



To: All Dealers  
From: International Marketing

Re: Retail-market specific benefits.

Our dealers, having recently come across several retail-market opportunities, have asked us to compile a document listing various system features that specifically benefit the retail-market environment. This document is the initial attempt at compiling such a document. Any comments and/or additions are hereby solicited and will be accepted and incorporated gladly.

The format of the individual features/benefits is:

- The Requirement
- The Challenge
- The Solution
- Examples (based on data from an actual existing installation)

Also, we have separated the document into two major topics:

- Set-Up & Configuration
- Ongoing Maintenance & Editing

## **(A) SET-UP & CONFIGURATION**

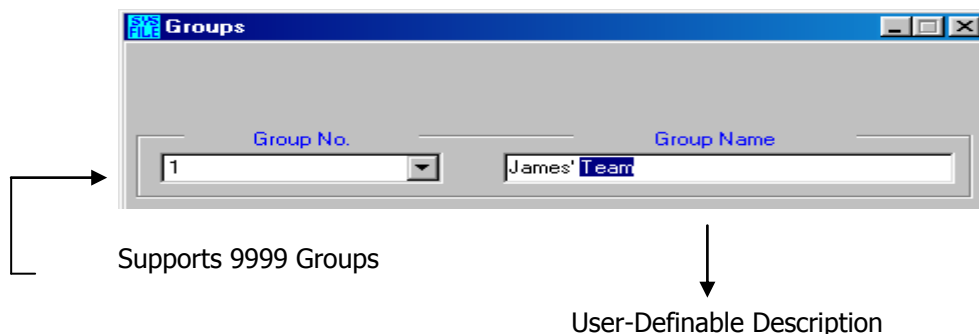
---

The requirement: Often, supervisors schedule employees that are associated with different occupation types, departments and even different sites. Conversely, there are sites in which each department manager schedules his own employees.

The challenge: Providing a flexible, user-definable method of grouping employees (for supervisor set-up and editing).

The Solution: Scheduling Groups. Scheduling Groups are totally user-definable: The user can specify up to 9999 such groups (each with its own unique number and name) and associate an employee (via the Employee Master File) with the group, regardless of the home department, site, contract or any other attribute.

Hence, the end-user may specify scheduling groups by any user-definable factor e.g. by Supervisor, Site or even by product line!



Examples:

(1) Schedule by Supervisor

Group Schedules																
Group No		Arik's Team										First Day of Week		18/02/2002		
<input checked="" type="radio"/> Predefined Sort		Scd.group\Emp. #										<input type="radio"/> Sort According to a Sort Profile				
Emp.No	Emp.Name	Base	Mo	18/02	Tu	19/02	We	20/02	Th	21/02	Fr	22/02	Sa	23/02	Su	24/02
1001	SMITH JOHN	20	7:00	16:00	:	:	7:00	16:00	7:00	16:00	:	:	16:00	24:00	:	:
1002	SONDERS MIKE	21	8:00	17:00	8:00	17:00	8:00	17:00	8:00	17:00	:	:	:	:	:	:
1006	BURNS DAVE	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1021	FIENNES MAINUL	1	:	:	7:00	16:00	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:	8:00	16:00	:	:

(2) Schedule by Site

Group Schedules																
Group No		5th Avenue / 32nd										First Day of Week		01/01/2001		
<input checked="" type="radio"/> Predefined Sort		Scd.group\Emp. #										<input type="radio"/> Sort According to a Sort Profile				
Emp.No	Emp.Name	Base	Mo	01/01	Tu	02/01	We	03/01	Th	04/01	Fr	05/01	Sa	06/01	Su	07/01
1110	WIECZOREK NORA	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:

The requirement: Retail environments often require support for both "recurring" schedule patterns and "open" schedule patterns. If the pattern is of the "recurring" type (i.e. it is repetitive and known in advance), then obviously **there is no need to re-enter the data.**

The challenge: Providing a flexible method for supporting both "recurring" and "open" schedules for different employees within the same Scheduling Group.

The solution: The schedule setup program is designed to support both types of schedules (i.e. "recurring" and "open"). Employees associated with a "recurring" pattern are automatically displayed with the appropriate schedule/pattern for the relevant period. Employees associated with an "open" schedule appear empty (ready for manual entry of their schedules).

