1. BMS Basics

This chapter describes by means of examples the general operating procedures for the user interface. You receive information on the BMS, the Neutrino BMS’s modular design, and features of the employed operating system QNX 6.2 with the embedded operating level.

---

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1.1 Introduction

Kieback & Peter's Building Management System (BMS) and its integrated Technical Operations System (TOS) is operationally optimized for use in buildings and multi-building complexes: Examples are schools, universities, barracks, hospitals, airports, industrial complexes, swimming pools, office buildings, utilities, laboratories, hotels, restaurants, and factories.

The TOS monitors, regulates, and controls heating, ventilation, air-conditioning systems, and also utilities, communication, emergency, fire alarm, and other specialized equipment and systems.

The Neutrino BMS is the BMS's management system. It takes upon itself the primary management tasks for optimizing the operational performance of the TOS. The Neutrino BMS is jointed to the DDC systems and other control equipment at the process level. This enables personnel at the operational level to monitor and intervene in the TOS's functioning.

![DDC control station HRP, DDC control station DDC, DDC control station LRP](image)

**Fig. 1.1/1: Kieback & Peter’s control systems**

The Neutrino BMS interacts with the DDC control stations according to the principle of spatially distributed intelligence with front-end-processing. The control functions are carried out through the DDC control stations. Even if communication between the DDC control stations and the Neutrino BMS is interrupted, the stand-alone operating functions in the DDC control stations assure uninterrupted operations.

The Neutrino BMS takes over within the context of the primary BMS management and optimization programs, among other things, the following tasks:

- Complex plant automation
- Central plant overview, ergonomic visualization, and continuous transparency of the TOS
- Remote control of the TOS
- Malfunction statistics for recognizing faulty system behavior
- Recording trends, system analysis
- Reduction of energy costs through E-Max and primary optimization strategies
- Reduction of maintenance costs through preventive and system maintenance
- Optimal use of in-house personnel results in reduced operational costs
- Prevention of unauthorized interventions, security enhancement
- Transmission of critical alarms to external locations
- Transmission of information to primary systems
- Recording, collection and evaluation of building specific data
1.1.1 Neutrino BMS

The Neutrino BMS is also company-neutral through the use of BACnet. BACnet is the world standard for communication on the management and automation level of the Building Management System. The Neutrino BMS has a native BACnet data structure that depicts the BACnet objects 1:1. Consequently, BACnet compatible devices can be connected directly to the Neutrino BMS.

In addition, these devices can communicate as preferred via BACnet or via Kieback&Peter’s standard protocol P90 with the BMS.

The Neutrino BMS has a modular design. The modular design of the software and hardware allows the expansions of the Neutrino BMS depending on construction progress and the availability of investment capital.

This consequent modularity ensures the expansion of the Neutrino BMS at any time. Optional software modules allow you to configure the Neutrino BMS according to your special needs (see Section 1.2.4).

Fig. 1.1/2: Neutrino BMS

The Neutrino BMS’s highly efficient operating system QNX 6.2 can in the shortest time display on the screen system images, trends, quick inquiries as well as operating and malfunction messages.

The TOS is managed mainly from out of the system images that require no programming knowledge.

Use is menu-assisted and mostly carried out with the mouse on the graphical user interface (GUI). This easy use allows the user to quickly access all TOS information and functions.
1.1.1.1 Operating System QNX 6.2

QNX is the operating system for all Kieback & Peter’s BMSs. It is a real-time capable, network oriented multitask/multi-user system with embedded BMS network software and GUI.

Real-time Operating System

The Photon Windows is a 32-bit real-time operating system with Posix-standard orientation. POSIX – Portables Operations System - interface for UNIX is developed in accordance with the IEEE 1003.2 (1992) standardized application level interface and provides an interface between application and operating system. The multi task/multi-user operation, the embedded BMS network software, and the highly efficient Photon GUI are the Neutrino BMS's efficient characteristics.

Multi-user Operation

Several operators can work simultaneously at several BMS operator terminals and/or Neutrino BMSs without hindering each other.

Multitask Operation

The Neutrino BMS processes several tasks at the same time. The multi-task operation enables the simultaneous processing of several software module tasks and software functions. The Neutrino BMS permanently monitors the connected DDC control stations. At the same time, the user can change at the Neutrino BMS the parameters, e.g. set points, which are sent to the DDC control stations. If during this the Neutrino BMS receives a malfunction message, the message is immediately printed out on a selected BMS printer. Input, e.g., of set points for a BMS data point by an operator is not interrupted. The operator can without being disturbed operate the Neutrino BMS. Meanwhile, further software modules, e.g., the E-MAX, HEAT LOG or MAINTENANCE PROGRAM continue working in the background.

Integrated (or embedded) BMS Network Software

The BMS network software embedded in the operating system QNX enables several Neutrino BMSs and/or BMS terminals to be connected together. A network work can be established via Ethernet – the de-facto standard in industrial networking.

TCP/IP (Transmission Control Protocol / Internet Protocol)

The worldwide-standardized communication protocol TCP/IP for networks is imbedded directly in QNX 6.2. Consequently, the BMS can communicate directly with other computer systems like mainframes and exchange BMS data.

Photon GUI (Graphical User Interface)

The graphical user interface of QNX 6.2 is called Photon. Mouse use is Neutrino BMS standard. The real-time capable 32-bit operating system QNX 6.2 also performs without any problem compute intensive functions such as image in image display of trend curve sequences or video injections.
1.2 Introduction to the Building Management System

You need a Dongle (hardware program protection) to operate the TOS via the Neutrino BMS. The Dongle contains important information on the software modules installed on the Neutrino BMS. The Dongle is pinned to the Neutrino BMS's parallel interface.

Note: It is not possible without the Dongle to operate the TOS via the Neutrino BMS!

1.2.1 Switching on the Neutrino BMS

– Switch on the Neutrino BMS using the power switch on the computer.

Note: The Neutrino BMS's design is described in its own hardware manual!

– After switching on, the Neutrino BMS boots the operating system and uploads the installed software modules – the so-called start process.

– In the start process, the operating system, software modules, connected peripheral equipment such as keyboard, printer, Dongle, monitor, mouse, etc, and the connection set-up to the connected DDC systems of the TOC is checked.

– Checking may take a few minutes depending on the number of connected DCC systems and installed software modules.

– The blue indicator in the start window displays the start process.

Fig. 1.2/1: The start window

Note: Contact Kieback&Peter's customer service if the Neutrino BMS fails to start or if the blue indicator line in the start window freezes.
1.2.2 Initial Image

After the operating system uploads the software modules and checking has been successfully completed, the initial image containing the BMS status bar and the "Log on" window opens.

Fig. 1.2/2: Initial image

The BMS Status Bar (see Section 1.5)

The BMS status bar displays the functions such as log on and malfunction messages as symbols, which must be visible to the operator all the time.

Depending on the Neutrino BMS's configuration, varying symbols are displayed.

The printer and modem monitor symbols on the BMS tool bar signalize an error that has occurred in the Neutrino BMS's start process and in connection set-up to the peripheral equipment or to the DDC systems. Errors that occur in the start process and in connecting are displayed on the BMS status bar as red flashing symbol.
1.2.2.1 Entering the Code Word to Log on

Whenever you want to intervene in the TOC or enter input/modifications via the Neutrino BMS, you must log on with your user name and a code word.

**Note:** After first starting the Neutrino BMS, the operator "query" is automatically active. This is the delivery state from Kieback&Peter, which does not allow this user intervention in the TOC.

The Neutrino BMS is in query mode. The access rights for the operator with the operating name "Query" can be assigned with the USER ACCOUNTS software module under the task group "Set up".

Click on the symbol on the BMS status bar. The "Log on" window opens in which you enter in the entry fields your user name and your code word.

![Logon window](image)

**Fig. 1.2/3: The "Log on" window**

Click on the "Operator" entry field and enter your user name. Press the TAB key on the keyboard or click on "Code word" in the entry field to enter your code word. The entered code word is not displayed, instead "*" appears for each letter.

**Note:** Heed upper and lower case while entering the code.

The [Cancel] button closes the window without saving the entry. To confirm your entry, click the [OK] button. An incorrect entry causes the following note to appear, which you must confirm by clicking the [OK] button.

![Information window](image)

**Fig 1.2/4: Information window in case of incorrect entry**
Following **correct entry**, a drop down displays the task groups containing the corresponding software modules for which your code word has the corresponding access rights. Whenever you select actions in these software modules with a code word that does not have the required access rights, an information window opens indicating that your code word will not permit this action. Confirm this window with the **[OK]** button to close it again.

![Information window in case of unauthorized actions](image1.png)

**Fig. 1.2/5: Information window in case of unauthorized actions**

### 1.2.2.2 Drop Down Window Displaying the Tasks Groups

Click on the symbol on the BMS bar to open the drop down window containing the task groups. The task groups contain the software modules that are assigned to the task groups according to the functionality. The software module, e.g. OPERATING LEVEL, is assigned to the task group "OPERATE" (see Section 1.2.3).

![Drop down window displaying the task groups](image2.png)

**Fig. 1.2/6: Drop down window displaying the task groups**
To open a drop down window containing the installed software, click on the corresponding task group. The "+" sign in front of the task group means that this is not open yet. Clicking on the task group converts the "+" into a "-" sign indicating that the task group is open.

**Note:** The task group "favorites" is displayed also with a "-" sign when clicked on even if the task group does not contain any software modules.

Clicking again on the task group closes it, and the "-" sign is converted into a "+" sign again.

**Task Group "Favorites"**

You can assign single software modules to the task group "favorites" to gain quick access to frequently used software modules (see Section 1.2.3.1).

**Task group, e.g., "Operate" (see Chapter 2 Section 2.1)**

If you want to obtain information on the status of the connected TOS, click on the symbol in the BMS status bar in the opened drop down window to invoke the OPERATING LEVEL software module under the task group "Operate".

The OPERATING LEVEL is described in detail in Chapter 2.

The OPERATING LEVEL is the Neutrino BMS’s crucial element in which the operator predominantly moves in practice. In this OPERATING LEVEL, the operator can obtain by means of the GUI information on the TOS’s current state and intervene if necessary.

Use is menu oriented and easily carried out by simple mouse click. All system components and the TOC are represented on the GUI in graphical form and/or as photo-realistic illustrations like, e.g., of buildings and system components – the so-called plant images.
1.2.2.3 Explanation to BMS Data Points

DDC parameters from the TOS are called BMS data points, which have been projected in the plant images as visual fade-in points. The projection of the BMS data points is carried out in the PARAMETER SETTING and STRUCTURED PARAMETER SETTING programs.

In projection, a technical address and the BMS plain text are assigned to every BMS data point so that every BMS data point is clearly identifiable.

The technical address contains the actual address and the type of BMS data point. The projected name of the BMS data point is displayed through the BMS plain text.

The following BMS data points can be set up:

- Actual value
- Set point
- Switch functions
- Time switch programs

Operating, malfunction or system error messages as well as an Online Trend Window for the trend curve recording can be appended to each BMS data point during projection. Even these messages and Online Trend Windows are displayed through a BMS plain text with name and additional information.
1.2.3 Overview of Task Groups

Click on the symbol in the BMS status bar to open the drop down window containing the task groups. Clicking on the individual task group displays its software modules, which are installed on your Neutrino BMS.

