



**Environment:**

TK2000,TK-SQL

**Valid Jobs functionality**

By default, **TimeCosting-PC** allows employees to report upon any job. However, there are organizations where some of the jobs can be performed only by particular employees due to their training, certification, position or any other factor.

In order to address the requirement, we have developed **DEMPVALJ.EXE**.

In order to enable the validity jobs functionality, load "Time Costing Configuration file" and select the "Job Scheduling and Valid Jobs" tab.



Screen input parameters (i.e. with regards to Valid Job functionality ONLY)

<b>Enable List of Valid Jobs</b>	Enable Valid Jobs. If disabled, any job can be scheduled (and reported!) regardless of the employee.
<b>Enable Invalid Job Authorization</b>	Enable the operator to manually authorize an invalid job i.e. schedule job (TSM) and actual job (TCDAY).
<b>Define Job Level</b>	Define Job Level for valid jobs. Only one user-definable level is supported in the valid jobs mechanism.
<b>Manual Category for Authorization</b>	If an unscheduled job / Invalid job has been reported in the DAILY file, use a manual pay category for authorization. Note that the pay category has to be a manual TC pay category.

Load "Setup menu - Add/Edit TimeCosting Setup Files - Add/Edit Employee Valid Jobs" and select the employee for specifying valid jobs:



Valid Jobs Definition (Per Employee)					
Employee Number		Last Name		First Name	
17		MCFARLANE		RICHARD	
Jobs					
	Job	Description	Start Day	Finish Day	Default
1	5412	UN SETUP LEADHND	05/14/2002	12/31/2099	No
2	5413	UN SETUP CLASS 1	01/01/2002	05/15/2002	No
3	5414	UN SETUP CLASS2	01/01/2002	12/31/2099	No
4	5418	UN SETUP CASUAL	01/01/2002	12/31/2099	No
5	6020	SERVICE DESK	05/14/2002	12/31/2099	Yes
6	6107	UN DISHWASHER	01/01/2002	12/31/2099	No
7	9999	Lost Hours	01/01/2000	12/31/2099	No

**Adding Job**

In order to add a valid job simply use the "add Line" button and select the job from the list. The "Start day" and "End Date" designates the validity dates for the job.

The end-user may define one of the jobs as the employee's default. The default job will use for both scheduling and daily reporting.

**Deleting Job**

In order to add a valid job simply use the "Delete Line" button. The job will be deleted accordingly.

Getting Results

The Validity job mechanism affects the **Scheduler** (i.e. Current Schedule / TSM Browser) and the **Daily Browser**. The affect is as follows:

Valid jobs will be **highlighted in GREEN**.

Invalid jobs will be **highlighted in RED**.

Example / Daily Browser (i.e. TCDAY is the secondary file)

TCDAY (Daily Job Transfers/TC)													
Record Date	Department	Job	Start Time	End Time	Duration	Percent	Regular	Invertim	Double time	Night Premium	Costing Rate	Costing	
05/17/2002	26	5413 UN SETUP CLASS 1	7:00	15:15	1:15	0.63	1.15			1.15	12.970	16.21	
05/17/2002	26	NUMBER								0.45	15.120	11.34	
		5405											EVENT SECURITY
		5410											TICKET TAKERS
		5412											UN SETUP LEADHND
		5413											UN SETUP CLASS 1
		5414											UN SETUP CLASS2
		5418											UN SETUP CASUAL
		6020											SERVICE DESK
		6100											UN BUSPERSON

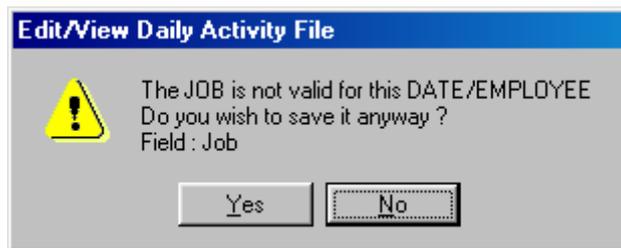
When reporting an invalid job in the daily browser (where system is set to "Enable invalid Job Authorization") the following message will appear:



*Note: "Job Authorization" is a manual pay-category (i.e. a TC Pay Category) within predefined in the TC configuration file.*

*The advantage of authorizing invalid jobs using a manual pay category is the ability to generate a report specifying those records i.e. invalid jobs report.*

For authorizing the invalid job, set "Job Authorization" field to "1" and recalculate. The following message appear:



The record will be calculated ONLY when selecting "Yes".

