

# DcDesk 2000

## Revision History

Declaration of conformity:

DcDesk 2000 from version 5.07 on is compatible with Windows Vista.

DcDesk 2000 from version 5.20 on is compatible with Windows 10.

### 5.21

- Window *Curve versus time* and *Curve versus X*:
  - Range for bit parameters increased.
  - Improved recording for timestamps with 0 ms.
  - Graphic limits will be retained if a curve is changed to another parameter with the same internal range and unit.
  - Limit DcDesk 2000 windows size to minimum of these windows.
- Window *Magnetic Valves* and *Click Test*:
  - Added systems with dual amplifiers.
- Window *Programme to governor*:
  - Faster download due to improved algorithm.
  - Added additional error messages.
  - Improved take-over of parameter values for parameters with variable limits.
- Window *Current Errors*:
  - Detailed description for some configuration errors.
- Window *Stored Errors*:
  - Corrected calculation of numbers of errors for some systems.
- Window *XIOS Configuration*:
  - Updated for new configuration possibilities.
  - Added configuration for module MD2.
- Window *Adjustment / Common Output Configuration*:
  - Cleared mask parameter if no error parameter is assigned.
  - Exit test mode of current outputs if running system is detected.
  - Handling for binary outputs improved.
  - Minor fixes.
- Window *Adjustment / Sensor Configuration*:
  - Added temperature characteristic curves for systems with internal linearization.
  - Corrected graphic for sensor range.
- DcDesk2000/UDP:
  - Improved communication start.
  - Improved general communication.
- General:
  - Improved reaction on change of parameter value.

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- Updated drivers for Dongle, USB-to-RS232-adapters and CAN-Bus in complete setup.
- Added new systems "DC 7", "Elektra 30 (Lambda Control)", "StG3-DP", "StG180-DP", "DC10-4Q"
- Added dongle access handling for Orion systems.
- Minor fixes.

### 5.20

- Window *Curve versus time* and *Curve versus X*:
  - Window may be unlocked and displayed outside DcDesk 2000.
  - Drag&Drop improved.
- Window *Adjustment / Common Output Configuration*:
  - Errors in configuration will be displayed more detailed.
- Window *Adjustment / Switch functions*:
  - Display of analogue voltage if switch function is coming from analogue input.
- Window *Current Errors*:
  - Shows more details on exceptions.
  - Timestamp-logging is now able to show up to 100000 errors.
- Window *Adjustment / HZM-CAN Configuration*:
  - Implemented configuration of error mask for PE-, AC- and actuator errors.
  - HZM-CAN ALL supports now connection to GC (generator control).
- Window *Adjustment / CANopen Configuration*:
  - Extended to support up to 10 RPDO and 16 TPDO.
- Window *XIOS Configuration*:
  - Updated for new configuration possibilities.
- Window *MVC01-3G Configuration*:
  - Updated for new configuration possibilities.
- Window *Programme to governor*:
  - Supports update of FPGA-programme for system *XIOS*.
- Menu bar:
  - Right-click on Start/Stop may change the com port number.
- General:
  - Updated drivers for USB-to-RS232-adapters in complete setup.
  - Added new systems "StG-EC 15/30", "DC 14"
  - Added new icon for UDP-version
- Minor fixes.

### 5.19

- Toolbar:

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- Toolbar extended with additional menu points.
- Window *Adjustment / Common Output Configuration*:
  - New window for configuration of outputs for systems supporting this type of configuration.
- Window *Adjustment / Switch functions*:
  - Switch functions may come from analogue inputs (only if the control supports this).
  - Switch functions may be checked for broken wire (only if the control supports this).
- Window *Adjustment / HZM-CAN Configuration*:
  - New Tab for configuration of HZM-CAN ALL.
- Window *Adjustment / CANopen Configuration*:
  - Corrected creation of EDS files.
  - Corrected heartbeat consumer id.
- Window *Curve versus time* and *Curve versus X*:
  - Possibility to hide all curves.
- Window *Current Errors*:
  - Show configuration error number.
- Window *Load Parameter Values*:
  - Improved handling of loading data sets which lead to changes in parameter ranges.
- Window *XIOS Configuration*:
  - New window for the configuration of inputs and outputs of the system *XIOS*.
- Window *MVC01-3G Configuration*:
  - New window for the configuration of inputs and outputs of the system *MVC01-3G*.
- Dongle Driver:
  - Driver updated to support Windows 8.
- DcDesk2000/UDP:
  - New communication type for systems equipped with Ethernet.
- General:
  - Added new systems "Pantheon/Ariadne", "Pantheon/XIOS", "Kronos 20 GMA", "E-LES-FC", "E-LES SMC", "GMA SMC", "Gas Positioner (Type MVC 01)", "DC 8 (Amp 1A)", "XIOS CoDeSys", "DC 12", "Peripheral Expansion (Type DC 12)"
  - System names revised.
  - Improved speed while building up parameter definitions.
  - Fix: Improved printing of graphics. Text was not always centered.
  - Fix: DcDesk could possibly hang up if woken up after standby mode.
- Help files updated.

