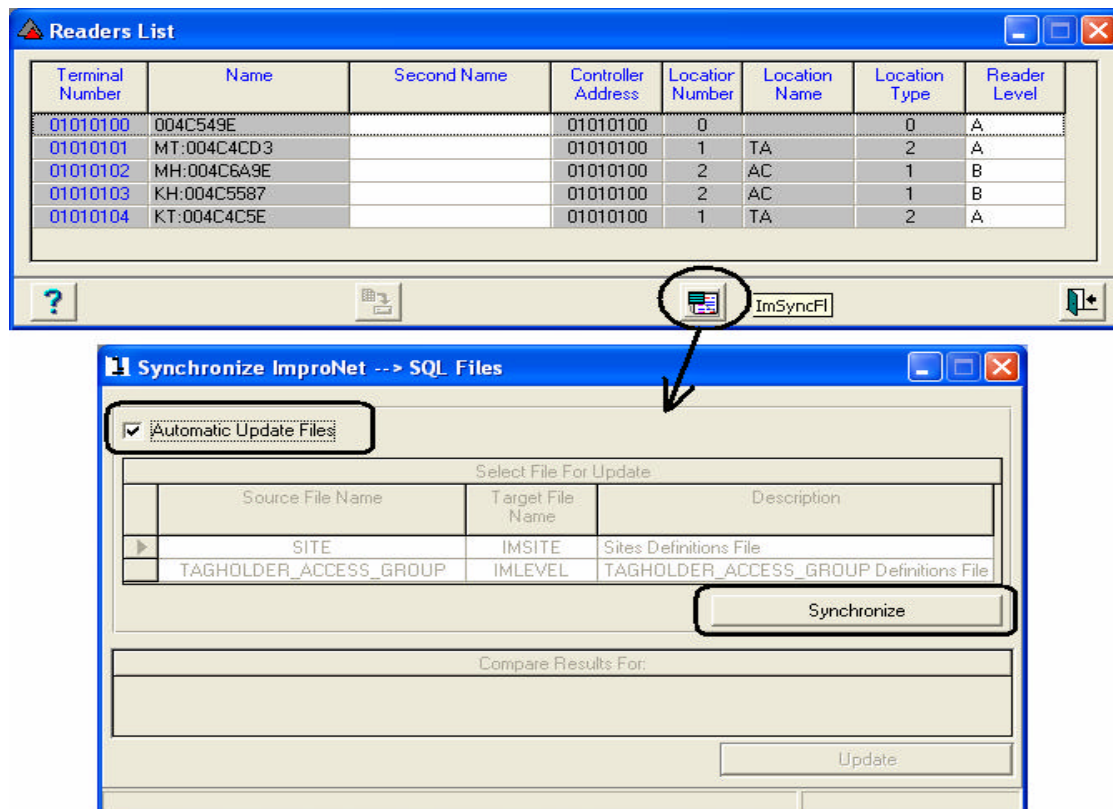
1. When assigning a tag to an employee using the TKSQLEmployee Master File, the following error message may appear: **“Violation of UNIQUE KEY constraint ‘UNQ_MST_ID’. Cannot insert duplicate key in object ‘MASTER’.** “ This error message is a result of the duplicate ID number and you will not be able to save a tag to the employee. Make sure to erase the content of the “ID Number” field or replace its content with a relevant new ID number and then assign the tag again.
2. Remember, when adding an employee by duplication, if the ID number of the “source” employee is erased and not replaced by a new ID number, the new employee number will become the ID number by default when assigning a tag to the employee.



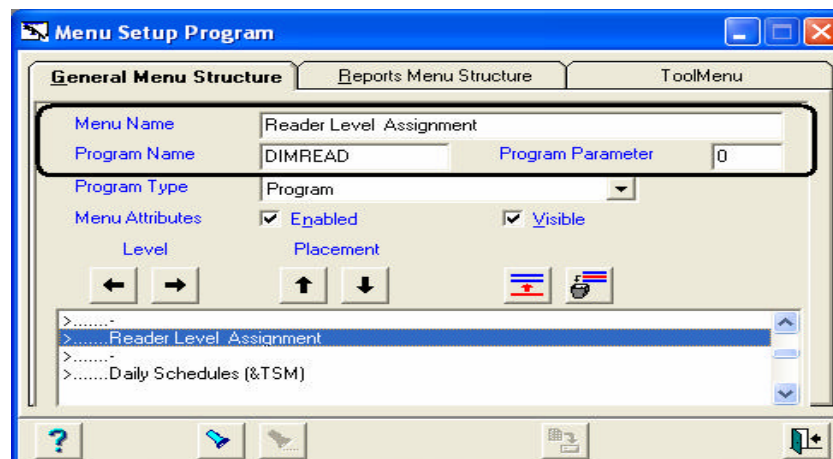
Step 5: Tables Synchronization

Before the first polling, run one of the "Impro Access Control reports". Running the reports (although there are no records in the system yet) activates the ImSyncFLSQL program and will create the tables 'ImLEVEL' and 'ImSite' in TKSQL.