## **(1) Job Scheduling Module (TSM / TC Integration)**

### **1 - Preface**

TimeKeeper's Job Scheduling module enables pre-plan employee activities based on the scheduled attendance. Job Scheduling fully integrates **Time Costing** with **Time Scheduling (TSM)** in two major levels: Firstly, the list of jobs will be retrieved from TimeCosting. Second, the valid jobs ("Employee Valid Jobs") will be used in both sub-systems.

Job Scheduling includes the following components:

- 1.1 **Job scheduling browser (enhanced Daily Schedule Browser)** – Schedule jobs dynamically using the same browser for T&A scheduling, on a daily basis or on a weekly basis.
- 1.2 **Support in a recurring pattern of scheduled job(s)** – If your employees has a scheduled jobs with a recurring pattern, simply pre-set it and let our system work for you.
- 1.3 **Default job functionality** – Enables allocate a non-scheduled time to a default job per employee, for user-definable date range.
- 1.4 **Job validation capability** – Enables validating the scheduled jobs vs. a pre-defined list of jobs per employee with an option of manual override (optional).
- 1.5 **Planned Jobs Vs. Actual report** – Identify the exceptions (i.e. differences between the scheduled jobs to the actual) in terms of employee, group with the ability to specify time intervals.
- 1.6 A report that was designed to enable a comprehensive overview of
- 1.7 To identify the errors and exceptions.



**2 - Setup**

Load "Time Costing Configuration File (TCCNF)", and select "Job Scheduling and Valid Jobs" tab:



Screen setup parameters

Parameter		Used for (subsystems)	
		Job Scheduling	Valid Jobs
Enable Job Scheduling	Enable/Disable Job Scheduling	Yes	No
Enable List of Valid Jobs	Enable Valid Jobs. If disabled, any job can be scheduled (and reported!) regardless of the employee	Yes	Yes
Enable Invalid Job Authorization	Enable the operator to manually authorize an invalid job i.e. schedule (TSM) and actual (DAILY).	Yes	Yes
Define Job Level	Define Job Level	Yes	Yes
Flag a non-Scheduled Job as an			
Manual Category for Authorization	If an unscheduled job / Invalid job has been reported in the DAILY file, use a manual pay category for authorization. Note that the pay category has to be a manual TC pay category.	Yes	Yes



### 3 – Maintenance

The scheduling process is mostly performed through the Daily Scheduling Screen (TSM). When job scheduling is enabled, shifts without a job scheduling will be highlighted (**PINK**).

Emp.No	Emp.Name	Telephone	Base	Su	05/26	Mo	05/27	Tu	05/28	We	05/29	Th	05/30	Fr	05/31	SA	06/01
7	MCFARLANE RICHARD	204-897-8606	10	:	:	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
12	BRENNENSTUHL DAVID	204-487-0588	10	:	:	15:00	23:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
13	BRENNENSTUHL JOHN	204-222-3572	10	:	:	7:11	15:22	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
26	KING KEN	204-334-7605	10	:	:	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
81	FRIESEN SCOTT	204-654-1529	20	:	:	:	:	9:00	17:00	:	:	9:00	17:00	:	:	9:00	17:00
97	BLACKMORE JAMES	204-255-4985	20	:	:	:	:	9:00	17:00	:	:	9:00	17:00	:	:	9:00	17:00
135	EASTMAN JASON	204-889-6416	20	:	:	:	:	8:00	17:00	:	:	9:00	17:00	:	:	9:00	17:00

In order to schedule jobs, the operator may report either on a daily basis or on a weekly basis, by [right click] on the record:

#### Report using the Daily Job Scheduling Screen

Select the employee and the date for update, Right click and select [Jobs – Daily]

The following screen appears:

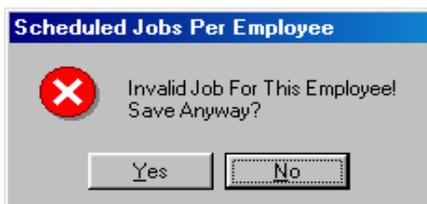
Bands	F5
Additional Data	F6
Jobs (D)aily	F11
Jobs (W)eekly	F12

Job	Description	Start Time	End Time
0	5412 UN SETUP LEADHND	15:00	20:00
1	5418 UN SETUP CASUAL	20:00	23:00

Employee Name, Number including the current date, start time and end time are displayed at the top of the screen.

In order to add a record, select the [Add Line] button, and choose the Job number from the list. If "Valid Jobs" mechanism is enabled, invalid jobs will be **highlighted in RED** while valid jobs will be **highlighted in GREEN**.