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- Minor fixes.

### 5.18

- Menu:
  - Menu revised to show the same icons as in the toolbar.
- Toolbar:
  - Symbols can be chosen small or large (through window *Settings*).
  - Right-click on "Start" button shows available com ports.
- Window *Curve versus time*:
  - Maximum value for time base changed to 10000 s (was 3600 s).
- Window *Curve versus X*:
  - Corrected input of parameter numbers.
- Window *Curve versus time* and *Curve versus X*:
  - Corrected closing of the window if recorder is started.
  - Corrected labelling of y-axis for hexadecimal parameters.
  - Corrected saving of current data.
  - If a parameter number is changed the curve will be deleted.
  - For a better visibility of the values of the current cursor position the minimum and maximum values will not be shown if the graphic is stopped.
- Windows *Parameters, Measurements, Functions, Curves and Parametrizing*:
  - Parameters which represent a field are shown with a "+" sign if they are collapsed and with a "-" sign if they are expanded.
  - Performance increased if filtering of parameters is used.
  - The parameter selection and the top parameter of the lists will be kept in case of a change from offline to online.
  - Parameter values will be updated if a new value is available through another window.
- Window *Load Parameter Values - Compare*:
  - Differences in data sets that can occur due to the use of an Asian version of Windows will be ignored.
  - Corrected reading of parameters in hzm files with time format.
- Window *Adjustment/Sensors*:
  - Window completely revised.
  - Reference values of analogue or PWM channels may be inverted.
  - Linearization of analogue input or sensor may be parameterized, if control unit supports this.
- Windows *Adjustment/Analogue Outputs* and *Adjustment/Digital Outputs*:
  - Allows the configuration of Wago- and ICENI-I/O extension modules, if the control unit supports this.
- Windows *Adjustment/Analogue Outputs* and *Adjustment/PWM Outputs*:
  - Corrected calculation of test value if output is inverted.

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- Window *Adjustment/HZM-CAN Configuration*:
  - New window to support simplified configuration of HZM-CAN.
- Window *Adjustment/Digital Outputs*:
  - Implemented scroll bar for large number of outputs.
- Window *Information Control Unit*:
  - Implemented control units DC10 and DC11.
- Window *Overview*:
  - Display of tooltips revised.
- Window *Curve*:
  - Improved scrolling for curve values.
  - Improved legend of axis.
  - Take over parameter values when loading a hzm file.
  - Improved display of 2D- and 3D-columns.
- General:
  - Added new systems "DC 8", "Peripheral Expansion (Type DC 8)", "AD/PWM Positioner (Type DC 8)", "XIOS".
  - Corrected access to control units of type "DC 7".
  - Drag'n'Drop of files with the extensions .hzm, .hzc, .dwn, .cfg, .rec are accepted by DcDesk 2000.
  - Parameter names and units may be shown in Chinese language if the translation data base is available.
  - Dongles of type HASP HL may be used.
  - Implemented check if certain OCX and DLL files used by DcDesk 2000 are out of date.
  - Shortcut for "Clear programme in control unit" changed from CTRL-E to CTRL-K to eliminate the mistake with CTRL-R (only available on some versions of DcDesk 2000).
  - The first available com port is used instead of Com1 if DcDesk 2000 is started the first time after a new installation.
  - Improved printing of parameters with long names.
  - Improved printing of long descriptions.
  - Improved display when changing the font.
- Minor fixes.

### 5.17

- Toolbar:
  - DcDesk 2000 is now equipped with a toolbar.
- Window *Theseus VCP*:
  - New window to show the instantaneous values of voltage, current and power.
- Windows *Curve versus time* and *Curve versus X*:

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- Right-click opens pop-up menu "Copy to Clipboard".
- Click test:
  - The click test is now started in the click test window.
  - The click test now supports the system "Phlox".
- Window *Adjustment / Sensors*:
  - The window is now able to parameterize the linearization of standard sensors, if the control unit supports this.
- Window *Settings*:
  - Changing the baud rate does no longer rebuild the connection.
- Menu *Adjustment / Switch to Reference Page* resp. *Switch to Working Page*:
  - New menu point to switch over between working page and reference page. Only available, if the control unit supports this.
- Programme to control unit:
  - List of recent files will remember the last 20 files.
- General:
  - Added system "DC 7".
  - It is now possible to include clear text for several parameter values in the par file which will be shown in the list windows through a combo-box.
- Minor fixes.