Alternatively, you can run the synchronization by using the 'ImReader' program:



(Make sure to set the DIMREADER program in the menu):





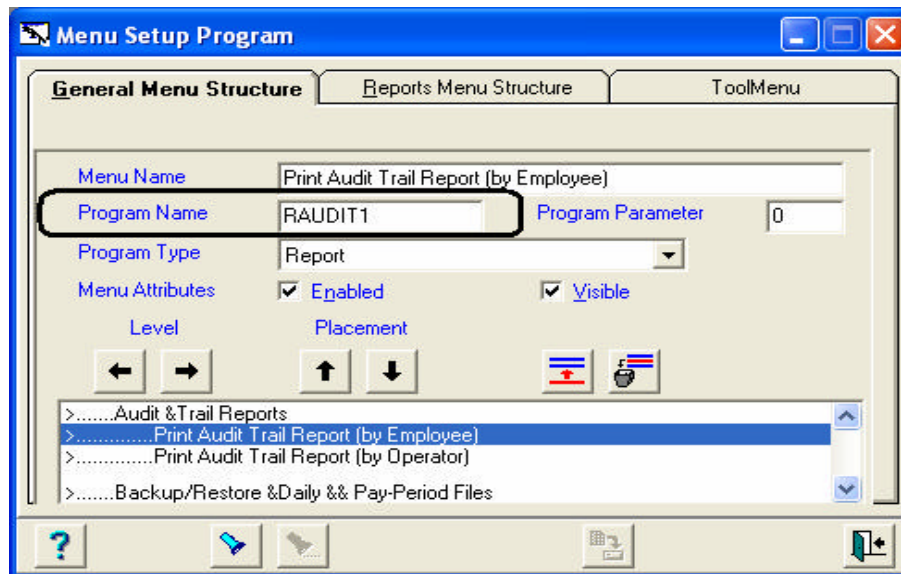
Enhancement

Tags Audit Trail report

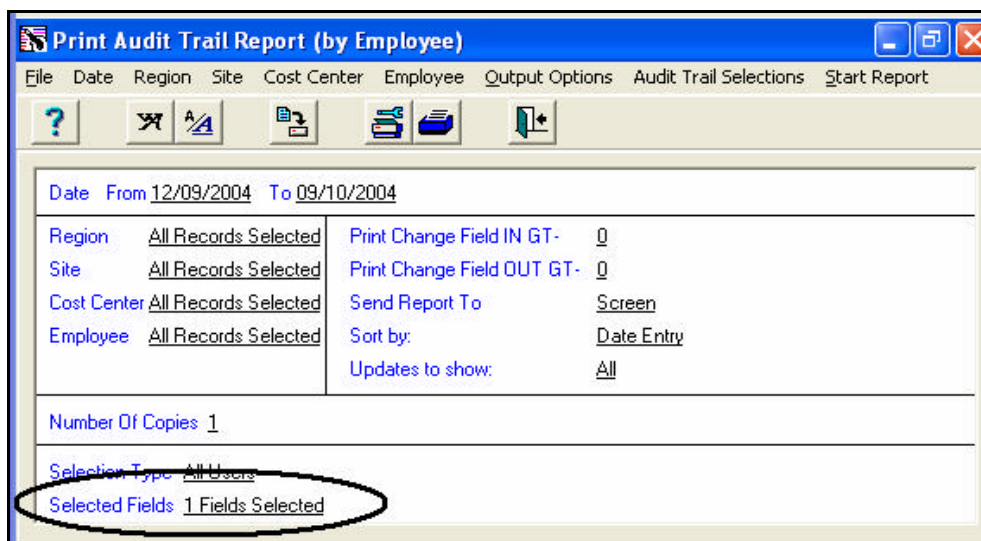
The option to track changes in tags was added to the two reports of the Audit Trail (by Employee and by Operator). The reports display data of new tags added to the system or manual changes made in fields that have been tracked by the audit trail module.

