



## Modern Personnel Shift Planning

Shiftplan Manager has been conceived as a flexible tool for interactive, cost-effective, efficient personnel shift planning. One key advantage is the automated planning of personnel resources consistent with the specified business-rules.

Use of the latest software technologies enable this complex resource optimisation problem with many constraints to be solved in a short-time. The result is an optimised shift plan produced with a dramatic time saving.

Hierarchical user access rights ensure that each step of the usage of Shiftplan Manager complies with data-protection laws where required and transparency in planning where desired.

One of many Shiftplan Manager application areas is in scheduling a medical department within a hospital, where a multitude of different tasks are to be performed around the clock, 24/7.

The personnel resources for these tasks have different qualifications, skills and work-pattern constraints; they are to be planned efficiently to ensure complete coverage of all shifts.

Numerous other resource allocation problems can be tackled with Shiftplan Manager which is easily configured to model each different scenario. A schedule may be for months, weeks or days which may also be broken into part day shifts or hours.

Shiftplan Manager improves efficiency in both creating schedules and implementing often time consuming adjustments to the schedule while it is being performed maintaining complete coverage and checking for inconsistencies. Changes to the schedule as a result of illness or last-minute holiday are also easily rectified.

## The Configuration

The basis configuration can either be created by your own personnel or delivered by IF Computer as part of our service to be maintained easily by your own non-IT personnel.

Configuration consists of entering the personnel resources with different skills,

defining regularly occurring shift patterns and their resource requirements, setting worked times, costs and distribution rules.

A resource-task skill matrix provides a clear overview of “who-can-do-what” allowing individual members to have specific skills.

		Activities													
		Shift						Shift Combin.		Workplace					
		Weekend	Night	Bank Holiday	Free	Night Free	Weekend Ft.	Night Combi	Weekend C.	MRI	Anglo	Internal	X-Ray 1	X-Ray 2	Standin
Resources	Permanent MRI														
	Miller									OK					OK
	Smith										OK				OK
	FO-HRI-ANG	Barham	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
	Brew	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
	Ford	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
	Judson	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
	Marsh	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
	Mills	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
	MTA	Brook	OK	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK	OK
	Mason	OK	OK	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK	OK
	Willson	OK	OK	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK	OK
	FO-ANG	McDowell	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK	OK	OK
	Tunwell	OK	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK	OK	OK
	Watson	OK	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK	OK	OK
	FO	Kirkland	OK	OK	OK	OK	OK	OK	OK			OK	OK	OK	OK

## Automated Shift Planning

Through the definition of regular shift patterns and by knowing all problem constraints, Shiftplan Manager is able to automatically create the schedule for a particular month, week or day in just a few seconds. Proven existing shift patterns (e.g. early-shift, late-shift, days-off) can be entered as a composition shift and allocated

jointly to resources and prevent breakages of contiguous shifts.

Where the user decides to override the configured rules, Shiftplan Manager will highlight resources which would not usually perform the scheduled task.

## Planning – Planned and Actual Schedules

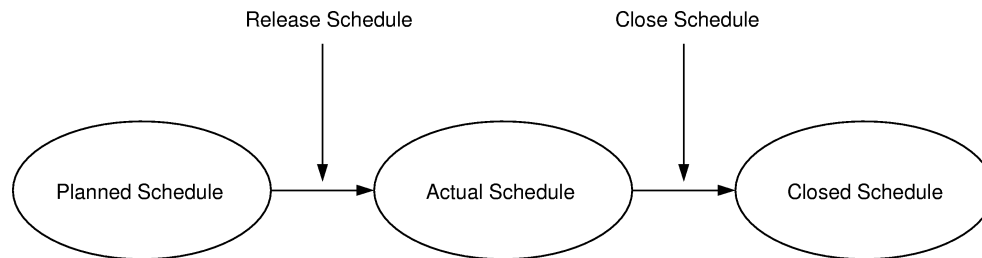
A Shiftplan Manager schedule is first planned, then released and finally closed; the "Planned Schedule", "Released Schedule" and "Closed Schedule" represent the steps involved.