### 5.16

- Windows *Parameters, Measurements, Functions, Curves and Parametrizing*:
  - Windows revised completely.
  - Optional stripe pattern for background color (color is adjustable).
  - Optional horizontal and/or vertical grid lines.
  - Adjustment is done by menu *Extras / Settings / List Options*.
  - Parameter values may now be changed inside this windows (by double-click on parameter value or pressing ENTER).
  - Several parameter values of the *Functions* window may now be selected through a combo-box.
  - Drag & Drop revised.
  - Right-click pop-up menu revised.
  - Copying of parameters with the right-click pop-up menu copies them additionally into the clipboard.
  - Window title displays now if selection and/or filtering is active.
- Window *Search and filter parameters*:
  - New window for searching and filtering parameters.
- Window *Load Parameter values*:
  - Window revised completely.
  - Incompatible differences are shown in red color.
- Window *Compare Parameters*:

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## Revision History

- Window revised completely.
- Incompatible differences are shown in red color.
- Splitter bar implemented for changing the size of the window parts.
- Window *Settings*:
  - New options for parameter list windows.
  - Serial Bluetooth ports are now disabled by default.
- Window *Current Erros*:
  - Possible blank lines removed.
  - Interpretation of CAN errors for HZM CAN protocol corrected on CAN2.
  - Interpretation of CAN errors for HZM CAN protocol implemented for CAN3.
- Windows *Curve versus time* and *Curve versus X*:
  - Corrected input of parameter range for hexadecimal parameters with negative values.
  - Curve color may now be changed by right-click menu.
  - New menu point on right-click menu to show all curves at once which were hidden.
  - Printing improved if the number of curve to print is more than 10.
  - New option for printing the curves with only two axes for all curves instead of one axis per curve. This gives more space for the curve range, especially on more than 10 curves.
  - Line size for printing is now used as well for saving the graphic to a file.
- Window *Adjustment / CANopen Configuration*:
  - New window to simplify the configuration of the CANopen protocol parameters.
- Window *Theseus VCP*:
  - Corrected display of values if 5A current transformers are used.
  - Corrected possible crash if values are displayed during stopping of the engine.
- Window *Overview*:
  - The display of the phase is updated when changing from offline to online.
- DcDesk2000/CAN:
  - Device type 5 "Accessory Control" implemented.
  - Corrected unintended abort of programme download.
  - Corrected driver handling to work with PCAN driver version 2.49.
  - Sveral instances of DcDesk2000/CAN running on one PC could now be connected to different PCAN-adapters.
- Window *CAN Devices on Network*:
  - Displays now the device's system name and software version, if the device provides this information.
  - List of devices is now sorted.
  - Window is now resizable.

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- *Window Programme to governor:*
  - Download files are not accepted if size is too small or zero.
- DcDesk2000/Saturn:
  - Supports now up to 255 serial ports.
- General:
  - Added systems "AD/PWM Positioner (Type DC 8)", "Elektra 50-FC-S", "Peripheral Expansion (Type Phlox)", "Peripheral Expansion (Type DC 10)" and "AD/PWM Positioner (Type DC 10)".
  - Interpretation on clear text for bit parameters suppressed if the name starts with "Or".
  - Improved handling if USB-To-RS232-adapters were removed.
  - Improved check if a serial port is available.
  - Checked driver version of USB-to-RS232 adapters and PCAN-USB interface. Providing a note if the driver is out of date.
  - Latest driver versions of USB-to-RS232 adapters are copied into the DcDesk directory during complete setup.
- Minor fixes.

### 5.15

- *Window Map and Curve:*
  - Map and curve values may be copied or inserted with CTRL-C / CTRL-V if the cursor is placed in the edit textbox. This is mainly intended to exchange the values with Excel.
- *Windows Curve versus time and Curve versus X:*
  - The number of curves can now be up to 20.
  - Improved reloading of recorder data.
  - Improved display of recorder data for curve numbers above 10.
- *Window Injector Code:*
  - Window adapted for system "LIDEC1".
  - Window revised completely.
- *Window Adjustment / Sensors:*
  - The number of the linearization curve will now be entered starting from 1 so that it fits to the name in the curves window.
- *Window Load parameter values:*
  - Window is now resizable.
- *Window Programme to control unit:*
  - Timeout increased if downloading into a system with M16C- or R8C-CPU.
- *Window Settings:*
  - Baud rate 230400 implemented.
  - New option to display clear text for bit parameters.
- General:



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## Revision History

- Added systems "MVC05" and "DC 8".
- DcDesk 2000 supports now extended length of parameter names.
- Chinese language set to 'simplified character set' for correct display of the language texts.
- Minor fixes.

