

**Purpose:**

Kaba Benzing's terminals\clocks can create time and attendance records in flexible formats but not in the Lavie format. **LVTrans.exe** is a program that converts Kaba-Benzings punch structure to Lavie's punches format.

NOTE: The Kaba-Benzings punch structure **must be** as described in the "Kaba-Benzings Layout Record" chapter, assuming that Kaba's terminals that are used are of the 9540 type.

Environment:

TK2000, TKSQL

Required Program Files:**For TK2000:**

- LVTrans32.exe September 9th 2004 or later
- Kaba_9540.dsc September 7th 2004 or later

For TKSQL:

- LVTrans.exe July 19th 2004 or later
- Kaba_9540.dsc September 7th 2004 or later

Setup:

1. Copy the program and files listed above (*LVTrans.exe and descriptor file*) to the relevant TimeKeeper directory (TK2000 or TKSQL).
2. Create the polling batch file using the LVTrans program and its parameters (See the following instructions). Make sure to match the location of the transactions files\Source files and the descriptor file in the relevant parameters
3. Update the SYSCNF file (Time Clock – Polling tab) with the name of the new batch file.



Note: The program (LVTrans.exe) **must** be under the Timekeeper's main directory.

**Activation Method:**

As a rule, run the program through the 'Type and Name of Polling program' in the SYSCNF file (the 'Time Clock Polling' tab) using a batch file.

The command to run the program should include the following parameters:

/s:<source file>	The parameter designates the Source file's name. The source file is a transactions file created by Kaba's clocks e.g. "Bookings.dat". This file name is mandatory in the command.
/d:<descriptor file>	The parameter designates the descriptor file's name. The descriptor is a text file with the descriptions of the conversions to be performed. This file is similar to an INI file and can have the extensions DSC, SCR, TXT etc. In general, there will be a file for each type of supported clock. This file name is mandatory in the command.
/t:<target file>	The parameter designates the output file name, which will store the transformed records. This file will be created by the program and will include the records in Lavie's punch format. This file name is mandatory in the command.
/l:<log file>	The log file will contain the execution log (Success message, Error messages etc.) at the end of the process. Each execution of the program appends data to the end of this log file. This parameter is optional and a default file name will be used if none is given.
/I:<User Name>	In TK2000 Only - This parameter is used together with the Log file parameter and it is used to check the user's language only.

The command structure is:

```
LVTrans.exe /s:<source file> /d:<structure descriptor FILE> /t:<target file> [/l:<log file>]
```

** Note:**

1. If a specific path for the files' location is not provided, the default location is the current location (of the LVTrans.exe or LVTrans32.exe).
2. If a folder name or a file name in a path contains a space in it (e.g. **C:\Kaba Benzing**), you must put the whole parameter (with the switch) in quotation marks as follows:

```
Lvtrans.exe "/s:C:\Kaba Benzing\bookings.001" /d:C:\TK\ kaba_9540.dsc /t:C:\TK\clock.txt
```



**Command Line Examples (For TKSQL) -**

1. To transform the data from clock type 9540, as specified in a descriptor file for that type of clock:

Lvtrans.exe /s:bookings.001 /d:kaba_9540.dsc /t:clock.txt /l:Lvtrans.log

<Source file> <Descriptor File> <Target file> <Log file>

2. Each file name should have the full path of its location:

Lvtrans.exe /s:C:\KB\bookings.001 /d:C:\TK\kaba_9540.dsc /t:C:\TK\clock.txt /l:C:\TK\Lvtrans.log

<Source file> <Descriptor File> <Target file> <Log file>

Command Line Examples (For TK2000) -

1. In general, the command structure in TK2000 is similar to the one of TKSQL. The only difference is the additional switch/parameter of the user (/U:) -

Lvtrans.exe /s:bookings.001 /d:kaba_9540.dsc /t:clock.txt /l:Lvtrans.log /U:9999

<Source file> <Descriptor File> <Target file> <Log file> <User>



The polling batch file:

Usually, the Kaba Benzing terminals work in an On-line mode and create the transaction files to a pre-defined location. However they can also work off-line. This batch file describes the command to convert KB transactions files that are created on-line.

For off-line terminals you should add the KB command that polls the transactions from KB terminals (to the files that will be converted).