When scheduling an invalid job for the employee and the system is set to "Enable invalid Job Authorization", the following message will appear:



Note that if the "Invalid Job authorization" is disabled, the operator will view ONLY the list of valid jobs for each employee.



Report using the Weekly Job Scheduling Screen

Select the employee for update, Right click and select [Jobs – Weekly]

The following screen appears:

Scheduled Jobs Per Employee				
Employee 12 BRENNENSTUHL DAVID				
	Job	Description	Start Time	End Time
05/26 Su			:	:
05/27 Mo			15:00	23:00
<1>	5412	UN SETUP LEADHND	15:00	20:00
<2>	5418	UN SETUP CASUAL	20:00	23:00
05/28 Tu			7:00	15:00
<1>	5414	UN SETUP CLASS2	7:00	15:00
05/29 We			7:00	15:00
<1>	5414	UN SETUP CLASS2	7:00	10:00
<2>	5412	UN SETUP LEADHND	10:00	12:00
<3>	6922	UN SETUP CLASS 4	12:00	15:00
05/30 Th			7:00	15:00
<1>	6922	UN SETUP CLASS 4	7:00	15:00
05/31 Fr			7:00	15:00
<1>	6922	UN SETUP CLASS 4	7:00	15:00
06/01 SA			:	:

Job Bases [Dropdown]

Add Line Delete Line Ok Cancel

Operation

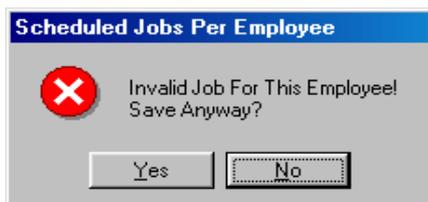
Firstly, the attendance Entry and Exit (retrieved from the main screen / TSM Browser) will be displayed in each day’s header e.g. in Monday may 27<sup>th</sup> the employee is scheduled to start at 15:00 to 23:00.

In order to add a scheduled job to a selected day, setting the cursor on a day’s header and choose the **[Add Line]** button.

**a) Schedule Jobs through list of Jobs**

Assigning Job is available from the list or by simply by typing the job number. Similarly to the daily scheduling screen, invalid jobs will be **highlighted in RED** while valid jobs will be **highlighted in GREEN** i.e. if “Valid Jobs” mechanism is enabled.

When scheduling an invalid job for the employee and the system is set to “Enable invalid Job Authorization”, the following message will appear:



Note that if the “Invalid Job authorization” is disabled, the operator will view ONLY the list of valid jobs for each employee.

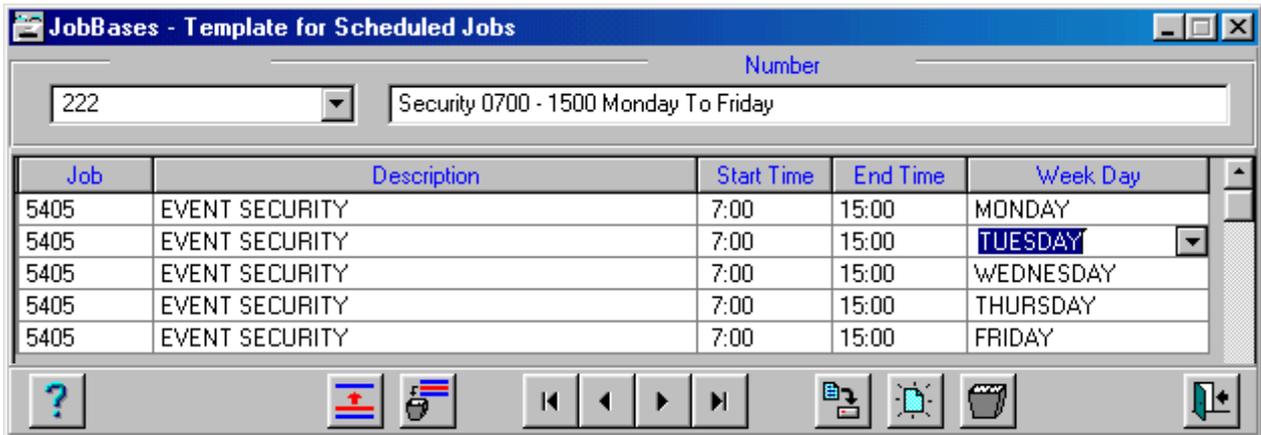


**b) Schedule Jobs through Job bases**

A Job Base is a schedule job template. Each template specifies a weekly sequence of scheduled jobs, used to simplify the scheduling process.