![Fig. 1.2/8: Overview of individual tasks groups with the software modules](image)

The drop down window containing the tasks groups is the Neutrino BMS’s central element. In these task groups, you can invoke all installed software modules by mouse click. Clicking on individual software modules, e.g. "Quick Query" or "Data Backup" in the task groups invokes the respective software module.

**Note:** Depending on the operator's access rights, varying task groups are displayed in this drop down window. Depending on the Neutrino BMS’s configuration, varying software modules can be displayed in the task groups.
1.2.3.1 Adding Programs to the Task Group "Favorites"

To gain quick access to frequently used programs, add these programs to the task group "Favorites". Click on the symbol on the BMS status bar to open the drop down window containing the task groups. Click with the right mouse button on the task group "Favorites" to open the "Select favorites" window.

![Fig. 1.2/9: The "Select favorites" window]

All software modules installed are listed in the window's left area. The right area is provided for the selected software modules. Double click on the desired program in the left area to select and import it into the right area. Double clicking on the program name of a prior selected program in the right area causes this to no longer be selected and is therefore only displayed in the left area.

Click the [OK] button if you want to assign the selected program to the task group "Favorites". The [Cancel] button closes this window without assigning the selected program to this task group.
### 1.2.4 Overview of Software Modules

Table 1.2/1 lists the software modules integral to the Neutrino BMS’s basic software.

#### Table 1.2/1 Software modules

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules for</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notebook</td>
<td>EXTRAS</td>
<td>in Chapter 1</td>
</tr>
<tr>
<td>Modem</td>
<td>BMS STATUS BAR</td>
<td>in Chapter 1</td>
</tr>
<tr>
<td>Operating level</td>
<td>OPERATE</td>
<td>in Chapter 2</td>
</tr>
<tr>
<td>Quick Query</td>
<td>OPERATE</td>
<td>in Chapter 2</td>
</tr>
<tr>
<td>Operating and Malfunction Messages</td>
<td>OPERATE</td>
<td>in Chapter 2</td>
</tr>
<tr>
<td>Trend Curves with Online Trend Window (OTW)</td>
<td>OPERATE</td>
<td>in Chapter 2</td>
</tr>
<tr>
<td>Data Backup</td>
<td>ADMINISTRATION</td>
<td></td>
</tr>
<tr>
<td>Standby Services</td>
<td>ADMINISTRATION</td>
<td></td>
</tr>
<tr>
<td>Operating Protocols</td>
<td>ADMINISTRATION</td>
<td></td>
</tr>
<tr>
<td>Print Protocols</td>
<td>ADMINISTRATION</td>
<td></td>
</tr>
<tr>
<td>Event Protocols</td>
<td>ADMINISTRATION</td>
<td></td>
</tr>
<tr>
<td>Set up Operating Level</td>
<td>SET UP</td>
<td></td>
</tr>
<tr>
<td>User Accounts</td>
<td>SET UP</td>
<td></td>
</tr>
<tr>
<td>Parameter Setting</td>
<td>SET UP</td>
<td></td>
</tr>
<tr>
<td>Send / Receive</td>
<td>SET UP</td>
<td></td>
</tr>
</tbody>
</table>

Tables 1.2/2 to 1.2/6 list the optional software modules for expanding the Neutrino BMS’s basic software with a brief description. These software modules are described in detail in the BMS Handbook, Chapter 3 "Software Expansions".

#### Table 1.2/2 Optional software modules for the BMS status bar

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Clock</td>
<td>SM 36</td>
<td>Software module for synchronizing the system time of the Neutrino BMS and all connected DDC systems by a radio clock.</td>
</tr>
<tr>
<td>DON-AT Weather</td>
<td>SM77</td>
<td>Software module for the communication with a weather service in order to control ventilation and heating accordingly.</td>
</tr>
</tbody>
</table>
### Table 1.2/3 Optional software modules for the task group "EXTRAS"

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed Network</td>
<td>SM32</td>
<td>Software module for the set up of an independent network with up to 99 Neutrino BMSs</td>
</tr>
<tr>
<td>Connect Control Position Ethernet</td>
<td>SM33E</td>
<td>Software module for connecting up to 16 BMS control positions to the Neutrino BMS.</td>
</tr>
</tbody>
</table>

### Table 1.2/4 Optional software modules for the task group "OPERATE"

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Suppression</td>
<td>SM06</td>
<td>Software module for suppressing messages that are triggered as a result of other messages (message showers). Transfer and output of a prior-ranking message (master/slave messages). Expansion of the OPERATING AND MALFUNCTION MESSAGES software module.</td>
</tr>
<tr>
<td>Trend Curves, including OTW</td>
<td>SM15, SM16</td>
<td>Expansion of the TREND CURVE software module for the additional recording of 100 up to 10,000 trend curves. (Recording up to 10 trend curves is standard).</td>
</tr>
<tr>
<td>Alarm Screen</td>
<td>SM20, SM20D</td>
<td>Software module for displaying an alarm screen on arrival of an incoming malfunction message. Expansion of the OPERATING AND MALFUNCTION MESSAGES software module.</td>
</tr>
<tr>
<td>City Paging</td>
<td>SM24</td>
<td>Software module for transferring operating and malfunction messages to an alphanumeric city paging recipient. Expansion of the OPERATING AND MALFUNCTION MESSAGES software module.</td>
</tr>
<tr>
<td>Fax</td>
<td>SM27</td>
<td>Software module for transferring operating and malfunction messages to a fax machine. Expansion of the OPERATING AND MALFUNCTION MESSAGES, STANDBY SERVICE, NOTEBOOK AND MALFUNCTION MESSAGE SWITCHING software module.</td>
</tr>
<tr>
<td>Message File Monitoring</td>
<td>SM35</td>
<td>Software module for signaling alarm messages and events by means of potential-free contacts. Expansion of the OPERATING AND MALFUNCTION MESSAGES software module.</td>
</tr>
<tr>
<td>Trend Curve Archiving</td>
<td>SM38</td>
<td>Software module for archiving and administration of recorded trend curves. Expansion of the TREND CURVES software module.</td>
</tr>
<tr>
<td>SMS Message</td>
<td>SM44</td>
<td>Software module for transmitting messages to GSM cellular radio networks. Expansion of the OPERATING AND MALFUNCTION MESSAGES, STANDBY SERVICE, NOTEBOOK and MALFUNCTION MESSAGE SWITCHING software modules.</td>
</tr>
<tr>
<td>Malfunction Message Switching</td>
<td>SM48</td>
<td>Software module for the time-dependent output of operating and malfunction messages on defined output devices. Expansion of the MESSAGE FILE MONITORING software module.</td>
</tr>
</tbody>
</table>
### Table 1.2/5 Optional software modules for the task group "ADMINISTRATION"

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software module</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASCII Exchange</td>
<td>SM10</td>
<td>Software module for converting BMS data into an ASCII exchange file or for transmitting operating protocol via the Ethernet to an MS Win OS computer.</td>
</tr>
<tr>
<td>ASCII File for Heating Log</td>
<td>SM55</td>
<td>Software module for the exchange of data between the Neutrino BMSs and an MS Win OS computer. Expansion of the HEATING LOG software module.</td>
</tr>
<tr>
<td>Historical Database</td>
<td>SM60</td>
<td>Software module for cyclical recording and archiving of data in a database and transferring this to an MS Win OS computer. Expansion of the HEATING LOG software module.</td>
</tr>
<tr>
<td>Automatic Data Backup</td>
<td>SM68</td>
<td>Software module for performing a fully automatic data backup. Data can be stored on ZIP, CD, or hard disk. Expansion of the DATA BACKUP software module.</td>
</tr>
<tr>
<td>Email</td>
<td>SM72</td>
<td>Software module for transmitting messages in the BMS Network or Internet. Expansion of the STANDBY SERVICES, NOTEBOOK AND MALFUNCTION MESSAGE SWITCHING software module.</td>
</tr>
<tr>
<td>Gatekeeper's terminal</td>
<td>SM74</td>
<td>Software module for monitoring and operating the TOC from out of a gatekeeper’s lodge (or porter’s lodge).</td>
</tr>
<tr>
<td>Logbook</td>
<td>SM75</td>
<td>Software module for logging set point changes of a BMS data point with date and time. Expansion of the EVENT PROTOCOL software module.</td>
</tr>
<tr>
<td>Projection Comparison</td>
<td>SM76</td>
<td>Software module for the 1:1 comparison of two different TOS projections on the Neutrino BMS.</td>
</tr>
</tbody>
</table>

### Table 1.2/6 Optional software modules for the task group "PROGRAMS"

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-MAX</td>
<td>SM04SM04/D40</td>
<td>Software module for reducing electrical energy by disconnecting selected customers. E-MAX is displayed in the BMS status bar.</td>
</tr>
<tr>
<td>Logic Links</td>
<td>SM05</td>
<td>Software module for the set up of logic links in order to calculate real system values and to generate virtual information.</td>
</tr>
<tr>
<td>Maintenance Calendar</td>
<td>SM08</td>
<td>Software module for foreseeable maintenance of the TOS and system components with the output of a maintenance schedule.</td>
</tr>
<tr>
<td>Heating Logbook</td>
<td>SM14</td>
<td>Software module for keeping a heating log in accordance with the BFR Directives of the Armed Forces.</td>
</tr>
<tr>
<td>Time Switching Program</td>
<td>SM21</td>
<td>Software module for the set up of time programs functioning independently from each other. Each time program activates a separate BMS data point that triggers switching processes.</td>
</tr>
<tr>
<td>Counter Value Processing</td>
<td>SM22SM22/S</td>
<td>Software module for recording the consumption of counters in intervals.</td>
</tr>
</tbody>
</table>
### Introduction to the Building Management System (BMS) Basics

#### Designation | Software modules | Function Description
--- | --- | ---
Voice | SM66 | Software module for sending malfunction messages as voice messages. Expansion of the OPERATING AND MALFUNCTION MESSAGES and MALFUNCTION MESSAGE SWITCHING software modules.
Timetable program | SM71 | Software module for organizing utilization times in the rooms, e.g., of a school. The utilization times can be imported from WinSchool to the time program of the DDC systems.

