ModasSport v1.08.026
23.08.2017

ModasSport moved to Visual Studio 2017
- ModasSport releases are now build by Visual Studio 2017.

ModasSport v1.08.025
27.07.2017

XCP: Measurement didn't restart after "Copy Workpage to RefPage"
- If the user copied the work to the reference page while a measurement was running, the measurement was stopped but sometimes not restarted automatically after the action succeeded.

ModasSport v1.08.022
14.12.2016

Quick Access Toolbar: Configuring the QAT with "More command" crahed (ID1668)
- ModasSport crashed, if the user tried to open "More commands" in the context menu of the Quick Access Toolbar.

ModasSport v1.08.021
05.08.2016

WinDarab Open Source info updated (OPL1352/1353)
- The open source license info was updated.

ModasSport v1.08.020
13.11.2015

ModasSport used Visual Studio 2013 libraries
- ModasSport is updated to use C++/MFC Runtime v12 (Visual Studio 2013 libraries)

ModasSport v1.08.018
06.11.2015

ECU support for MS7.x (OPL1333)
- ModasSport supports MS7.x devices.

PAR file manager: Several changes (OPL1330/1331/1332)
- The PAR File Manager dialog can be resized.
- The horizontal scrollbars are enabled for ParFile comment field text boxes.
- If a PAR file is updated by an upload from the workpage, the "Save as" dialog starts at the current project folder used to load PAR files (-> This is the folder which is selected in the PAR file manager dialog and thus the folder the selected PAR file is located)

DataManager: Destination folder is reset, if last used folder doesn't exist (OPL1328)
- If the DataManager dialog is opened, ModasSport resets the output folder to its default value, if the latest used output folder doesn't exist or isn't accessible.

ModasSport v1.08.017
01.09.2015

Label search text box improved
- Instead of simply "jumping" to the first label matching the entered text in the filter text box, ModasSport now filters the label list:
  All labels are listed, which contain all word/parts entered in the filter text box whereby order and position of the single words have no relevance.

ModasSport v1.08.016
04.08.2015

Import of par files containing verbal values failed
- If a PAR file is generated containing labels using verbal values, ModasSport is writing the numeric values into the PAR-file. But on import ModasSport expected verbal values only. Thus importing the PAR-file wasn't possible.
  Now ModasSport also accepts the numeric values instead of the verbal values.

Possible crash, if user clicks on "show differences" button (OPL1324)
- If the user clicks on "Show differences" button, ModasSport crashed because of an internal error.

ModasSport v1.08.015
09.03.2015

Possible crash, if CCP measurement is started (OPL1321)
- ModasSport could crash if the following conditions met together:
  1. The current worksheet contains an oscilloscope.
  2. The measurement is started.
  3. The user opens another project/workbase.

Possible crash, if CCP measurement is stared (OPL1320)
- There was a very narrow time slice causing ModasSport to crash, if a measurement is stared. The crash is caused, if ModasSport receives (foreign) DAQ data packets at the moment ModasSport initializes a DAQ list.

ModasSport v1.08.014
06.02.2015

Duplicated error message, if user tries to download a parameter file (OPL1318)
- If the user tries to download a parameter file to the ECU while work/reference page between ModasSport and ECU isn't identical, ModasSport display the corresponding error message twice.
  Now the error message is displayed only once.
- The user reporting this issue also got a ModasSport crash in this scenario: The user closed the main window while the error message is displayed.
  We were not able to reproduce and fix this behavior!

Macro stopped execution, if a parameter file download action didn't find any file (OPL1317)
- If a macro contains a parameter file download action, the macro execution stops (or even doesn't start) if the parameter file doesn't exist (or in case of a filename with wildcards no matching parameter file can be found).
- To control the behavior the option "Continue if parameter file cannot be found" was added to the download macro action dialog.
  If the check box is checked ModasSport continues execution of the macro even no parameter file can be found, if the action is executed. In this case, a warning log entry is added to the log window.
  If the checkbox is unchecked, ModasSport stops the macro and logs/shows an error message telling the user that no parameter file was found/downloaded to the ECU.

ModasSport crashed after applying a parameter file (OPL1316)
- ModasSport crashed after applying a parameter file, which actually doesn't contain any parameters.

ModasSport v1.08.013
29.01.2015

XCP: Measurement suddenly stop to work correctly (OPL1313)
- Sometimes a XCP measurement suddenly stopped working or didn't show correct values.

The mal function was caused by some operations like "Loading a hex file" or "copy reference to workpage". The mal function didn't take directly effect, but after other operations which required the measurement/DAQ lists to be updated (e.g. switching the worksheet, adding/removing measurement labels, …)

ModasSport supports showing/adding a comment for PAR files (OPL1311)
- ModasSport supports displaying/editing a comment text which is saved in PAR files.
  The comment is shown/edited in the parameter file manager and also can be changed, if a PAR file is saved (using parameter file manager or data manager)

Label list has minimum column widths (OPL1310)
- The width of the label name column in the label list has a minimum width. This prevents the user from making its content invisible.

New workbase: Auto selection of first hex file removed (OPL1309)
- If a new workbase is created, ModasSport automatically selected the first hex file in the folder of the selected A2L file. Now ModasSport opens the "Select Hex file" dialog after the user selected the workbase, but only if no hex file was selected first.

Data manager: Direct list/export from DCM to PAR removed (OPL1308)
- Due to internal restriction it wasn't possible to list labels from a DCM source directly into a PAR file.
  Users who want to do this have to :
    1. Import the DCM file into a workbase
    2. Then list the labels to a PAR file.

Support of MS6 devices added (OPL1307/1313)
- ModasSport now supports MS6 devices.

Macro action "Read PAR file" allowed in loop macros (OPL1306)
- The use of "Read PAR file" macro action is allowed for loop macros, if a fix PAR file is selected in the macro action.

ModasSport v1.08.012
31.07.2014

Curve/Maps: ModasSport isn't showing correct axis values (OPL1305)
- ModasSport calculated the alignment of element values in curves/maps based on their offset within the structure, regardless of the structure base address.
  This is the cause, that ModasSport didn't show correct values of curves/map, if the structure didn't start at well base addresses.
  Note: Until now, the addresses of structures were aligned so the bug didn't show up earlier.

ModasSport v1.08.011
19.06.2014

The Diff-Counter evaluated unused bytes in curves/maps
- If a curve/map has unused bytes within its memory area, differences of these bytes between work and reference page were counted, while the data manager didn't detect any differences. Now ModasSport doesn't evaluate these bytes anymore and doesn't show differences the data manager doesn't show.

ModasSport v1.08.010
27.05.2014

XCP: ModasSport reported the success of Copy Work to Reference page too early (OPL1301)
- If the user copies the work to the reference page on an ECU, ModasSport immediately reported the success of the operation while the ECU performed the operation in the background.
  If the user turns off the ignition before the ECU actually has completed, the result in most

cases is a corrupted reference page and an inoperable ECU.
Note: In case of an MS5.x the operation takes about 5 seconds. So users not turning off the ECU at all (because it's not required) or users turning off the ECU not that quick didn't have any problems.

Curves/Maps view: x/y-Axis-format assigned between different labels (OPL1298)
- If several labels (curves/maps) are assigned to the same characteristic table view and the user switches between the labels using the selection combo box, the number format of the x/y-axis was sometimes changed (e.g. the format of the x-axis of the first map is assigned to the x-axis of the second label).

ModasSport v1.08.009
21.03.2014

DataManager / DCM-Files: LANGNAME keyword isn't optional
- In DCM files the keyword LANGNAME should be optional, but ModasSport handled the keyword mandatory.
ModasSport handles the keyword optional now.

ModasSport v1.08.008
11.02.2014

XCP: ModasSport doesn't switch ECU to workpage, if connection is established
- After the connection is established to an ECU using XCP/Ethernet, it could happen that the ECU works on the reference page while ModasSport operates on the workpage.
If this happens, adjustments done in ModasSport are written (successfully) to the ECU but the ECU doesn't care about the changes, because the ECU is working on the reference page. The issue is fixed now.
- Note: The problem could be resolved by the user, if ModasSport is switched to reference page and then back to workpage.
- Note: Also the issue didn't occur, if a difference between the data on the PC and the ECU was detected. After resolving the differences (by up-/downloading) the data, the ECU work/ref page is in sync with the state in ModasSport.

ModasSport v1.08.007
24.01.2014

Changing the array size of an AxisPts label ended in a corrupted workbase (OPL 1294)
- On Motorola based ECUs changing the array size of AxisPts labels ended in a corrupted workbase, because the array size was written with Intel byte order into the work base.
The error commonly happened, if such a label is imported by PAR or DCM file.

XCP on MS5.1 DTM didn't work (OPL 1293)
- If an ECU returns large ODT list sizes for a DAQ list, the configuration of a measurement failed. Now ModasSport ignores ODT list sizes larger than those defined in the A2L file.

Hex-File information removed from ribbon / project manager (OPL 1287)
- The display of the hex-filename in the project manager and ribbon was removed, because the file shown was the hex file used to create the workbase. With the first change of a characteristic, there is no reasonable relationship anymore which makes it useful to show the filename further.

Destination folder of a recording isn't created by ModasSport (OPL 1286)
- If a recording is started and the destination folder of the recording file doesn't exist, the recording is stopped immediately.
Now ModasSport ensures, that the destination folder of the recording file exists, before a recording is started. Additionally the full file path is validated. If an error occurs, a system error message is shown (using the OS language).

The value of labels stored as float are rounded while incrementing/decrementing (OPL 1283)

- If a value is incremented/decremented (using the hot keys or potiboard) the resulting value is rounded to the currently configured decimals. By doing this ModasSport ensures that a value is the same after incrementing and decrementing back.
  Especially for labels using the float data type this wasn't true because of a lack of resolution/precision of float values (e.g. for 32-Bit float values the result of 0.0 + 0.1 – 0.1 isn't 0.0!)

Handling of invalid float numbers (NaN – "Not a Number") (OPL 1283)
- If a label using the float data type has an invalid value, ModasSport formatted the value in C-Style as "-1.QNAN". Depending on the number format (e.g. no decimals), the visible part was "-1" only. Now ModasSport always shows the string "NaN" independently from the current number format.
- If both values on reference and work page were "NaN", ModasSport listed the label as "different" in the Data Manager Compare report, but didn't count them in the "diff" count in the ribbon.
  Now the labels won't be listed in the Data Manager Compare report any more, because the two values are the same,

Difference count wasn't reset after "Copy reference to work page" in offline mode (OPL 1282)
- If the reference page is copied to the work page while ModasSport isn't connected to an ECU, the difference count in the ribbon wasn't reset to zero.

Creation of workbase failed, but it was added to the workbase list anyway (OPL 1281)
- If a new workbase cannot be created because of a failure while saving the file, the workbase was added to the workbase list anyway. Subsequently opening the workbase failed, because the file cannot be found.
  Now the workbase won't be added to the list, if an error occurs while creating the file.