**The Planned Schedule** is the schedule that a responsible user of Shiftplan Manager first edits. Once completed the schedule is released and may be viewed by other users.

**The Released Schedule** is the schedule maintained to illustrate changes to the

planned version. Differences arise from manual schedule changes for illness, holiday and the exchange of shifts as well as from worked time calculations from time-stamp registration systems. After completion of all the changes and corrections to the timings the schedule can be closed.

**The Closed Schedule** is the schedule that may no-longer be changed, it is communicated to the personnel dept. for accounting and payment.



## Advantages Over Traditional Methods

- **Automatic, faster schedule creation**  
Once configured, the shift plan can be created partly or fully automatically avoiding the tedious entering of each shift individually.
- **Completeness and Transparency**  
The schedule is clearly displayed using a Gantt charts for the schedule and for the unplanned tasks.
- **Long Term Consideration**  
Schedule alterations are immediately displayed at each step, showing their impact to the complete schedule. Distribution rules provide a long-term balancing of, for example: weekend or bank-holiday shifts.
- **Efficient Employment of Personnel**  
The rapid deployment of the shift plan releases highly qualified personnel from administrative duties.
- **Automatic Fulfillment of All Constraints**  
Through the rule based configuration of Shiftplan Manager the rules, once defined, are automatically checked at each alteration and any conflicts are displayed. This applies in the following cases:
  - completion of the necessary resource allocation per department
  - attention to individual personnel criteria (e.g. qualifications, skills),
  - continuation from previous schedules,
  - a balanced utilisation of all personnel,
  - and the conformance to legal legislation.

# Statistics

Shiftplan Manager maintains overtime and holiday accounts for each resource. The statistics view displays information showing, for each resource and task, the planned and actual worked times.

The totals on the right show the previous, schedule and carry-over; overtime and holiday accounts for this shedule. Similarly, the total cost for each task and for the schedule as whole is displayed.

Statistics can be displayed for individual personnel, personnel groups and/or for individual tasks of task groups.

The statistics view can be opened in any stage of the planning process where it is updated automatically based on the current standings. This enables the continual control of consequences from exploring what-if” scenarios and provides essential information for management decisions.

The statistic evaluation can be exported to Microsoft Excel for further analysis and incorporation into business documents. Thus it is possible to evaluate total personnel planning costs and their cost effectiveness.

## Interfaces

Shiftplan Manager offers an export interface to Microsoft Excel; in this way information can be processed further. Schedule and statistics views are exported into a single Excel spreadsheet.

Interfaces to time-stamp registration and time accounting systems have been developed and need only be configured to meet your exact requirements.

Personnel arrival and departure times can be read using the electronic time stamp system and evaluated using time calculation rules in Shiftplan Manager to determine the exact number of hours worked accounting for breaks.

Shiftplan Manager also allows you to generate a web site version of the Released Schedules for viewing in your intranet and the internet.

## System Requirements

Shiftplan Manager runs on a standard pc under MS-Windows; a minimum of 400 MHz and 64 MB memory is advantageous. The system itself needs ca. 40 MB disk space.

## Our Offer

When you buy Shiftplan Manager we also offer you the following services:

- Creation of the basic configuration of the system according to your specific requirements.
- Realisation from interface to wage and salary programs to accounting.
- Integration of the system into the existing soft and hardware environment.
- Training your personnel or your training personnel.
- Maintenance and updates to the system.
- Realisation of solutions for other scheduling problems.

## IF Computer GmbH

IF Computer GmbH has been a preferred partner for resource allocation and optimisation software for many years. Use of the latest software technologies enable us to deliver to you flexible software solutions to benefit the efficiency and competitive advantage of your own company or service. World-wide projects for household name companies underly our success.

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