**How does the process work?**

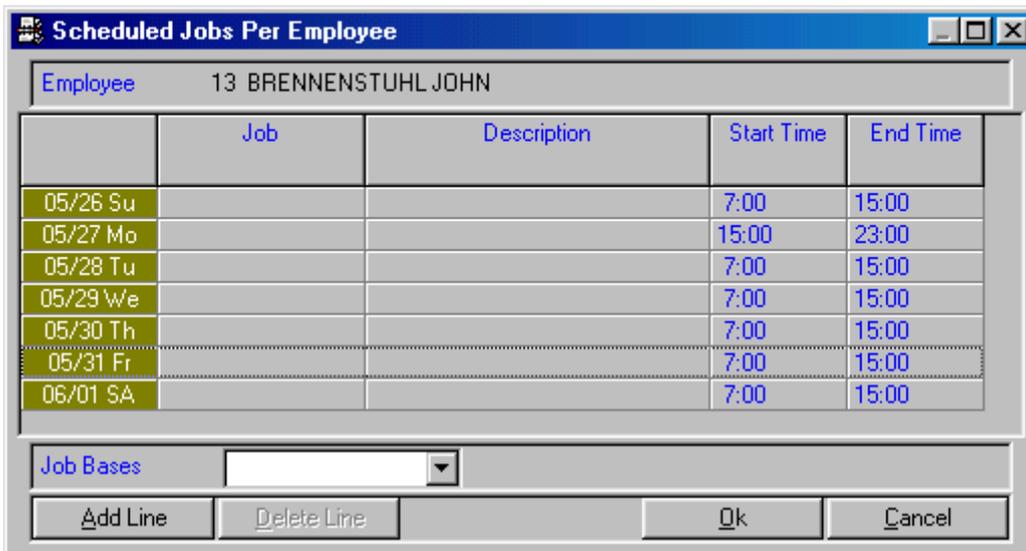
Firstly, the operator creates the templates within "Job Bases" program (Setup Menu – Add/Edit TSM Set up files – Add/Edit Job Schedule templates).



In order to add a scheduled job use the "Add Line" button and specify the job number. In addition, assign the scheduled start time, end time and the weekday. A day could have more than one job scheduled, as long as the start/end times do not overlap.

Note that this is only a "first time" setup. Once the job template had been set up, it may be assigned to any employee anytime through TSM browser.

In the following example the employee is scheduled to work Sunday to Saturday 07:00 – 15:00 (excluding Monday where he is scheduled 15:00 – 23:00). Currently there are no scheduled jobs for employee 13.





The operator may either schedule jobs individually (using the "Add Line" as described in section (a)) or selecting the most suitable "job base" in order to "cover" most of the cases:  
 If the operator wishes to schedule this employee for "Event Security" all week, then the closest template available is "Event Security – Monday to Friday / 07:00 – 15:00" (Base 222):

Job Bases	Description
111	MO 1600 - 2400 Weekly
112	MO 0700 - 1600 Weekly
113	Completely Open
222	Security 0700 - 1500 Monday To Friday
223	Security 1500 - 2300 Monday To Friday
1112	

Once the base had been selected, the scheduled jobs will be loaded to the Weekly Job Schedule screen relatively.

Date	Job	Description	Start Time	End Time
05/26 Su			7:00	15:00
05/27 Mo			15:00	23:00
<1>	5405	EVENT SECURITY	7:00	15:00
05/28 Tu			7:00	15:00
<1>	5405	EVENT SECURITY	7:00	15:00
05/29 We			7:00	15:00
<1>	5405	EVENT SECURITY	7:00	15:00
05/30 Th			7:00	15:00
<1>	5405	EVENT SECURITY	7:00	15:00
05/31 Fr			7:00	15:00
<1>	5405	EVENT SECURITY	7:00	15:00
06/01 SA			7:00	15:00

Job Bases: 222 Security 0700 - 1500 Monday To Friday

Buttons: Add Line, Delete Line, Ok, Cancel

Now, there are only two issues that require further user intervention: Sunday May 26<sup>th</sup> (i.e. adding a scheduled job) and Monday may 27<sup>th</sup> (i.e. modifying the start and end times for the scheduled job).

Once the jobs had been modified accordingly, the user will be able to save the schedule ("OK"). In any other case an error message will appear accordingly:

**Scheduled Jobs Per Employee**

✘ Date: 05/27 Mo Job: 1  
 Start Time In First Job Must Be 15:00

Ok

Notes:



Default jobs will be created automatically with the shift start time and it's end time. No further intervention is required



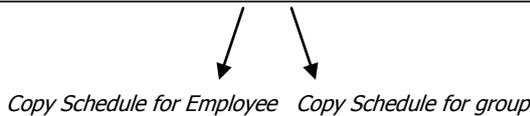
The Job Scheduling system supports only a sequential shifts. In other words, jobs cannot be scheduled for split shifts.