ModasSport supports "Potiboard USB" devices (OPL 1280)
- The support of "Potiboard USB" devices was added. If a "Potiboard USB" is connected to the computer, ModasSport will detect the device automatically.
- Note: The serial potiboards are still support.
- Note: The Potiboard configuration file was changed. You have to recreate the potiboard configuration!
- Theoretically up to 16 potiboards are supported (even mixed USB/Serial potiboards)

ModasSport v1.08.006
18.11.2013

XCP protocol: The current calibration page wasn't set on the ECU (OPL1279)
- If ModasSport established a connection to an ECU using the XCP protocol, the current calibration page wasn't set by ModasSport. Therefore changing calibration values didn't succeed, if ModasSport was on work page while the ECU was set to reference page.

ModasSport v1.08.005
07.11.2013

Macro button state not updated, if macro button is placed on several worksheets (OPL1275)
- If a macro button is placed on several worksheets, the current state of the macro button isn't updated if the active worksheet is changed:
  E.g. if a macro was started on worksheet #1 and the user switched to worksheet #2, the macro button on this page still showed that the macro isn't running.

XCP protocol: Some labels weren't measured (OPL1273)
- If the user starts the measurement, some labels weren't measured/updated. After selection a different measurement rate, measuring the label started to work.
  The bug was caused, because ModasSport didn't fall back to the default measurement rate, if the current measurement rate settings aren't valid (depending on the A2L this may happen, if the user didn't change explicitly the measurement rate)

XCP protocol: Connect to ECU failed because of an EPK error (OPL1272/1274/1276)

- If the ECU returns the EPK identifier immediately in the response to the XCP command GET_ID ModasSport failed to connect to the ECU, because ModasSport expects the EPK to be retrieved by an explicit UPLOAD command.
- The issue is also responsible for reconnect problems after copying work to reference page. In these cases the first connect after power on the ECU succeeded (randomly/luckily) whereby later reconnects failed.

ModasSport v1.08.004
25.10.2013

ModasSport expected a certain block header content in a S19 file (OPL1271)
- If loading a S19 hex file ModasSport expected a S-record block header with a certain content. If the content didn't match, loading S19 hex file failed. Thus using the S19 hex file to create a workbase or import data from wasn't possible.
  Note: A generic S-record block header is written if the workbase is exported and not the original S19 file header found in the S19 hex file used to create the workbase.

Project update warning was shown on creating new project or cancelling the project creation (OPL1270)
- The message box introduced with v1.08.003 was also shown, if a new project is created or the project creation was canceled.

ModasSport v1.08.003
24.10.2013

Warning will be shown, if user adds existing projects with an incompatible file version (OPL1270)
- If the user adds an existing project (or project tree) to a ModasSport installation, ModasSport verifies the file version of the project files. If a project file is detected using an earlier file version, ModasSport will show a warning and let the user decide to continue adding the project.
  Note: If an earlier project is added to ModasSport, the project files will be updated to the current file version. Earlier version of ModasSport aren't compatible with these and won't open/show the projects anymore.
  Note: The file version aren't changing with each release of ModasSport. The file format is only changed, if there's no way to prevent a change.

The about box didn't show the application version of ModasSport (OPL1269)
- The version information of the running ModasSport wasn't visible any more in the about dialog - it was hidden behind the ModasSport logo.

ModasSport v1.08.002
16.10.2013

OSS component declaration added (OPL1268)
- Open Source Software components uses in ModasSport are listed in the About-Dialog and in an additional text file, which can be found in the application folder.

ModasSport v1.08.001
09.10.2013

ModasSport support for XCP added (OPL1124)
- ModasSport now support device communication using the XCP protocols "XCP over UDP" or "XCP over TCP".

ModasSport v1.07.016
02.10.2013

Macro list is empty (OPL1263)
- After opening a project/workbase the macro list was empty. The macros appear after

opening/closing the macro editor dialog.
The issue occurred, if the macro list panel was docked in Auto-Hide mode and closed using the ribbon button "Windows / Tool Windows / Macros". After restarting ModasSport the macro list stayed empty.

Variable/Macro list weren't docked anymore after starting ModasSport (OPL1263)
- If ModasSport was closed while being in the project manager view, the docking state of the docking panels "Variable list" and "Macro list" weren't restored after opening a project/workbase.

ModasSport v1.07.015
25.09.2013

Creating a project for MS2.9 ended in an endless loop (OPL1265)
- If a new project/workbase is created for a MS2.9, ModasSport stuck in an endless loop

ModasSport v1.07.014
24.09.2013

PIN dialog isn't shown on connect, if it was canceled on the last connection attempt (OPL1260)
- If a connection is established to an ECU but the PIN dialog is canceled, the PIN dialog isn't shown on the next connection attempt. The ECU stays in the protected state but ModasSport said, that the connection is established. On the third attempt the PIN dialog is shown again and the ECU can be unlocked.
- The PIN dialog is shown on every connection attempt now (as long as the PIN isn't saved in the project / workbase)

Editing a characteristic isn't ended if the reference page is selected (OPL1259)
- If the user switched to the reference page while editing a characteristic value, the editing wasn't canceled. Now the edit mode is canceled as soon as the reference page gets active.

Modassport supports CRC32 for checksum calculation on CCP devices (OPL1244)
- For CCP devices ModasSport now supports the use of CRC32 checksums.
Note: The Algorithm type id is 0x8009, the CRC32 initial value is 0xFFFFFFFF.
Note: The implementation isn't tested currently, because there is no ECU available using CRC32 checksums!

ModasSport stop recording immediately after start of recording (OPL1264)
- Recording didn't work in ModasSport because a delivered library was the Multi-Byte-version instead of the Unicode-version.

ModasSport v1.07.013
16.07.2013

ModasSport crashes while opening LevelX driver (OPL1257)
- ModasSport sometimes crashes while opening/closing the LevelX driver. Now ModasSport catches these exceptions and tries to continue. The events are logged to the log file/output.
- **Note:** Because the issue cannot be reproduced, it's not guaranteed that ModasSport doesn't crash at a later point or even can recover the problem without the need to restart ModasSport.

Project details in the project view weren't updated after creating a new project (OPL1252)
- After creating a new project or sub project in the project manager, the project details (on the bottom left) weren't updated immediately. The bug was fixed.

In dialogs the initial focus is set to the channel search field (OPL1249)
- If a dialog is opened containing a textbox to search/filter the channel list, the initial focus is set to the textbox.

ModasSport writes log entries, if loading a PAR file into the workbase (OPL1248)
- If a PAR file is loaded into the current workbase, ModasSport writes some diagnostic entries

into the log file.

ModasSport switches the log file at/after midnight (OPL1248)
- If ModasSport is running over midnight, the log file is switched with the first log entry written after midnight.

In some cases, the required size of curves/maps wasn't calculated correctly (OPL1247)
- Depending on the record layout of a curve/map characteristic, the calculation of the memory size of these labels didn't return the correct size.
- The bug was observed only in conjunction with new ECUs and affected some label based operations (e.g. loading a PAR file). Tests with older ECU or A2Ls didn't show the issue, because the kind of record layout wasn't used before.
- Common operations in the workbase weren't affected by this bug.

Dependency to MFC10 removed (OPL1255)
- The dependency to MFC 10 introduced in the previous versions of ModasSport is removed. ModasSport only requires MFC9, which is contained in the installer.

Changing the decimal places of group axis points in a map not possible (OPL1243)
- The decimal places of the x-/y-axis of a characteristic map/curve weren't editable in the ribbon category "Label", if the affected axis is a group axis.
  ModasSport displayed the settings of the measurement label attached to the x-/y-axis and also changes were applied to the measurement labels.
- Now, the settings of the group axis are shown and edited. If the axis isn't a group axis, the settings of the measurement labels bound to the axis are shown.
- **Note:** Changing the settings was possible, if they are changed by editing the group axis points.

Background check is enabled with new behavior (OPL1231)
- Because of a late change the backup workbase wasn't created because of an empty name for the backup workbase.

ModasSport v1.07.012
06.06.2013

Background check is enabled with new behavior (OPL1231)
- The background check was enabled with a different behavior:
  o The background check only verifies the page the ECU is currently working on.
  o If the user switches the ECU between the work/reference page, the background checks interrupts checking and continues on the new activates page.
  o As soon as the background check detects differences between the ECU and the PC dataset the user has to interrupt his work:
    ▪ The current PC workbase is backup to a new workbase
    ▪ The background check loads all data from the ECU (work and reference page)
    ▪ After the background check completed its work, the user is allowed to continue working with the ModasSport.
  o After the background check has completed, the user has the ability to compare the work and reference page data between the backup data and the current workbase to find the fixed differences.
- **Note:** Because the background check only verifies the current page selected on the ECU, the background check only completes, if the user switches to the other Work/Reference page for about 10-20 seconds.
- **Note:** We point out, that the comparison of the computers work/reference page with the ECUs work/reference page is only done with CRCs. Because identical CRC don't guarantee identity, difference between computer and ECU may exist after going online or downloading a hex file! The only way to ensure the identity between ECU and PC would be a 100% compare. Because of the resulting time required to do a comparison and therefore to connect to the ECU, we decided to leave the CRC check and move the comparison into the background.

ModasSport v1.07.011
22.05.2013

Background check introduced with OPL1231 is revoked
- If the background check is running ModasSport has to switch to the reference/work page, if the user is working on the other page. Additionally the switch also affects the current data set used by the ECU and - if running - the engine. Because of the amount and period the switches occur, the switching can affect the engine - in worst case cause a damage of the engine. Because of this the background memory check introduced with OPL1231 in 12/2012 was revoked.
- Note: We point out, that the comparison of the computers work/reference page with the ECUs work/reference page is only done with CRCs. Because identical CRC don't guarantee identity, difference between computer and ECU may exist after going online or downloading a hex file!

ModasSport v1.07.010
03.05.2013

ModasSport crashed while setting up measurement on ECU (OPL1238)
- Because of an internal mismatch of the configured DAQ-Lists Modassport crashed while setting up the measurement on the ECU.

ModasSport didn't apply number format changes made in the label settings dialog (OPL1241)
- If the number format of an array/map label is changed using the label settings dialog (and not the ribbon controls), ModasSport didn't apply the changes.
- Note: OPL1239/1240 were similar to this one, but they couldn't be reproduced. Because they came up in the same environment, they may be solved with this issue.

ModasSport detects a mismatch of the EPK identifier while importing a HEX file (OPL1242)
- If a hex file is imported into the current work base, ModasSport verifies the EPK identifier of the HEX file with the A2L file. If a mismatch is found, ModasSport denied to load the HEX file but without reporting the two EPK identifiers to the user.
  Now ModasSport will include the EPK identifiers in the message box and writes them to the log file.

ModasSport v1.07.009
31.01.2013

ModasSport could crash, if an ECU is disconnected (OPL1236/1237)
- ModasSport could crash, if an error message should be displayed (-> an error log entry) but another message box is already visible, which doesn't have the main window as its parent.