Print Audit Trail Report (By Employee) – RAUDIT1

1. Make sure to have the RAUDIT1 report (Audit Trail by Employee) in the menu.



2. In the selection screen of the RAUDIT1 report go to the 'selected Fields' option (to open the 'Select audit trail' screen):





3. In the 'Select Audit Trail Selection' screen select the new option that was added to the file name selection: "Impro – Tags".

NOTE Unlike the option in the Daily and Period files selection, you will not be able to select a 'Field Name' from the 'Impro-Tag' file.

Select Audit Trail Selection

User Selection

☒ All Users
☐ Use User Name Selection

Files And Fields Selection

File Name	Field Name
Impro-Tags	
DAILY (Daily Attn./Absence Activity/TK)	
PERIOD (P.P. Attn./Abs. Totals/TK)	
Impro-Tags	

Buttons: Add Line, Delete Line, Ok, Cancel

4. The report:

File Name – Display the table in Impronet-SQL with new changes of tag details.

Note: The table TAG_T_A_G in Impronet-SQL will be displayed in the report as TAG_TAG.

Field Name – Display the field with new changes of tag details in the Impronet-SQL table.

Old and New Values – Display the field with the old and new values of a tag as tracked. There will be no old values (Blank fields) in the report when adding new tags.

Update Reason – This field in the report will display the number of the tracked tag.



Print Audit Trail Report (by Employee)

File Search Report

1.7.1 - Audit Trail (by Employee Record Date) From Date 12/8/2004 To Date 8/10/2004

Region: SCOT Southern Region Site: 1 Cost Center: 155055M AT Security

Employee: 90006 Thompson Jan

Record Code	Record Date	File Name	Field Name	Old Value	New Value	User Name	Update Date	Update Hour	Update Reason
9	12/09/2004	TAG	TT_TYPENO		3 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TAGERP_NO		2 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TAGERP_NO		3 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_SUSPEND		0 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	SITE_SLA	01000000	9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_REPORT	01000000	9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TT_TYPENO		3 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TT_TYPENO		3 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_BLACKLIST		0 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_ROAFB		0 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_START	20040101	9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_EXPIRY	20101231	9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG	TAG_MODIFIED		1 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG				12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TAGERP_NO		4 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	SITE_SLA		01000000	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TT_TYPENO		3 9999	12/09/2004	14:42:37		Tag Number=116114437
9	12/09/2004	TAG_TAG	TAGERP_NO		1 9999	12/09/2004	15:11:36		Tag Number=18839113372
9	12/09/2004	TAG	TAG_SUSPEND		0 9999	12/09/2004	15:15:31		Tag Number=2720672137
9	12/09/2004	TAG	TAG_BLACKLIST		0 9999	12/09/2004	15:15:31		Tag Number=2720672137
9	12/09/2004	TAG	TAG_EXPIRY	20101231	20050908	12/09/2004	15:15:31		Tag Number=2720672137
9	12/09/2004	TAG		Rec. Deleted		9999	15:17:57		Tag Number=249283589
9	12/09/2004	TAG_TAG	TAGERP_NO		0 9999	12/09/2004	15:27:13		Tag Number=116114437

Print Audit Trail Report (By Operator) – RAUDIT2

1. Make sure to have the RAUDIT2 report (Audit Trail by Operator) in the menu.

Menu Setup Program

General Menu Structure Reports Menu Structure ToolMenu

Menu Name: Print Audit Trail Report (by Operator)

Program Name: **RAUDIT2** Program Parameter: 0

Program Type: Report

Menu Attributes: ☒ Enabled ☒ Visible

Level: Placement: [Left] [Right] [Up] [Down] [Print] [Copy]

>.....Audit & Trail Reports

>.....Print Audit Trail Report (by Employee)

>.....**Print Audit Trail Report (by Operator)**

>.....Backup/Restore & Daily && Pay-Period Files

2. The report is very similar to the "Audit Trail report by Employee". The only difference is that in this report you do not have the select options of plant, site, department and the sort index for this report is: Operator/Employee# /Date (Date Entry or Date Change – as selected).



Print Audit Trail Report (by Operator)

File Date Employee Output Options Audit Trail Selections Start Report

? [Icons]

Date From 12/09/2004 To 09/10/2004

Employee <u>All Records Selected</u>	Print Change Field IN GT- <u>Q</u>
	Print Change Field OUT GT- <u>Q</u>
	Send Report To <u>Screen</u>
	Sort by: <u>Date Entry</u>
	Updates to show: <u>All</u>

Number Of Copies 1

Selection Type Use Users Selection

Selected Users 1 Users Selected

Selected Fields 1 Fields Selected