

# **PROKNX - RTC**

**Philips Pronto Professional TSU9600, TSU9800 – KNX interface software  
for Room Temperature Controller  
Version 1.x**

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## Version Control

This document explains the software of PROKNX –RTC v 1.x

## Introduction

The software PROKNX is a Pronto Script software tool for 2 way communication with the KNX Bus system.

It is possible to communicate with up to 15 Room Temperature Controller (RTC). For every RTC it is possible to

- Switch between different operating modes (freeze protection, night, absence, comfort mode)
- Adjust Basic Set point
- Visualize actual Temperature and Set point
- Visualize up to 3 additional messages

## System requirements

The system is based on TCP/IP connection.

All you need is

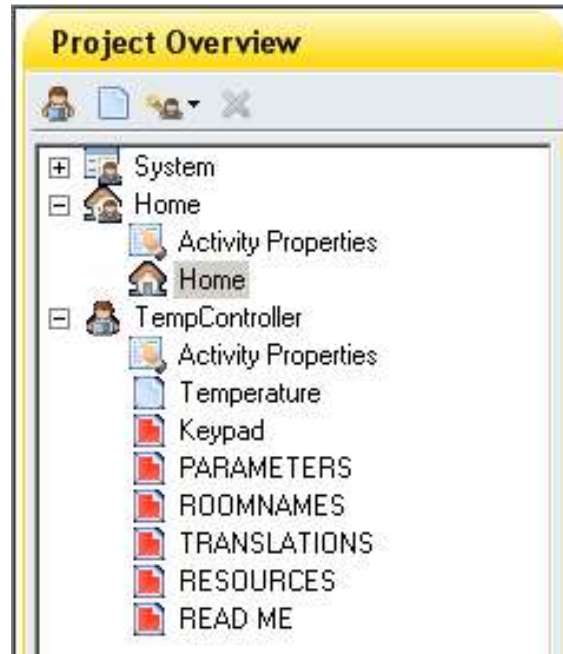
- Pronto Edit Professional V 2.3.17 or higher
- Pronto Professional TSU9600 Firmware 7.1.21 or higher
- Wireless router
- IP gateway “PROKNX”, specially designed for this application.

In case of questions how to get the newest firmware, programming software or PROKNX gateway, please have a look at our website [www.proknx.com](http://www.proknx.com)

# RTC Communication

## ***Functionalities***

The Pronto configuration file will have the following structure:



There is one activity “TempController” which will communicate with up to 15 Room Temperature Controllers (RTC).

### **Please note:**

You don't have to make any modification on the following pages:

- Temperature
- Keypad
- RESOURCES
- READ ME

All parameters are adjusted on the following pages:

- PARAMETERS
- ROOMNAMES
- TRANSLATIONS

## Language Configuration

Open the “TRANSLATIONS” page.

=== This page is use for translations. You may change only the language number or/and the texte of the whole column

insert language number 0 or 1 or 2 here: **2**

language 0	language 1	language 2
Outside Temp.	Aussetemp.	Temp. extér.
Basic Setpoint	Basis Sollwert	Cons. Confort
Correction Setpoint	Korrektur Sollwert	Correction Consigne
act. Temp.	Istwert	T. réelle
The setpoint has to be less than 40°C	Der Sollwert muss kleiner als 40°C sein!	La consigne ne doit pas dépasser 40°C
Basic Setpoint °C	Basis Sollwert °C	Consigne de conf. °C
connecting	verbinden	connecter
Comfort	Komfort	Confort
Standby	Eco	Absence
Night	Nacht	Nuit
Freeze	Frost	Antigel

This software has already the translations for English, German and French built in. If you will use one of these languages, you will just have to fill in a “0” for English, a “1” for German or a “2” for French in the label of the language number.

If you will use any other language, please adjust the fields of one column and adjust the language number for this column.

## Room names

You have to adjust the individual room names in the “ROOMNAMES” page.

=== This page is use for general PARAMETERS  
Replace the yellow label by your value.

R ... Room Controller Number      Quantity **4**

R	roomnames	temperatures freeze night standby	R	roomnames	temperatures freeze night standby
0	Salon	7 15 17	10		
1	Dining	7 15 17	11		
2	Bathroom	7 16 19.5	12		
3	Sauna	7 16 17	13		
4			14		
5					
6					
7					
8					
9					

standard text

**Messages**  
if mor than one message is active, the the priority to show them is 1-2-3

1	disturbed
2	window open
3	is heating...
	temp. reached

### Please note:

Every room name has its RTC number.

KNX Room Temperature Controllers are not all working in the same way.

Modern Controllers of Jung, Berker, Gira and ABB/Busch Jäger have an Output Parameter of the actual preset value that they intend to reach.

This value is calculated by the controller in dependence of the actual mode and some user intervention (Please see individual RTC manuals).

If you are using this kind of controller, you must not adjust the parameters for freeze, night and standby temperature.

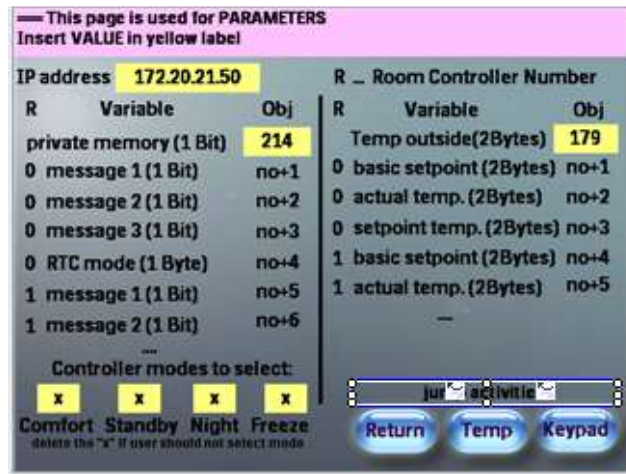
If you are using older controllers, the preset temperature adjustment in dependence of the controller mode, has to be announced in the “ROOMNAMES” page. This Set point will be shown on the RTC page and so the user will understand the way the controller works when he changes the operating mode.