#### Table 1.2/7 Optional software modules for the task group "SET UP"

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured Parameter Setting</td>
<td>SM47</td>
<td>Software module for editing and parameter setting of DDC closed-loop control circuits of connected DDC systems.</td>
</tr>
<tr>
<td>Code word Locking</td>
<td>SM41</td>
<td>Software module for automatically locking the Neutrino BMS in case no actions occur within a specific period of time. Expansion of the USER ACCOUNTS software module.</td>
</tr>
<tr>
<td>Fidelio Booking System</td>
<td>SM42</td>
<td>Software module for connecting the Neutrino BMS via a serial RS232 interface to the Fidelio hotel booking system computer. The hotel rooms are regulated occupation-dependent via the field bus regulator or the single room regulator and the DDC control station DDC 3000.</td>
</tr>
<tr>
<td>Multi-user Code</td>
<td>SM50</td>
<td>Software module for locking the Neutrino BMS’s operation with code words. Expansion of the USER ACCOUNTS software module.</td>
</tr>
<tr>
<td>Multi-project</td>
<td>SM56</td>
<td>Software module for designing and projection of several TOSs with its DDC systems. Expansion of the PARAMETER SETTING and STRUCTURED PARAMETER SETTING software modules.</td>
</tr>
<tr>
<td>Fade-in Point Access</td>
<td>SM67</td>
<td>Software module for disabling fade-in points in plant images on the operating level. Expansion of the USER ACCOUNTS software module.</td>
</tr>
<tr>
<td>Video Window</td>
<td>SM73</td>
<td>Software module for generating single images or image sequences with a network camera. Expansion of the CREATE SYSTEM IMAGE/OPERATING LEVEL software module.</td>
</tr>
<tr>
<td>Create System Image</td>
<td>SM90</td>
<td>Software module for creating and editing system images. Equivalent to the OPERATING LEVEL software module.</td>
</tr>
</tbody>
</table>
### Table 1.2/8 Optional software modules for expanding the function of the Neutrino BMS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Software modules</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDE/OLE Server</td>
<td>SM58</td>
<td>Software module for the exchange of data between the Neutrino BMS and an alien computer system; e.g., MS Win OS computer.</td>
</tr>
<tr>
<td>OPC Server 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPC Server 500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPC Server 1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutrino BMS Operation via Ethernet</td>
<td>SM61</td>
<td>Software module for the operation of the Neutrino BMS via Ethernet by means of the TCP/IP.</td>
</tr>
<tr>
<td>Neutrino BMS Operation via Modem</td>
<td>SM63</td>
<td>Software module for the operation of the Neutrino BMS via a modem by means of a PPP connection.</td>
</tr>
<tr>
<td>Additional Window</td>
<td>SM64</td>
<td>Software module for expanding the software module PHWIN. Thus, increasing the amount of operation windows of PHWIN by a further operation window each.</td>
</tr>
<tr>
<td>PHWIN Callback</td>
<td>SM65</td>
<td>Software module for expanding the software module PHWIN. Thus setting up a callback function from the Neutrino BMS to an MS Win OS computer for PHWIN.</td>
</tr>
<tr>
<td>ODBC Interface</td>
<td>SM69</td>
<td>Software module for the exchange of data between the Neutrino BMS and an alien computer system via the ODBC interface. Exchange of data is carried out directly via SQL queries to a database of the Neutrino BMS utilizing the TCP/IP.</td>
</tr>
<tr>
<td>PHweb</td>
<td>SM70</td>
<td>Software module for the remote control of the Neutrino BMS through other computer systems in the network and the Internet.</td>
</tr>
<tr>
<td>PHWIN</td>
<td>-</td>
<td>Software module for the remote control of the Neutrino BMS through an MS Win OS computer in the network or via a modem dialing connection.</td>
</tr>
<tr>
<td>BACnetClient</td>
<td>SM100</td>
<td>Software module for the communication between the Neutrino BMS and the connected BACnet capable systems of the TOS.</td>
</tr>
<tr>
<td>BACnetServer</td>
<td>SM101</td>
<td>Software module for the communication between the Neutrino BMS and the connected BACnet capable systems of the TOS.</td>
</tr>
<tr>
<td>LON (Local Operating Network)</td>
<td>SM102</td>
<td>Software module for the communication between the Neutrino BMS and the connected LON capable systems of the TOS.</td>
</tr>
</tbody>
</table>

**Note:** From this point on, throughout the entire description of this chapter, the software modules are termed program for a better understanding.
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1.2.5 Locking the Neutrino BMS

**Automatic Locking**

If no user actions are not carried out on the Neutrino BMS, the Neutrino BMS locks automatically after the preset wait time elapses. The \[\text{\textcopyright}\] symbol appears in the BMS status bar indicating that the user "Query" is active. The Neutrino BMS is in query mode, i.e., you can invoke the OPERATING LEVEL program, and however, settings cannot be entered.

The automatic locking activation as well as the wait time setting is set up while installing the Neutrino BMS in the USER ACCOUNTS program. The AUTOMATIC LOCKING can only be set if the USER ACCOUNTS program is installed.

So that after locking you can intervene in the TOC via the Neutrino BMS or insert entries or changes, you must log on as user with your user name and a code word (Section 1.2.2.1).

**Manual Locking**

If you want to manually lock the Neutrino BMS, click the \[\#\] symbol, e.g., \[\text{\textcopyright}\] in the BMS status bar. The "Log on" window opens containing the current user's name. Click the [Lock] button in this window.

![Fig. 1.2/10: The "Log on" window](image)

The "Log off" window opens in which you can enter a log off text. The entered logoff text is saved in the EVENT PROTOCOL program.
Confirm the entry by clicking the [OK] button to lock the Neutrino BMS. The symbol is displayed in the BMS status bar. The [Cancel] button closes this window without locking the Neutrino BMS.

1.2.6 Switching off the Neutrino BMS

Note: You can only switch off the Neutrino BMS with the [Switch off] button if your code word has the necessary access rights. The Neutrino BMS's design is described in its own hardware description!

Click on the symbol in the tool bar when you want to switch off the Neutrino BMS. The "Logon" window opens in which you must click the [Switch off] button.
The "Kieback&Peter BMS" window opens in which you can choose whether to run down the Neutrino BMS.

Fig. 1.2/13: The "Kieback&Peter BMS" window

The [No] button closes the window without running down the Neutrino BMS. Click the [Yes] button to open the "Switch off" window for running down or for restarting the Neutrino BMS or the system.

Fig. 1.2/14: The "Switch off" window

You can now switch off the Neutrino BMS using the power switch on the computer.

**Attention:** Only switch off the Neutrino BMS as described. This ensures that no more data, e.g., in the trend curves is read during switch off. Furthermore, the data of the working memory is written back onto the hard disk.

However, if you want to restart (warm start) the Neutrino BMS without switching off, click the [Restart BMS] button. The [Restart System] button restarts (warm start) the system.
1.3 Notes for the Operator

You do not have to memorize complicated key combinations to operate. The operating level can be handled with few key functions and/or mouse clicks. The operator is guided through the individual windows by the control elements that are self-explanatory. The program’s graphical user interface is designed in window technique. All windows have basically the same appearance; the same control elements are always arranged in the same position in the windows.

1.3.1 Window Design

The windows of the individual programs in general comprise the title bar, the menu bar, and the tool bar, as well as the display area. The design is described in the window for the QUICK QUERY program. Active windows are displayed with a green title bar. Non-active windows, which are in the background, have a gray title bar.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Symbol" /></td>
<td>Clicking on this symbol invokes the context sensitive help (see Section 1.4.3).</td>
</tr>
<tr>
<td><img src="image" alt="Symbol" /></td>
<td>Clicking on this symbol or double clicking on the title on the title bar will displays window in full view. Clicking on this symbol again causes the window to display in normal view again.</td>
</tr>
<tr>
<td><img src="image" alt="Symbol" /></td>
<td>Clicking on this symbol closes the window and ends the program.</td>
</tr>
<tr>
<td><img src="image" alt="Symbol" /></td>
<td>Clicking on this symbol closes the window without ending the program, but adds it to the BMS status bar (see Section 1.5.7)</td>
</tr>
</tbody>
</table>
1.3.2 Using the Mouse

The mouse has gained acceptance in using programs with a graphical user interface. The strong point of using a mouse shows to the fullest advantage especially on the graphical user interface since every position on the screen can be reached quickly with the mouse.

Another advantage of using the mouse is that the movements of the mouse carried out by hand can be followed on the screen.

The left mouse button mainly is used to control the Neutrino BMS. Pressing the left mouse button invokes programs and individual functions, e.g., "Save". Popup windows, which are invoked with the right mouse button, are provided for the projected fade-in points in the system images, for messages of the quick query, for operating and malfunction messages, as well as for the trend curve representation (see Chapter 2 Section 2.1.4.2). Using the scroll wheel allows you to move in the program's windows back and forth between the list elements or entries.

The mouse can be moved on the mouse pad in any direction. The mouse movements are transferred to a ball on the bottom of the mouse. The mouse is connected to the Neutrino BMS by cable. Always use the mouse on a mouse pad. Regular care and maintenance of the mouse and mouse pad extends the mouse's service life and prevents malfunction.

The mouse pointer is active.

The mouse pointer is not active. Pressing the left mouse button has no effect or the mouse pointer is outside the currently active window.

The mouse pointer is not active. A triggered function is currently in progress.

The mouse pointer is not active. A triggered function is currently in progress.
To execute a function, select the button, the menu item, or the function field with the mouse pointer and press the left mouse button.

**Note:** Throughout the BMS Manual, this is generally called "clicking".

### 1.3.3 Using the Keyboard

Besides the mouse, the keyboard can be used to control the Neutrino BMS. The keyboard provides following options:

#### With Image Keys

In an opened window with index cards, you can move from one index card to another one by simultaneously pressing the **Ctrl** key and the **Image keys**.

#### With the Arrow Keys, the TAB and Shift Key

These **Arrow keys** and the **Tab** key allow you to move back and forth between the buttons or function fields in horizontal or vertical direction in the opened window. If you want move in the opposite direction, press the **Shift** key and the **TAB key** at the same time.

These **Arrow keys** allow you to move up and down in the plant tree of the OPERATING LEVEL.

These **Arrow keys** allow you to open and close the plant tree and the sub files in the OPERATING LEVEL.

**Note:** Kieback&Peter recommends using the mouse on the OPERATING LEVEL.
With the ENTER key

To execute a selected function, press the Enter.

With Ctrl, C and V keys

<table>
<thead>
<tr>
<th>Ctrl + C</th>
<th>Ctrl + V</th>
</tr>
</thead>
</table>

To copy text on the clipboard, press the Ctrl key and C key simultaneously.

To insert text from the clipboard, press the Ctrl key and V key simultaneously.

With keys for the direct jump (Hot Key)

For a direct jump in an opened window, press simultaneously the Alt key and the appropriate letter key for the underlined letter on the button, e.g., <J>, or on the menu item, e.g., <A>.

With the Alt key and function keys F1 – F10

<table>
<thead>
<tr>
<th>Alt + F1</th>
<th>Alt + F4</th>
<th>Alt + F7</th>
</tr>
</thead>
</table>

To invoke the context sensitive Help, press the Alt key and F1 function key simultaneously.

To close an invoked program, press the Alt key and F4 function key simultaneously. This key combination will only close an additional opened window in an invoked program.

To change the position of an open window on the screen with the Arrow keys; first press the Alt key together with the F7 function key. Press the Enter key to confirm the changed position. Pressing the Esc key will not confirm the changed position and cancel the action.
**Alt + F8**

To enlarge or reduce an open window, first press the **Alt key** together with the **F8 function key**. The arrow keys ←→ allow you to change the size accordingly. Press the **ENTER key** to confirm enlarge or reduce. Pressing the **Esc key** will not confirm the changes and cancel the action.

**Alt + F10**

To display an open window in full view, i.e., the entire screen surface is usable; press the **Alt key** and the **F10 function key** simultaneously. Pressing the **Alt key** again together with the **F10** function key will cancel the full view display again.