Note: Each terminal creates its own transaction file (e.g. Bookings.001, Bookings.002 etc). Make sure to create the transaction files with a unique name for each terminal.

Batch file for KB-9540 series:

Note: File locations require client-specific adjustments.

Assuming that there are two (9540 models) Kaba terminals, the batch file will be as follows. If there are 7 terminals for example, you will have to convert the files booking.001 – booking.007, and you will have to match the batch commands to the files (e.g. "Copy bookings.001+ bookings.002+ bookings.003+ bookings.004+ bookings.005+ bookings.006+ bookings.007 9540.tmp")

```

File Edit Format View Help
Move /y "c:\TKSQL\KABA\Bookings.001" bookings.001
Move /y "c:\TKSQL\KABA\Bookings.002" bookings.002
COPY bookings.002+bookings.001 9540.TMP

Call lvtrans.exe /s:9540.TMP /d:c:\TKSQL\KABA\kaba_9540.dsc /t:PUNCHES_9540.txt /l:lvtrans.log
TYPE 9540.TMP >> BACKUP\9540.BAK
COPY PUNCHES_9540.txt PUNCHES.TXT

del PUNCHES_?????.txt
del bookings.*
del 9540.tmp
  
```

The Move /y command – Will move Kaba's transactions files from the pre-defined location to the defined location (in this example – to the main directory of TimeKeeper). Moving the files will avoid possible loss of new transactions that will be added (to a new file) during the conversion to TK's format and polling the punches.

The Copy command –

1. Will combine both "Bookings" file to one temporary file (e.g. 9540.tmp) and this file will be the source for conversion to Lavie's format.
2. Will copy the Punches_9540.txt to the common punches file name.

Call LVTrans.exe – Will run the conversion program:

- Parameter /S: - The **9540.tmp** file will be converted (the source file).
- Parameter /D: - The **Kaba_9540.dsc** file is the descriptor file and its location.
- Parameter /T: - The **Punches_9540.txt** is the file with the converted punches to Lavie's format.
- Parameter /L: - The **lvtrans.log** is the log file of the procedure.
- Parameter /U: - The **User** is the user name in Timekeeper (**For TK2000 only**).

The Type command – Will append the 9540.tmp file (The original Kaba transactions) to a backup file under a relevant folder. **Note:** The **Backup** folder and the **9540.bak** file should be created in advance and in each time the batch file is run, it will append the records from the TMP file to the BAK file.

The Del command – Will delete the temporary files that were used during the process (i.e. PUNCHES_9540.txt, Bookings, 9540.tmp etc)



In case the client uses several types of Kaba terminals (e.g. 9540 & 9520), the batch file will have to contain different parameters for each type of terminal as the "bookings" files should have different names, and the descriptor is unique for each type –

	KABA.BAT - Notepad
For 9540	<pre> Move /y "c:\Program Files\BCWin32\Data\Bookings.001" bookings.001 Move /y "c:\Program Files\BCWin32\Data\Bookings.002" bookings.002 COPY bookings.002+bookings.001 9540.TMP Call lvtrans.exe /s:9540.TMP /d:kaba_9540.dsc /t:PUNCHES_9540.txt /l:lvtrans.log TYPE 9540.TMP >> BACKUP\9540.BAK </pre>
For 9520	<pre> Move /y "c:\Program Files\BCWin32\Data\Bookings.003" bookings.003 Move /y "c:\Program Files\BCWin32\Data\Bookings.004" bookings.004 COPY bookings.003+bookings.004 9520.TMP Call lvtrans.exe /s:9520.TMP /d:kaba_9520.dsc /t:PUNCHES_9520.txt /l:lvtrans.log TYPE 9520.TMP >> BACKUP\9520.BAK </pre>
Delete Temp. Files	<pre> COPY PUNCHES_9540.txt+PUNCHES_9520.txt PUNCHES.TXT Del PUNCHES_?????.txt Del bookings.* del 95?0.tmp </pre>

- The first part of the batch file will deal with the 9540 type of terminal as shown in the first example.
- The second part of the batch file will deal with the 9520 terminal type and its transactions (bookings) files, using the relevant descriptor file. As mentioned before, ensure each terminal is associated with a unique (punch) file name.
- At the end of the conversion, we will combine all the converted files from all types of terminals (e.g. Punches_9540+Punches_9520) to one file (Punches.txt) that will be read by the TimeKeeper system.



