- **<Function>.VALUE.<n>**   n = 0   index of the current status of the function <Function>
  n > 0   index of the nth next status of the function <Function>

- **<Function>.STATUS**   Name of the current status of the function <Function>

- **<Function>.STATUS.<n>**   n = 0   name of the current status of the function <Function>
  n > 0   name of the nth next status of the function <Function>

- **<Function>.NEXTVALUE**   Index of the next status of the function <Function>

- **<Function>.NEXTSTATUS**   Name of the next status of the function <Function>

- **<Function>.TIMETOCHANGE**   Time in minutes before the next status change of the function <Function>

- **<Function>.TIMETOCHANGE.<n>**

  n = 0   time in minutes before the next status change of the function <Function>
  n > 0   duration in minutes of the nth next status of the function <Function>

- **<Function>.INDEROGATION**   Derogation status of the function
  "0"   function programmed normally
  "1"   function in derogation status

- **<Function>.DEROGTIME**   Duration of derogation of the function <Function> (in minutes)
  when reading, time remaining in derogation
  When writing, requested time (>0) or :
    "0"   derogation end
    "-1"   endless derogation
    "-2"   derogation until the next identical status

- **<Function>.DEROGSTATUS**   Requested derogation status
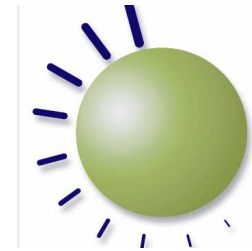
C/ Topic GROUP

The topic GROUP contains the information of the DDE protocol concerning the topic, les information attached to the groups of operating modes declared in *Prog'Time*.

C.1. Items attached to the DDE protocol

- **TOPICITEMLIST**   List of items managed in the topic GROUP
- **CONVCOUNT**   Number of current DDE conversations with the topic GROUP
- **ADVISECOUNT**   Number of current advises for the items of the topic

C.2. Items attached to the management of the functions

- **GROUPLIST**   List of groups of defined operating modes

The **topic GROUP** contains the following items for each group :

- **<Group>.MODELIST**   List of operating modes defined for the group <Group>.
- **<Group>.VALUE**   Index of the current mode of the group <Group>
  (index in the list of the defined modes).
- **<Group>.MODE**   Name of the current operating mode of the group <Group>

Getting started
with
Prog'Time

Installation

From the CD-ROM, launch the setup program : « **INSTALL.EXE** ».

This program will propose you to choose the software to install. The options proposed by default correspond to a standard installation.

Starting Prog'Time

If the software *Prog'Time* has been provided with a **hardware key** (dongle), connect this key to a parallel port of the PC (printer port). The hardware key can be inserted into an existing printer connection; it can also be used serially with other keys. At the first launching with a plugged dongle, the software will ask you for an **installation code** : this code is written on the warranty card (AAA-AAA-AAA-AAA). This code defines the validated options of the software. If necessary, you can later change the options by entering a new code (*Registration* button of the « About... » dialog box).

If there is no key plugged, the software will warn you at launching. If you wish to use the software in **demonstration mode** or install it with a **software key**, click on the *Ignore* button. To install the software key, you have to click on the *Registration* button of the « About » dialog box (displayed at launching or by the command *About...* of the *? menu*), then enter the installation code which corresponds to the environment code displayed in the registration dialog box. To get this installation code, contact your software provider (after having noted the environment code of your PC).

If you want to use *Prog'Time*, first you have to select an edit mode by using the *edit mode* command of the *operation* menu or one of the shortcut keys (F9 à F12) :

- *None* (button F9) : any operation authorized (initial mode)
- *Look-up* (button F10) : consultation of time schedules
- *Edition* (button F11) : consultation and modification of time schedules
- *Setup* (button F12) : complete configuration

When *Prog'Time* is launched the first time, any configuration is defined. If you want to open or create a configuration, it is necessary to use the setup mode (button F12).