### 5.14

- Window *Theseus VCP*:
  - New window for generator management system Theseus to display current phase values of voltage, current and power.
- Window *Overview*:
  - Ensured that the displayed values will always be updated.
  - On some control units not all of the sensors have been displayed.
  - Display of sensor and switch values is now independent of the DcDesk level.
- Window *Magnetic Valves*:
  - Shows now third and fourth post-injection, if the control unit supports this.
  - Display range is now  $-360^{\circ}..360^{\circ}$  crankshaft.
- Window *Error Memory*:
  - Supports error memories with environmental data at the errors first occurrence and recording of the error duration.
- Window *Settings*:
  - Determination of available serial ports improved.
  - The description of the serial port is now displayed.
  - The serial ports to be used for control unit scan may now be selected.
  - Check whether the selected port supports the chosen baud rate.
- Windows *Curve versus time* and *Curve versus X*:
  - Check the recorder file for write protection before saving values.
  - The parameter numbers cannot be changed if a recorder file is shown.
  - Improved handling of corrupted recorder files.
- Window *Curve versus X*:
  - Clear the curve graphic if a parameter number is deleted, changed or the curve is hidden.
- Window *Adjustment / Analogue Outputs*:
  - Shows the correct physical type of output, if possible.
- Window *Curves*:
  - Graphic uses now the full display range on all pc systems.
- DcDesk2000/CAN:
  - Clear internal transmit buffer in case of a CAN bus error to prevent overloading the CAN bus.
- Load parameter values:

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## Revision History

- Read correct value even there is no space previous to the equal sign.
- General:
  - Added system "Phlox".
  - DcDesk 2000 supports now parameter numbers as long values.
  - Printing improved.
- Minor fixes.

### 5.13

- Windows *Curve versus time* and *Curve versus X*:
  - Check if path exists before saving values into the recorder file.
- Window *Adjustment / Sensors*:
  - With temperature sensors sometimes the error limits were not displayed.
  - If the linearization curve of a temperature sensor is shown within this window, the error limits are now displayed correctly in the graphics.
- General:
  - Change automatically to offline-mode only if standby (hibernate) mode is requested.
- Minor fixes.

### 5.12

- Window *Recorder*:
  - New window to offer up to five separate recordings independent of those of the *Curve versus time* and *Curve versus X*-windows.
  - Recordings may now be stored in a compressed format to reduce file size.
  - Recordings may now be stored in a circular buffer.
- Windows *Curve versus time* and *Curve versus X*:
  - Added button instead of auto scale checkbox to offer additional curve options (e.g. switching on/off of the curve display without deleting the parameter number).
  - Parameter numbers may now be added by drag & drop from the parameter list windows.
  - Scrolling of graphics reworked.
  - Options for the recorder revised according to the new window *Recorder*.
- Window *Settings*:
  - The button "Scan for Control Unit" is now available in online mode, too.
  - Depending on the control unit DcDesk 2000 may now take the previously chosen baud rate for this control unit.
- Window *Adjustment / Sensors*:
  - The linearization curve of a temperature sensor may now be parameterized and shown within this window, if available.
- Window *Current Errors*:

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## Revision History

- Added description of exceptions of systems with MPC55xx processor.
- Window *Magnetic Valves*:
  - Window refreshed if the engine type was changed.
- Window *Programme to control unit*:
  - Message implemented to show if the access rights to the new firmware cannot be checked.
  - Download of an improper software prevented if the window was closed by control menu.
- General:
  - Added systems "Orion DC10", "Elektra Lambda Control", "Elektra Gas Flow Control" and "Gas Positioner for All Speed Diesel Governor".
  - Graphics may now be stored in png-format as well.
  - Icons for DcDesk 2000 reworked.
  - A check for additional components implemented which are necessary for DcDesk 2000.
  - It is changed automatically to offline-mode, if the PC/Laptop liked to change into standby (hibernate) mode.
- Communication:
  - Implemented a message if the access rights to the control unit cannot be checked.
- Minor fixes.