**Alt + TAB**

To jump between programs, press the **Alt key** and the **TAB key** simultaneously. A display window opens showing the open programs. Pressing the **TAB key** and holding the **ALT key** allows you to select the desired program. Let go the **ALT key** to display the selected program.
1.3.4 Control Elements and Help Windows:

This section describes the functions of all recurring control elements. Following control elements are provided in the windows:

- Scroll bars
- Scroll bar arrows
- Buttons
- Symbols
- Function fields
- Menu items
- Drop down windows
  Popup windows
- Selection fields
- Option fields
- Entry fields
- Index cards

1.3.4.1 Scroll Bars, Arrows

If the display area is larger than the window, the display area can be moved with the scroll bars or with its arrows in the window.

- Click on the scroll bar and hold the mouse button. Drag the scroll bar to the desired position in the display area.
- Shift the display area using the scroll bar arrows. Click and hold the arrow (up or down) until reaching the desired position.
- The size of the scroll bar shows the visible part of the display area.
- Small scroll bars have a larger display area.
- The maximum size of the scroll bar means that the display area fits exactly into the window!
1.3.4.2 Buttons, Symbols, and Function Fields

Clicking a button, a symbol, or a function field normally causes a direct jump into another window:

- **Function field**
  - Opens another window, e.g., of a time program window to carry out changes in the time program.

- **Button**
  - Saves and stores the entries. The window closes.

- **Symbol**
  - Opens the printer selection window.

Clicking on function fields on the tool bar of the OPERATING LEVEL execute the function directly without exiting the active window. These function fields with a dark background mean that the function is active.

- The function field is not active (light gray background). The function is not active, e.g., no actual values are popped up in a plant image of the OPERATING LEVEL.

- The function field is active (dark gray background). The function is active, e.g., the actual values are popped up in a system image of the OPERATING LEVEL.

Some symbols in the tool bar are displayed with a dark background when the function is active; the same as described for the function fields.
1.3.4.3 Drop Down Windows

Drop down windows contain functions that are assigned to each menu item in the menu bar.

- Click on a menu item to open the related drop down window.
- Select a function by clicking on the drop down window.
- The clicked function is displayed either indented with changed color or with ☑ Symbol. The functions are highlighted blue while moving the mouse pointer over them.
- Non-active functions are displayed light gray.

![Drop Down Window Image]

The drop down window with the task group contains the installed program.

Click on the ☑ symbol in the BMS status bar to open the drop down window containing the task groups. Clicking on the individual task groups displays the related programs that are installed on your Neutrino BMS.

The name of the active program, e.g., OPERATING LEVEL is displayed light gray in the drop down window.

1.3.4.4 Popup Windows

Popup windows contain corresponding context menus to the selected fade-in points or BMS data points.

- Click with the right mouse button over a fade-in point in the system image or a BMS data point in the QUICK INQUIRY, OPERATING & MALFUNCTION MESSAGES, or TREND CURVE programs to open the related popup window.
- Select a function by clicking on the context menu of the popup window.
- Clicking on the function automatically changes to the related program or executes the function.
- Non-active functions are displayed light gray.
1.3.4.5 Selection, Option, and Entry Fields

The windows, the selection, option, and entry fields are subdivided into group fields. The group fields are in a group frame and have a group name.

The "Print message file" window describes the structure of these windows.

[Diagram of the "Print message file" window]

**Selection Field**

Click on the arrow in a selection field in order to select a function from the drop down window. The selected function is highlighted green and is displayed in the selection field. In some selection fields, you can change the displayed values using the arrows.
Option Fields

The option fields are round or square. Only one selection is possible in the round option fields of one group. A multiple selection is possible in square option fields. Click to make selection. The activated round option field is marked with a dot. The activated square option field is marked with a cross.

Input Fields

Entries in the entry fields must be entered via the keyboard. First click on the entry field and then insert entries (flashing cursor is visible in the field).

1.3.4.6 Index Cards

With the index cards, you can select functions that are assigned to that index card. Click on the desired index card to display the associated function in the active window. The non-activated index card is displayed with dark background.
1.3.4.7 Selecting List Elements

In windows containing list entries, you can select the desired list entries by clicking. The selection is highlighted green and some list entries have a marked option field.

Fig. 1.3/3: The "Create quick query table" window

1.3.5 Reference Window

Reference windows are so-called safety queries or information windows. Information windows give the operator information on how to carry out actions.

Safety query

If you want to send, e.g., a time program to a DDC system, a safety query appears in which you must confirm the sending of the time program. Safety queries are marked with the symbol. You can choose between [OK] or [Yes], [No] or [Cancel] in these windows. The [OK] button or the [Yes] button saves your changes. The [Yes] button sends the time program. The [No] or the [Cancel] button will not send the time program and you return to the initial starting position.

Fig. 1.3/4: Safety query, e.g., for editing time program
**Information Windows**

Information windows show you that, e.g., your code word does not have the required access rights to select a specific function. These windows are marked with the ![important](symbol) symbol or the ![information](symbol) symbol and must be confirmed with the ![OK](button) button.

![Information window with confirmation](image)

**Fig. 1.3/5: Information window with confirmation**

Information windows can also contain information that only shows a status, e.g., the connection set up to a DDC system via a modem system. This window closes automatically after the action is carried out.

![Information window without confirmation](image)

**Fig. 1.3/6: Information window without confirmation**
1.4 Help Functions
The help function comprises three areas: the online help, immediate help, and context sensitive help.

Click directly on the symbol or select the "Contents..." or "Search..." function in the menu bar under the menu item "Help" to open the Online help or the context sensitive help.

1.4.1 Online Help

Fig. 1.4/1: The "BMS Online Help" window

The title of the currently invoked page is displayed in the title bar. The symbol adds the window for the Online Help to the BMS status bar; the symbol displays the window in full view; the symbol ends the Online help.

The Online help provides information on every subject. Click on the table of contents in the left area or the lower area of the online help to change between the subjects or between the chapters.
1.4.2 Immediate Help

If you move the mouse pointer over a button, a function field, or a symbol the immediate help displays a yellow popup field showing the function or the name of this control element.

**Note:** You must remain with the mouse pointer at least two seconds over the control element to receive the immediate help.

![Immediate help](image)

Fig. 1.4/2: Immediate help

1.4.3 Context Sensitive Help

This help form opens for you the corresponding context sensitive help to the current program window. Click on the symbol in the title bar of the current program window to open the context sensitive help window on the desired subject. Gently clicking on the symbol converts the mouse pointer into a question mark. With the question mark, you can now click on a control element to obtain corresponding information in a context sensitive help window.
1.5 Elements in the BMS Status Bar

The topmost bar on the screen is the BMS status bar. This bar is always visible and contains important main control functions. Regardless of which program the operator is in, the operator can access information on the Neutrino BMS's operating state and the connected TOS.

Depending on which programs are installed, the following symbols belong to the tool bar:

- Drop down window for the task groups (see Section 1.2.3)
- Automatic data backup (see Chapter 3 Section 3.3.5)
- Save the program constellation (see Section 1.5.1)
- Display the date and time (see Section 1.5.2.2)
- Time management (see Section 1.5.2)
- Enter or modify the code word (see Sections 1.2.2.1 or 1.5.3)
- Malfunction symbol (see Section 1.5.4)
- Printer monitor (see Section 1.5.5)
- Modem monitor (see Section 1.5.6)
- E-MAX (see Chapter 3 Section 3.7.1)
- DON-AT weather
- Display and change programs (see Section 1.5.7)
- System monitor (see Section 1.5.8)
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1.5.1 Saving the Program Constellation

If you want to save the currently open program as program constellation, click on the symbol in the BMS status bar. A safety inquiry opens in which you must click the [Yes] button to save the program constellation. The [No] button closes the safety inquiry without saving the program constellation.

![Safety query](image)

Fig. 1.5/1: Safety query

Whenever you log on, the programs saved as program constellation are displayed open and therefore allow you to quickly access its functions. The saved program constellation is also active while locking the Neutrino BMS.

**Note:** The program constellation can be saved differently for each operator.

1.5.2 Time Management

Depending on the installed program, the TOS can be synchronized three different ways:

- Free running, no time master
- DDC system as time master
- Radio clock as time master

1.5.2.1 Time Synchronization

**No time master (free running)**

This time synchronization is indicated with the symbol in the BMS status bar and means that the Neutrino BMS and all connected DDC systems are synchronized automatically lonely by their own internal clock. The time for the Neutrino BMS can be set manually or changed as described in Section 1.5.2.2.
**DDC System as time master**

This time synchronization is indicated with the symbol in the BMS status bar and means that a DDC system is used as time master. The connected DDC systems and the Neutrino BMS are synchronized every 10 minutes by the clock time of the DDC system used as time master.

**Attention:** Changing the clock time manually on the Neutrino BMS has an effect on the trend curve recording. Synchronization with the time master is no longer given when the manually changed clock time is more than sixty minutes.

- The Neutrino BMS is receiving the time signal from the time master.

- The Neutrino BMS is not receiving the time signal from the time master. Malfunction may have occurred, e.g., connection to the time master is interrupted.

- The time difference between the time master clock and the Neutrino BMS has exceeded sixty minutes so that for safety reasons synchronization will not take place. The clock time of the Neutrino BMS and of the time master have to be set manually to the same time so that synchronizing can take place.

**Radio clock as time master (optional)**

A radio clock synchronizes the time if the RADIO CLOCK program is installed on your Neutrino BMS.

The radio clock is indicated with the gray symbol in the BMS status bar and means that the time of DDC systems and the Neutrino BMS has been synchronized according to the normal time of the DCF-77 atomic clock. The time is synchronized at least every ten minutes. When the time of the Neutrino BMS deviates more than one minute from the radio clock, the time is synchronized immediately.

- The Neutrino BMS is receiving the time signal from the radio clock transmitter DCF 77; however, the time has not been synchronized yet for safety reasons. So that possible transmission errors are excluded, the time signal is checked two minutes long before the time is synchronized.

- The Neutrino BMS is receiving the time signal from the radio clock transmitter DCF-77 and the time is synchronized.

- Reception is interrupted and the Neutrino BMS cannot receive the time signal. This symbol may appear frequently because of atmospheric interferences on the time signal or if the wrong antenna site or receiver has been chosen.
1.5.2.2 Setting the Date and Time

Click on the date and time display field. The "Set date + time" window opens in which you can manually change the date and time of the Neutrino BMS and the connected TOS.

Note: You can only change the date and time if your code word has the required access rights.

Attention: Each manually changed date and time has an effect on the trend curve recording and should only be changed if a time master is not set up for time synchronization.

---

**Fig. 1.5/2: The "Set date + time" window**

Use the arrow keys to adjust your settings and click the [OK] button to save them. The time is synchronized between the Neutrino BMS and the connected systems. The [Cancel] button closes the window without saving the settings.
1.5.3 Changing the Code Word

Click on the symbol in the BMS status bar if you want to log on with another user name and code word. The "Logon" window opens in which you must enter a new user name and a corresponding code word.

![Image of the "Log on" window]

Click the [OK] button to log on with the new user name and corresponding code word. The new user name is displayed next to symbol in the BMS status bar. The [Cancel] button closes this window without logging on.

Click the [Modify...] button to change the code word for the active operator. The safety query opens in which you click the [Yes] button to enter changes. The [No] button closes the safety query and the "Log on" window appears.

**Note:** You can only change the codes word if your codes word has the required access rights.

![Image of the safety query]

The "New code word" window opens when you click the [Yes] button in the safety query.
In this window, enter first the valid code word in the "Old code word" entry field and then in the "New code word" entry field. The new code word has to be entered again in the "Confirm new code word" entry field. The [Cancel] button closes the window without saving the modification and the "Log on" window reappears. To save the modified code word, click the [OK] button.