The definition of a *Prog'Time* configuration needs 2 steps :
1) Define the operating modes for the different functions that have to be created and position them in the schedule (as well as public holidays)
2) Define the functions with the weekly programming corresponding to each of their operating modes

To access the dialog box for the configuration of the functions and of the schedule, select the command *programming* of the menu *operation* or click the button

- **DEROGATIONDIALOG**   Command to display the derogation dialog box, for the function whose name is written in this item
- **SETUPDIALOG**   Command to display the configuration dialog box:
  Syntaxe 1 :   "1"   consultation mode
  "2"   schedule edit mode
  "3"   configuration mode
  Syntaxe 2 :   Command string (see below)

The item SETUPDIALOG can receive a command string that can specify at the same time the tab to visualize, the parameters to select on the displayed screen and the access rights of the operator.

Syntaxe : param=value[param=value[...]]

The following values are possible as "param" :

- **MODE**   Edit mode of *Prog'Time* :
  "VIEW"   mode
  "EDIT"   schedule edit mode
  "CONF"   configuration mode
- **TAB**   Selected tabs
  "TIME"   tab time schedule
  "GROUP"   tab holidays/modes
  "PROGRAM"   tab Programs
- **ACCESS**   Modification rights
  Value :   [+/-]Flag... , "+" authorizes the modification, "-" forbids it
  Flag :   "ME"   Edit mode, modification of the modes
  "FE"   Edit Function, modification of the functions
  "MP"   Schedule mode, modification of the modes schedule
  "FP"   Schedule function , modification of the time programming of the functions
  "GP"   General Schedule, modification of the general time schedule
- **FUNCTION**   Name of the selected function
- **STATUS**   Name of the selected status
- **GROUP**   Name of the mode/of the selected group
- **PERIOD**   Name of the selected period (or operating mode)

Example : MODE=CONFIG TAB=PROGRAM ACCESS=+FP FUNCTION="HEATING"

B/ Topic FUNCTION

The topic FUNCTION contains the information of the DDE protocol concerning the topic , the information attached to the functions programmed in *Prog'Time*.

B.1. Items attached to the DDE protocol

- **TOPICITEMLIST**   List of items managed in the topic FUNCTION
- **CONVCOUNT**   Number of current DDE conversations with the topic FUNCTION
- **ADVISECOUNT**   Number of current advises for the items of the topic

B.2. Items attached to the management of the functions

- **FUNCTIONLIST**   List of the defined functions

The **topic FUNCTION** contains the following items for each fonction:

- **<Function>.STATUSLIST**   List of states defined for the function <Function>.
- **<Function>.VALUE**   Index of the current status of the function <Function> (index in the list of the defined states).

DDE Server Interface

The DDE server interface of *Prog'Time* allows the access to the internal database of the application (under the service name « **PROGTIME** »). It allows in particular to know in real time the time-scheduled status of each function, as well as the list of the next status changes with a time-scheduled duration of each status.

To know the list of the proposed topics and items, with the syntax proper to each item, you can constantly consult the dialog box of the DDE server (command *DDE Server* in the *Help* menu).

The DDE interface of *Prog'Time* proposes 3 topics :
SYSTEM, **FUNCTION** and **GROUP**.

To access the DDE server of *Prog'Time* via a **net**, from a remote computer, you have to use the NetDDE shared names that are recorded automatically by the server application :

- **PROGTIME_SYSTEM$**   for the topic "SYSTEM"
- **PROGTIME_FUNCTION$**   for the topic "FUNCTION"
- **PROGTIME_GROUP$**   for the topic "GROUP"

A/ Topic SYSTEM

The topic SYSTEM contains the general information attached to the DDE protocol and the control items of the application *Prog'Time*.
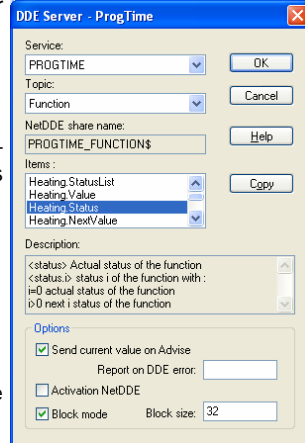
A.1. Items attached to the DDE protocol
- **TOPICS**   List of topics managed by the DDE server interface
- **SYSTEMS**   List of items managed in the topic SYSTEM
- **STATUS**   Application status:
  - "*INIT*"   during the initialization
  - "*READY*"   in normal operational mode
  - "*DEMO*"   in demonstration mode
- **FORMAT**   List of supported formats
- **CONVCOUNT**   Number of current DDE conversations with the topic SYSTEM
- **ADVISECOUNT**   Number of current advises for the items of the topic SYSTEM