Example: In the following example, Mike Sonders (employees 1002) has a recurring pattern. His schedule is a 2-week schedule as follows:

Week 1 Schedule – Morning - Morning – Evening - Evening - Morning - Morning

Week 2 Schedule – Evening - Evening - Morning - Morning - Evening - Evening

The system will create the weekly record accordingly:

**Week 1**

Group Schedules																
Group No		James' Team										First Day of Week		01/01/2001		
<input checked="" type="radio"/> Predefined Sort		Scd.group\Emp. #										<input type="radio"/> Sort According to a Sort Profile				
Emp.No	Emp.Name	Base	Mo	01/01	Tu	02/01	We	03/01	Th	04/01	Fr	05/01	Sa	06/01	Su	07/01
1001	SMITH JOHN	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1002	SONDERS MIKE	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:
1006	BURNS DAVE	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1021	FIENNES MAINUL	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1142	CURRAN NANCY	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:

Week 2

**Group Schedules**

Group No: 100 James' Team First Day of Week: 08/01/2001

Predefined Sort: Scd.group\Emp. #

Emp.No	Emp.Name	Base	Mo	08/01	Tu	09/01	We	10/01	Th	11/01	Fr	12/01	Sa	13/01	Su	14/01
1001	SMITH JOHN	201														
1002	SONDERS MIKE	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00		
1006	BURNS DAVID	201														
1021	FIENNES MAINUL	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00		
1142	CURRAN NANCY	201														

**The requirement:** Specifying schedules for employees can consume a significant amount of time, especially for employees with "open" schedules (schedules that do not have any pattern).

**The challenge:** To provide a simple, flexible mechanism that enables entering the most frequent shift types with a minimal amount of keystrokes. This "mechanism" must support different shift types for different Scheduling Groups.

**The solution:** TSM supports "Band Hot-Key". By pressing a single "hotkey" the relevant (user defined) shift data updates the selected day.

Band Hot-Keys are completely user-definable. Users may specify the list of required shift-types in the organization. TSM supports 26 hotkeys for EACH Schedule Group!

**Bands - Shift Hours**

Group Number: 1 Group List: James' Team Description:

	Shift Start	Shift End	Shift Number
A	8:00	16:00	0
B	9:00	17:00	0
C	10:00	18:00	0
D	11:00	19:00	0
E	12:00	20:00	0
F	13:00	21:00	0
G	14:00	22:00	0
H	15:00	23:00	0
I	:	:	:
J	:	:	:
K	:	:	:
L	:	:	:
M	:	:	:

**HOTKEYS**

	Shift Start	Shift End	Shift Number
N	:	:	:
O	:	:	:
P	:	:	:
Q	:	:	:
R	:	:	:
S	:	:	:
T	:	:	:
U	:	:	:
V	:	:	:
W	:	:	:
X	:	:	:
Y	:	:	:
Z	:	:	:

**HOTKEYS**

**Examples** The end-user is required to change Wednesday January 2<sup>nd</sup> to 11:00 – 19:00. The operator may use one of the following options:

- Type 11:00 to 19:00
- If the required shift already exists within the "Bands Hot-Keys", the operator may **press F5 hotkey (or "right click / bands") and then (the letter) D.**

The 'Group Schedules' window displays a table of employee schedules. The table has columns for Employee Number, Employee Name, Base, and weekly start/end times from Monday to Sunday. A dropdown menu is open for the 'Emp.No' column, showing options A through H with their respective time ranges.

Emp.No	Emp.Name	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1001	SMITH JOHN	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1002	SONDERS MIKE	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1006	BURNS DAVE	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:
1021	FIENNES MAINUL	1	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	11	16:00	24:00	16:00	24:00	:	:	:	:	:	:	:	:	:	:

Dropdown menu options for Emp.No:

- A 8:00 16:00
- B 9:00 17:00
- C 10:00 18:00
- D 11:00 19:00
- E 12:00 20:00
- F 13:00 21:00
- G 14:00 22:00
- H 15:00 23:00

In addition, an operator can duplicate employee schedules (for as many weeks as required) from any date to any date.

The 'Copy Schedule per Employee' window contains the following fields:

- Employee Number: 1001
- Employee Name: SMITH JOHN
- Source Data:
  - From Date: 31/12/2001
  - Till Date: 31/12/2001
- Start Date for Target:
  - From Date: 31/12/2001

Buttons: Run, Exit

Also, an operator can duplicate Group Schedules (for as many weeks as required) from any date to any date.