An information window appears in which you confirm the modified code word by clicking the [OK] button.
1.5.4 Individual Display of Malfunction Messages

Whenever this symbol is displayed on the BMS status bar it means that a malfunction is present in the TOC. The number next to the symbol indicates the number of malfunctions. Click on this symbol to open the "Individual display" window, which shows the malfunction or system error message. This window shows all relevant information such as the date, time, designation, and technical address with BMS plain text, plant part, and status of the malfunction or system error message. For a detailed description of the malfunction or system error message, see Chapter 2 Section 2.3.

There are two kinds of malfunction messages:

– Malfunction message without remedy text
– Malfunction message with remedy text for eliminating a malfunction

You cannot confirm unconfirmed malfunction messages in this window (see Chapter 2 Section 2.3.6).

Note: You can only confirm malfunction messages if your code word has the necessary access rights.

The green flashing symbol in the BMS status bar indicates that the malfunction message has been confirmed, but the malfunction itself is still present in the TOS. To stop the symbol from flashing, you must eliminate the malfunction.
1.5.4.1 Menu Bar

Menu item "File"
Fax... (see Section 1.6.15)
Print... (see Section 1.5.4.3)
Exit the SINGLE VIEW program

Menu item "Edit"
Confirm (confirms single malfunction messages)

Menu item "View"
First message (displays the first single message in the window)
Next message (displays the next single message in the window)
Previous message (displays the previous single message in the window)
Last message (displays the last single message in the window)
Update (updates the incoming malfunction messages from the TOS and can be invoked with next, previous and last message)
Only own screen (displays the single message only on the screen of the local Neutrino BMS or the connected BMS local user terminal or the connected MS Win OS computer with PHWIN and ADDITIONAL USER WINDOW)
Search for plant image... (see Chapter 2 Section 2.3.10)
1.5.4.2 Tool Bar
The tool bar contains the following symbols:

- **Print single malfunction message** (see Section 1.5.4.3)
- **Fax the system error or malfunction message** (see Section 1.6.15)
- **First message** (displays the first system error or malfunction message in the window)
- **Next message** (displays the next system error or malfunction message in the window)
- **Previous message** (displays the previous system error or malfunction message in the window)
- **Last message** (displays the last system error of malfunction message in the window)
- **Update** (updates the incoming system error of malfunction messages from the TOS and can be invoked with next, previous and last as previously described.)

1.5.4.3 Printing a Malfunction or System Error Message
Click the "Print" function under the menu item "file" in the menu bar or directly on the symbol. The "Select printer" window opens in which the desired printer can be activated. If you do not want to display network printers, activate the "Only display local printer" option field. The printer activated by clicking is highlighted green. The displayed malfunction messages will be printed out on the printer activated in the printer selection. Click the [OK] button to print out the malfunction message. The [Cancel] button closes the window without printing out.

Fig. 1.5/8: The "Printer selection" window
1.5.5 Printer Monitor

The symbol in the BMS status bar shows you the status of the connected printers and the network printers. When this symbol is red and flashing, it means that at least one printer is sending an error or is switched off.

Click the symbol in the BMS status bar to open the "Printer monitor" window showing all connected printers. The [Cancel request] button closes the window without executing the action.

Fig. 1.5/9: The "Printer monitor" window

To print a screen shot, click the [Print screenshot] button. The "Select printer" window opens in which you can select the printer by clicking. If you do not want to display a network printer, activate the "Only display local printer" option field. The clicked and activated printer is highlighted green.

Fig. 1.5/10: The "Select printer" window
The [OK] button causes the selected printer to print out the screenshot. The [Cancel] button closes the window without printing out.

Whenever a printer error is present, its status message, e.g., "Problem" is displayed in the "Select printer" or "Printer monitor" window. You can activate this printer, but it will not print. An information window opens, which you must close again by clicking the [OK] button.

Fig. 1.5/11: Information window
1.5.6 Modem Monitor

The symbol in the BMS status bar shows you that DDC systems are connected to the Neutrino BMS via a modem installation. You can connect several hundred DDC systems to the Neutrino BMS via modem installations.

Modem installations always comprise two modems, which connect the Neutrino BMS and the connected DDC system in the remotely located TOS.

![Diagram of modem installation](image_url)

**Fig. 1.5/12: Block diagram for connecting modem installations**

The different symbol colors show the status of the connected modem system:
- A red flashing symbol indicates that at least one modem is sending a message or is switched off.
- A green flashing symbol indicates that at least one modem connection is being established from the Neutrino BMS to the DDC systems and vice versa.
- The green symbol indicates that at least one modem connection exists.
  - The yellow symbol indicates that a configuration problem is present. Please contact the Customer Service of Kieback&Peter.

**Note:** You can only invoke this application if your code word has the necessary access rights.

Click the symbol in the BMS status bar to open the "Remote data transmission – external modem installations" window. This window lists all DDC systems that are connected to the Neutrino BMS via a modem installation. In addition, you receive information about the name of the TOS with details of the DDC system, the telephone numbers of DDC systems as well as the connection status.
To adjust settings for the DDC system, you must select the desired DDC system by clicking. The selected DDC system is highlighted green.
1.5.6.1 Menu Bar

**Menu item "File"**

- **Lock** (disables the modem connection)
- **Release** (releases the modem connection)
- **Establish modem connection** (see Section 1.5.6.3)
- **Release modem connection** (see Section 1.5.6.3)
- **TC selection** (see Section 1.5.6.4)
- **Set up** modem (see Section 1.5.6.5)
- **Exit** the MODEM MONITOR program

**Menu item "View"**

- **Plants** (see Section 1.5.6.6)
- **Modem** (see Section 1.5.6.7)
- **BMS callback** (see Section 1.5.6.8)

**Menu item "Options"**

- **Fax** (see Section 1.6.15)
- **Short text (SMS)** (see Section 1.6.16)
- **City paging** (see Section 1.6.14)
- **Set call number** (see Section 1.5.6.9)
- **Edit call number** (see Section 1.5.6.10)
- **Log file** (see Section 1.5.6.11)
- **Alive check...** (see Section 1.5.6.12)

**Menu item "Help"**

- Go to **Table of contents...** of Online Help
- **Search...**, change to Online Help
- **Info about...** (see Section 1.5.6.13)
### 1.5.6.2 Task bar

The task bar contains the following symbols:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Image" alt="Plants" /></td>
<td>Plants (see Section 1.5.6.6)</td>
</tr>
<tr>
<td><img src="Image" alt="Modem" /></td>
<td>Modem (see Section 1.5.6.7)</td>
</tr>
<tr>
<td><img src="Image" alt="Callback" /></td>
<td>Callback (see Section 1.5.6.8)</td>
</tr>
<tr>
<td><img src="Image" alt="Lock" /></td>
<td>Lock (disables the modem connection)</td>
</tr>
<tr>
<td><img src="Image" alt="Release" /></td>
<td>Release (enables the modem connection)</td>
</tr>
<tr>
<td><img src="Image" alt="Establish connection" /></td>
<td>Establish connection (see Section 1.5.6.3)</td>
</tr>
<tr>
<td><img src="Image" alt="Release connection" /></td>
<td>Release connection (see Section 1.5.6.3)</td>
</tr>
<tr>
<td><img src="Image" alt="Trend" /></td>
<td>Trend or trend curve dialing (see Section 1.5.6.4)</td>
</tr>
<tr>
<td><img src="Image" alt="Set up" /></td>
<td>Set up (see Section 1.5.6.5)</td>
</tr>
<tr>
<td><img src="Image" alt="Fax" /></td>
<td>Fax (see Section 1.6.15)</td>
</tr>
<tr>
<td><img src="Image" alt="SMS" /></td>
<td>SMS (see Section 1.6.16)</td>
</tr>
<tr>
<td><img src="Image" alt="City paging" /></td>
<td>City paging (see Section 1.6.14)</td>
</tr>
<tr>
<td><img src="Image" alt="Log file" /></td>
<td>Log file (see Section 1.5.6.11)</td>
</tr>
</tbody>
</table>
1.5.6.3 Establishing and Releasing Modems Connections

After you have selected the DDC system in the "Remote data transmission – external modem installations" window (see Section 1.5.6), click the "Connect" function under the menu item "File" in the menu bar or directly on the symbol in the task bar. The "Modem connection" window opens in which you can set with the arrow keys the time interval for establishing a modem connection.

The [Cancel] button closes the window without establishing a connection. Click the [OK] button to establish a modem connection. The modem connection remains set up for the set time and ends automatically thereafter.

Thereafter, a renewed modem connection is established according to the time setting and is continuously repeated until you end the connection set up with the entered time setting by clicking the symbol on the task bar or the "End" function in the menu bar under the menu item "File". A safety query opens in which you must click the [Yes] button to confirm connecting. The [No] button maintains the connection.

Fig. 1.5/14: The "Modem connection" window

Fig. 1.5/15: Safety query
1.5.6.4 Setting the Transmission for Trend Curve Data

Trend curve data are stored in the trend curve memory of the DDC systems and are transmitted automatically when the trend curve memory has reached its maximum memory capacity. You can time control this transmission by manually adjusting the settings.

After you have selected the DDC system in the "WAN – external modem system" window (see Section 1.5.6), click the "TC Dialing" function in the menu bar under the menu item "File" or directly on the symbol on the task bar. The "Cyclic calling" window opens in which you can set the transmission of trend curve data in the "daily" option field for example.

![Fig. 1.5/16: The "Cyclic calling" window](image)

Click the [OK] button to confirm the settings. Trend curve data is transmitted according to your settings. The [Cancel] button closes the window again without saving the settings.

1.5.6.5 Setting Up the Modem Installation

If a DDC system is connected to the Neutrino BMS via a modem installation, the DDC system has to be set up with the corresponding phone number and filter entries in such a way so that BMS data of the DDC system can be transmitted to the Neutrino BMS.

After you have selected the DDC from the "Remote data transmission – external modem installations" window (see Section 1.5.6), click the "Set up" function in the menu bar under the menu item "File" or directly on the symbol in the tool bar. The "Set up modem device" window opens in which you can configure the phone number for the Neutrino BMS and the filter entries for the trend curves. The configured phone number, the configured filter entries for trend curves and malfunction messages will be stored in the BMS database in filter table form.
Note: First perform all configurations in the following index sheets before sending the filter table to the DDC system.

![Set up modem installations window](image)

**Fig. 1.5/17: The "Set up modem installations" window (index sheet "Phone Number")**

**Index Sheet "Phone Number"**

After opening this window, the index sheet "Phone Numbers" is active. You can add, change, or delete telephone numbers in this index sheet.

**Note:** Enter the phone number for the Neutrino BMS that is to be used by the DDC system for the independent (automatic) calling. Only one phone number can be selected and transmitted to the DDC system.

If you want to add a phone number, click the **[New...]** button. An additional window opens in which you can enter the new phone number in the entry field.

![Window for entering a phone number](image)

**Fig. 1.5/18: Window for entering a phone number**

Click the **[OK]** button to save the new phone number. The **[Cancel]** button closes this window without saving a phone number.
Select and click the phone number in the "Set up modem installations" window that you want to edit. The selected phone number is highlighted green. Click the [Edit...] button to open an additional window (see Fig. 1.5/20). Overwrite the marked phone number in the entry field. Click the [OK] button to save the changed phone number. The [Cancel] button closes this window without saving the changed phone number.