ModasSport shows a "missing Seed&Key DLL" message if connecting to an unlocked ECU (OPL1229)
- If ModasSport connects to a ECU having the capability to be protected by a PIN, an error message is shown, that PINs cannot be used as long as no Seed&Key DLL is selected.
  The error message even appeared if unlocking the ECU is not required because no PIN is set to protect the ECU or the ECU is already unlocked.

ModasSport v1.07.008
31.01.2013

ModasSport initializes MSA-Box CAN or Kline, but not both (OPL1235)
- ModasSport always used to initialize the MSA-Box for CAN with 1 Mbit and Kline. This caused CAN communication problems on some ECUs (near to series products) which use CAN (with another baud rate as 1Mbit) and Kline together.
- Now ModasSport initializes only CAN or Kline depending on the current project.

Some log entries of the background work/reference page verification don't appear (OPL1231)
- An issue was observed where the background verification fixed some differences between the ECU work/reference pages and the computers work/reference pages without writing a warning notification to the log output.
  In the observed case this happened after a difference was detected between ECU and computer work/reference page and the user uploaded the current data pages from ECU.

- Because it wasn't possible to reproduce the issue, a change was made: After ModasSport checked the checksums of the ECU/Computer successfully, the background verification is restarted (before it was only started, if not running yet).

ModasSport v1.07.007
17.12.2012

Recording measurement fixed (OPL1233)
- Recently the recording library uses by ModasSport was changed from Multi-Byte charset to Unicode charset. Because ModasSport uses this library, but wasn't adapted to these changes, the recording of measurement stopped immediately.
  Now ModasSport is adapted and recording of measurement is working.

ModasSport v1.07.006
03.12.2012

CheckSum issues after downloading Hex-Files to ECU (OPL1231)
- After downloading a Hex-file the Working/Reference pages between Computer and ECU were different – but ModasSport reported, they are synchronized, if the user creates a new workbase and uploads the data.
  Actually the data was written correctly to the ECU.
- The issue is caused because ModasSport uses checksums to verify, if a range of data between ECU and computer is identical. If the checksum is equal, ModasSport assumes they are identical and doesn't upload the data. In the observed issue the checksum for certain ranges of downloaded data and the factory HEX-file content and even the checksum for the whole data was identical.
- To resolve the issue without affecting the performance of connection to the ECU, ModasSport executes a background verification between computer and ECU pages and reports/fixes differences. While performing this check, the user can start to work.

ModasSport v1.07.005
05.11.2012

ECU download is canceled, if ECU returns unexpected next write address (OPL1232)
- If downloading data to the ECU, the ECU returns the "next write address" in the result of the CCP download command. If the address doesn't match the value expected by ModasSport, the download fails and is canceled.
- The logging of false-positive "NextWriteAddress" warnings, if the ECU uses the MSB integer format, is fixed.

ModasSport v1.07.004
26.09.2012

ModasSport may freeze/hangup, if an error occurred during a long term operation (OPL1229)
- If a long term operation showing its progress in with a progress bar (like downloading the workpage) terminates because of an error, ModasSport could freeze/hangup, because the error message box is created as a child of the progress dialog. Because the operation ended, the progress dialog together with the error message box is destroyed – but the message loop of the error message box isn't left – finally causing the hanging/freezing of ModasSport.

Import of Curve/Maps with different number of breakpoint via PAR files (OPL1228)
- If the user tried to import maps/curves with a different number of breakpoints from a PAR file, the "Parameter File Manager" and "Data Manager" didn't work as expected.
- Parameter File Manager:
  The parameter file manager tries to adjust the number of breakpoints according to the context of the PAR file. If the number of breakpoints cannot be adjusted, the label is not imported and an error message is logged to the output.
- Data Manager:
  Depending on the copy setting "EXPAND", "EXACT" or "KEEP" the breakpoints of the

destination map/curve is adjusted and data is copied.
Note: In case of "EXPAND" and the source has less breakpoints as the destination, the last breakpoint is repeated to fill the destinations breakpoints. This will result in a monotone increasing axis instead of a string monotone increasing axis !

Error message "Different EPK string" is shown, but the displayed EPKs are identical (OPL1227)

- During connection establishment ModasSport verifies the EPK identification strings between the current project and the connected ECU. In case of differences the user is notified and the connection is dropped.
  In case of retrieving the EPK from the ECU failed because of a communication error, ModasSport also showed the "different EPK" error message – often showing the same EPK string for the project and the ECU.
  Now the error message notifies the user about the communication error and advises the user to try a reset/reconnect of the ECU.

Unlock ECU using PIN protection failed, if no Seed2Key DLL is selected (OPL1226)

- If the ECU has to be unlocked using a PIN but no Seed2Key DLL is selected in the workbase settings, ModasSport shows the PIN dialog but cannot unlock the ECU because of the missing Seed2Key DLL. In the error message ModasSport just reported, that unlocking the ECU wasn't successful.
  Now the error message notifies the user about the missing Seed2Key DLL setting.

ModasSport v1.07.003
12.07.2012

Loading macro ignores macro action WR_SAVE_WORKPAGE (OPL1224)

- If a macro saved containing a WR_SAVE_WORKPAGE action, the action won't be loaded on the next startup of ModasSport.

ModasSport v1.07.002
20.06.2012

Macro action WR_CELL support adjustment of curves/maps (OPL1195)

- The macro action WR_CELL supports the use of curves/maps as the destination of an adjustment.
- The adjustment is done for the current working point(s) of the selected curve/map. Thus execution of the macro containing such a call is only possible, if measurement is running.

Curves weren't adjusted correctly in certain cases (OPL1222)

- In case of certain A2L record layouts for a curve, ModasSport didn't access the curves data correctly. The problem appeared after a record layout was changed in a not usual way.

ModasSport v1.07.001
01.06.2012

MS3 cannot be flashed (OPL1220)

- If a MS3 was left in boot loaded mode because of an unsuccessful flash operation, it wasn't possible to flash the ECU again. Because the ECU is not locked in the boot loader mode, it returned an error to the flash tool, if the tool tried to unlock the ECU because it didn't recognized that the ECU is already unlocked.

New macro actions SAVE_WORKPAGE and SAVE_WORKBASE added (OPL1216)

- The SAVE_WORKPAGE macro action can be used to save the work page data to a HEX/S19 file.
- The SAVE_WORKBASE macro action can be used to save the current workbase into a new file.
- The parameters of both macros contain:
  - The folder, where the files are to be saved to.
  - A file name template to automatically generate a file name.

Macro action WR_CELL supports basic math operations (OPL1195)
- In addition to simply assign a value to a characteristic value, the macro "WR_CELL" now supports the basic math operations "Add", "Subtract", "Multiply" and "Divide".
- If the operation "Add" and "Subtract" are selected, the value can be of type "percent". In this case, the characteristic value is increased/decreased by the given percentage.

DataManager: Support of verbal values improved (OPL1119/1214)
- The DataManager supports curves/maps with verbal values for x-, y-axis and z-values.
- The compare operation compares the verbal values instead of the numerical value.
- The copy operation copies verbal values by translating the verbal representation from the source to the destination data set.
- Instead of numeric values the verbal representation is written to the output files (-> support types are HTML and DCM)
- The import of DCM files supports reading DCM files with verbal values for curves/maps (keywords ST_TX/X, ST_TX/Y, WERT and TEXT).

ModasSport v1.06.008
24.05.2012

Sometimes ModasSport asks to load backup data, if a workbase is opened (OPL1219)
- If a workbase is opened, ModasSport sometimes ask the user to load crash backup data, but there wasn't a crash before.
  The issue occurred, because the backup data wasn't deleted, if the user reads and saves the data part from ECU into a new workbase. If the user later opened the previous workbase, ModasSport found the not-deleted backup data and asked to load the backup data.

ModasSport left a byte in an ODT packet unused (OPL1217)
- If ModasSport build the ODT packets for a measurement, the last byte of the ODT packets was left unused, even if labels occupying a single byte were in the measurement list.

ModasSport showed wrong measurement values (OPL1217)
- After additional labels were added to a worksheet, ModasSport suddenly started to show wrong measurement values. Because of an overflow the bug appeared, if a single measurement list (DAQ list) got larger than 255 bytes.
  Note: Now the size of a single measurement can be up to 64KB. Because in CCP a single DAQ can only contain up to 256 ODTs with 7 Bytes each, 64KB is large enough.

ModasSport crashed, if a hex file is opened containing special characters (OPL1215)
- Some calls to the logging function could cause a crash, if a filename was logged containing special characters like percent "%".

ModasSport performance at startup and loading a work folder is improved (OPL1209)
- The performance of loading a work folder was improved:
  While loading a work folder several calculation are suspended and screen updating is disabled until the loading process has finished.

ModasSport crashed, if an invalid workbase/workfolder is loaded (OPL1204)
- If an A2L file defines invalid/unknown COMPU_METHODs, ModasSport still accepted the A2L to create a workbase. If the workbase is opened and a label referencing the invalid label is moved on the worksheet (or a workfolder/worksheet with such label is loaded), ModasSport crahed.
- The crash was fixed. But additionally, it's not possible to create a workbase with such a corrupt A2L file. The reason, why the workbase cannot be created is written to the log file.

If a work folder is loaded multiple screen refresh slow down ModasSport (OPL1199)
- If a work folder is loaded, ModasSport queues several updates for the measurement list. If loading the work folder has completed, all queued requests are processed. Because actually a single executing is sufficient, the other executions simply slow down ModasSport. Sometimes the multiple executing appear to the user as if ModasSport is hanging in an (endless) screen update loop.

Diff-Button in ribbon is disabled while operation is executed (OPL1198)
- As long as ModasSport is executing a background operation, the "Diff"-Button in the ribbon is disabled like all other buttons.
  E.g. while copying the work page to the reference page; all buttons are disabled, but not the "Diff"-Button. Because this is an intermediate state of the process, the button is also disabled now.

"Variable info" displayed an assigned function twice (OPL1196)
- If a label is assigned to the same function for (Input and Output), the function name was listed twice in the "variable info" dialog.

ModasSport sometimes shows all "Measurment lists full" (OPL1166)
- Sometimes ModasSport receives empty acknowledge responses from the ECU. If so, it's not possible to measure anything, because the reported maximum sizes for measurement lists (DAQ lists) got zero.
- For diagnostic purpose the logging was improved while connecting to the ECU with the goal to determine, at which point the response packets are corrupted/get empty (-> CAN Bus, MSA-Box, ModasSport internal)
- To recover the situation, the user has to reopen ModasSport. Now it's enough to switch the ECU offline and online again to reconnect to the ECU – and hopefully synchronize ModasSport and the ECU correctly.