The 'Copy Schedule per Group' window contains the following fields:

- Group Number: 11
- Group Description: James' Team
- Source Data:
  - From Date: 31/12/2001
  - Till Date: 31/12/2001
- Start Date for Target:
  - From Date: 31/12/2001

Buttons: Run, Exit

**The requirement:** In the retail environment, supervisors responsible for scheduling their employees often need to view these employees in a certain order. Different organizations (and even different departments within a given organization) may have different sorting requirements e.g. sorting by department, occupation, sorting by employee name, seniority, life-time hours etc.

**The challenge:** Creating a flexible, user-definable method for creating and modifying various sort definitions. The supported sort definitions must include individual fields, conditional values, expressions and the ability to intermix ascending and descending order within the same sort.

The solution: TSM has a built in Sort Generator that enables end-users to create and modify "Sort Profiles" (based on employee master file data). These "Profiles" are later used when displaying employees by various programs.

Set-Up Examples: (1) A (simple) sort by Employee Last Name & First Name

Supports  
99999  
sorts

Sort Definition		Display / Edit Sort List
	Field Name	Expression
1	Last Name	EMPLOYEE->LAST_NAME
2	First Name	EMPLOYEE->FIRST_NAME

The sort profiles supports 9 internal sorts e.g.  
last name and First name is a 2 - internal sort

(2) A (slightly more complex) sort by Department (ascending) Life-Time Hours (descending)

	Field Name	Expression
1	Department	EMPLOYEE->DEPARTMENT
2	Life Time Hrs (Sort)	STR(999999.99-EMPLOY1->LIFETIMEHH,9,2)
3	LifeTime Hrs-Actual	STR(EMPLOY1->LIFETIMEHH,9,2)

	Employee Name	Department	Life Time Hrs (Sort)	LifeTime Hrs-Actual
1	1119 KHEDER ALI	1	889975.99	110024.00
2	1129 CARTIER SHIRLEY	1	998439.99	1560.00
3	1023 JORDAN ANDREW	3	984233.99	15766.00
4	1043 PARRA LUISA	3	986479.99	13520.00
5	1144 SAMPAT ORLANDO	3	989999.99	10000.00
6	1599 Van James	3	989999.99	10000.00
7	1133 SAMA JOSEPH	3	988564.99	1435.00
8	1021 FIENNES MAINUL	5	976079.99	23920.00
9	1016 MONROE JANICE	5	978547.99	21452.00
10	1001 SMITH JOHN	5	989478.99	10521.00
11	1017 DOUGLAS BOGDAN	5	989889.99	10110.00
12	1078 CLARK ARTHUR	5	992719.99	7280.00
13	1036 SEINFELD TED	5	993239.99	6760.00
14	1006 BURNS DAVE	5	999116.99	883.00
15	1002 SONNERS MIKE	5	999479.99	520.00
16	1138 BAIG SAIRA	6	989999.99	10000.00

(3) A (complex) conditional sort: Department / Seniority (for Full Time employees) and Department / Lifetime Hours (for Part Time employees).

	Field Name	Expression
1	Department	EMPLOYEE->DEPARTMENT
2	PartTime Y/N (1=Yes)	EMPLOYEE->PART_TIME
3	Seniority	IIF(VAL(EMPLOYEE->PART_TIME)=0, STR(EMPLOY1->SENIORITY,9,2),STR(0,9,2))
4	Life Time Hours	IIF(VAL(EMPLOYEE->PART_TIME)>0, STR(EMPLOY1->LIFETIMEHH,9,2),STR(0,9,2))