Copying scheduled jobs

Once the schedule had been created, the end-user may copy the schedule to another day, week or any user definable date range) per employee or per group.

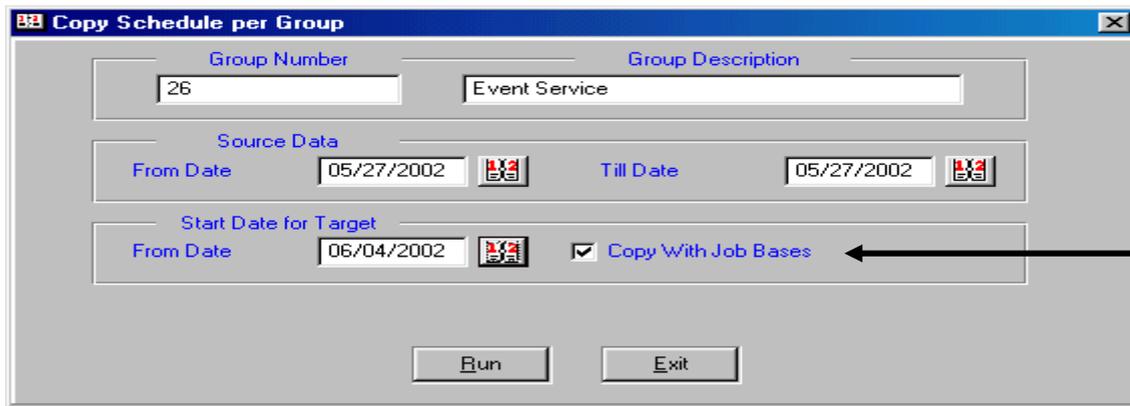
The operator may copy the schedule with (or without) the scheduled jobs as follows:

Emp No	Emp Name	Telephone	Base	Su	05/26	Mo	05/27	Tu	05/28	We	05/29	Th	05/30	Fr	05/31	SA	06/01
7	MCFARLANE RICHARD	204-897-8606	10	15:00	23:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
12	BRENNENSTUHL DAVID	204-487-0588	10	:	:	15:00	23:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
13	BRENNENSTUHL JOHN	204-222-3572	10	7:00	15:00	15:00	23:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00
26	KING KEN	204-334-7605	10	:	:	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	7:00	15:00	:	:
81	FRIESEN SCOTT	204-654-1529	20	:	:	:	:	9:00	17:00	:	:	9:00	17:00	:	:	9:00	17:00
97	BLACKMORE JAMES	204-255-4985	20	:	:	:	:	9:00	17:00	:	:	7:00	19:00	:	:	9:00	17:00
135	EASTMAN JASON	204-889-6416	111	:	:	:	:	8:00	17:00	:	:	14:00	21:00	13:22	23:22	9:00	17:00



**Copying an employee's schedule** e.g. copy this week schedule (may 26<sup>th</sup>) to the following week including the scheduled jobs:

**Copying a Group's Schedule** e.g. copy Monday may 27<sup>th</sup> schedule to the following Sunday (June 2<sup>nd</sup>) including the scheduled jobs for the entire group:



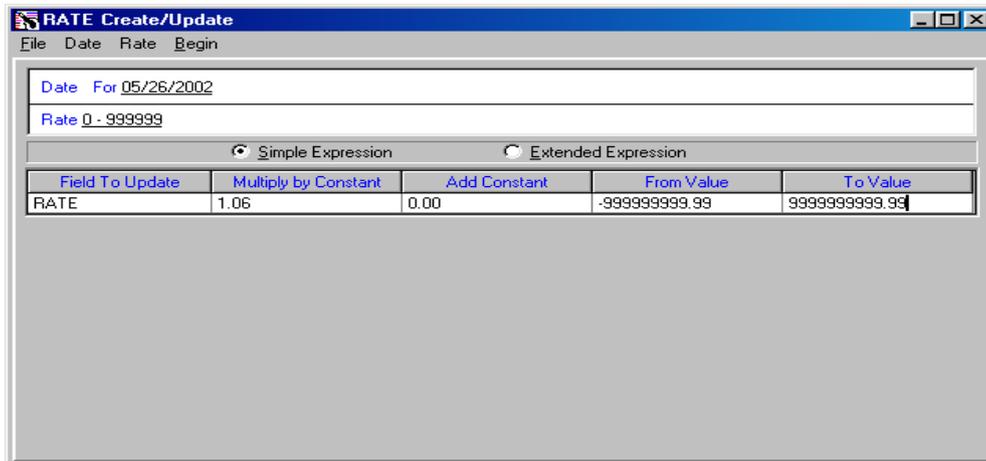
**(2) Time Costing**

Global Rates Update

The program was designed in order to globally update rates. Global rates update is required when a large-scale rate change is required e.g. 6% increase etc.