A.2. General control items of the application
- **SHOW**   Visualization command for the application *Prog'Time* :
  - "0"   Application invisible
  - "1"   Display of the window *Prog'Time* in normal dimension
  - "2"   Display of the window *Prog'Time* as icon
  - "3"   Display of the window *Prog'Time* full screen
  - "4"   Window *Prog'Time* always visible
- **CLOSE**   Command to close the application *Prog'Time* :
  - "1"   Shut down if no other current DDE conversation
  - "2"   Unconditional shut down
- **DAYCODE**   Code of the current day :
  - Normal :   "1" = Monday, "2" = Tuesday, ..., "7" = Sunday
  - Holiday :   "9" = Monday, "10" = Tuesday, ..., "15" = Sunday
- **INHOLIDAY**   Kind of current day :   "0" = Normal, "1" = Holiday

Installation of supervision examples

Open the example configuration « sample.prg » in *Prog'Time* with the command *Open* of the *File* menu .

A) EXCEL
Open the sheet "Progtime.xls" with Excel.

B) INTOUCH (version 5 or 7)
Copy the self-extractible file "intouchV5.exe" or "intouchV7.exe" in the basic installation directory of Intouch, then launch the decompression by executing this file directly .
Launch Intouch and open the project "Progtime".

C) PCVUE 32
Copy the self-extractible file "pcvue32.exe" in the basic installation directory of pcvue, then launch the decompression by executing this file directly.
Launch Pcvue32 with the project "Progtime".

Edition of the schedule

The schedule allows to define the operating modes of the time-scheduled functions in *Prog'Time* and the public holidays.

To create a new operating mode group, select the tab *Holidays/ Modes* of the dialog box, click on the button ► next to the drop-down list *Group*, then, in the displayed menu, select the command *Add...*. Define the name of the group (« Holidays » e.g.), then the different modes of the group (« Working », « Holidays», ...).

When a group of mode is defined, you can select it in the drop-down list « Group » then assign the modes in the schedule, by clicking on the mode in the list « Modes/Periods », and then by marking the selected period in the schedule.

For the definition of public holidays, click on the needed kind of holiday in the list « Holidays », then click on the corresponding days in the schedule.
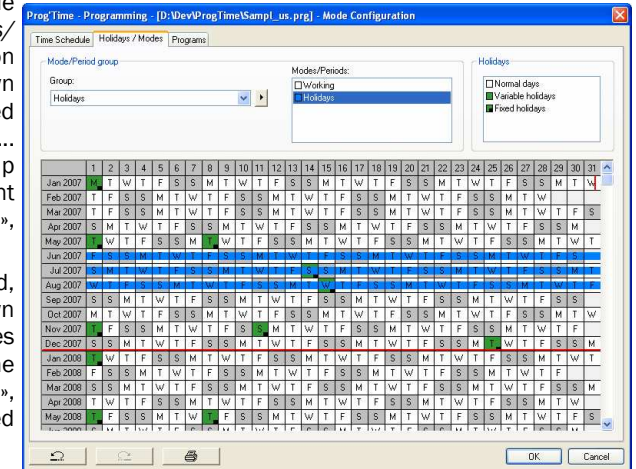
Definition of a function

To create a time-scheduled function in *Prog'Time*, select the tab *Programs* in the dialog box, click on the button ► next to the drop-down list , then, in the displayed menu, select the command *Add*... Define the name of the function, the list of its different states that are possible and indicate the operating modes on which it depends.