Sort Profiles					
Profile Number		Profile Description			
13		Dept./Seniority(F) and Dept./LT Hrs. (P)			
Sort Definition			Display / Edit Sort List		
	Employee Name	Department	PartTime Y/N (1=Yes)	Seniority	Life Time Hours
1	1129 CARTIER SHIRLEY	1	0	0.75	0.00
2	1119 KHERER ALI	1	0	5.30	0.00
3	1144 SAMPAT ORLANDO	3	0	0.17	0.00
4	1599 Van James	3	0	0.46	0.00
5	1133 SAMA JOSEPH	3	0	0.69	0.00
6	1043 PARRA LUISA	3	0	6.50	0.00
7	1023 JORDAN ANDREW	3	1	0.00	15766.00
8	1036 SEINFELD TED	5	0	3.25	0.00
9	1078 CLARK ARTHUR	5	0	3.50	0.00
10	1017 DOUGLAS BOGDAN	5	0	5.12	0.00
11	1016 MONROE JANICE	5	0	9.97	0.00
12	1021 FIENNES MAINUL	5	0	11.50	0.00
13	1002 SONNERS MIKE	5	1	0.00	520.00
14	1006 BURNS DAVE	5	1	0.00	883.00
15	1001 SMITH JOHN	5	1	0.00	10521.00
16	1146 WONG GRACE	6	0	0.14	0.00
17	1142 CURRAN NANCY	6	0	0.27	0.00
18	1140 PUGLIESE NICHOLAS	6	0	0.29	0.00
19	1138 BAIG SAIRA	6	0	0.37	0.00
20	1122 PERRICELLI JOANNE	6	1	0.00	2579.20
21	1111 FRIEDMAN ARIK	10		4.21	0.00
22	1136 FAZIO MERCEDES	10	0	0.62	0.00
23	1131 ROCCA LUISA	10	0	0.72	0.00
24	1051 SOOKDEO KRIS	10	0	2.40	0.00
25	1110 WIECZOREK NORA	10	1	0.00	1248.00



**Note that the above screens are used for defining the sort. Once the profiles had been generated, the end-user works on the scheduling screens (see usage examples 1-5).**

Usage Examples:

(1) Sorting the group employee name:

Group Schedules


Group No

1

James' Team

First Day of Week

31/12/2001



☐ Predefined Sort

☒ Sort According to a Sort Profile

1

Last Names And First Names

Emp.No	Emp.Name	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1006	BURNS DAVE	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	8:00	16:00
1142	CURRAN NANCY	11	8:00	16:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	16:00	24:00	16:00	24:00
1021	FIENNES MAINUL	1	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1001	SMITH JOHN	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	:	:
1002	SONDERS MIKE	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:

(2) Sorting the group by Plant Site Department and Employee:

Group Schedules

Group No: 1 James' Team First Day of Week: 31/12/2001

☐ Predefined Sort  
☒ Sort According to a Sort Profile

2 Plant Site Department

Emp.No	Emp.Name	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1006	BURNS DAVE	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	8:00	16:00
1021	FIENNES MAINUL	1	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	11	8:00	16:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	16:00	24:00	16:00	24:00
1001	SMITH JOHN	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	:	:
1002	SONDERS MIKE	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:

(3) Sorting the group by Seniority / Life Time Hours:

Group Schedules

Group No: 1 James' Team First Day of Week: 31/12/2001

☐ Predefined Sort  
☒ Sort According to a Sort Profile

11 Sorting By Seniority / Life Time Hours

Emp.No	Emp.Name	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1001	SMITH JOHN	10	8:00	16:00	8:00	16:00	:	:	16:00	24:00	8:00	16:00	8:00	16:00	:	:
1002	SONDERS MIKE	1	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1006	BURNS DAVE	11	16:00	24:00	:	:	8:00	16:00	:	:	:	16:00	24:00	:	:	:
1021	FIENNES MAINUL	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1142	CURRAN NANCY	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:

(4) Sorting the group by Department (Ascending) / Life Time Hours (Descending):

Group Schedules

Group No: 1 James' Team First Day of Week: 31/12/2001

☐ Predefined Sort  
☒ Sort According to a Sort Profile

12 Department (Asc) LifeTime Hours (Desc)

Emp.No	Emp.Name	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1021	FIENNES MAINUL	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1001	SMITH JOHN	10	8:00	16:00	8:00	16:00	:	:	16:00	24:00	8:00	16:00	8:00	16:00	:	:
1006	BURNS DAVE	11	16:00	24:00	:	:	8:00	16:00	:	:	:	16:00	24:00	:	:	:
1002	SONDERS MIKE	1	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:

(5) Conditional sort: Department / Seniority (for Full Time employees) and Department/Lifetime Hours for part time Employees

Group Schedules

Group No: 1 James' Team First Day of Week: 31/12/2001

☐ Predefined Sort  
☒ Sort According to a Sort Profile

13 Dept./Seniority(F) and Dept./LT Hrs. (P)

Emp.No	Emp.Name	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1021	FIENNES MAINUL	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1002	SONDERS MIKE	1	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1006	BURNS DAVE	11	16:00	24:00	:	:	8:00	16:00	:	:	:	16:00	24:00	:	:	:
1142	CURRAN NANCY	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:

**The requirement:** Supervisors often wish to view employees sorted by some predefined criteria i.e. seniority based on lifetime hours, seniority based on refused overtime etc.