**Menu** Global Rate Update program is located in "Maintenance / Global Update TC / Global Rates Update". Menu definition: GLOB\_UPD, program parameter = 24.

**Select** Define the date for update, select which rates should be updated and specify the update value i.e. adding a constant value or multiplying by a constant. In the following example, all rates will be updated in addition of 6%:



**Results** Original rates i.e. BEFORE the rate update:



The screenshot shows a 'Rate' dialog box with the following fields:

Number	From Date	Name
1	01/01/2001	EVENT SECURITY

Below these fields, the 'Rate' is set to 7.750.

After the rate update a new record will be created for the issued date and with the new rate e.g.  $7.750 \times 1.06 = 8.215$

The screenshot shows a 'Rate' dialog box with the following fields:

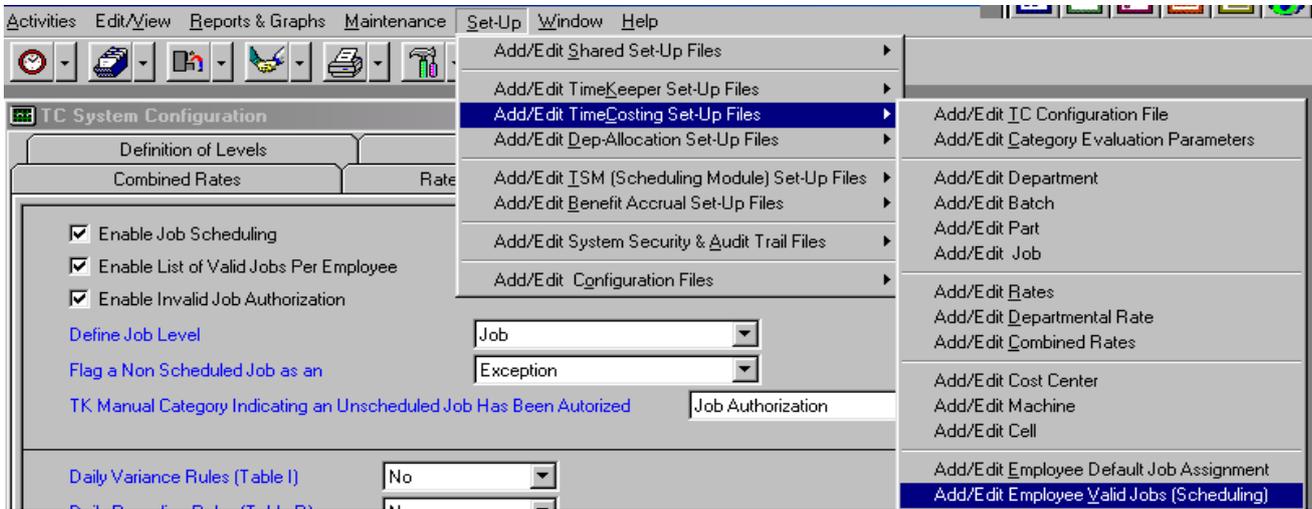
Number	From Date	Name
1	05/26/2002	EVENT SECURITY

Below these fields, the 'Rate' is set to 8.215.

