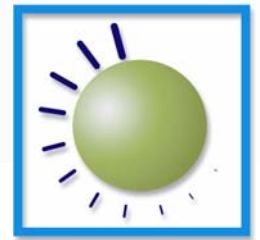


PROG'TIME



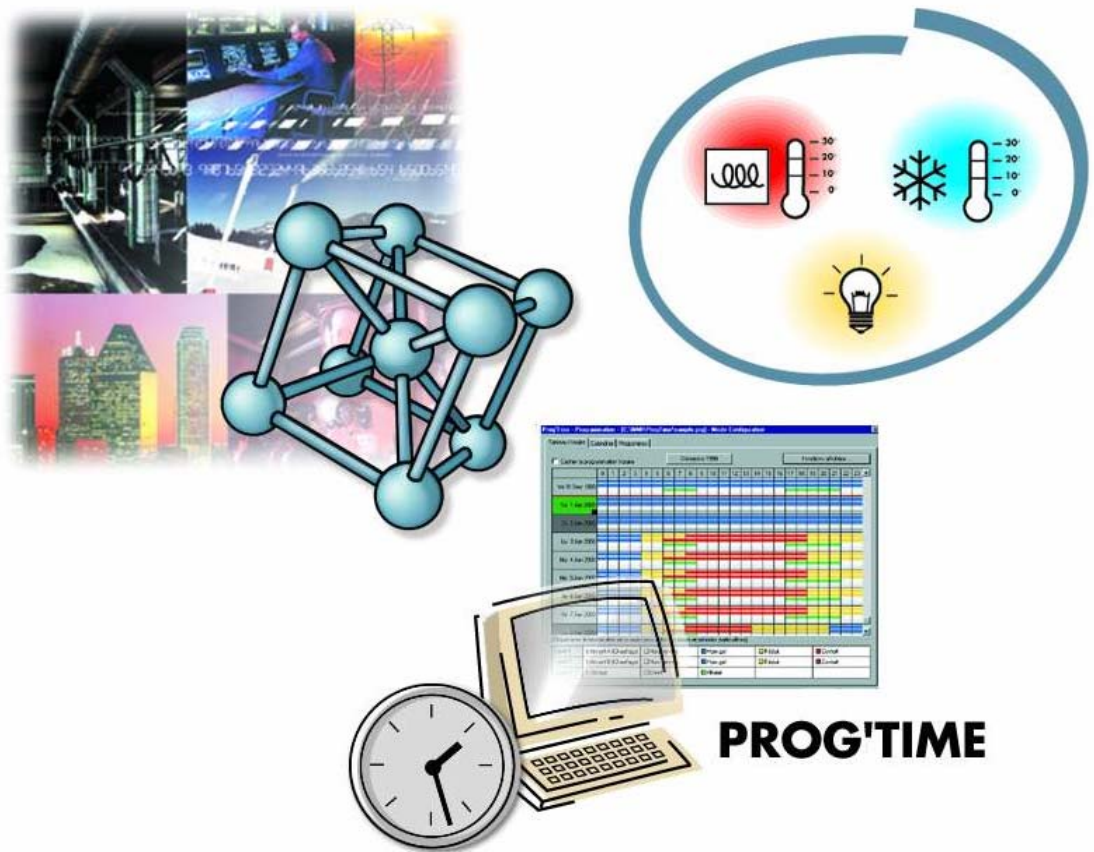
version 1.2

Graphical interface ... Schedule server ...

Scheduling Server for Supervision and Centralized Technical Management

Prog'Time is a software module which can be used as a supervisory application add-on. It can deliver, in real time, the current status of time-scheduled functions or return a list of the next status changes with a view to downloading them on to the automatic devices.

Prog'Time also provides a very ergonomic graphical interface for configuring time schedules. This interface can be called from a client application and appears to the user as an embedded module.



Time-scheduled functions

Prog'Time allows an unlimited number of time-scheduled functions to be defined.

Each function is defined by a name (heating, lighting, maintenance, operation cycle, etc.) and can take different states according to its associated time schedule (0/1, ON/OFF, OFF / ABOVE FREEZING / REDUCED / COMFORT, set point value, etc.).

A function can be derived into several sub-functions (group, building, floor, etc.). Each sub-function inherits

the schedule of the parent function with possibility of modifying this schedule for the sub-function.

Prog'Time continuously computes the current status of each defined function and delivers this status, in real time, to all applications that have requested it.

The list of the next status changes with associated duration can be obtained at any time with a view to downloading them on to the automatic devices or allowing for look-ahead operations of the client application.