However, as with any real-life, dynamic system, they need the ability to change a specific employee's "position" in the sort order due to operational considerations (e.g. an employee refuses offered overtime, problematic employees etc.) Later on, they need the ability to "revert" to the automatic sorting order based on the most current data (i.e. accumulated hours.)

**The challenge:** Create a flexible, easy-to-use method for "manual re-ordering" of employee sorting. Provide support for "initializing" the sort order (based on the original "automatic" criteria).

**The solution:** TSM's Sort Generator has a "manual re-ordering" option. Once the "automatic" sorting has been effected, the user may manually modify the sorting, according to his needs.

In addition, the user may at any time "(re) initialize" the original sort by re-running the sort process.

The following screen displays the original sort definitions.

Sort Definition		Display / Edit Sort List
	Field Name	Expression
1	Seniority	STR(EMPLOY1->SENIORITY,5,2)
2	Life Time Hours	STR(EMPLOY1->LIFETIMEHH,5,2)

Once the sort had been defined, the user will run the sort for the first time. The following screen displays the original sort order prior to any (optional) adjustments.

Sort Definition		Display / Edit Sort List		
	Employee Name	Seniority	Life Time Hours	
1	1111 FRIEDMAN ARIK	0.00	0.00	
2	1146 WONG GRACE	0.14	0.00	
3	1144 SAMPAT ORLANDO	0.17	0.00	
4	1142 CURRAN NANCY	0.27	0.00	
5	1140 PUGLIESE NICHOLAS	0.29	0.00	
6	1138 BAIG SAIRA	0.37	0.00	
7	1599 Van James	0.46	0.00	
8	1136 FAZIO MERCEDES	0.62	0.00	
9	1133 SAMA JOSEPH	0.69	0.00	
10	1131 ROCCA LUISA	0.72	0.00	

One Line Up

One Line Down

Refresh

Add new Employees

To change an employee's sorting order the operator uses the "One line Up" / "One line Down" buttons.

In the following example, employee "1119" and "1129" will be displayed on top



	Employee Name	Seniority	Life Time Hours
1	1142 CURRAN NANCY	0.27	0.00
2	1129 CARTIER SHIRLEY	0.75	0.00
3	1119 KHEDER ALI	6.97	0.00
4	1111 FRIEDMAN ARIK	0.00	0.00
5	1146 WONG GRACE	0.14	0.00
6	1144 SAMPAT ORLANDO	0.17	0.00
7	1140 PUGLIESE NICHOLAS	0.29	0.00
8	1138 BAIG SAIRA	0.37	0.00
9	1599 Van James	0.46	0.00
10	1136 FAZIO MERCEDES	0.62	0.00

Examples:

- (1) Sorting the group by employee Seniority i.e. as is:

Emp.No	Emp.Name	Base	Mo	01/01	Tu	02/01	We	03/01	Th	04/01	Fr	05/01	Sa	06/01	Su	07/01
1001	SMITH JOHN	201	8:00	16:00	:	:	8:00	16:00	:	:	8:00	16:00	8:00	16:00	16:00	24:00
1021	FIENNES MAINUL	201	:	:	8:00	12:00	:	:	8:00	18:00	:	:	16:00	24:00	16:00	24:00
1142	CURRAN NANCY	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:

- (2) Sorting the groups by employee seniority i.e. problematic employees on top:  
In the above example "Curran Nancy" is displayed 3<sup>rd</sup> i.e. based on her seniority. However, in the following example, the supervisor requested to view "Curran Nancy" (the "problematic" employee) on top:

Emp.No	Emp.Name	Base	Mo	01/01	Tu	02/01	We	03/01	Th	04/01	Fr	05/01	Sa	06/01	Su	07/01
1142	CURRAN NANCY	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	:	:
1001	SMITH JOHN	201	8:00	16:00	:	:	8:00	16:00	:	:	8:00	16:00	8:00	16:00	16:00	24:00
1006	BURNS DAVE	20	7:00	16:00	7:00	16:00	7:00	16:00	7:00	16:00	7:00	16:00	:	:	:	:
1021	FIENNES MAINUL	201	:	:	8:00	12:00	:	:	8:00	18:00	:	:	16:00	24:00	16:00	24:00

The requirement: In many retail environments, cost is one of the main parameters that effect scheduling. To schedule employees cost-effectively, supervisors need to see how their scheduling effects both the total hours and the cost for both individual employees and the entire Scheduling Group. These values are required on both daily and weekly levels.