Select and click the phone number in the "Set up modem system" window that you want to delete. The selected phone number is highlighted green. Click the [Delete] button in order to delete the phone number.

![Set up modem installations window](image)

**Fig. 1.5/19:** The "Set up modem installations" window with active status parameter

**Attention:** A safety query does not appear while deleting a phone number.

If you want to conduct a cyclic check of the modem connection between the Neutrino BMS and the selected DDC system, activate the "Send status parameter" option field. The [Parameter setting...] button allows you to set up a malfunction message in a separate window for the status parameter. This malfunction message is displayed in the current malfunction message file of the OPERATING AND MALFUNCTION MESSAGES program when the modem connection is interrupted.

**Note:** Only authorized operators may perform parameter setting for the status parameter.

To save the changes or the new phone numbers or the inputs for the status parameter in the filter tables, click the [OK] button.

**Note:** You must transmit your inputs to the DDC system so that an automatic connection can be established between the DDC and the Neutrino BMS.
The [Send] button transmits the filter table with the selected phone number and filter entries for trend curves and for the malfunctions messages to the DDC system (see index sheet "Malfunction Message").

The [Cancel] button closes the window. The inputs previously confirmed with [OK] are saved and filed in a table on the Neutrino BMS.

**Index card "Trend Curve"**

This index card lists all the plant images' fade-in points that have been projected as trend curves (see Chapter 2 Section 2.4). Clicking on a trend curve selects it as filter entry so that a trend curve is transmitted from the DDC system to the Neutrino BMS. The selected trend curve is highlighted green and is marked with the symbol.

![Set up modem installations window](image)

**Fig. 1.5/20: The "Set up modem installations" window (index card "Trend curve")**

To save the filter entries in the filter table, click the [Save] button. The [Send] button sends the filter table with the selected phone number and filter entries for trend curves and the malfunction message to the DDC system (see index sheet "Malfunction Messages"). The [Cancel] button closes the window.

The entries previously confirmed with the [OK] button are stored and filed in a filter table on the Neutrino BMS.
Entering a search pattern in the "Search pattern" entry field allows you to search for a particular group of trend curves. So-called wildcards are used to enter a search pattern. Only use "*" and "?" signs as wildcards.

The meanings of signs for wildcards are:

- * stands for several characters
- ? stands for one character

After entering the search pattern and confirming with the button, this window displays the selected trend curves. Entries can be made in the "Search Pattern" entry field only after clicking in this entry field.

Note: Trend curves may not be selected yet while entering a search pattern.

Index card "Malfunction Messages"

This index sheet lists all the system images' fade in points that have been projected as malfunction messages (see Chapter 2 Section 2.3). Clicking on a malfunction message selects it as filter entry so that the malfunction message is transmitted from the DDC system to the Neutrino BMS. The selected malfunction message is highlighted green and is marked with the symbol.

Entering a search pattern in the "Search Pattern" entry field allows you to search for a particular group of malfunction messages. So-called wild cards are used to enter a search pattern. Only use the "*" and "?" signs as wildcards.

The meanings of signs for wildcards are:

- * stands for several characters
- ? stands for one character

After entering the search pattern and confirming with the button, this window displays the malfunction messages selected by the search pattern. Entries can be made in the "Search Pattern" entry field only after clicking in this entry field.

Note: Trend curves may not be selected yet while entering a search pattern.
To save the filter entries in the filter table, click the [OK] button. The [Cancel] button closes the window. The entries previously confirmed with the [OK] button are saved and filed in a filter table on the Neutrino BMS.

The [Send] button transmits the filter table with the selected phone number and filter entries for the trend curves and the malfunction messages to the DDC system. A safety query opens in which you must confirm transmitting with the [Yes] button. The [No] button closes this window without transmitting.

After you have confirmed transmission in the safety query, an information window opens in which you can cancel the transmission with the [Cancel] button. Transmission will not take place.
1.5.6.6 External Modems

Click the symbol on the tool bar or select the "Plant" function in the menu bar under the menu item "View". The "Remote data transmission - external modem installation" window opens. This window lists all modem connections. In addition, you receive information on the name of the DDC system as well as the connection status and the phone number of the DDC system.

The connection status shows whether the modem connection is in the "Dial", "Online", "Offline", or "Locked" mode. The connection status indicates whether a modem connection is in the "Dial", "Online", "Offline" or "Lock" status. You can activate the "Lock" status by clicking the symbol in the tool bar. You can cancel this status again by selecting the desired modem connection and clicking on the symbol.

Click on the symbol to establish a modem connection from the Neutrino BMS to the DDC system (see Section 1.5.6.3). To clear a modem connection, click on the symbol.
1.5.6.7 Set up Modem

Click on the symbol in the tool bar or select the "Modem" function in the menu bar under menu item "View". The "Remote data transmission - installations" window opens. This window lists all modems that are connected to the Neutrino BMS via the modem system. In addition, you receive information on the status such as "Modem", "Status", "Service", "Info", as well as "Options".

The "Modem" state gives information on the designation of modems. The "State" status shows whether the modem connection is in "Dial", "Online", "Offline", or "Lock" status. You can activate the "Lock" state by clicking on the symbol in the tool bar. You can cancel this state again by selecting the desired modem connection and clicking on the symbol.

The "Service" state indicates whether the modem connection is in "Initialization", "BMS DDC", "DCC BMS" status. The "Info" status shows the DDC system and the phone number of the Neutrino BMS. The "Options" status contains information for the Customer Service of Kieback&Peter and indicates internal codes.

![Fig. 1.5/25: The "Remote data transmission installations" window](image)

Click the [Initialize] button to initialize the selection by clicking and therefore green highlighted modem.

Click on the symbol to establish a modem connection from the Neutrino BMS to the DDC system (see Section 1.5.6.3). To clear a modem connection, click the on symbol.
1.5.6.8  BMS Callback (optional)
BMS Callback is only active when the PHWIN and PHWIN CALLBACK programs are installed on an MS Win OS computer and the Neutrino BMS has been enabled in the Dongle. This function allows you to establish a Callback from the Neutrino BMS to the MS Win OS computer in case of remote control via PHWIN.

Click directly on the symbol or select the "BMS Callback" function on the menu bar under menu item "View". The "Remote data transmission – BMS Callback" window opens in which you can adjust the settings for the callback.

Fig. 1.5/26: The "Remote data transmission – BMS Callback"

Click the [New] button to establish a new callback number. The "Define callback number" window opens in which you can enter the name as well as the phone number in the entry fields and set the status, e.g., "always" for the callback in the option fields.
Click the [OK] button in the "Define callback number" window in order to save your settings in the "Remote data transmission – BMS Callback" window. The [Cancel] button closes the window without saving. You are back in the "Remote data transmission – BMS Callback" window again.

Select in the "Remote data transmission – BMS Callback" window a callback number you want to change by clicking. The selected callback number is highlighted green. Click the [Edit] button or double click on the selected callback number to change it. The "Define callback number" window opens in which can change the name and the telephone number in the entry fields and set the status; e.g., the "time limit" for the callback in the options fields.
Click the [OK] button to save your changes. The [Cancel] button closes the window without saving. You are back in the "Remote data transmission – BMS Callback" window.

Select in the "Remote data transmission – BMS Callback" window a callback number you want to change by clicking. The selected callback number is highlighted green. Click the [Delete] button to delete the callback number. A safety query opens in which must confirm deleting the callback number with the [Yes] button. The [No] button closes the safety query without deleting the callback number.

![Fig. 1.5/29: Safety query](image)

**1.5.6.9 Setting a Call Number for the External Modem Installations**

Open the "Remote data transmission - external modem system" window as described in Section 1.5.6.6. Select the modem installation for which you want to set the phone number by clicking. The selected modem installation is highlighted green.

**Note:** You must enter a phone number so that a connection can be established from the Neutrino BMS to the DDC system via the external modem installation.

Click on the "Dial call number" function on the menu bar under menu item "Options". The "Dial call number" window opens in which you must select the new the phone number for a DDC system.

![Fig. 1.5/30: The "Dial call number" window](image)
Click the [OK] button to save the new phone number. The [Cancel] button closes the window without saving. You are now in the "Remote data transmission – external modem installation" window.

### 1.5.6.10 Modifying a Call Number for the External Modem Installations

Open the "Remote data transmission - external modem installations" window as described in Section 1.5.6.6. Select and click the modem system for which you want to edit a phone number. The selected modem system is highlighted green.

Click the "Edit Call Number" function on the menu bar under the menu item "Options". The "Edit call numbers" window opens in which you can modify the phone number for the DDC system.

![Fig. 1.5/31: The "Edit call numbers" window](image)

Select a telephone number by clicking. The selected phone number is highlighted green and is also displayed in an entry field. If you want to modify the selected telephone number, click in this entry field and modify. Confirm the modification with the [Modify] button. The modified telephone number overwrites into the top display field. The [Delete] button deletes the selected telephone number.

Attention: A safety query will not appear while deleting a phone number.

If you want to add a new telephone number to the existing ones, click in the entry field and enter the new phone number. The [Add] button confirms and adds the new phone number to the top entry field.

To save modifications or new phone number, click the [OK] button. The [Cancel] button closes the window. The entries previously confirmed with the [OK] button are saved and stored on the Neutrino BMS.
1.5.6.11 Log File

Click on the "Log file" function on the menu bar under the menu item "Options" or directly on the symbol in the tool bar. The NOTEBOOK program opens displaying a log file with all relevant data of the modem connection.

![Fig. 1.5/32: The "Notebook" window displaying a log file](image)

**Note:** It takes several seconds before the log file is displayed because of its immense information.

You can edit the displayed log file as described in Section 1.6.
1.5.6.12 Alive Check

With the Alive Check, an automatic modem connection check is carried out between the Neutrino BMS and the DDC system. Whenever you want to modify the configuration for the Alive Check, click on the "Alive check" function on the menu bar under the menu item "Options". The "Configure alive check" window opens in which you can configure the modem connection cyclic check.

Note: The Alive Check is configured during installing and should only be modified by authorized operators.

![Configure alive check window](image)

Fig. 1.5/33: The "Configure alive check" window

The [Status parameter...] button opens the "Binary actual value" window in which you can adjust the settings for recording trend curves and for displaying malfunction messages.

After adjusting the settings for the alive check configuration, click the [OK] button to save these settings. The [Cancel] button closes this window without saving the settings.
1.5.6.13 Information about the Modem Monitor Program

With the "Info about..." function under the menu item "Help" on the menu bar you receive information about the MODEM MONITOR program.

![Fig. 1.5/34: The "Info on..." window](image)

The [OK] button closes the window again.

1.5.7 Displaying and Changing the Program

Programs opened or filed with the symbol are displayed, e.g., as the button in the BMS status bar. You can change between these displayed programs by clicking the corresponding button. A clicked program is displayed on the monitor and the BMS status bar is protruded.

![Fig. 1.5/35: The BMS status bar with filed programs](image)
1.5.8 System Monitor

If you want to access information on the Neutrino BMS, click on the symbol in the status bar. The "System monitor" window opens and displays the processor performance, the memory utilization, the network operation as well as the hard disk activity.