### 5.11

- General:
  - Added systems "LIDEC1" and "Monitoring System".
- Communication:
  - Supports now up to 255 serial ports.
  - Supports now the latest driver version of Prolific USB-to-RS232 converters.
- Automatic Adjust:
  - Supports automatic actuator adjust for EMR2 software version 12.9.xx.
- Minor fixes.

### 5.10

- General:
  - If several instances of DcDesk 2000 are at the same time opened, the values of these instances are stored in separate sections of the registry so that each instance possesses its own start-up values. The start-up values of maximally five different instances are stored.
  - Parameter numbers may be up to 65535 if the control unit supports it.
  - Added systems "Peripheral Expansion (Type Digital I/O)" and "Hyperion".
- Window *Programme to control unit*:



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## Revision History

- The parameters are stored automatically into a temporary file before a download starts. If an error should arise during the program download, thus the parameters are still available and can be transferred into a hzm parameter file.
- Start Communication:
  - If one presses F5 twice in rapid succession or during the automatic reconnect, the second F5 is ignored.
- DcDesk2000/CAN:
  - If more than one CAN interface is attached at the PC, the interface which should be used can now be selected. A clear number can be given to the interface for differentiation (if it is a USB CAN interface).
  - DcDesk 2000 changes to demo mode if the CAN interface is removed.
- Window *Adjustment / Configuration of digital outputs*:
  - If DcDesk 2000 determines a fault in the configuration of digital outputs, additionally to the fault message the number of the wrong output is indicated.
  - If the window is closed while test mode is active, the original configuration is restored.
  - If the control doesn't support inverting of the output, the checkbox is removed.
- Window *Information Control Unit*:
  - All information about the control unit configuration is indicated independently of the dongle level.
- Window *Adjustment / Sensors*:
  - The window is shown even if only some parts of the configuration can be worked on (because of the dongle level).
  - Configuration of more than three HZM-PE modules is now possible.
  - The index of the selected HZM-PE module is shown in the sensor list.
  - Parameter numbers for communication modules taken up into the PAR file.
  - Numbers for temperature linearization characteristics taken up into the PAR file so that the corresponding characteristic can be opened in the *Curves*-window.
  - Wrong configurations are announced with a description.
- Window *Switch functions*:
  - Wrong configurations are announced with a description.
- Window *Curve versus time*:
  - If a recorder file is shown, it is guaranteed that the same section is indicated on change of the time base.
- Windows *Curve versus time* and *Curve versus X*:
  - If a recording takes place and the connection is interrupted briefly, after rebuilding the communication the recording is automatically continued.

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## Revision History

- Provide a safety inquiry if a recording takes place and the window or DcDesk 2000 is closed.
- Improved handling of corrupted recorder files.
- Window *Map*:
  - The option 'Data directly to control unit' is separately stored for each map.
- Window *Adjustment / Engine Configuration*:
  - New window for the configuration of the number of cylinders and ignition sequence for MVC's (if the control supports this adjustment).
- Window *Help / Session Info*:
  - New window with an overview of important information.
- Click test:
  - New window for the direct selection of the cylinder which is to be tested (if the control supports this feature).
- Window *Adjustment / Analogue Outputs and PWM Outputs*:
  - The outputs of peripheral modules may now be configured with this window.
- Window *Adjustment / Inputs Outputs*:
  - The analogue and PWM inputs of the peripheral module may now be configured with this window.
- Window *Generator Management*:
  - In the "Load sharing" view the display may now be selected between percentage and real power (kW) if the control unit supports this.
  - If connected to a group management unit the "Load sharing" view displays now both groups (if the control unit supports this).
- Window *Magnetic Valves*:
  - Display cylinder numbers instead of amplifier bank and numbers if the control unit supports this renumbering.
- Window *Current Errors*:
  - Errors for Dual Fuel systems are now described in plain text (for Error number 13000 *ErrGasConditions*).
- Help files updated.
- Minor fixes.

### 5.09

- Window *Map*:
  - Corrected loading of map data.

### 5.08

- Window *Stored Errors*:
  - Acknowledgement of stored errors inserted for systems supporting this feature.