**Cost per employee = Total scheduled time X Employee Hourly Rate**

The challenge: Provide a clear, effective method of displaying the required data, without overly "cluttering" the data-entry screen.

The solution: TSM's Group Scheduling screen supports three "Total" icons (Hours, Cost, Hours & Cost). Selecting any one of them displays the relevant data. Display can be turned "on" and "off" as required.

Examples:

(1) **Display Totals**

Emp.No	Emp.Name	Emp.Total	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1001	SMITH JOHN	37.30	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	:	:
1002	SONDERS MIKE		201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1006	BURNS DAVE	45.00	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	8:00	16:00
1021	FIENNES MAINUL		201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	46.30	11	8:00	16:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	16:00	24:00	16:00	24:00
Total/day(Hrs.)		129.00			22.30		22.30		22.30		15.00		15.30		23.00		8.00

(2) **Display costs**

Emp.No	Emp.Name	Emp.Total	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su	06/01
1001	SMITH JOHN	525	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	:	:
1002	SONDERS MIKE	0	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1006	BURNS DAVE	630	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	8:00	16:00
1021	FIENNES MAINUL	0	201	:	:	:	:	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	558	11	8:00	16:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	16:00	24:00	16:00	24:00
Total/day(\$)		1713.00			300.00		300.00		300.00		210.00		201.00		306.00		96.00

(3) **Display Totals & costs**

Emp.No	Emp.Name	Hours	Cost	Base	Mo	31/12	Tu	01/01	We	02/01	Th	03/01	Fr	04/01	Sa	05/01	Su
1001	SMITH JOHN	37.30	525	11	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	:
1002	SONDERS MIKE	0	0	201	:	:	:	:	:	:	:	:	:	:	:	:	:
1006	BURNS DAVE	45.00	630	10	8:00	16:00	8:00	16:00	16:00	24:00	16:00	24:00	8:00	16:00	8:00	16:00	8:00
1021	FIENNES MAINUL		0	201	:	:	:	:	:	:	:	:	:	:	:	:	:
1142	CURRAN NANCY	46.30	558	11	8:00	16:00	8:00	16:00	8:00	16:00	:	:	16:00	24:00	16:00	24:00	16:00
Total/day(Hrs.)		129.00				22.30		22.30		22.30		15.00		15.30		23.00	
Total/day(\$)			1713.00			300.00		300.00		300.00		210.00		201.00		306.00	

**The requirement:** The retail environment often requires entry of additional scheduling data (i.e. split shift hours, scheduled Absences, change of Departments, change of Contracts etc.).

**The challenge:** Providing support for entry of such additional data without overly "cluttering" the data-entry screen.

**The solution:** TSM's Group Scheduling screen has "Addition Information" icon. Selecting this icon brings up an additional screen as displayed below. The additional information screen is also accessible through "right click/Additional information" or hotkey (F6).

Split Shift Support

Absence Reporting

## (B) ON GOING MAINTENANCE & EDITING

The requirement: As in any real-life, dynamic environment, employee scheduling is subject to changes. As these changes can occur at any moment, the system must support “on the fly” changes. This also applies to retroactive schedule editing.

The challenge: Providing a flexible, easy-to-use method of applying any required attendance/absence or schedule changes. Support must be provided equally for both scheduled future changes and retroactive schedule changes.

The solution: The main edit/review program in Timekeeper/TSM (i.e. the Daily Browser) enables viewing a “split screen” where the top part displays all the relevant (actual) Attendance/Absence data and the bottom displays the Scheduled data.

Supervisors may edit not only the actual employee data but (if needed) effect the required (retroactive) schedule changes. The system automatically (re) calculates as required based on the adjustments made.

Note: The Daily Browser is fully configurable (by Supervisor) inclusive of specifying field level Read-Write/Read-Only permissions. Consequently the system may be set-up to enable some supervisors to effect retroactive schedule changes while “denying” others this ability.

Examples: (1) The schedule as is i.e. without any user adjustments:

(2) Assuming the system date (i.e. the date in which the user performs the adjustments) is Saturday, January 6<sup>th</sup>: The user has changed the schedule for Monday, Tuesday and Thursday:

- (3) On Monday January 8<sup>th</sup>, the supervisor has decided to let the employee leave early at 23:00 instead of 24:00 (i.e. on the fly). The operator may then access the employee's daily data and change the scheduled entry and/or the scheduled exit.