![System Monitor Window](image)

**Fig. 1.5/36: The "System monitor" window**

You can close this window by clicking on the symbol in the title bar. notebook file again.
1.6 Notebook

1.6.1 Notebook Design

The notebook is a software module that is integral to the Neutrino BMS's basic software and is assigned to the task group "Extras".

The NOTEBOOK is used for writing and archiving messages, notes, and documents. Created text can be made part of the OPERATING LEVEL via fade in points (subsequent images "Instruction text"), (see Chapter 2 Section 2.1.10.2).

When the FAX, SHORT TEXT (SMS), CITY PAGING, VOICE and EMAIL programs are set up on your Neutrino BMS then the NOTEBOOK becomes the communication center.

Click on the symbol in the BMS status to open the drop down window containing the task groups. Open the function "Extras" and select the NOTEBOOK program by clicking. The "Notebook:notes" window opens in which you can enter your comments.

![Fig. 1.6/1: The "Notebook: notes" window](image)

The menu bar in this window provides the general functions of a word processing program and other functions for sending, e.g., email.
1.6.2 Menu Bar

Menu item "File"

New... (creates a new notebook file)
Open... (see Section 1.6.4)
Save (saves changes in the notebook file)
Save as... (see Section 1.6.5)
Delete... (see Section 1.6.6)
Print... (see Section 1.6.7)
Send (see Section 1.6.8)
Exit (see Section 1.6.9)

Menu item "Edit"

Cut (cuts out marked text)
Copy (copies marked text)
Paste (inserts copied or moved text)
Insert file... (see Section 1.6.10)
Heading and bottom line... (see Section 1.6.11)
Margins... (see Section 1.6.12)
Search... (see Section 1.6.13)
Replace... (see Section 1.6.13)

Menu item "Options" (optional)

City paging... (see Section 1.6.14)
Fax... (see Section 1.6.15)
Short text (SMS)... (see Section 1.6.16)
Voice journal... (see Section 1.6.17)
E-mails... (see Section 1.6.18)

Menu item "Help"

Go to Table of contents... of Online Help
Search..., change to Online Help
Info about... (see Section 1.6.19)
1.6.3 Tool Bar

Create a **New** notebook file

**Open**, select notebook file (see Section 1.6.4)

**Save** notebook file

**Print** notebook file (see Section 1.6.7)

**Text Font**, select by clicking the arrow

**Font size**, select by clicking the arrow

Display marked text **Bold** or **Italic**

**Select font color** by clicking the arrow

Marked text passages **flush left**

**centered**

**flush right**

Send message by **City paging** (see Section 1.6.14)

Send message by **Fax** (see Section 1.6.15)

Send message by **SMS** (see Section 1.6.16)

Voice messages overview (**Voice Journal**) (see Section 1.6.17)

Send messages by **Email** (see Section 1.6.18)
1.6.4 Opening Existing Notebook Files

Click on the "Open..." function on the menu bar under "File" menu item or directly on the symbol on the tool bar. The "Open" window opens listing all notebook files. Select the desired file by clicking. The selected file is highlighted green and its name is saved in the "File name" entry field.

![Fig. 1.6/2: The "Open" window](image)

The [Cancel] button closes the window without opening the notebook file. To display a selected notebook file, click the [OK] button or double click on the name of the desired notebook file.

![Fig. 1.6/3: Open notebook file](image)
1.6.5 Saving a Notebook File with New Name

Click the "Save as..." function on the menu bar under the menu item "File" to save the notebook window with a new name. The "Save" window opens in which you enter the desired file name in the "File name" entry field.

Fig. 1.6/4: The "Save" window

Click the [OK] button to save the notebook file with a new name. The [Cancel] button closes the window without saving the notebook with a new name.
1.6.6 Deleting a Notebook File

Click on the "Delete..." function on the menu bar under the menu item "File" to delete no longer needed notebook windows. The "Delete" window opens listing all notebook files. Select the desired file by clicking. The selected file is highlighted green and its name is saved in the "File name" entry field.

Fig. 1.6/5: The "Delete" window

The [Cancel] button closes the window without deleting the selected notebook file. Click the [OK] button to delete the selected file. A safety query opens in which you confirm deletion with the [Yes] button. The [No] button closes the safety query without deleting.

Fig. 1.6/6: Safety query
1.6.7 Printing a Notebook File

Clicking on the [Print...] function under the menu item "File" on the menu bar or directly on the symbol opens the "Print" window in which you can select a printer with the [Selection] button and the print range in the option field.

Fig. 1.6/7: The "Print" window

Click the [Selection] button in the "Select printer" window to select a printer.

Fig. 1.6/8: The "Select printer" window

If you do not want to display a network printer, activate the "Only display local printer" option field. Click on the desired printer to activate it. The activated printer is highlighted green. Click the [OK] button to save the printer selection in the "Print" window. The [Cancel] will not select a printer. In both cases, you will find yourself back in the "Print" window.

Select the print range in the "Print" window with the options fields, and click the [OK] button. The notebook file prints out on the selected printer. The [Cancel] button closes the window without printing the notebook file.
1.6.8 Sending Messages out of a Notebook File

Select the "as Fax..." or "as email..." function in the menu bar under the menu item "File" above "Send..." to send your notes. The "Send Fax" window (see Section 1.6.15) or the "Send email" window opens (see Section 1.6.18).

1.6.9 Closing the Notebook Program

To close the notebook file, click on the "End" function in the menu bar under the menu item "File". If the text you have entered is not saved yet, you receive a safety query in which you click the [Yes] button to save your text before closing the notebook file. The [No] button closes the notebook window without saving your text. The [Cancel] button only closes the safety inquiry window and the notebook reappears.

Fig. 1.6/9: Safety query

1.6.10 Adding Files to a Notebook File

Click on the "Add file..." function on the menu bar under the menu item "Edit" to add text from saved files to the current notebook file. The "Open" window opens listing all notebook files. Select the desired file by clicking. The selected file is highlighted green. Continue as described in Section 1.6.4.
1.6.11 Setting the Header and Footer for a Notebook File

Click on the "Heading and bottom line..." function on the menu bar under the menu item "Edit" to create a heading and bottom line for the printout. The "Heading and bottom line" window opens in which you can enter your text for the header and footer. Select the header and footer in the drop window by clicking on the header and footer. The selected line, e.g., the footer is highlighted green and displayed.

Click the [OK] button to save the settings for the heading and bottom line. The [Cancel] button closes the window without saving.

Note: The header and footer are not visible in the notebook window, but are printed out on the printout.
1.6.12 Setting Margins in a Notebook File

Click on the "Margin..." function on the menu bar under the menu item "Edit" to set the margins for the notebook file printout. The "Margins" window opens in which you can set the margins with the arrows or in the entry fields. Clicking on the leaf symbol in the middle of the window allows you to change the formats. You can choose between long and landscape format.

Fig. 1.6/11: The "Margins" window

Click the [OK] button to save the settings for the margins. The [Cancel] button closes the window without saving.
1.6.13 Searching for and Replacing Terms in a Notebook File

Click on the "Search for ..." or "Replace..." function on the menu bar under the menu item "Edit" to search or replace words in your current notebook file. The "Search and replace" window opens in which you can set by means of index cards whether you only want to search for terms or also replace them. You can enter the search word in the entry field and, if necessary, enter the term that is to replace the found search word. The non-activated index card is highlighted dark.

![Search and replace window]

Using the option fields you can select the criteria for the search word. In the "Search direction" drop down window you can select the search direction for the search procedure by clicking. The [Continue search] button displays the entered search word that is placed first in the text. To display all search words in the text, you must press and hold the [Continue search] button until the following information window appears. Click the [OK] button to close this window again.

![Information window]

Clicking the [Replace] button in the "Search and replace" window after entering a term replaces the corresponding search word. Continue the procedure as previously described for searching terms. The [Cancel] button closes this window without saving.
1.6.14 Sending a Message by City Paging (optional)

Click on the "City paging..." function in the menu bar under the menu item "Options" in or directly on the symbol on the toolbar to send information by city paging. The "City paging" window opens in which you can enter an alphanumeric text in the "Text" entry field. Using the option fields you can select a recipient. The selection is indicated with the symbol. The [Close] button closes the "City paging" window.

Fig. 1.6/14: The "City paging" window

Click the [Send] button to send information by City paging. An information window opens in which the progress of sending is indicated with the symbol. You can cancel this process by clicking the [Close] button and the information is not sent.

Fig. 1.6/15: Information window

This information window closes automatically when the message has been completely sent and the "City paging" window is displayed again.
Click the [Journal] button in the "City paging" window to view the sending status. The "City paging journal" window opens listing all city paging messages with date, name, recipient number, and code word.

The symbols next to the message show you the exact status and are listed again with the related explanation in the bottom margin of window.

![Fig. 1.6/16: The "City paging journal" window](image)

The status of messages can be:

- **In progress**: The modem is currently dialing or transmitting the message to the City paging center.

- **Sent**: The message was successfully sent from the Neutrino BMS to the City paging center.

**Note**: It cannot be guaranteed that messages reach the recipient, as there is no return reply from the recipient to the City paging center. The message gets lost when the recipient is not connected or when the receiver is outside the receiving range.

- **Send Error**: The message could not be sent from the Neutrino BMS to the City paging center.

**Note**: Check the recipient number or phone connection. If both are okay, contact the Kieback & Peter’s Customer Service.

The [Close] button closes the "City paging journal" window and takes you back to the "City paging" window.
To send a message to a not yet established city paging recipient, click the [Another recipient…] button in the "City paging" window.

The "Another recipient" window opens in which you must enter in the entry fields the name and recipient number.

![Another recipient window]

Fig. 1.6/17: The "Another recipient" window

The [Cancel] button closes the "Another recipient" window without saving. You are back in the "City paging" window again.

Click the [OK] button to send the message by city paging to another recipient.
1.6.15 Sending a Message by Fax (optional)

Click on the "Fax..." function on the menu bar under the menu item "Options" or directly on the symbol on the tool bar to send information by Fax out of the current notebook file.

The "Send Fax" window opens. Using option fields, you can select a recipient. The selection is marked with the symbol. The [Close] button closes the "Send Fax" window.

Fig. 1.6/18: The "Send Fax" window

Click the [Send] button to send information by Fax. An information window opens in which the progress of sending is indicated with the symbol.

You can cancel this process by clicking the [Close] button and the information is not sent.

Fig. 1.6/19: Information window

This information window closes automatically when the fax has been completely sent and the "Send Fax" window reappears.

Click the [Journal] button in the "Send Fax" window to view the sending status.

The "Fax journal" window opens listing all Fax messages with date, name, receiver number, and code word.
The symbols next to the message show you the exact status and are listed again with the related explanation in the bottom margin of window.

![Fig. 1.6/20: The "FAX Journal" window](image)

The status of messages can be:

- **In progress**: The modem is currently dialing or transmitting the message to the dialed Fax device.
- **Sent**: The message was successfully sent from the Neutrino-BMS to the dialed Fax device.
- **Send error**: The message could not be sent from the Neutrino-BMS to the dialed fax device.

**Note**: Check the recipient number or phone connection. If both are okay, contact Kieback&Peter’s Customer Service.

- **Suppressed**: This function is not active in this software version.