Log files enhanced (OPL1352 Darab)
- Each day ModasSport writes information into a log file.
- If there are ten (or more) log files, log files are deleted if they get older as 30 days.
- Both parameters can be adjusted by settings in the "ModasSport.ini":
  [LogFile]
  KeepFileAge=30   ; The minimum file age in days, before a log file can be deleted
  KeepFileCount=10   ; The minimum number of log files to keep
- A message isn't written repeatedly to log file. Instead the occurrences are count and a "Last message repeated x times" is written, if a different message is logged.

ModasSport v1.06.007
01.12.2011

Parallel installation uninstalls existing installation (OPL1317 Darab)
- If the application is installed parallel to an existing installation, the setup will still uninstall the existing version, if the user has chosen the update option and then changes back to new installation.

Sometimes drag and drop from label list didn't work (OPL1191)
- Sometimes, it wasn't possible to drop a label from the label list into the current worksheet, because of some irregular state of the drag and drop functions.
- Additionally, there are some circumstances ModasSport denies to accept a drop action. In this case, ModasSport will show a message box.

HTML log of DataManager copy/compare shows unknown labels (OPL1190)
- If the data manager is used to copy / compare two datasets (each of type workbase or A2L/HEX), the HTML log contains a list of labels, which are only available in the destination dataset and not in the source dataset (and vice versa).

ModasSport v1.06.006
24.11.2011

Automatic reassignment of measurement rate is disabled (OPL1189)
- In previous version of ModasSport the measurement rate of labels was changed automatically, if otherwise "measurement list full" would occur. This feature of ModasSport lead into the circumstance, that measurement rates were changed "randomly" for the user, each time he changed the work sheet – especially, if several measurement lists were full.
  This feature was disabled, so the user decide on his own, how to change the measurement

settings, if one or more measurement lists are full.

The selected labels list in the Data Manager is always sorted alphabetically (OPL1188)
- If the user opens the "Select labels" dialog of the Data Manager, the list of selected labels wasn't shown in a sorted manner (e.g. after changing the source data set). After closing and reopening the dialog the labels were suddenly sorted.
  Now the order of the selected labels is always sorted alphabetically.

Loading PAR files was improved (OPL1187)
- PAR files can contain curves using textual verbs representing actual values for the axis and values.
- If a value is NaN ("Not a Number"), no error occurs, but the value is skipped (ignored).
- If some textual verbs are empty, these cells are handled as "Not a Number" values.

Characteristic maps/curve view support textual verbs (OPL1187)
- In previous versions only VALUE BLOCKS supported the use of textual verbs. This was extended to all characteristic types, but currently only for the values - not for break points.

Sometimes Data Manager suggested the reference page of a work base as destination (OPL1186)
- If the user selects a work base as destination of a copy operation, it could happen that the data manager automatically selected the reference page and even the user wasn't able to select the working page.
  This issue only occurred randomly, if no destination was selected in the previous data manager operation (e.g. a "list" operation).

Shortcut keys F3 and F5 reassigned (OPL1185)
- The shortcut F3 opens the label list and puts the input focus into the search textbox.
- The shortcut F5 opens/hides the output window (this feature was previously assigned to F3)

ModasSport always asked to save work folder on exit (OPL1184)
- If ModasSport was closed or another workbase is opened, ModasSport always asked to save the current work folder, even the user didn't change anything.
  Now, the user is only asked, if something has changed.

Data Manager handling of adaptive labels improved (OPL1182)
- The data manager ensures that adaptive labels can only be used, if the ECU is online and the used work base is the current work base.
  Before it was possible to copy adaptive values around using work bases, which weren't compatible with the ECU. If the ECU was online, this lead to corrupted data on the ECU.

Sometimes, ribbon buttons showed incorrect text (OPL1181)
- If a ribbon button is configured to be visible in the quick access toolbar, dynamic updates to the button text failed for one of the two buttons. Depending on the active category only one of both buttons was updated.
  The most obviously affected button was the "Diff" button showing the number of unequal characteristics between the work and reference page.

Measurement array elements didn't support the default measurement rate (OPL1180)
- If a default measurement rate is assigned to a measurement array by the A2L file, the measurement rate wasn't applied to the measurement array element labels created internally by ModasSport.
  The bug is fixed, but will take effect only, if a new work base is created.

"Variable info" shows the function groups of characteristics (OPL1179)
- If the user opened the "variable info" dialog of a characteristic label, the dialog didn't show any information about the function groups, the characteristic is assigned to.

ModasSport v1.06.005
20.10.2011

If "measurement list full" occurs, the current CCP measurement lists are written to the log file
- For debugging purpose the current CCP measurement lists (DAQ/ODT configuration) are written to the log file, if a "measurement list full" error occurs.

Import of DCM files failed, if the file contains curves/maps using group axis (OPL1277)
- If a DCM file contains curves or maps using group axis, the data manager wasn't able to import these files.

Validation of monotony of axis of curves/maps changed
- The monotony check of the axis of curves/maps verifies the monotony of the physical values instead of the integer values. With this change also axis using float values are supported.

ModasSport v1.06.004
22.09.2011

Download of multiple PAR files with a single macro action
- The macro action "Download PAR file" accepts file names with wildcards. If the action is executed, all files matching the file name will be downloaded.

ModasSport v1.06.003
21.09.2011

OPL1171: Rework of OPL1171 of v1.06.001
- The window restored corrupt window sizes in the release version of ModasSport.
- To fix the corrupt saved settings in the registry press CONTROL key while opening the dialog.

ModasSport v1.06.002
16.09.2011

OPL1173: Rework of OPL1173 of v1.06.001
- The changes made in v1.06.001 for this issue could cause crashes on some Windows XP computers.

ModasSport v1.06.001
13.09.2011

LevelX driver causes crashes of ModasSport
- Because we cannot reproduce the crash, but it seems to happen quite often, ModasSport catches crashes caused by the LevelX driver DLL and tries to continue. Nevertheless the crashes are reported to the user/log file and maybe restarting ModasSport can be necessary.

OPL1173: The difference count indicator between work / reference page is accentuated
- If difference between the work and reference pages exists, the difference count button in the ribbon is accentuated. It's using a red, bold font to display the difference count.

OPL1172: Label lists can be filtered for adaptive characteristics
- The label type filter of label lists was extended to filter for "adaptive characteristics". If this filter is selected only adaptive characteristics (values, curves or maps) are shown in the label list.
- Note: Combining multiple filter options is not supported (e.g. curves + adaptive)

OPL1171: Parameter file edit dialog is resizable
- The Parameter file edit dialog is resizable now.
- The latest dialog placement is saved, if the dialog is closed, and on the next open restored.
- The column widths of the right handed label list are also saved / and restored.

OPL1170: Support of LT4 added
- ModasSport supports LT4 ECUs

OPL1169: Working point not measured after adding a CURVE/MAP to a worksheet
- If the user adds a CURVE/MAP to a worksheet without adding the source labels for the

working point, the current working point is not shown after measurement is started.
- ModasSport showed the values, even if the source labels aren't added to the worksheet, if the user switches between worksheets or saved/reloads the work folder.
- Updating the measurement list is fixed, so immediate measurement of the working point is working.

OPL1167: Entering values larges than 255 into macros wasn't possible
- If a user-defined macro is created with actions like "WRITE CELL", it wasn't possible to enter values larger than 255. In such a case an error dialog appeared with no content.
  Now entering larger values as 255 is possible.
  For unknown errors, a generic error dialog appears, instead of an empty dialog.

OPL1166: Debug information for "Meas.List Full" added
- An issue was observed were ModasSport sometimes report the measurement of labels is not possible, because the measurement lists are full. But the worksheets works after ModasSport is restarted.
- Because we couldn't reproduce the problem, ModasSport logs additional informationen into the current log file, if a label cannot be added to the measurement list. We hope to investigate the problem, if we receive the log files.

OPL1164: ModasSport crashed, if a measurement label window is resized
- The following circumstances have to be met to cause the crash:
  - The "unit" column is sized to a width of 0 pixels.
  - The label name and label value columns have a width, which caused the proportional resizing algorithm used during resizing the window to distribute the windows width exactly on the two columns without any remaining pixel.

OPL1162: Monitoring of measurement values improved
- If the alert of a zone (upper,lower,middle) is activated, the user can select, if the value should flash in case of an alert (default: flash).
- The hysteresis value of the middle zone was removed. An alert for the middle zone is reports, if the value isn't within the upper/lower zone anymore.

OPL1161: Adding a negative offset to a characteristic value wasn't possible
- If the display format of a characteristic was set to anything other as "physical", entering a negative value in the "Add offset" dialog wasn't possible.
  Now entering a negative value is possible for all number formats.

OPL1159: Support of MS24.x added
- ModasSport supports MS 24.x ECUs.

OPL1154: Showing a MAP/CURVE if a PAR file is opened in the PAR file manager
- The importer couldn't read PAR files containing large MAPs/CURVEs, because there was a line length limit of 8000 bytes. The line length is not limited any more.

OPL1154: Importing a PAR file with large maps/curves wasn't possible
- The importer couldn't read PAR files containing large MAPs/CURVEs, because there was a line length limit of 8000 bytes. The line length is not limited any more.
- Another problem was detected, if such a large label is imported (after the import problem was solved): Showing such a label in the PAR file manager caused a crash, because an intermediate data storage was limited to 2000 bytes for all values of a MAP/CURVE.

OPL1154: Scrolling in large Maps/Curves wasn't possible
- If a Map / Curve was very large, scrolling the data grid wasn't possible as soon as the scrolling position reaches a position larger than 32767 pixel (Column number * Column width > 32767).
- The used Windows function were exchanged and can handle now much larger pixel ranges.

OPL1151: Importing of labels with a non-monotonic axis via PAR files was possible
- If a PAR file is imported, ModasSport didn't ensures, that the axis of labels is monotonic. Now ModasSport gives a warning, if a PAR file contains labels with non-monotonic axis and denies uploading such labels into the work page.

OPL1147: ModasSport crashed, if the user added certain commands to the quick access toolbar
- If some commands (e.g. PIN commands like "Modify PIN") were added to the quick access toolbar, ModasSport crashed the next time it's started.

OPL1144: Connection establishment improved (CCP)
- The establishment of the connection to a CCP ECU was improved by removing unnecessary delays. Especially a three second delay used, if ModasSport expects a reboot of the ECU was removed – making function like "Copy work to reference page" much faster.

OPL1140: Icons for arrange horizontally/vertically were mixed
- The two icons for window arrange horizontally/vertically are swapped, because they were mixed.

ModasSport v1.05.006
13.04.2011

OPL1139: Data Manager - Copying data to work page doesn't work, if reference page is active
- If the user tried to copy data to the current work page using the Data Manager while the ECU is currently working on the reference page, the copy operation in memory succeeds but writing the new values to the ECU fails.
  Now the Data Manager switches the ECU temporarily to the working page, if a copy operation is executed. Additionally a copy operation to the reference page of the active project is denied.

OPL1138: ModasSport crashed after PIN dialog was closed
- A crash was observed after the PIN dialog was closed, because ModasSport processed a delayed message while a global memory pointer was already freed.
  The issue is fixed.