Quantity	Quantity of Room Temperature Controller you are using. This number has to be $1 \leq \text{number} \leq 15$
Room name	Type here the name of each room, where a KNX Room Temperature Controller is installed
Freeze temperature	Adjust here the freeze temperature for the freeze protect operating mode, if your controller does not have an output of the actual set point. The number may be accurate to a tenth, use the decimal point (not the comma).
Night temperature	Adjust here the night temperature for the night operating mode, if your controller does not have an output of the actual set point. The number may be accurate to a tenth, use the decimal point (not the comma).
Standby temperature	Adjust here the standby temperature for the standby operating mode, if your controller does not have an output of the actual set point. The number may be accurate to a tenth, use the decimal point (not the comma).
Message 1...3	Message, which will be shown, if the corresponding bit in the “PARAMETERS” page will be set. Message 1 has the highest priority.
Standard text	Message, that will be shown, if no message bit is set

The Messages may be used to display:

- Fan coil speed
- Window state (open or closed)
- Error messages of the RTC
- Operating messages (Temperature reached, is heating ...)
- Heating or Cooling mode
- ....

## Parameters



There are only a few more parameters to adjust. In the table below, the meaning of the variables is explained.

IP address	IP address of the PROKNX Gateway. This address has to be the same as you may adjust in the Parameters of the gateway in the ETS software.
private memory	This one <b>bit</b> object will be used internally
0 message 1...3	Corresponding <b>bit</b> to the message that is defined in the "ROOMNAMES" page. Message 1 has the highest priority.
0 RTC mode	This <b>one Byte</b> object has to be assigned to the operation mode of the RTC 0 in the ETS. It is defined according to the connex specifications. 1 - Comfort Mode 2 – Standby Mode 3 – Night Mode 4 - Freeze / Heat Protection
Controller modes to select	Every controller mode that will be configured in the ETS software will be shown as a small symbol on the Pronto GUI. However if the user may select only part of them, you may define those modes here with a <b>lowercase "x"</b> .
Temp outside	This register (object number) has to be connected in the ETS software to a group address with the output temperature sensor. The object has to be defined as a <b>2 Byte</b> value. Even if you don't use this functionality, please reserve this 2 Byte object in the PROKNX gateway. In this case you may delete the grouped label on top of the TEMPERATURE page.
1 ....	Same meaning of information for the next RTC

0 basic set point	This object number has to be connected in the ETS software to a group address with the basic set point temperature. The object has to be defined as a <b>2 Byte</b> value.
0 actual temp	This object number has to be assigned to the actual temperature of the RTC 0 in the ETS. The object has to be defined as a <b>2 Byte</b> value.
0 set point temperature	This object number has to be assigned to the set point temperature of the RTC 0 in the ETS ( <b>2 Byte</b> value). If your RTC has not this output, you can leave this assignment free. However you have then to assign the “freeze”, “night” and “standby” temperature in the “ROOMNAMES” page.
1 ....	Same meaning of information for the next RTC

### ***Additional Operation Information***

The user interface will adapt automatically according the number of RTCs you have declared. It is possible to switch between the RTCs with the firm keys. All labels are assigned automatically.

To change the basic set point, you have to tap on the button “basic set point”. In this new page you can define the set point with accuracy to a tenth.

Please note:

Some room controller does not accept this accuracy. They may round this value to x.5 or x.0.

### ***Power On Behavior***

After Power On of the PROKNX gateway, the script of the Pronto will send a request for the actual information on the bus.

To insure to retrieve even after a Power On the correct information on the Pronto display, please adjust the following items in your ETS software:

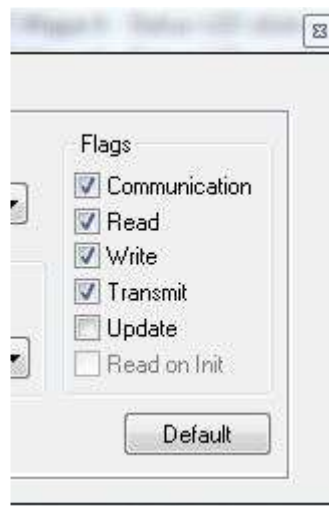
Check the “Read Flag” in the properties of the following RTC objects:

Operating mode

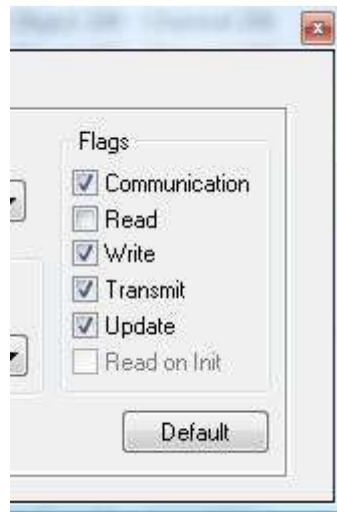
Basic Set point

Actual temperature

Set point temperature



Check the “Update Flag” in the properties of the corresponding PROKNX gateway objects.



## About

PROKNX for the Philips TSU9600 or TSU9800

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