The [Close] button closes the "FAX journal" window and returns the "Send Fax" window.

To send a message to a not yet established Fax recipient, click the [Another recipient...] button in the "Send Fax" window.
The "Another recipient" window opens in which you must enter in the entry fields the name and recipient number.

![Another recipient window](image)

**Fig. 1.6/21: The "Another recipient" window**

The [Cancel] button closes the "Another recipient" window without saving. You are back in the "Send Fax" window.

Click the [Send] button to send the message by Fax to another recipient.
1.6.16 Sending a Message by SMS (optional)

Click on the "Short text (SMS)..." function on the menu bar under the menu item "Options" or directly on the symbol on the tool bar to send information by SMS. The "Short text (SMS)" window opens in which you can enter an alphanumeric text in the "Text" entry field. Using the option fields, you can select a receiver. The selection is marked with the symbol. The [Close] button closes the "Short text (SMS)" window.

Note: The length of text is adapted to the possibilities of the SMS.

Click the [Send] button to send information by SMS. An information window opens in which the progress of sending is indicated with the symbol. You can abort this process by clicking the [Close] button and the information is not sent.

This information window closes automatically when the message has been completely sent, and the "Short text (SMS)" window reappears.

Click the [Journal...] button in the "Short text (SMS)" window to view the sending status. The "Short text journal" window opens listing all SMS messages with date, name, recipient number, and codes word.
The symbols next to the message show you the exact status and are listed again with the related explanation in the bottom margin of window.

**Fig. 1.6/24: The "Short text journal" window**

The status of the messages can be:

- **In progress:** The modem is currently dialing or transmitting the message to the SMS center.

- **Sent:** The message was successfully sent from the Neutrino BMS to the SMS center.

- **Send error:** The message could not be sent from the Neutrino BMS to the SMS center.

**Note:** Check the recipient number or modem connection on the Neutrino BMS. If both are okay, contact Kieback&Peter's Customer Service.

- **Suppressed:** This function is not active yet in this software version.

The [Close] button closes the "Short text journal" window and the "Short text (SMS)" window appears again.
To send to messages to a not yet established SMS recipient, click the [Another recipient...], button in the "Short text (SMS)" window.

The "Another recipient" window opens in which you must enter the name and the recipient number.

![Another recipient window](image)

**Fig. 1.6/25: The "Another recipient" window**

The [Cancel] button closes the "Another recipient" window without saving. The "Short text (SMS)" window appears again. Click the [OK] button to send the message by SMS to another recipient.

**1.6.17 Voice Journal (optional)**

Click on the "Voice journal..." function in the menu bar under the menu item "Options" or directly on the symbol on the task bar to open the "Voice journal" window.

This window lists all voice messages that were sent in the STANDBY SERVICES program. The voice messages are listed with date, name, recipient number, and the corresponding operator.

**Note:** The "Voice journal" will only be displayed if the VOICE program is installed for the STANDBY SERVICE program (see Chapter 3 Section 3.5.4).

With the VOICE program, you can send malfunction messages out of the STANDBY SERVICE program as voice message.

The symbols next to the message show you the exact status and are listed again with the corresponding explanation in the bottom margin of window.
The status of messages can be:

- **In progress:** The modem is currently dialing or transmitting the voice message to the recipient.
- **Sent:** The voice message was successfully sent from the Neutrino BMS to the recipient.
- **Send error:** If there is no handshake or confirmation from the recipient after the Neutrino BMS transmits a voice message, the voice message is sent another five times before the transmission error is indicated.

**Note:** Check the recipient number or modem connection of the Neutrino BMS. If both are okay, contact Kieback&Peter's Customer Service.

- **Suppressed:** This function is not active yet in this software version.

The **[Close]** button closes the "Voice journal" window.
1.6.18 Sending and Receiving Email (optional)

Sending email

To send an email, first enter your text in a notebook file or select as described in Section 1.6.4. Then click the "as email" function in the menu bar under the menu item "File" above the "Send" function to send this text as email. The "Send email" window opens in which you can enter your entries in the entry fields "To", "Copy To" as well as "Ref" for the email receiver.

Fig. 1.6/27: The "Send email" window

The [Selection...] button next to the "To" and "Copy To" entry fields allows you to import already set up email recipients from the "Address Book". The [Selection] button opens the "Address Book" window in which you can select the desired email recipient by clicking.

Fig. 1.6/28: The "Address book" window
The email recipient selected from the "Address book" is highlighted green and is marked with the symbol. The [OK] button saves this email recipient and closes the "Address book" window. You are now in the "Send email" window. The [Cancel] button closes the "Address Book" window without saving an email recipient.

**Note:** You must in either case make an entry in the "To" entry field so that the email can be sent. Other entries are not necessary to send email and can be entered as needed. If no email address is entered, an information window opens. Click the [OK] button to close the window again.

![Information window](image)

**Fig. 1.6/29: Information window**

The [Cancel] button in the "Send email" window closes the window without sending the email. The Notebook file reappears. After making entries manually or by selecting in the entry fields of the "Send email" window, click the [Send] button to send the email.

An information window opens in which the progress of sending is indicated with the symbol. You can cancel this process by clicking the [Cancel] button and the information is not sent.

![Information window](image)

**Fig. 1.6/30: Information window**
After the email has been sent, an information window opens again in which you must click the [OK] button to confirm. After confirming, the information window closes.

![Fig. 1.6/31: Information window](image)

**Editing or setting up a new email receiver**

To set up or edit a new email recipient, click the [New...] or [Edit...] button in the "Address book" window (see Fig. 1.6/28).

The "Edit email address" window opens in which you can insert entries or make changes in the "Name" and "Address" entry fields. You can enter information for the email recipient in the "Comment" entry field.

![Fig. 1.6/32: The "Edit email address" window](image)

The [OK] button stores the entered or modified email recipients in the "Address book" window and closes the "Edit address" window. You are back in the "Address book" window. The [Cancel] button also closes the "Edit email address" window and brings back the "Address book" window without storing the entered or modified email recipient.

You can delete the email recipient set up in the "Address book" window. Select the email recipient by clicking. The selected email recipient is highlighted green and is marked with the ✅ symbol. Click the [Delete] button to delete the selected email receiver.
A safety query opens in which you must confirm deletion with the [Yes] button. The [No] button closes the safety query without deleting.

Fig. 1.6/33: Safety query

**Receiving, displaying, archiving, or deleting email**

If you want to display, delete, archive, or receive emails, click on the "Email..." function on the menu bar under the menu item "Options" or directly on the symbol on the tool bar. The "Emails" window opens listing the sent emails, the archived emails, or the received emails in the corresponding selection fields.

You can open the drop down window with its arrows and make a selection for the email list. Depending on the selection, different buttons or the option field is active.

Fig. 1.6/34: The "Email" window with open drop down selection field

While selecting, every selected email list can be sorted in ascending or descending order by clicking the arrow next to the date.
With the [Delete] button you can delete emails in every selection. A safety query opens in which you must confirm deletion by clicking the [Yes] button. The [No] button closes the safety query without deleting.

![Safety query](image)

**Fig. 1.6/35: Safety query**

The [No] button closes the safety query without deleting the email.

If you want to display email text, select the email in the "Emails" window by clicking. The selected email is highlighted green. Click the [Display] button to display the text in a notebook file.

![Notebook file displaying emails](image)

**Fig. 1.6/36: The notebook file displaying emails**

In this notebook window, you can transfer the email by clicking the [Transfer...] button or answer the email by clicking the [Reply...] button.

In both cases, the "Send email" window opens in which you must enter an email recipient as described in Section "Send email". The buttons of the invoked notebook file are activated or deactivated depending on the selection in the "Email" window.
When "Received email" is selected, emails can be fetched with the [Receive] button. An information window opens in which the progress of sending is indicated with the symbol.

![Information window](image)

**Fig. 1.6/37: Information window**

After the email has been transferred, the email is listed in the display area of the "Email" window. An email selected in the "Email" window can be imported with the [Archive] button into the "File" selection to archive it. Clicking on the activated "Only display new emails" option field only lists the new received emails that were fetched with the [Receive] button.

Selecting the "File" will list all archived mails in the display area of the "Email" window.

Selecting the "Sent emails" will lists all sent emails in the display area of the "Email" window.

The [Close] button closes the "Emails" window and takes you back to a notebook file again.
1.6.19 Information about the Notebook

With the "Info about..." function on the menu bar under the menu item "Help", you can invoke information about the NOTEBOOK program.

![Fig. 1.6/38: The "Info about..." window](image)

The [OK] button closes this window again.
### 1.7 Remote Control

The remote control is only active if the NEUTRINO BMS OPERATION VIA MODEM or NEUTRINO BMS OPERATION VIA ETHERNET program is installed.

Click on the symbol on the BMS status bar to open the drop down window containing the task groups. Open the task group "Extras" and select the REMOTE CONTROL program by clicking.

![Fig. 1.7/1: The "BMS remote control" window](image)

This window lists all Neutrino BMSs, which are connected in a network, with their names. Select a Neutrino BMS by clicking on the plant name to modify possibly changed access data or to establish a connection. The selected plant name is highlighted green.

The button establishes a connection in the network. Whenever you want to add a new Neutrino BMS to this network, click the [New] button. To modify entries for a Neutrino BMS, click the [Edit] button.

In both cases, the "BMS access data" window opens in which you can enter the access data or edit existing data in the entry fields and drop down windows for a Neutrino BMS.
1.7-2  Remote Control  BMS Basics

Fig. 1.7/2: The "BMS access data" window

Note: When the window is opened with the [Edit...] button, the "BMS number" entry field is not active, as the access data for a Neutrino BMS is only edited but cannot be newly entered. When this window is opened with the [New...] button, all entry fields are blank.

The "Connection type" drop down window provides the following connection types: "LAN = Local Area Network" and "WAN = World Area Network". When setting up a new Neutrino -BMS, the connection type is preset to "LAN".

In the "Plant name" entry field, you assign a plant name with maximum 50 characters to the Neutrino BMS. In the "BMS Number" entry field you assign a BMS number to the Neutrino BMS. The BMS Number 1 is not available.

Note: The BMS number is required for processing operating and malfunction messages via the TCP/IP.

In the "TCP/IP Address" entry field, you must enter a TCP/IP address when the connection type is LAN for the local Neutrino BMS, so that communication is possible between the sharers in the network. In addition, you also need a TCP/IP address for the other sharers in the network, which you must establish on the corresponding Neutrino BMSs. Communication takes place via the TCP/IP protocol. When the connection type LAN is selected, the "Call Number" entry field is not active.

Note: For TCP/IP addressing, contact Kieback&Peter's Customer Service.

In the connection type WAN, you must enter a phone number for the BMS in the "Call number" entry field). Communication in a WAN network takes place via the PPP (Point to Point Protocol).

Note: When you are in connection type LAN and have a sub branch exchange you still need an internal pre-selection number.
In the "Comments" entry field, you can enter notes to the remote control.

Click the [OK] button to save your settings in the "BMS remote control" window. The window closes after saving. The [Delete] button deletes the entered settings. A safety query opens in which you must confirm deletion with the [YES] button.

![Safety query]

Fig. 1.7/3: Safety query

The [NO] button closes the window, and the settings previously not confirmed with save are not saved.
1.7-4  Remote Control  BMS Basics
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</tr>
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