OPL1137: Monotony is checked after pasting new data into a grid is completed
- If the user pasted data into a grid, the monotony was changed each time a single value was pasted into the grid. This could cause cancelling a paste operation, because ModasSport detected a monotony error. Nevertheless the monotony would be correct at the end of the paste.
  Now the monotony check is deferred to the end of the paste operation. If the monotony check fails, the whole paste operation is discarded and the previous data is restored.
- Note: Now, the whole paste operation is also discarded, if another type of error occurs during the paste operation (e.g. hard limit errors).

OPL1137: Maps/Curves can be dropped onto an existing table grid
- The user couldn't add a new map/curve label to an existing table grid window by Drag'n'Drop, if the user tried to drop the label onto the grid control. Only the area above the grid was accepted for dropping.
  Now dropping a label onto the grid is possible.
- Note: Dragging a label out of the window is still only possible, if the drag is started in the area above the grid control. This is because of the conflict mouse down/move inside of the grid control is used to select a cell range.

OPL1136: ModasSport doesn't write 0xFF-lines to HEX file
- If the work page is exported into a HEX-file, ModasSport doesn't write lines to the hex file, if the line only contains 0xFF values. This behavior is only used for certain ECU types (mainly ECUs but not Data Logger devices). ModasSport doesn't have a problem, if these HEX files are loaded, because ModasSport initialized memory segments with 0xFF.
  Nevertheless other applications have problems, because they don't initialize their memory buffers with 0xFF.

OPL1134: Loading a hex file didn't work, if connection is disabled.
- If a hex file is loaded where the ECU connection is disabled by the user, ModasSport didn't show the new data immediately. Instead loading the hex file was delayed until the ECU connection is switch back to Offline/Online.

Now ModasSport will load the new data from hex file immediately independent from the current connection state.

OPL1133: Sometimes number format wasn't restored correctly, if a workfolder is opened.
- The number format of a label wasn't saved/restored correctly, if a workfolder is loaded under following conditions:
  - o The label is a map, curve or axis points.
  - o The label is shown on different worksheets
  - o The number format of the labels is changed on one worksheet
  - o The workfolder is saved and later loaded
    - ➔ The number format (especially the decimal placed) is not as set before.
  The behavior is fixed.

OPL1132/1135: Crashs caused by I+ME driver.
- ModasSport crashes on some computers, if the MSA-Box is unplugged. A small change was implemented in ModasSport. Because the crash is not reproducible and happens inside the I+ME driver library, they change may help or not.
  Nevertheless a new driver package will be available soon, containing a fix of this issue.

OPL1123: Restoring a window sometimes only work on the second click
- If a window is minimized and the user tries to restore the window, the window is immediately minimized again. A second click of the user restores the window as expected.
  This behavior is fixed.

OPL1122: ModasSport doesn't allow the user to assign user defined keyboard shortcuts.
- Previous version of ModasSport allowed the user to change the keyboard shortcut assignments, but they were reset, if the application is launched.
  Now the dialog to assign keyboard shortcuts is removed from ModasSport.

OPL1118: Data Manager skips adaptive characteristic in compare operations
- Data Manager listed adaptive characteristics (AppRam labels) in most comparisons, because these values are changed by ECU or are only available, if the ECU is online.
  Now they are skipped and not listed anymore in comparisons.

OPL1073/1095: Setup allows optional creation of shortcuts on desktop and in the start menu
- The setup allows the user to select, if a link is created on the desktop or in start menu.
- The link is named like the folder, ModasSport is installed to.

ModasSport v1.05.005
26.10.2010

OPL1117: ModasSport will always disconnect from ECU after "Copy work to reference page"
- If the user executes a "Copy work to reference page", ModasSport will disconnect from the ECU and reestablish the connection to the ECU. This change allows ModasSport to communicate properly with the ECU for the case, that the ECU resets automatically after a "Copy work to reference page" action.
- Note: Previous versions of ModasSport were aware of the concrete behavior of each ECU. Nevertheless unknown ECU could cause a problem, if they perform a reset, because the ECU resources will only be unlocked during the connection phase.

OPL1116: Project tree in Project Manager stores last expanded/collapsed state.
- The last elapsed/collapsed state of the project nodes is restored, if the project manager is opened.
- Note: If the project manager is opened, the last used project will be selected. To do so, the path to this project will always be expanded.

OPL1113: DataManager didn't load the correct work base labels and label selection
- If the Data Manager was used with some work base and afterwards with another work base of a different ecu, the Data Manager still showed the label list and label selection of the prior use. After opening/changing the source data set, ModasSport updated the label list correctly.
- Now ModasSport loads the correct work base and tries to restore the prior label selection.

Nevertheless, if no label could be selected, because the label names don't belong to the current work base, ModasSport will automatically select all labels.
- Note: The behavior only occurred, if the prior data source is a work base

OPL1112: Data Manager sometimes uses KENNLINIE and KENNFELD in DCM-Export
- If the data manager is used to export data into DCM files, characteristic curves and maps using X-Axis with the A2L type "FIXED" are exported as "KENNLINIE" and "KENNFELD" instead "FESTKENNLINIE" and "FESTKENNFELD".

ModasSport v1.05.004
06.08.2010

OPL1106: Update installation didn't replace SASLIB.DLL
- If an existing ModasSport installation (prior to v1.04.019) was updated, the SASLIB.DLL wasn't replaced by the required version of later ModasSport releases.
  With the wrong SASLIB.DLL new projects/workbases couldn't be created. Nevertheless working with existing work bases was possible.

OPL1105: Possible crash, if user selects another characteristic in the table view
- Sometimes ModasSport crashes, if the user has selected multiple cells (or a cell range) of a characteristic map and afterwards changes the current characteristic map in a table view.
  Note: Due to the behavior of the memory management, the crash cannot be reproduced safely

OPL1104: After showing the context menu in the macro list another context menu appears
- If the user shows the context menu by a right click on a macro in the macro list, ModasSport shows the expected context menu.
  After the context menu is closed and the selected action was executed, ModasSport showed the context of the dockable window.

OPL1103: Some macro settings were editable, if showing macro details
- If the user shows the settings of a macro by showing "variable info" in a measurement view or "details" in the macro list, some settings weren't disabled. But if the user changes these settings, the changes are not saved nor have any effect.
  Now the settings are disabled too, if the macro dialog is opened in read-only mode.
  Macros can only be edited by using the macro manager.

ModasSport v1.05.003
14.06.2010

OPL1101: Crash if showing an ASCII label 't in Parameter File Editor
- If the user wants to show the properties and content of a characteristic value, ModasSport crashes, if data of the selected label is larger as 50 Bytes.
  The crash doesn't occur for axis points, curve or map labels.
- If a characteristic doesn't contain valid data (e.g. labels with an address outside of the A"L listed memory segments), "gray" symbol are displayed.
- If the parameter file editor cannot be closed by ok, because saving the parameter file didn't succeed or an label without valid data is selected, an corresponding error message is shown.

OPL1100: Size of measurement view sometimes not correct
- If the user changes the font size of a measurement view and saves the work folder/worksheet, the height of the measurement window won't be loaded correctly.
  The problem was that the height of a measurement view is always calculated with the selected font size. But on loading, the height was calculated before the font size was restored from the archive.
- If the user changes the font size of a measurement view, the width of the view is proportionally changed according to the height change. Because the outer MDI frame window wasn't resized each time the inner width changes, a white bar appeared in the view.
- Directly after loading a work folder/worksheet, some settings in the ribbon weren't updated immediately but after some user actions.

OPL1097: Support of checksum crc16 algorithm M_16_BIT_BY_CRC16_SIEMENS

- ModasSport supports devices using the crc16 algorithm M_16_BIT_BY_CRC16_SIEMENS (A2L checksum type 0x9001).
  E.g. this algorithm will be used in future firmware releases of the MS5.x.

ModasSport v1.05.002
29.04.2010

OPL1096: ModasSport crashes, if data of a characteristic map/curve is copied to the clipboard
- If the user copies data from a characteristic map/curve to the clipboard, ModasSport can crash because of an invalid number format string.

OPL1093: Commands to edit/clear the PINs in the ribbon bar added
- Commands to edit/clear the PINs were added to the "Tools" category of the ribbon bar. The commands are only available, if a workbase of an ECU is loaded, which needs PINs to unlock access.

OPL1093: ModasSport always asks the user to enter the PIN, if unlocking the ECU is necessary
- If the user doesn't activate the option to save the entered PINs in the project file, ModasSport asks the user to enter the PIN each time a connection with the ECU is established.

OPL1091: Cannot connect to MS4 using CCP protocol
- ModasSport couldn't connect to a MS4 ECU using the CCP protocol, because of a failure during unlocking the access privileges. The problem occurred because the MS4 doesn't behave as defined in the CCP standard.

OPL1090: Some shortcuts were occupied twice.
- Some shortcuts were occupied by two different functions of ModasSport. The following key combinations were affected by the change:

Key	No modifier	Shift	Ctrl	Shift+Ctrl
N	Decrement Selected Cell	Decrement at Working point	New Workfolder	New Worksheet
M	Increment Selected Cell	Increment at Working point		
O			Open Workfolder	Open Worksheet
S			Save Workfolder	Save Worksheet
F12			Save Workfolder as	Save Worksheet as

OPL1089: Cannot download Hexfile to MS15 or copy work to reference page or visa versa
- ModasSport didn't unlock the programming functions of the ECU, if connection to the ECU. But programming of the MS15 has to be unlocked in order to perform the CCP MOVE command which is used to copy the work to the reference page.
- Because downloading a hex file also uses the MOVE command, the function didn't work either.

OPL1088: Work/Refernce page not initialized correctly, if page size is larger than 64KB
- If the memory segment of the work/reference page is larger than 64 KB, ModasSport doesn't initialize the memory behind the 64KB border correctly with the data of the Hex/S19-file.

ModasSport v1.05.001
15.03.2010

OPL1084: ModasSport adds projects provided by the installation
- If the installation delivers predefined projects, they are added to the project list by ModasSport during the first launch after installation. The feature was already added with OPL1033, but had to be changed due to setup issues.
- For each project, which should be added to ModasSport, the installer has to create a section in the configuration file "setup.ini" in the ModasSport folder:

  [Project<n>]
  ProjectName=<ProjectName>

        ProjectPath=<ProjectPath>

- The section name starts with "Project" followed by a number <n> for uniqueness. <ProjectName> has to be the filename of the mxprj-File. <ProjectFolder> is the path, where the mxprj-File is located.
- <ProjectFolder> mustn't be an absolute path, but a relative path to the folder of ModasSport. E.g.:
  ModasSport is installed in "C:\Bosch\ModasSport", ProjectName is "MyProject" and <ProjectFolder> is "Bosch-Projects\MyProject". This settings will result a project with the name "MyProject", which is located in "c:\Bosch\ModasSport\Bosch-Projects\MyProject":

        [Project1]
        ProjectName=MyProject
        ProjectPath=Bosch-Projects\MyProject

OPL1083: Sometimes labels weren't measured correctly with K-Line protocol
- The measured values of the 37th label were measured wrong, because the measurement label list wasn't send correctly to the ECU. This issue affected only the 37th label, because the measurement record of this label was truncated.