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## Revision History

- Window *Current Errors*:
  - For systems with peripheral modules detailed explanation of error number 3049 added (extracted from parameter 2440).
- Window *Map*:
  - *Insert* and *Delete* work now together with *Data directly to governor*.
  - Corrected update of x-, y- and z-values for different maps having the same x-, y- or z-values.
- Window *Configuration of digital outputs*:
  - Display of outputs corrected when version changed.
  - Flickering removed on open the window.
- Windows *Curve versus time* and *Curve versus X*:
  - Loading recorder data revised because sometimes short recordings were not shown.
  - Default value of memory buffer size changed to 200000.
  - Improved display of curves while changing the timebase.
  - If a recorder file is shown, parameter numbers may only be deleted but not been changed.
- Window *Bit collection*:
  - Window position stored in registry.
- Window *Compare Parameters*:
  - The window uses now the chosen parameter font.
- Window *Overview*:
  - The fixed (non-selectable) display parameters are shown independently of the access level of DcDesk 2000.
- Window *Magnetic Valves*:
  - Hide adjustment of delivery begin and period correction if the system doesn't support these features.
- Windows *Sensors* and *Switch functions*:
  - The windows support now communication type 10 (WAGO).
  - Unknown communication types may now be configured as well.
- Window *Generator Management*:
  - The window supports now older versions of the control unit.
  - The window is shown now independently of the access level of DcDesk 2000.
- General:
  - Added a *Cancel*-button if there is a note to store modified parameter values on DcDesk 2000 exit.
  - Suppressed OK-message on storing parameters if this storing was requested automatically (e.g. on parameter loading or DcDesk 2000 exit).
  - The window position is changed to the visible area if it is opened outside.
- Minor fixes.

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## Revision History

### 5.07

- Window *Map*:
  - Value table in print outs of maps corrected.
  - Rotation of the map slowed down.
- Window *Curve versus time*:
  - Scroll mode reworked.
- Window *Curve versus time* and *Curve versus X*:
  - Graphical limits for displaying a parameter value may be set up to ten times higher than the physical limits of the parameter.
- Windows *Adjustment/Digital Outputs* and *Bit Collection*:
  - Show current values only in online mode.
- Window *Curve*:
  - DcDesk may interpolate the current y-value of the curve if the control doesn't provide it.
- Window *Programme to control unit*:
  - The download code will be extracted from the filename, if possible.
- General:
  - Provide a note for updating DcDesk 2000 if DcDesk identifies an unknown control unit.
  - Provide a hint to reset the control manually if the control doesn't support an automatic reset.
  - New language available: Chinese.
- Window *Offline Mode*:
  - Window is now resizable.
- Communication:
  - Communication supports now reduced command set for tiny control units.
- Minor fixes.

### 5.06

- Window *Generator Management*:
  - Name changed (formerly entitled as *Theseus*).
  - Window completely reworked.
- Window *Injector Code*:
  - Accepts now injector classes up to 4 or 5 depending on the control's firmware.
- Window *Adjustment/Sensors*:
  - Window completely reworked.
  - Supports now parameterizing of sensor values received by peripheral extension modules or by communication protocols.
  - Temperature inputs may be chosen separately from analogue inputs.

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- Filter constant shown additionally in time scale.
- Shows double assignments.
- Graphics which could be saved as bitmaps may now be saved additionally in jpg or tiff format.
- Windows *Curve versus time* and *Curve versus X*:
  - Displayed curve may now be saved as recorder file.
  - The zoomed section in zoom mode may now be scrolled (by clicking on the arrows, press CTRL or SHIFT for faster scrolling)
- Window *Map* and *Curve*:
  - The inserting or deleting of a row or column will now change additionally the values of such curves/maps which are based on the same parameters for the x- or y-values.
- Window *Curve*:
  - Accepts now characteristics with more than 50 base points.
- Window *Adjustment/Switch functions*:
  - New window to support the parameterizing of switch functions received by digital inputs and communication protocols.
- Window *Information Control Unit*:
  - Displays now sensors and switch functions received by peripheral extension modules or by communication protocols.
- Windows *Adjustment/Analogue Outputs, PWM Outputs* and *Digital Outputs*:
  - Windows may now be opened parallel to other windows.
- Menu *Offline Mode*:
  - Menu is now available in online mode as well. Change to offline mode will be performed if a new version is selected.
- Minor fixes.

### 5.05

- Window *Overview*:
  - Corrected display of sensors and switch inputs.
- Minor fixes.