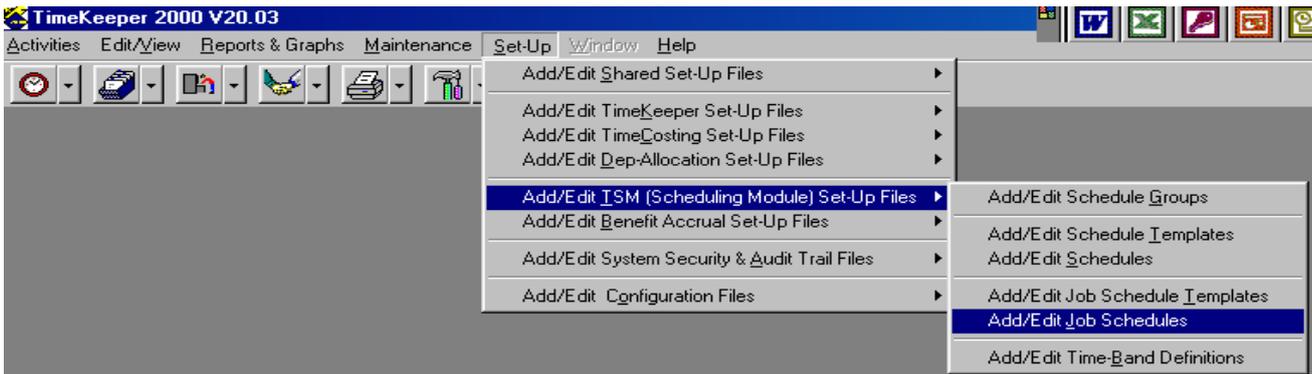


**Menu Changes / Additions**

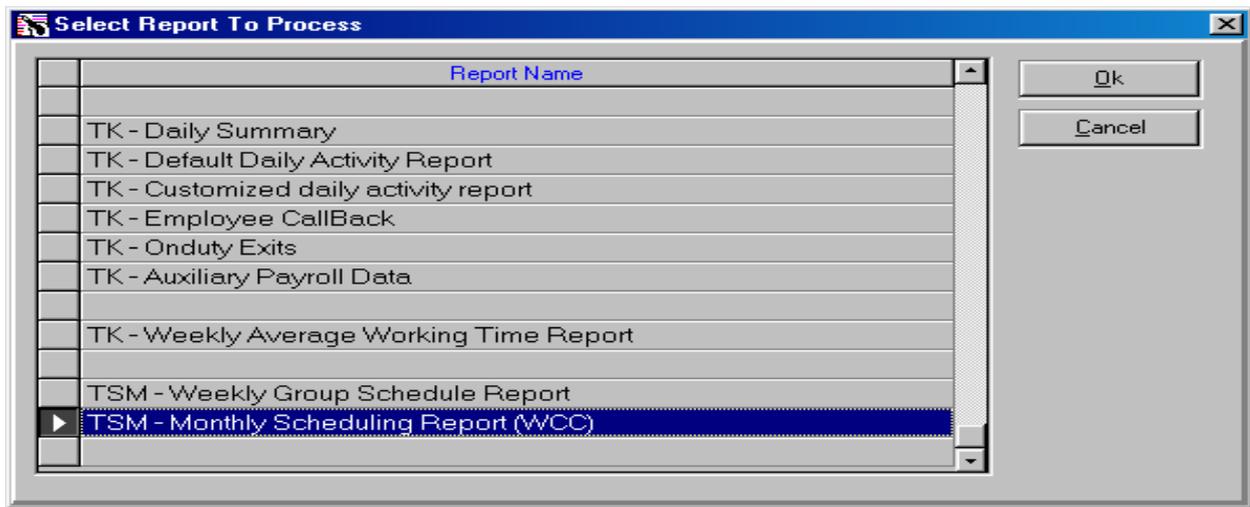
Employee Valid Jobs



Job Template and Job Schedule



Monthly Schedule Report (i.e. see TK Daily reports section)





