

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 TKSQL - 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 TKSQL. In TKSQL, all transactions are read directly from the TRANSACK table of Impronet-SQL to ImTRANS table of TKSQL.
- 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.



<u>Setup steps</u>

- 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.



<u>Adding Impronet-SQL integration to an existing TKSQL installation</u>: We strongly recommend upgrading TimeKeeper SQL using the CompareDB program with the latest SQLDATASET and the most updated programs, rather then manually adding the relevant files.



<u>Setup</u>

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
TRXSQLIM.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

 <u>ImproNET Integration Activation i.e. "IMPRO System" tab</u> (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:

System Configuration		
System Configuration Dealer	Security & Authorization Language	D <u>a</u> te & Time Absences
Printer & Printing File Daily, Employee	Impro System Key Fields Eormat	BackUp/iBrowse
Impro Installed	ImproNet (MS-SQL) System Installe 💌	
SQL Server Name	QDD system not installed LS 97 system installed ImproNet (InterBase) System Installed	-

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.

System Configuration		
System Configuration Dealer	Security & Authorization Language	D <u>a</u> te & Time
Time <u>C</u> lock (Polling) Payroll <u>I</u> nterface	Y-T-D Definitions Program Extensions	Absences
Printer & Printing File Daily, Employee	Impro System Key Fields <u>F</u> ormat	BackUp/iBrowse
Impro Installed	ImproNet (MS-SQL) System Installe 💌	[]]
SQL Server Name	YORAM-ST	
Database name	IMPRONET	-
Last Polling Date	7.7	
Last Polling Time	90053	
SQL user name	SYSDBA	
SQL password	******	
Password Confirm	******	
1		P
? 🔍	De la companya de la	P

Figure 2



2. Badge Number Format

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

System Configuration				
System Configuration		Security & Authorization	Language	D <u>a</u> te & Time
Time <u>C</u> lock (Polling)	Payroll Interface	Y-T-D Definitions Y Pro	gram Extensions	Absences
Printer & Printing	ile Daily, Employee 🎽	Impro System Key F	Fields <u>F</u> ormat	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	J
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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:

- <u>Sort2</u> field is used to set the "First-In/Last-Out" functionality for the employee.
- <u>User2</u> field is used to set the employee's access level.
- <u>Report MSG</u> 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 TKSQL, this field was extended to 16-characters and the ID number field can be used regularly:

Employee Screen Builder						
Index Field	ds Area (Not Editat	ole)	Fie	ld Editable Id Read Only		
Scheduler	Dai	tes Value				
General	Additional Key	Fields\Impronet	Address and Cor	ntact		
	First Sort (S	DRTO\C6)				
Employment Start (HIRE_FRO	MND)		9			
Employment End (HIRE_TILL	ND)	10				
Cycle Start Date (CYCLE_FR0	MND)	11				
	First In/Last Out	(SORT2NC6)				
Reader Level (USER2 _C	10)		13			
ID Number (ID_NUMBER \	C 16)		14			
?				P		



🕒 Employee						
Employee N	umber		Last Name		First Name	Mid Init
90000	-	Tyson		Mike		
Schedule	er	Ύ	Dates Value			
General) í	Addition	al Key Fields\Impronet	Ė	Address an	d 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:

Ľ	t Employee							
/	Employee N	umber		Last Name		First Name	Mid Init	
٢	90007		Holmes		Larry			
	Schedu	ler	Ϋ́	Dates Value				_
Ĺ	General]	Additional	Key Fields\Impronet		Address and Co	ntact	
								_
	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	-						
\langle	ID Number	90000		\rightarrow				
	? 🖻 🔛	<u> </u>	1	H A F F		1 🗵 🖤]	Ŀ

<u>NOTE:</u>

 When assigning a tag to an employee using the TKSQL Employee 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 <u>by default</u> when assigning a tag to the employee.

Step 5: Tables Synchronization

<u>Before</u> 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:

📤 Reader	rs List								
Termina Number	il Name r	Second N	ame Cor Ad	ntroller dress	Location Number	Location Name	Location Type	Reader Level	\square
0101010	0 004C549E		010	10100	0		0	A	
0101010	1 MT:004C4CD3		010	10100	1	TA	2	A	-
0101010	2 MH:004C6A9E		010	10100	2	AC	1	В	
0101010	3 KH:004C5587		010	10100	2	AC	1	В	
0101010	4 KT:004C4C5E		010	10100	1	TA	2	A	
?				(ImSyncFl			
0	✓ Automatic Update Files Select File For Update Source File Name Target File Description Name SITE IMSITE Sites Definitions File TAGHOLDER_ACCESS_GROUP IMLEVEL TAGHOLDER_ACCESS_GROUP								
						Sync	hronize		
	Compare Results For:								
						U	pdate		



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

📉 Menu Setup Program 📃 🗖 🔀							
<u>G</u> eneral Menu Struct	ure <u>R</u> eports Menu	Structure To	olMenu				
Menu Name Program Name	Reader Level Assignm DIMREAD	ent Program Parameter					
Program Type Menu Attributes Level	Program Enabled Placement	 I ⊻isible					
← → >		<u>=</u>	<u> </u>				
> >Daily Schedules (8	xTSM)		 ■ ■ 				
? >	*	B2	I t				

<u>Enhancement</u>

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.