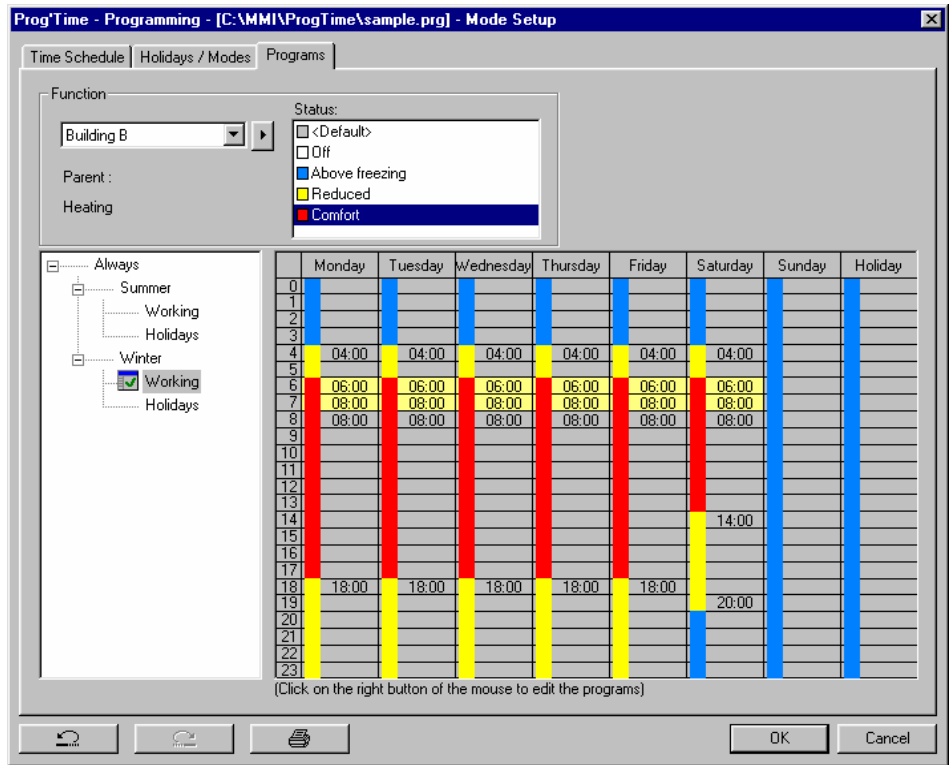
Time schedule

Each function has its own time schedule. This schedule defines the weekly cycle of the function status depending on each attached operating mode.

The operating modes are globally defined. They generally define specific running periods e.g. heating period, school holidays, production cycle, etc. The modes are designated in the schedule under the form of calendar periods.

A function can depend on more than one mode e.g. seasons and school holidays. The mode combination list is represented under tree form. A weekly schedule can be defined for each level of the tree. When there is no defined schedule for a given level, the schedule of the upper level is applied by default (inheritance). When a function is attached to a parent (sub-function), its default schedule is the schedule of the parent function.

The weekly schedule defines the function status for each day of the week and for holiday days. The time segments are broken down into minutes.



Holiday days are also defined in the schedule. Holidays which are defined as "fixed" – that is to say holidays with dates which never change such as Christmas and New Year are automatically carried over from one year to the next.

Independently of its time schedule, the status of a function can always be overridden in the schedule table for one or several time periods. It is possible to define either time periods (one-off time periods) or time zones (repeated periods of time over several days). The graphically defined time periods and zones can be set down to the minute.

When the time schedule of a parent function is overridden on a given period, every sub-functions that depend on this function are overridden with the same status.



Programming interface

ProgTime provides a complete graphical programming interface to configure time schedules. This interface appears as a tabbed dialog box:

- **Holidays/Modes:** configuration of holiday days and operating mode schedule,
- **Programs:** definition of the functions with their associated weekly schedule.

- **Time Schedule:** synoptic display of the configured time schedules, with the possibility of modifying a schedule for different time periods.

All programming interface screens can be printed.

The authorized functions depend on the selected edition mode. The access to a given editing mode can be protected by password.



Derogation

At any time, it is possible to depart from the time schedule of a function, by overriding a given status for a limited or unlimited period of time (derogation for a specified time or until the next programmed status change).

The derogation can be instructed from external applications.



Supervision interface

The supervision application can obtain the current status of a function and the list of the next status changes with associated duration through the DDE server interface of the software, by a simple request or advice transaction.

The current status of a function can be overridden by a DDE derogation command for a limited or unlimited time.

ProgTime's graphical programming interface can be called by DDE in order to be embedded in a supervision application e.g. to click on a SCADA button to display the time schedule.

This graphical programming interface is displayed under the form of a tabbed dialog box (Time Schedule, Holidays/Modes, Programs). The tab to select can be specified and locked.

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