OPL1082: DataManager shows difference, if work/reference page are identical but reserved float values
- If a label has the float type and the data on the work and reference page is identical but contains reserved float values (e.g. NaN), the DataManager lists the label in the compare output as different.
  This behavior is because the real value isn't known exactly and therefore the comparison of such values always results in "unequal".
- Now, ModasSport compares the memory representation of two values and will result in "unequal", if there is a binary difference.
- **Note:** The problem occurred only, if "Compare physical values" was enabled in the compare options.

OPL1080: Changing the increment step in the ribbon isn't possible
- Changing the increment step in the ribbon bar wasn't possible. ModasSport always restored the previous step size (as long as no increment step size is defined by extended visualization settings in the A2L file).
- The bug took effect after changes because of OPL1004 (ModasSport v1.04.011) were applied. While testing the changes, the new bug wasn't found, because before v1.04.011 the A2L internal step size was changed and so the new bug didn't appear.

OPL1077/1079: Number format of measurement values corrupted
- After adding a measurement to the oscilloscope view the number format of the labels were corrupted (set to an empty format).
  - In consequence the variable info window showed no / the invalid number format.
  - If the label was recorded in a WinDarab measurement file, WinDarab didn't show the values correctly unless the user didn't redefine the number format in WinDarab.
  - Other display issues in ModasSport occurred.
- The bug was fixed. Additionally an empty number format will reset the number format to the A2L defaults. Therefore affected work bases will be repaired, as soon as the ModasSport update is used.

OPL1073: Setup - User can control creation of desktop/start menu shortcuts
- If a new ModasSport is installed, the user can control, if the installation should create desktop/start menu shortcuts or not.
- To control the creation of the shortcuts in unattended installations, the properties "DESKTOPSHORTCUT" and "MENUSHORTCUT" can be set to "0" (don't create shortcut) or "1" (create shortcut).
- If an existing installation is updated, the installer won't create new links, but existing ones will be updated.

OPL1070: Logging of macro action can be disabled

- The user got the possibility to disable the logging of executed macro actions to the output window. This is useful especially for loop macros, which are logging all the time the executed actions to the output window.
- Nevertheless, the output of the action messages to the log file will remain enabled.

OPL1068: Labels not added to DAQ-lists, if DAQ list gets free space after removing a label by changing its measurement rate
- A label isn't measured under the following circumstances:
    - The label is assigned to a measurement list (DAQ-list), which is currently full.
    - The user changes the measurement rate of another label, so the DAQ list of the first label has some free space.
    - ModasSport isn't assigning the first label to the DAQ list, which has now free space.
- After changing the measurement rate of a label, ModasSport will rebuild the measurement lists. ModasSport will measure labels, which couldn't be measured yet, as far as the DAQ lists have free space.
- **Note:** Because of the automatic DAQ list assignment, it is possible, that – after changing the measurement rate of a label –labels are measured, which were not measured before, and other labels are measured, which were measured before. This is due to the order, ModasSport processes the windows of a worksheet.

OPL1066: While updating an older ModasSport, the some DLLs weren't updated.
- If an existing ModasSport installation is updated, some older DLLs were left in the application folder instead of updating to newer versions (e.g. WdsFlash.dll)

OPL1065: Behavior of ModasSport, if windows are zoomed/maximized
- Each window on all worksheets store their window state maximized (zoomed), minimized (iconic) or normal (restored).
- If the user switches between the windows, the window state of the deactivated window is stored and the state of the activated window is restored.
- In previous versions of ModasSport, it could happen that a window of a different worksheet appeared, if the current window is restored from maximized state. This issue is fixed with the new behavior of ModasSport.

OPL1064: ModasSport hangs, if data grid is too small to show at least one data cell of a characteristic curve/map
- Normally, resizing the data grid control of a characteristic curve/map is limited to a smallest size, where at least one data cell leaves visible. Nevertheless, it's still possible that the user achieves a size, which makes it impossible to ModasSport to show a single cell completely.
- If the user moves the focus to another cell, ModasSport wants to scroll the data grid until the focused cell gets fully visible. Because this isn't possible in the above case, ModasSport tried to scroll endless causing ModasSport to hang.
- Now, ModasSport is changed and will stop scrolling as soon as the selected cell gets fully visible or the selected cell is the top-left cell of the data grid.

OPL1063: Table view didn't show the correct physical value after changing a value
- After a cell was edited in the characteristic table view the entered physical value is shown, if the physical value is rounded to the same raw value as the previous physical value of the cell.
- Now ModasSport synchronizes the content of the table after editing even in case, that there is no change of the raw values.

OPL1046/1062: ModasSport is not responding to user input, if a macro without any delay is executed
- If a macro is executed, all activity of the macro is logged to the output window. If the macro is executing very fast a lot of log entries is generated, which are flooding the output window and makes it impossible to ModasSport to respond to any further user input.
- The execution speed of a macro is always full speed until a delay is configured. To prevent flooding the output, two changes were introduced:
    - The minimum period between two actions is set to 10ms (fixed). Because the execution time of a macro action is included in the period, it won't affect the execution speed as soon as an ECU is online, because the required communication overhead takes about the same time.

o   For loop macros the user has to set a loop repetition delay of 100ms or longer.
- OPL1046: Previously the delay entered in the macro dialog was used as a delay between each action and therefore used to control the execution speed. It was even added to the delay of a "DELAY" action.
Because the delay is now used as the "loop repetition delay" and the action delay is fixed to 10ms, the prior OPL1046 is resolved by the new behavior.

OPL1061: Layout of header in dialog "Label info" changed
- The layout of the header in the dialog "Label Info" was changed. The label type icon overlapped with the frame and the content control.

OPL1060: If macro is stopped by user, ModasSport shows the "stop" message
- If the user stops a (loop) macro, ModasSport shows the "stop" message, if the message is configured in the macro settings.

OPL1058: In-/Decrementing axis breakpoints, if the axis data type is FLOAT32
- Axis breakpoints with the data type FLOAT32 can be in-/decremented.
The step size will be the bigger value of the following two:
    o   The global float step size setting
    o   The precision of the current axis number format is used to determine the step size, which will change the less significant digit.

OPL1048: Format of x/y axis for characteristic curves/maps can be changed
- The number format of the x/y breakpoints for characteristic curves/maps can be changed.
- In previous version only the number format of an assigned measurement labels (used to determine the working point) could be changed.
Note: Changing the format of a measurement affects all axis, ti which the measurement label is assigned.
- In the case, that no measurement label is assigned (e.g. in case of fix axis), ModasSport used the same number format as for the values itself. Now ModasSport uses the number format defined in the A2L file for the axis and the user has additionally the possibility to override/change the number format.
- Each characteristic curve/map can use an own number format for the x/y axis. The settings are not shared across the characteristics within a single characteristic view.

OPL1044: Implementation of FIX_AXIS_PAR_DIST and FIX_AXIS_PAR_LIST
- ModasSport supports curve and map axis with fixed axis points using the A2L keyword FIX_AXIS_PAR_DIST.
- Internal support of fixed axis points using the A2L keyword FIX_AXIS_PAR_LIST for curves and maps was added. Nevertheless it cannot be used, because currently the SAsLib A2L parser doesn't support this keyword.

OPL1032: Support of ECUs using the PIN/SuperPIN algorithm for UNLOCKING
- ModasSport supports ECUs which are using the PIN/SuperPIN algorithm to gain access to the ECU.
- If an ECU is PIN protected and one of the resources (DAQ/CAL) is locked, ModasSport shows a dialog to enter the PINs.
- Optionally, the PINs can be saved to the project.
- The project PINs can be cleared in the work base settings dialog.

OPL1020: Width of channel combo box in characteristic grid view is dynamically calculated
- The width of the channel combo box in the characteristic grid view is dynamically adjusted to the longest channel name. While the width of the combo box is limited to 50% of the windows width, the width of the drop down list is always big enough to show the channel names completely.

ModasSport v1.04.019
27.01.2010

OPL1069: Invalid ODT list numbers cause endless CCP connection-reset loop with ECU

- During initialization of an ECU CCP connection, ModasSport sends the current DAQ list configuration to the ECU. If some information about the ODT identifiers within the work base are changed while establishing the connection, the changes weren't reflected in the work base configuration. This could cause ModasSport to send out-of-range ODT identifiers to the ECU. Some ECUs respond to the commands with a class #3 error and reset themselves.
  After the ECU is reset ModasSport tries to connect again going into the same error – this is reapeated endless.
- Note. If the user changes the work sheet, while the ECU is rebooting, the internal structures are updated and the connection will succeed.

ModasSport v1.04.018
26.11.2009

OPL1056: Changing values of STD_AXIS breakpoints didn't work
- If the breakpoints of STD_AXIS breakpoints of CURVEs or MAPs were changes, ModasSport didn't write the values into the correct data cells.
- A decrement on the first breakpoint with the current HEX-value 0x0000 caused an undetected integer overflow to 0xFFFFFFFF. In the case of a 8/16-Bit signal and the way the monotony check worked (signed 32-Bit comparison) the new hex value (0xFFFFFFFF => -1) is smaller as the previous zero and therefore passed the monotony check. As a result, the value of the first breakpoint got to the maximum limit value.

OPL1055: Editing the breakpoints of a characteristic curve not possible as expected
- If the user tried to edit the breakpoints of a characteristic curve (using STD_AXIS breakpoints), the mouse cursor always changed to the "select column" cursor. To enter the edit mode of the breakpoint cell was only possible by a double click.
- The problem appeared, if the column header is editable but not the row headers (or vice versa). Most commonly this situation is true, if a characteristics curve with STD_AXIS breakpoints is displayed in the table grid control.

OPL1052/1054: Sometimes measurement of labels seems to be impossible
- If the measurement is started, sometimes ModasSport didn't show the measured values but always the default value (most common: zero). After removing/adding a the label, the measurement is working.
- The problem was caused by an difference between the DAQ-list sizes provided by the A2L and the ECU. If the ECU is connected once before adding labels to a newly created workbase, measurement is working. But if labels are added to a new workbase, before the ECU is connected, the measurement isn't working. The problem was caused, because the DAQ-Lists (more precise the ODT-lists of a DAQ-list) were destroyed and not rebuild immediatly, if the ECU announces a different size of the supported DAQ lists.

ModasSport v1.04.017
17.11.2009

OPL1049: ModasSport hangs, if too many measurements are added to a worksheet
- If ModasSport uses the K-Line protocol and the user adds to many measurements to a worksheet, ModasSport hangs in an endless loop starting and stopping the measurement. The only way to interrupt the endless loop was to disconnect the ECU.