Kaba Benzing Record Layout – To be configured in KB's software!

In general, the punch structure and length of Kaba Benzing records are flexible, and there are various options for the record format. The first 11 fields (as highlighted in the following table) are constant while the other fields are flexible in length and position. As mentioned before, a descriptor file is used to configure the conversion of Kaba's punches to Lavie's format.

Because of the flexibility of Kaba's records, we need to match the descriptor to each records format (the options are endless!!). Therefore, we have established the following format as "KB-TK standard" i.e. KB records layout is to be defined as follows:

The Basic format:

1. Badge\Tag length – 7 characters.
2. No use of seconds in the time fields.
3. No use of the "User Language" field
4. The field "Clock Identifications" (Field number 5) will have the value "1" constantly to meet the rules 2-3.

Fields	Field Name	Length	Valid Range / Format	Remarks
0	GID – Group Address	1		64 - 94 in ASCII
1	DID – Device Address	1		64 – 123 in ASCII
2	Operating Mode	1		On \ Off \ Autonomy
3-4	Record type + Modification	2		In\Out\TC (See table below)*
5	Clock Identifications	1	1=Without "seconds" and "User Language"	Identifications in data records.
6-11	Date	6	YYMMDD	
12-15	Time	4	HHMM	
16	Error Type	1	0=No Error	
17 - 23	Badge No.	7		+ Keyboard data
Total Length		24		

* Record Type and Modifications (Field 3-4):

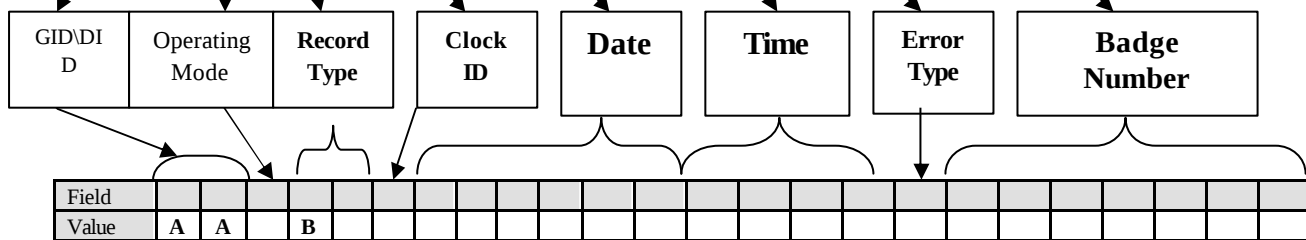
Value	KB's terminology	Lavie's terminology
B1	Time record "In"	"In" punch
B2	Time record "Out"	"Out" punch
B3	Official Absence "Auto In\Out"	Not applicable
B4	Official Absence "In"	On-Duty "In" punch
B5	Official Absence "Out"	On-Duty "Out" punch
B6	Correction	Not applicable
B0	Interrogation	Not applicable
BS	Begin of Break	Break Start
BE	End of Break	Break End
FA ... FZ	Production Data	Time Costing
Fa ... Fz	Production Data	Time Costing



Basic_bookings.dat - Notepad

File Edit Format View Help

A	A	B	2	1	0	4	0	7	0	6	1	7	1	0	0	8	8	8	1	1	1	1
A	A	B	2	3	0	4	0	7	0	6	1	7	1	2	1	8	8	8	2	2	2	2
A	A	B	2	3	0	4	0	7	0	6	1	7	1	3	1	8	8	8	3	3	3	3
A	A	B	1	1	0	4	0	7	0	6	1	7	1	4	0	8	8	8	4	4	4	4
A	A	B	2	1	0	4	0	7	0	6	1	7	1	5	0	8	8	8	5	5	5	5
A	A	B	1	3	0	4	0	7	0	6	1	7	1	6	1	8	8	8	6	6	6	6
A	A	B	1	1	0	4	0	7	0	6	1	7	1	7	0	8	8	8	7	7	7	7
A	A	B	2	1	0	4	0	7	0	6	1	7	2	0	0	8	8	8	8	8	8	8
A	A	B	2	3	0	4	0	7	0	6	1	7	2	1	1	8	8	8	9	9	9	9
A	A	B	2	3	0	4	0	7	0	6	1	7	2	1	1	8	8	8	0	0	0	0