📉 Menu Setup Progra	m					
<u>G</u> eneral Menu Structure <u>R</u> eports Menu Structure ToolMenu						
Menu Name	Print Audit Trail Report (by	Employee)				
Program Name	RAUDIT1	Program Paramete	er O			
Program Type Menu Attributes Level	Report Enabled Placement	▼ Visible				
>Audit &Trail Repor >Print Audit Tra >Print Audit Tra >Backup/Restore 3	ts ail Report (by Employee) ail Report (by Operator) &Daily && Pay-Period Files		▲ ▼			
? >	%	B ŋ,	Ŀ			

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

TimeKeeper-SQL - Impronet-SQL Integration 💦 Print Audit Trail Report (by Employee) -D File Date Region Site Cost Center Employee Qutput Options Audit Trail Selections Start Report ₽ŗ ŀ স্প 3 4 ? ^∕__ Date From 12/09/2004 To 09/10/2004 All Records Selected Print Change Field IN GT-Region 0 Site All Records Selected Print Change Field OUT GT- 0 Cost Center All Records Selected Send Report To Screen Employee All Records Selected Sort by: Date Entry Updates to show: All Number Of Copies 1 Selected Fields 1 Fields Selected

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

<u>NOTE</u>: 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	
File Name Impro-Tags File Name DAILY (Daily Attn./Absence Activity/TK) PERIOD -(P.P. Attn./Abs. Totals/TK) Impro-Tags	Field Name
<u>_</u> k	Add Line Delete Line

4. The report:

<u>File Name</u> – Display the <u>table</u> 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.

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

<u>Old and New Values</u> – 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.

<u>Update Reason</u> – This field in the report will display the number of the tracked tag.



Print Audit	Trail Report	t (by Employe	e)						
		. (a) amproya	-/						
File Search Re	port								
? 14	- F	N 💊 📎							
1.7.1 - Audit Tra	ul (by Employee	/Record Date)	From Dat	e 12/9/2004	To Date	9/10/2004			
Region: SOUT	Southern Region	ı	Site: 1			Cost Ce	nter: 1550SSM	AT Security	
Familians	90004	Them	Tan						
Employee .	30000	Thorp	lan						
Period Code	Record Date	File Name	Field Name	Old Value	New Value	User Name	Update Date	Update Hour	Update Reason
	12/09/2004	TAG	TT TYPENO		3	0000	12/09/2004	14-42-37	Tag Number=116114437
ģ	12/09/2004	TAG TAG	TAGEP NO		2	9999	12/09/2004	14:42:37	Tag Number=116114437
9	12/09/2004	TAG TAG	TAGRP NO		3	9999	12/09/2004	14:42:37	Tag Number=116114437
9	12/09/2004	TAG	TAG SUSPEND		ō	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	SITE SLA		01000000	9999	12/09/2004	14:42:37	Tag Number=116114437
9	12/09/2004	TAG	TAG_REPORT		1	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_NOAPB		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		New Record		9999	12/09/2004	14:42:37	Tag Number=116114437
9	/ 12/09/2004	TAG_TAG	TAGRP_NO		4	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	TI_ITPENO	2	3	99999	12/09/2004	14:42:37	1 ag Number=116114437
2	12/09/2004	TAG_IAG	TAGRE_NU	3	1	2222	12/09/2004	15:11:36	1 ag Humber=18839115372
	12/09/2004	TAG	TAG_SUSPEND	Ű	1	3333	12/09/2004	15:15:51	1 ag Humber=2/506/315/
9	12/05/2004	TAG	TAG_DLACKLISI	20101221	2002000	7777 0000	12/03/2004	15:15:31	Tag Number=2730673157
, , , , , , , , , , , , , , , , , , ,	12/09/2004	TAG	ING_EAFIRI	Reg Deleted	20020909	0000	12/09/2004	15.17.57	Tag Number=249283589
9	12/09/2004	TAG TAG	TAGRE NO	2 2	0	9999	12/09/2004	15:27:12	Taz 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	t (by Operator)			
Program Nar	ne RAU	IDIT2	Program Parame	eter 0		
Program Typ	e Rep	ort	-	•		
Menu Attribu	ites 🔽 E	nabled	✓ Visible			
Level	F	Placement				
+ -	•	t 🕂	-			
Audit &Trail Reports Audit Trail Report (by Employee) Audit Trail Report (by Operator)						
>Backup/Restore &Daily && Pay-Period Files						
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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).

TimeKeeper-SQL - Impronet-SQL Integration



😽 Print Audit Trail Report (by Operator)						
File Date Employee Output Options Audit Trail Selections Start Report						
? 🧏 🐴 🖹	50 P					
Date From <u>12/09/2004</u> To <u>09/10/2004</u>						
Employee All Records Selected	Print Change Field IN GT-	<u>0</u>				
	Print Change Field OUT GT-	<u>0</u>				
	Send Report To	Screen				
	Sort by:	Date Entry				
	Updates to show:	All				
Number Of Copies 1						
Selection Type Use Users Selection						
Selected Users 1 Users Selected						
Selected Fields 1 Fields Selected						
1						