OPL1049: ModasSport can crash, if a lot of measurements are added to a worksheet
- If a lot of measurements are added to a worksheet, it can happen, that ModasSport crashes, because the UI thread is updating internal structures of the monitoring feature while the measurement thread updates the monitoring state of incoming data.

OPL1047: Measurement windows aren't updated after automatic restart of measurement
- If ModasSport reconnects to the ECU and automatically restarts the measurement, sometimes the measurement windows weren't updated with the current measurement values. Following conditions are responsible for the problem to occur:
  - ModasSport is using the K-Line protocol
  - Measurement is running while the ECU is disconnected
  - Disconnecting the ECU means "Ignition off", "Cable disconnect" or "ECU reset"

o   The current worksheet contains only measurement windows, but no oscilloscope

ModasSport v1.04.016
13.11.2009

OPL1008: While resetting a ECU MSA-Box2 detects a short circuit on K-Line and shuts down
- If the ECU using the K-Line protocol is resetting (e.g. after "Copy work to reference page"), the MSA-Box2 detects a short circuit on the K-Line and shuts down. The user has to disconnect the ECU and to stop/start the communication in ModasSport to reestablish the connection.
- The behavior to reconnect with the ECU was changed in a way that the short circuit shouldn't occur any more.

ModasSport v1.04.015
05.11.2009

OPL1038: Ribbon controls aren't updated after current differences were shown
- After the user viewed the current differences by pressing on the "diff"-Button, ModasSport isn't updating the ribbon bar controls any more. Any state changes (e.g. due to connecting/disconnecting the ecu) are not visible in the ribbon and actions cannot be selected.

OPL1037: Support of adaptive characteristics for MS5.x
- Adjusting and updating of adaptive characteristics are supported by ModasSport.

OPL1015: Restoring minimized/maximized state of windows in worksheet
- If a worksheet / workfolder is loaded, the state of the windows is restored. If a window was minimized, if the worksheet was saved, it will be restored as minimized, if the worksheet is loaded.

OPL1013: Button to close project manager, if a work base is already opened.
- Some users didn't find the way, how to close the project manager to return to the current work base. In the ribbon bar a button was added to close the project manager. The button is enabled as soon as a work base is loaded.

OPL1011: Error message, if loading a hex file fails
- If the user tries to load a hex file to the work page, but the selected file cannot be loaded, because of an error (e.g. check sum error), ModasSport shows a message box and logs detailed information about the error in the log windows / log file.

OPL1008: Message in case of a short circuit in the K-Line cabling
- The MSA-Box v2 is capable to detect a short circuit in the K-Line cabling. In this case the MSA-Box turns of the K-Line interface and sends a notification message to ModasSport. ModasSport notifies the user to detach the MSA-Box v2 from the ECU and to turn off the vehicles ignition.
- The final implementation in v1.04.011 didn't work, because of wrong information about the notification message sent by the LevelX drivers.

OPL971: Grid control for maps and curves enhanced
- The grid control for maps and curves was enhanced.
- The user can select row/column header cells, if the current map / curve doesn't use group axis.
- The functions and hot keys to modify the content of table values (-> z-values) can be used to change breakpoints (e.g. Increment, Decrement, Restore to reference page value, …)
- Whole columns / row can be selected by clicking on a row/column header cell. If the user can select row/column headers cells, selection of a row/column is possible, if the mouse if over the left border of the row header cell or the top border of a column header cell.
- The whole table can be selected by clicking of the top/left cell.
- The mouse cursor changes, if the mouse is over the hit area to select the table, a column or a row.

ModasSport v1.04.014
29.10.2009

OPL1035/1036: Initialization of oscilloscope after changes through the ribbon

- If the user changes settings of the oscilloscope (e.g. min/max of current label, x-range of oscilloscope) through the ribbon controls while the measurement is started, the oscilloscope wasn't updated correctly.
  Now the oscilloscope is initialized after such changes and will show the data correctly.
- **Note:** Already measured values are discarded, because the current implementation of the oscilloscope doesn't store any data with its physically units.

OPL1034: Copy work to reference page failed

- After successful tests a small redesign of a condition while fixing OPL1030, some changes were also applied to the "copy work to reference page" functions, but a small change at the end of the redesign caused the function to fail.
- If the ECU is online, the function succeeded, but showed an false error, while executing the function in offline mode always failed.

ModasSport v1.04.012
27.10.2009

OPL1033: ModasSport adds projects provided by the installation

- If the installation delivers predefined projects, they are added to the project list by ModasSport during the first launch after installation.
- For each project, which should be added to ModasSport, the installer has to create an entry in the configuration file "setup.ini" in the ModasSport folder:

  [Projects]
  <ProjectName>=<ProjectFolder>

- <ProjectName> has to be the filename of the mxprj-File. <ProjectFolder> is the path, where the mxprj-File is located.
- <ProjectFolder> mustn't be an absolute path, but a relative path to the folder of ModasSport. E.g.:
  ModasSport is installed in "C:\Bosch\ModasSport", ProjectName is "MyProject" and <ProjectFolder> is "Bosch-Projects\MyProject". This settings will result a project with the name "MyProject", which is located in "c:\Bosch\ModasSport\Bosch-Projects\MyProject".

OPL1031: Project name isn't allowed to contain invalid path name characters

- For project / workbase names it's not allowed to use certain characters (like slash, backslash, question mark, …), because the names are used for path / file names.
- Previous versions did a check, tries to create the project / workbase by pressing "OK". Nevertheless after entering a backslash into the project name field parts of the project name were duplicated with each key entered afterwards.
- Now even entering invalid characters isn't possible any more. This change affects the "New/Edit Project Dialog" and "New/Edit Workbase Dialog".

OPL1030: Copy reference to work page without effect

- The copy reference to work page function didn't work correctly, if the A2L defines a non-DATA MEMORY_SEGMENT in the RAM area (-> e.g. VARIABLES) with exactly the same base address and length as the work page should have.

OPL1029: ModasSport hangs, if ECU goes online and work/reference page are different

- If the ECU goes Online with ModasSport, it could happen, that ModasSport hangs if following circumstances were met:
  - Previously the ECU was online and measurement was started.
  - ECU was disconnected or ModasSport switched to "Disabled"
  - ECU is reconnected or Modas is switch to "Online"
  - The work- or reference page of the ECU and PC is different.
- The problem was that ModasSport tries to restart the measurement, if the connection state is updated after the connection is established. Because the work/reference page is different, the operation failed and sent another connection state update to the application – which causes another try to restart the measurement.

OPL1025: After the ECU is disconnected the work/reference page state isn't switch to "offline"

- If the ECU is disconnected from ModasSport, the work/reference page symbols stay red/green instead to change to "gray" (offline). This happens, if the ECU wasn't online completely e.g. because the work/reference page between ECU and PC are different.

OPL1017: ModasSport can crash while closing, if a potiboard is active

- During the shutdown process of ModasSport the current project is unloaded and all worker threads are stopped. In this case ModasSport crashed because the workfolder was already unloaded but the potiboard thread still send a notification message to the UI thread.

OPL1009/1028: Control colors with less contrast

- If windows themes are activated, some controls in the project manager were difficult to read, if the "Black" theme was selected.
- The characteristic table in read-only mode (e.g. reference page is selected) is very difficult to read, if "Black" theme is selected.

ModasSport v1.04.011
25.09.2009

OPL1008: Message in case of a short circuit in the K-Line cabling

- The MSA-Box v2 is capable to detect a short circuit in the K-Line cabling. In this case the MSA-Box turns of the K-Line interface and sends a notification message to ModasSport. ModasSport notifies the user to detach the MSA-Box v2 from the ECU and to turn off the vehicles ignition.

OPL1006/1007: New created projects for MS15 are not properly configured

- Because of an incorrect ECU typesetting after creating a new workbase with ModasSport v1.04.009 some problems appeared in the use of these workbases.
  Especially affected were the initialization of the work/reference page data (loading the HEX file) and communication problems with the MS15 (Connecting/Reconnecting after copying data from the work page to ref page).

OPL1005: Color settings of the oscilloscope were not saved

- If the user changed colors of an oscilloscope, the settings weren't saved to the worksheet. After loading a worksheet the oscilloscope used the default colors.
  Now, ModasSport saved the oscilloscope settings to the worksheet and workfolder files.

OPL1004: Step width resets to "1.0" after switching back to "default" using the ribbon

- If the user switched the step width back to "default" using the checkbox of the ribbon, the step width was set to "1.0" instead of "<auto>".
  Now, switching back to "default" also restored the correct step width "<auto>", if no specific increment step with is set by the A2L.

OPL1003: Flash tool is always available

- The flash tool was only available, after a work base was opened by the user and the ECU is supported by the flash tool. Because the user should be able to flash the ECU prior to creating/opening a work base, the flash tool is always available now.

OPL1002: Monitoring of measurement values didn't work

- A side effect of saving backup data while working with ModasSport (OPL898) caused all configured monitoring settings to be deactivated, after changing a worksheet.
  This also affects enabling the monitoring: a couple of milliseconds after activating label for monitoring, the monitoring update mechanism was turned off.
- An additional issue was recognized while fixing OPL1002: Also invisible oscilloscopes (on other worksheets) were activated, if a measurement is started. This caused an unnecessary CPU usage and slowed down the computer.

OPL1001: Labels weren't measured with the selected measurement rate

- Because of a workaround for an old bug in the A2L parser library, a DAQ list number of "0" was set to the current count of DAQ lists. This causes two DAQ lists with the same numbers, if

the event sources in the A2L file are not ordered by the DAQ list number.
- Because of the duplicated DAQ list numbers, all measurements added to one of the event sources were added to the DAQ list of one event source and therefore were measured with this measurement rate.
- An additional issue was recognized while fixing OPL1001: The views used to show maps and curves added the x- / y-channels to the measurement lists even, if the window is not visible. Not only that measuring the labels caused additional load on the CAN bus, it could also cause the measurement lists to become full so the user couldn't measure all labels he actually wanted.

ModasSport v1.04.010
17.09.2009

The version information of ModasSport.exe wasn't updated to v1.04.009.

ModasSport v1.04.009
16.09.2009

OPL994: ModasSport shows "Online" after ECU is disconnected
- This problem could occur, if the ECU is disconnected while the measurement is started. The problem occurs in the case, that the message queue of ModasSport never get's empty.
- Large tables caused very high cpu usage and were the reason why the message queue never got empty. The update interval of curves / tables was set to 250 ms.

OPL993: ModasSport crashes after some time, because of GDI resource problems
- After ModasSport is executing a longer time, allocation of GDI resources failed because of a resource leak in ModasSport.
- Because the resource leak increased faster while switching between On/Offline and certain other actions, the the system notification and the following crash occurred often while these actions were executed.

OPL986: ModasSport didn't show any macros, Import of macro files possible in Macro Manager
- ModasSport didn't show any macros, if at least one macro is invalid because of an unknown label name or a not existing sub macro. This could happen especially, if macros were copied from a different project or labels were removed from one A2L file to the other.
  In this case the macros were probably shown for one work base, but not for another work base.
- A new feature was added to the Macro Manager to import macro files into the current project environment.
- Before the user could copy single macro files of a project into the macro folder of another project, but the added macros weren't available until the project is loaded for new (e.g. by changing the workbase).