When a function is defined, you can select it in the drop-down list, then select an operating mode in the tree structure, then execute its schedule programming. For this operation, click on the status in the list « Status », then mark the status on the weekly schedule for the selected daily period, on one or several days. To adjust the programming of a function at the precision of a minute, click with the right mouse button on the concerned period and modify the limits of the period.
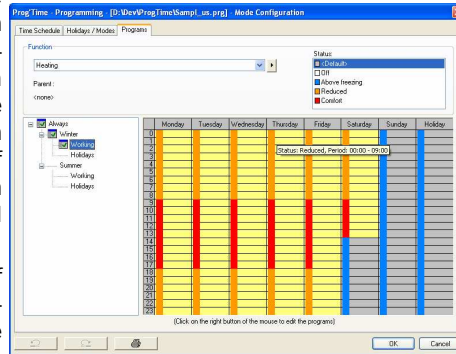

It is preferable to program the operating modes of a function by starting at the root of the tree structure, by defining first the general operating in one level of the tree structure and by adjusting the programming of the individual levels (heritage mechanism).

It is possible to branch a function in sub-functions, by defining new functions and by attaching them to this function as a parent. The sub-functions inherit the programming of the parent.

Consultation of the time schedule

When the schedule is defined and the functions are programmed, you can consult the resulting programming by clicking on the tab *Time Schedule* of the dialog box.
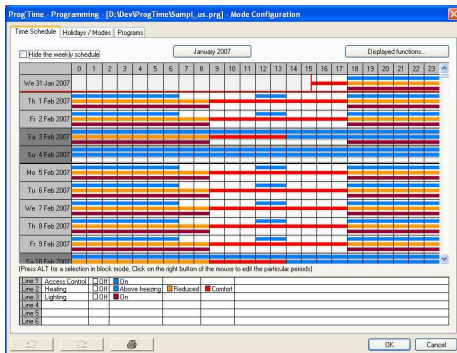
To display one or several functions in the schedule, click on the button *Displayed functions*... Then select the needed functions (until 3).

To move within the schedule, use the scroll bar at the right side of the schedule. To move rapidly to a distant date, click on the central button above the schedule (displayed month), then select the wanted month in the drop-down list that appears.

To force a displayed function in a status for a fixed period, select the concerned status in the list under the schedule, then mark directly in the schedule. Keeping the ALT button pressed, you mark a rectangular zone. To adjust the programming at the precision of a minute , click with the right mouse button on the marked line, then modify the displayed limits.

OPC Server Interface

Prog'Time is an OPC Data Access 2.0 server. This interface gives access in realtime to different informations concerning the functions and the groups.

The OPC tree structure consists of 3 main branches:

A/ Branch SYSTEM

This branch contains 3 variables:

- **Status** : Application status :
  "*INIT*"   during the initialization
  "*READY*"   in normal operational mode
  "*DEMO*"   in demonstration mode
- **DayCode** : Code of the current day:
  Normal :   "1" = Monday, "2" = Tuesday, ..., "7" = Sunday
  Holiday : "9" = Monday, "10" = Tuesday, ..., "15" = Sunday
- **InHoliday :** Kind of the current day :   "0" = Normal, "1" = Holiday
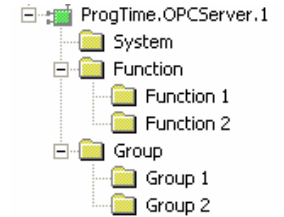
B/ Branch FUNCTION

This branch contains a sub-branch for each function defined in *Prog'Time*. Each of these sub-branches contains the following variables :

- **Value** : Value of the current status of the function.
- **Status** : Name of the current status of the function.
- **NextValue** : Value of the next status of the function
- **NextStatus** : Name of the next status of the function.
- **TimeToChange** : Time in minutes before the next status change.
- **InDerogation** : Indicates if the function is in derogation (0 or 1)
- **DerogTime** : If the function is in derogation, the time of derogation is indicated.
- **DerogStatus** : Status of the function during the derogation
- **Parent** : Name of the function related to this function.

B/ Branch GROUP

This branch contains a sub-branch for each mode group defined in *Prog'Time*. Each of these sub-branches contains les following variables :

- **Mode** : Name of the current mode for the group.
- **Value** : Value of the current mode for the group.