### 5.04

- Window *Overview*:
  - Window is now resizable.
  - Maximum possible display is: 5 instruments, 30 sensor values, 52 switch inputs.
  - Additionally, there is the possibility to display up to 60 freely selectable parameters.
  - Instruments are now showing both values with a needle each.
- Windows *Curve versus time* and *Curve versus X*:



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## Revision History

- Displayed curve may now be saved as bitmap.
- Separate recorder file selection for *Curve versus time* and *Curve versus X*.
- Minimum and maximum graphics range adjustable with cursor keys (for this the value may not be selected).
- Window *Curve versus time*:
  - New option: Display of the current values of crosshair may now be selected between crosshair focus point and intersection point of crosshair vertical with curve.
  - Corrected reloading of recorder data.
  - Ensured correct display while changing the time base.
- Window *Map*: in edit mode, inactive entry boxes are greyed out.
- Windows *Curve* and *Measured Curve*:
  - Reworked to additionally display the curve as two-/three-dimensional columns or as a spline, respectively (depending on the type of curve).
  - Displayed curve may now be saved as bitmap.
- Window *Measured Curve*:
  - Online update of curve values is now possible.
- Window *Curve*:
  - In edit mode, navigation with cursor keys equivalent to window *Map*.
- Window *Magnetic Valves*: corrected occasional resizing problems.
- Window *Configuration of Bit Collections*:
  - New window to simplify the configuration of bit collection function for systems providing this feature.
- Window *Settings*:
  - New general option to reduce the online mode CPU usage of DcDesk2000. NOTE: Depending on the power of the PC and operating system, this option may lead to a slightly lower transfer rate.
- Window *Configuration/PWM-Outputs*: the frequency of the outputs may now be adjusted, if supported by the control unit and if the according information is available in the parameter description file.
- System *GMU* is now called *Elektra*.
- System name for MVC03 and MVC04 changed to Dardanos III and Dardanos IV.
- Window *Parameterizing*: single-click on curve or map entry displays corresponding parameters in parameter windows.
- On EFI control units: check for click-test status at communication start
- Request to store modified parameter values at communication stop, control unit reset and DcDesk 2000 exit.
- Load parameter values:
  - Parameter display according to parameter windows so that curve parameters may be expanded/collapsed by double-click.

# DcDesk 2000

## Revision History

- Compare parameters: display of parameters which are in the file but don't exist in the control unit.
- Compare parameters: possibility to select parameters for loading directly out of this window.
- DcDesk2000/Saturn: Does not close the chat window if connection is interrupted.
- DcDesk2000/CAN: Network scan improved.
- Printing: Allow saving as bitmap even if no printer is available.
- Minor fixes.

### 5.03

- Further improvements on compatibility with certain language specific system settings.

### 5.02

- Improved compatibility with certain language specific system settings.
- Added support for dongles delivered before Dec. 2003 (this type of dongle was not supported between version 4.18 and version 5.01).

### 5.01

- DcDesk2000/Saturn:
  - More detailed logging of Saturn communication.
  - Log may be saved directly to file.
- Window *Magnetic Valves*:
  - Display of PrePre-, Pre-, Post- and PostPost-Injection (if function supported by control unit).
  - Display of injection timing as tool tip.
  - Display of overlapping of injections.
- Automatic Adjust: Message if control doesn't need to perform the adjust because it is using the linearization.
- Verification, if PC supports the fonts used by DcDesk 2000.
- Minor fixes.

### 5.00

- Remote control capability *Saturn* added:
  - New menu *Remote Connection*.
  - New window *Chat* with Saturn Client.
  - New window *Logger* for logging communication with Saturn.
- DcDesk2000/Saturn included into setup.
- DcDesk2000/CAN included into setup.

# DcDesk 2000

## Revision History

- Help files updated.
- Printing:
  - Sometimes there was only black-and-white printing on colour printers. Problem solved.
- System recognition for PANDAROS DC 6-13 Dual Fuel Gas Positioner added.
- System recognition for ORION (DC 9) Speed Governor added.
- Window *Magnetic Valves*:
  - Support for DARDANOS EFI controls (MVC 03 and MVC 04).
  - Adjustable graphical borders.
  - Navigation and changing of parameter values with up-/down keys equivalent to window *Map*
- Window *Parameterizing*:
  - Click on a link to curve or map sometimes did not open the according window. Solved.
  - Optimized PC system load while showing *Parameterizing/Favorites*.
- Minor fixes.

### 4.24

- System recognition for GMU Gas Metering Unit added.
- Window *Error Memory*:
  - Introduced minimum value to column width to prevent columns from disappearing.
- Window *Map*:
  - Display values no longer restricted by graphical limits.
- DcDesk 2000/CAN:
  - Re-Initialization of CAN hardware to reset BusHeavy or BusLight conditions after communication build-up failure.
  - Checked if CAN system settings are right and correct, if necessary and possible.