Employee: 1002 SONDERSON MIKE From Date: 01/01/2001

Date	Day Type	Contract	Absence Code	TableG#	In 1	Out 1	In 2	Out 2
08/01/2001	1 Mo	1 830-1700 Support (1		10	16:00	22:55	:	:
06/01/2002	7 Su	1 830-1700 Support (1		10	9:00	19:00	:	:

Schedule Group	WEEK	Base	D1_START1	D1_END1	D1_SHIFT	D1_TOT	D1_START2	D1_
1	200102	11 AA-MM-AA Roster	16:00	23:00	0	:	:	:

The change will be reflected immediately (without requiring the user to load different screens and recalculate the records).

Changing values on a daily basis (i.e. within the daily editing screen) is highly recommended for "on the fly" changes since the operator may change the scheduled Entry (or entries in split shifts) and exits (or exits in split shifts), as well as absence code and department.

- (4) Changing Absence code(s) "on the fly"

Employee: 1001 SMITH JOHN From Date: 08/01/2002

Date	Day Type	Contract	Absence Code	TableG#	In 1	Out 1	In 2	Out 2	In 3	Out 3	Paid Attn	Paid Abs.	Unpaid Abs	O.T. Permit
08/01/2002	2 Tu	1 830-1700 Support (1	4 VACATION PA	10	:	:	:	:	:	:	8.00	:	By Contract	
09/01/2002	3 We	1 830-1700 Support (1	4 VACATION PA	10	:	:	:	:	:	:	8.00	:	By Contract	
10/01/2002	4 Th	1 830-1700 Support (1	4 VACATION PA	10	:	:	:	:	:	:	8.00	:	By Contract	

Schedule Group	WEEK	Base	D2_START1	D2_END1	D2_START2	D2_END2	D2_SHIFT	D2_ACTIV	D2_CONTR	D2_NK	D2_TOT	WEEKLY_TOT
1	200202	201 Completely Open (Dyna	:	:	:	:	2	4	0	0	:	:

ABS_CODE	Description
0	Regular Day
1	Unauthorized Absence
2	LATE ENTRY
3	EARLY EXIT
4	VACATION PAID
5	VACATION UNPAID
6	LEAVE OF ABSENCE
7	SICK PAID

In the above example, the end-user schedules the employee for vacation (in the bottom screen i.e. Current schedule data). By scheduling vacation, the system will update automatically the daily (i.e. actual) data with vacation.

### **Note!**

The system may be set-up selectively to enable some Absence Codes to be scheduled (i.e. Vacations) and others to be disabled for "scheduling" (i.e. Sickness). This is completely user definable.

- (5) Changing scheduled department "on the fly"



Employee: 1001 SMITH JOHN

From Date: 08/01/2002

Date	Day Type	Contract	Department	TableG#	In 1	Out 1	In 2	Out 2	In 3	Out 3	Paid Attn	Paid Abs.	Unpaid Abs.	O.T. Permit
08/01/2002	2 Tu	1 830-1700 Support (1)	5 Painting	10	:	:	:	:	:	:		3.30		By Contract
09/01/2002	3 We	1 830-1700 Support (1)	2 Support	10	8:00	14:00	16:00	19:00	:	:	8.30			By Contract
10/01/2002	4 Th	1 830-1700 Support (1)	5 Painting	10	:	:	:	:	:	:		8.00		By Contract
11/01/2002	5 Fr	1 830-1700 Support (1)	5 Painting	10	:	:	:	:	:	:		8.00		By Contract

CRNSCHED (Current Schedule Data/TSM)

Schedule Group	WEEK	Base	D3_START1	D3_END1	D3_DEPT1	D3_START2	D3_END2	D3_DEPT2	D3_SHIFT	D3_ACTIV	D
1	200202	201 Completely Open (Dyna	8:00	12:00	2 Support	16:00	19:00	6 Assembly	2	0	

NUMBER	NAME
1	*
2	Support
3	Electrical
5	Painting
6	Assembly
10	Quality Assurance
13	Operations
14	Marketing & Sales

In the above example, the end-user schedules the employee (in the bottom screen - the current schedule data) to the Support department (2). By scheduling the employee to "Support", the system will update automatically the daily (i.e. actual) data with "Support Department".