**Reports**

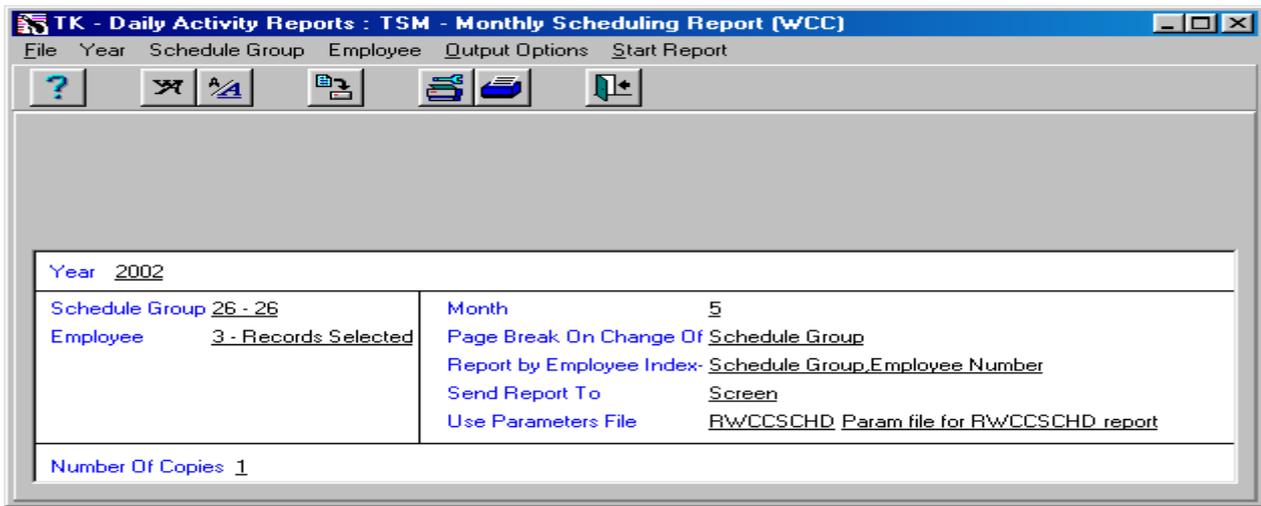
Monthly Schedule report / Report layout

1.5.11-Periodic Group Schedule Report For- 5/2002

Schedule Group: 26 Event Service

Employee No. & Name	Day Type	We S/1	Th S/2	Fr S/3	SA S/4	Su S/5	Mo S/6	Tu S/7	We S/8	Th S/9	Fr S/10	SA S/11	Su S/12
7 MCFARLANE RICHARD		N	D	N			D	N	D	N	D		
12 BRENNENSTUHL DAVID		D	D	D									
13 BRENNENSTUHL JOHN		N	N	D			N	N	N	N	N		

Selection Screen



Parameter File



**Parameters' Files Table**

File Name: RWCCSCHD | File Description: Param file for RWCCSCHD report | Report Name: RWCCSCHD

**Lines' Content In The Current Group**

Group	Description
1	Tablec No For Day type discription
2	Cube Details - start,end,shift,code to print (MAX 50 LINE)

**Line Contents**

Line	Contents
1	7,15,1,D
2	15,23,2,N
3	8,16,30,3,8
4	6,18,4,otD
5	14,26,5,otN
6	

**Planned Jobs Vs. Actual Jobs Report / Report Layout**

Scenario 1 – There are no scheduled Jobs for the employee (all transactions)

TTC - TECH.SUPPORT					Page No. ....	1
2.2.7-Schedule Jobs Vs. Actual For- 05/19/2002 To 05/25/2002					Production Date...	05/22/2002
					Production Time...	10:22
Schedule Group	26	Event Service	Sort Code	1 *	Employee	7 MCFARLANE RICHARD
Scheduled Jobs				Actual		
Date	Job	Entry	Exit	Job	Start	End
05/19/2002						
05/20/2002	6020	SERVICE DESK	7.00	15.00		
05/21/2002	6020	SERVICE DESK	7.00	15.00		
05/22/2002	6020	SERVICE DESK	15.00	23.00		
05/23/2002	6020	SERVICE DESK	15.00	23.00		
05/24/2002	6020	SERVICE DESK	15.00	23.00		

Scenario 2 – There are scheduled Jobs for the employee (all transactions)

TTC - TECH.SUPPORT					Page No. ....	1
2.2.7-Schedule Jobs Vs. Actual For- 05/19/2002 To 05/25/2002					Production Date...	05/22/2002
					Production Time...	10:36
Schedule Group	26	Event Service	Sort Code	1 *	Employee	7 MCFARLANE RICHARD
Scheduled Jobs				Actual		
Date	Job	Entry	Exit	Job	Start	End
05/19/2002				6020	SERVICE DESK	7.00 16.00
05/20/2002	6020	SERVICE DESK	7.00	15.00	6020	SERVICE DESK 7.00 15.00
				5418	UN SETUP CASUAL	15.00 16.30
05/21/2002	6020	SERVICE DESK	7.00	15.00	6020	SERVICE DESK 7.01 23.15
05/22/2002	6020	SERVICE DESK	15.00	23.00	6020	SERVICE DESK 14.22 22.46
05/23/2002	6020	SERVICE DESK	15.00	23.00	6020	SERVICE DESK 14.56 23.08

Scenario 3 – Displaying user-definable exceptions only e.g. 60 minutes before and 90 minutes after the scheduled shift:



TTC - TECHSUPPORT					Page No. ....	1	
					Production Date...	05/22/2002	
					Production Time...	10:43	
2.2.7-Schedule Jobs Vs. Actual For- 05/19/2002 To 05/25/2002							
Schedule Group	26 Event Service		Sort Code	1 *	Employee	7	MCFARLANE RICHARD
Scheduled Jobs				Actual			
Date	Job	Entry	Exit	Job	Start	End	
05/19/2002				6020	SERVICE DESK	7.00 16.00	
05/20/2002	6020	SERVICE DESK	7.00 15.00	6020	SERVICE DESK	7.00 15.00	
				5418	UN SETUP CASUAL	15.00 16.45	
05/21/2002	6020	SERVICE DESK	7.00 15.00	6020	SERVICE DESK	7.01 23.15	