### 4.23

- Windows *Current Errors* and *Error Memory*:
  - Show *unknown* if the error parameter or the error description is not available.
- Window *Information Control Unit*:
  - Show information about the hardware configuration of the control unit, if available (systems HELENOS and DARDANOS I)
  - Shows bootloader version, if available.
- Window *Parameterizing*:
  - Missing links for curves and maps included.
- Windows *Curve versus time*, *Curve versus X*:

# DcDesk 2000

## Revision History

- Changing of colours sometimes had no effect. Solved.
- Window *Configuration of Digital Outputs* extended:
  - Outputs with priority for systems providing this feature.
  - Single parameter with error mask for systems providing this feature.
  - Window is now reliably unloading.
- Firmware update:
  - Check if the firmware is suitable for the control unit where supported by firmware.

### 4.22

- System recognition for APOLLON added.
  - Menu and function *Test Drive* for this system added.
- Help files updated.
- Load Parameter Values:
  - On loading parameter values in offline mode, update the list of current errors so that the errors are shown in the *Current Errors* window.
- Window *Error Memory* and *Current Errors*:
  - Added error number to description on systems with error status.
  - *Clear Error*-Button disabled in offline-mode.
- Window *Parameterizing*:
  - Update of measurements in parameterizing window disabled, while the single list window is not shown.
  - Recognition of field parameters.
- Window *Injector Code*:
  - Input of the injector code corrected.
- Window *Curve*:
  - Faulty formatting of x-values on Windows 98-systems corrected.
- DcDesk2000/CAN:
  - Baud rate selection corrected.
  - Ask for network scan after communication start-up failure.
- Window *Curve* versus time:
  - Prevent unintentional scrolling.
  - Corrected curve display after loading recorder files.

### 4.21

- Programme to control unit:
  - Improvements in list of recent files.
- Window *Curve* and *Map*:
  - Selected curve or map remains active on change from offline to online.
- Removed menu *Hand Held Programmer* on systems not supporting this device.
- DcDesk2000/CAN:
  - Baudrate adjustment for CAN-interface improved.

# DcDesk 2000

## Revision History

- DcDesk-Help:
  - Closing of help window improved.

### 4.20

- System recognition for KASSANDRA added.
- System recognition for ARIADNE added.
- New menu point *Window/Further Windows* (for window *Parameterizing*)
- Window *Curve versus X*:
  - Adjustable point size for printing.
- Window *Information Control unit*:
  - Shows configuration independent of dongle level.
- If control unit does not support the set baud rate, try to establish communication with next lower baud rate.
- Main window *DcDesk 2000*:
  - Improved navigation by TAB-key between parameter number and value.
  - Activate F9 key (*Clear*) for *Curve versus time* and *Curve versus x*, if cursor is in the parameter number or parameter value box.
- DcDesk 2000/CAN:
  - Network scan improved.
- Save printer selection in registry.
- DcDesk 2000-Help:
  - Closing of open help windows on exiting DcDesk 2000.
- Setup:
  - Installation of dongle driver improved.

### 4.19

- New setup version.
  - Path for application data freely selectable.
  - Error message at attempts to install without administrator rights.
  - Multi language setup.
- Window *Parameterizing* completely reworked.
- Use of registry instead of ini-file. Existing ini-files are automatically being converted into registry.
- Recognition of removing a USB-to-RS232-interface while in online mode.
- Printing:
  - Number of characters for comments enlarged.
  - Layout reworked.
  - Version of DcDesk 2000 and dongle added to print outs.
- Parameter file
  - Version of DcDesk 2000 and dongle added.
- Help files.
  - Updated.
  - Manuals separated from installation.

# DcDesk 2000

## Revision History

- Window *Curve versus time*:
  - Printing of zoomed area possible.
- Windows *Curve versus time, Curve versus X, Curve, Map*:
  - Input of numbers improved, only suitable characters accepted.
- Programme to control unit:
  - List of recent files reworked. List will be sorted by download sequence.
- Window *Error Memory*:
  - Display of operating hour meter if supported by control unit.

### 4.18

- Window *Info*:
  - Improved display of access rights for Windows 95 systems.
- Window *Trigger*:
  - Corrected, if no parameter available.
- Windows *Curve, Map*:
  - Improved resizing.
- Use of system language as default for DcDesk 2000 language.
- Functions *Store Parameters, Reset Control Unit*:
  - Error message if the controls power supply is too low for this function (where control unit supports this check).
- Window *Map*:
  - Corrected display of values when using scroll bars.
- Window *Magnetic Valves*:
  - Possibility to disable/enable cylinders through this window.
- Printing:
  - Check for printer specific options.