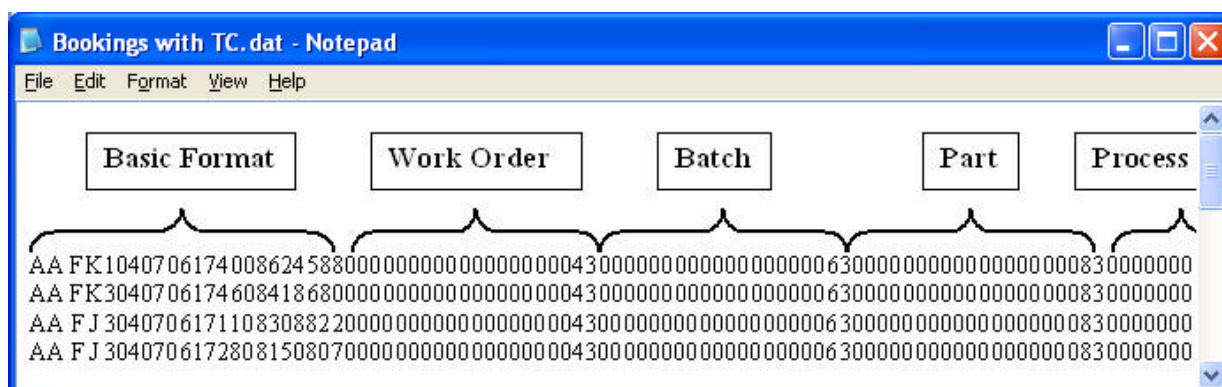

TC records format (to meet the J33 format of Lavie's transactions):

1. Badge\Tag length – 7 characters.
2. No use of seconds in the time fields.
3. No use of the "User Language" field
4. The field "Clock Identifications" (Field number 5) will have the value "1" constantly to meet the rules 2-3.
5. All fields from field 24 – 151 are related to Job\TC report (**highlighted**).

Note: If there are no values to fill in, the terminal should put '0' (zero) in the empty fields.

A record with TC values would appear as follows -

Fields	Field Name	Length	Valid Range / Format	Remarks
0	GID – Group Address	1		64 - 94 in ASCII
1	DID – Device Address	1		64 – 123 in ASCII
2	Operating Mode	1		On \ Off \ Autonomy
3-4	Record type + Modification	2		In\Out\TC **
5	Clock Identifications	1	1=without "Seconds" and "User Language"	
6-11	Date	6	YYMMDD	
12-15	Time	6	HHMM	
16	Error Type	1	0=No Error	
17 - 23	Badge No.	7		+ Keyboard data
24 - 43	Work order	20		TC Records
44 - 63	Batch	20		TC Records
64 - 83	Part	20		TC Records
84 - 103	Process	20		TC Records
104 - 113	Quantity good	10	NNNNNNNddd	3 decimal places TC
114 - 123	Quantity bad	10	NNNNNNNddd	3 decimal places TC
124 - 133	Quantity rework	10	NNNNNNNddd	3 decimal places TC
134 - 143	Department	10		TC Records
144 - 147	Cost center	4		TC Records
148 - 151	Duration	4	HHMM	TC Records
Total Length		152		





The Log file:

The log file will contain the execution log (Success messages, Error messages etc.) at the end of the process. Each execution of the program appends data to the end of this log file. The default file name of the log file will be "LVTrans.log" if no name is given in the command line and its default location will be the location of the LVTrans program..

The optional messages of the log file are:

<u>Messages of the Log file</u>
The record "nnn" (<source file name>) cannot be interpreted by the converter **
No source file name was provided
No target file name was provided
No transformation descriptor file name was provided
The source file "<source file name>" does not exist
The transformation descriptor file "<descriptor file name>" does not exist
The record "'nnn" in the description file "<descriptor file name>" is not of a supported type
Successfully wrote "nnn" records to file "<target file name>"

** Will appear whenever the record format encountered does not match the format detailed in the descriptor file (i.e. record is too "short").

Example of a log file