OPL985: Copy/Paste actions grayed, if they are not available/possible
- The Copy action is only available, if cells of the current data grid (e.g. map or curves) are selected.
- The Paste action is only available, if the system clipboard contains text and cells of the current data grid are selected.

OPL981: DataManager show differences after "copy to work page" operation
- If the user executed a compare operation after copying data to the work page of the current work base, the data manager still compares the work page prior to the copy operation because the internal data manager structures weren't updated after the copy operation.
  Now ModasSport reloads the destination data after a copy operation and will show correct compare results.

OPL976: Installer changed naming of ModasSport links
- The naming of the links created in the program menu and on the desktop was changed. The name of the links corresponds to the installation folder and not to the application version.

OPL937: The FlashTool was added to the "Tools" category
- A button to start the flash tool is added to the "Tools" category.

OPL906: The need of a Seed'n'Key DLL is given by the A2L content

- Previously the need of a Seed'n'Key DLL was hard coded in ModasSport. Now the decision about the need of a Seed'n'Key DLL is based on the SEED_KEY keyword in the A2L file.
- The decision can be overridden by the mxeculist.xml. The ECU tag can contain the attribute "SEED2KEY" with the values "YES", "NO" or "AUTO" (default). If the value is "YES" or "NO" the A2L decision about the need of a Seed'n'Key DLL is overridden.
- Because of compatibility issues concerning several ECUs in the world (and their A2L files), the need of a Seed'n'Key DLL is still hardcoded for these ECUs:
    - MS 3.X
    - MS 4.X
    - MS 16
    - ESIB (using KWP protocol)

OPL898: ModasSport saves backup data to prevent data loss

- After changing current work/reference page data ModasSport saves the data to a backup file.
  Note: ModasSport saves the data with delay of 100ms after the last change.
- After changing some control on a worksheet, ModasSport saves the current workfolder to a backup file.
  Note: ModasSport saves the workfolder with delay of 1000ms after the last change.
- If ModasSport is closed in an unexpected way (e.hg. crash or killing the task using the task manager) and restarted, ModasSport finds the backup data and ask the user to continue with the backup data/settings.

OPL889: Text of measurement array elements changes

- The description of elements of one-dimensional measurement arrays showed a wrong element index (numbering was in a step of two).

OPL796: Up/Down indicator shown in row header of group axis / curve labels

- The Up/Down indicator was shown in the row header of group axis / curve labels.

OPL757: Assignment of "Axis Point" labels to functions didn't work

- If "Axis Point" labels were assigned to a A2L function within the keywords "DEF_CHARACTERISTIC" or "REF_CHARACTERISTIC", ModasSport didn't show these axis point labels, if the function is selected.
- Note: Because the bug was in the A2L parser, the fix only works for new work bases.

ModasSport v1.04.008
14.08.2009

OPL984: ModasSport hanged, if the user switch the active worksheet while a work/reference page up/download is active

- ModasSport hanged, if the user changes the active worksheet while an up/download action is executed.

OPL983: Label cannot be measured because of "Meas. list full".

- After loading a work folder it could happen, that ModasSport showed "Meas. list full" for a measurement label even if there are not many labels on the screen. This could happen, if label configuration in the work folder uses a measurement rate, which is not provided by the ecu (-> current A2L file).
  Now ModasSport assigns the label to the last, not full measurement rate, which is defined by the A2L file.

OPL982: Adjusting the selected cells of a grid view with potiboard not possible

- The user couldn't adjust the selected values of a grid view with the potiboard.

OPL979: Division by zero caused crash after user changed font size of a grid view

- ModasSport can crash because of a division by zero, if the user changes the font size of a grid view while only the most right column is visible.

OPL979: ModasSport may crash, if a labels alert is/gets active

- To reproduce the issue the following steps have to be executed by the user. When the measurement is started is not important to reproduce the error, but it has to run otherwise the label alert will become active.

1. Some time ago the user <u>moved</u> the label from one measurement view to another.
2. The measurement view is closed by the user or because all labels were moved to another window.
3. The label alert is active or gets active.
4. Crash of ModasSport

OPL977: User can select a cell range by click with left mouse button and pressing the shift key
- ModasSport supports the selection of a cell range by selecting the first cell (-> top left cell) and – after holding down the shift key - selecting the second cell (-> bottom right cell).
  This works in the measurement and the grid view.

OPL973: Comment of active project / work base can be edited
- ModasSport didn't save changes of comment fields for the active project or work base. Changing the comment field was only possible for the inactive projects / work bases.

OPL972: Input of numeric values works with current locale settings of windows
- ModasSport uses strictly the locale settings of the operating system. User input or pasting data via clipboard has to be formatted correctly corresponding to the current locale settings. E.g. the used decimal comma has to match the locale settings.
  E.g. a german computer used a decimal comma: If data is entered with a decimal dot, the input will be truncated. The same is true for US English computers: Data entered with a decimal comma will be truncated !

OPL970: EPK is validated, if a new workbase is created in project manager or a hex file is loaded to the work page
- The EPK value wasn't checked for all ECU types (but for certain types), if a new workbase is created in the project manager. Now EPK is validated for ALL ECU types. The EPK validation succeeds, if following conditions are met:
  - The EPK address in the A2L file is not zero.
  - The EPK string in the A2L file is not empty.
  - The HEX-file contains the EPK string at the specified address.

OPL969: DataManager doesn't copy Ascii-Labels from a DCM source.
- If the DataManager is used to copy ASCII labels from a DCM source to a work page / hex file, the values aren't copied, if the unit checking is enabled and the destination label has a not empty unit. Instead the copy action fails and is documented as failed in the html protocol.
- Now the units are never validated for ASCII-labels. Therefore ASCII labels will always be copied.

OPL968: Duplicated entries in verbal conversion tables were discarded
- If a verbal conversion table of an A2L file contains duplicated value entries (two entries with the same value but different text), ModasSport discarded the duplicated entry. This was not good in case, that the DataManager failed copying values, if the source value is the discarded verbal conversion text.
  Now ModasSport reads even value/key pairs with the same value. The user can select or copy both of the keys, but ModasSport will always display only one of value/key pairs.

OPL930: Entries of verbal conversion tables are sorted alphabetically in combo boxes
- If the user edits a cell with a verbal conversion table, the combo box is filled with the entries sorted alphabetically.

ModasSport v1.04.007
29.07.2009

OPL967: Screen isn't refreshed properly after opening an empty work folder
- If a work folder with a single, empty work sheet is opened, ModasSport didn't refresh the screen properly. Instead parts of the project manager are left, until the ModasSport windows is resized or label window is created (by dropping a label in the worksheet area or the label context menu).

OPL966: Data corruption after pasting data into a characteristic table
- If data is pasted into a characteristic map/curve data corruption of other labels can occur, if the pasted data contains more cells than the map/curve provide (beginning with the top left cell of the selection).

This is because, ModasSport didn't validate the cell indices and the paste method doesn't check, if the destination table is big enough to hold the data.

Now, pasting / changing data of invalid cells (-> cells with an invalid row/column index) is discarded by the low level routines of characteristic maps, curves and axis points.

OPL965: Windows of labels added to a work sheet don't appear

- If the user created a new work folder (or after opening a new project for the first time) and added labels to the first worksheet, the corresponding windows weren't shown but listed in the "available windows" list. After adding a second work sheet and switching back to the first or saving / loading the work folder, the missing windows appeared.

  This behavior occurred because the work sheet was not marked as "loaded" after a new work folder was created. Now the behavior should be as expected.

OPL529: Selection of file type, if data is saved into a file

- If the user wants to export data into a file, ModasSport defaults to the file type (Hex / S19) of the data file used to create the workbase.

  In previous version of ModasSport the decision was made based on the integer byte order used by the ecu (Intel-CPUs with LSB order -> Hex-File, Motorola CPUs with MSB order -> S19 file)

ModasSport v1.04.006
27.07.2009

OPL963: Crash after ModasSport tried to download more data to ECU than allowed

- The reported crash was created, because ModasSport was downloading more data to the ecu as requested. This caused the crash, because ModasSport tried to access non allocated memory.

OPL961: Editing the value of a y-axis breakpoint changed the last x-axis breakpoint

- If the user applies a change to a y-axis breakpoint, ModasSport put the hex value into the last breakpoint of the x-axis.

OPL958: ModasSport retried to connect endless, if retrieving the checksums failed

- If an ECU is connected to ModasSport, ModasSport retrieves the checksums for the working and reference pages from the ECU to determine, if the data on the computer and ECU are consistent. If the retrieval failed due to communication problems, ModasSport tried to reconnect endless every 2 seconds and displayed a message box to notify the user, that the checksums can't be retrieved.
- Because this error normally cannot be resolved by reconnecting, because the conflict is a mismatch of ECU type or firmware/data version, ModasSport doesn't try this anymore. Instead ModasSport tells the user to disconnect the cable to the ecu. After the cable is reconnected, ModasSport will try to establish a connection.

OPL955: Scrolling windows only affects windows of current worksheet

- If the user scrolled the windows using the MDI scrollbars, all windows were moved – even, if they belonged to the inactive worksheets. Depending on the previous activation of the other worksheets, the positions of the windows were changed and appear at "strange" positions, if the worksheet is activated.
- Now scrolling only affects the windows of the current worksheet and the other window positions are preserved.

ModasSport v1.04.005
18.07.2009

OPL954: "Write data to ECU" was always disabled

- Accidently the command "Write data to ECU" was always disabled.

OPL953: ModasSport uses only "Extended Linear Address Records" in HEX-files

- If ModasSport exports data in HEX files, only "Extended Linear Address Records" are used for addressing the data. This was done due to different interpretation possibilities of the HEX file format descriptions.

OPL952: Hotkeys processed while editing a value

- If the user enters the mode to edit a value, ModasSport still processes all hotkeys. Especially the DELETE key didn't delete the selected text but removed the label from the view. Now processing the windows hotkeys is disabled while the user is in edit mode.
- The windows default hotkeys for copy text from and paste text into a textbox are now available.

OPL951: Possible crash, if LevelX-DLL hangs while CCP communication is stopping

- If the communication is stopped by the user, ModasSport terminates the CCP communication and unloads the LevelX-DLL.
  In the current issue, ModasSport killed the CCP communication threads, because the LevelX-DLL was hanging (didn't return in time), and unloaded the LevelX-DLL. After the user disconnected the MSA-Box the windows API function called by the LevelX DLL returned, but crashed ModasSport because the code of the LevelX DLL was unloaded caused.
- Now ModasSport is waiting infinite for the CCP threads to shutdown (even, if LevelX API hangs) to prevent the crash.
- Nevertheless, the reason, why the LevelX DLL sometimes hangs, is still unknown.

OPL948: Restore to reference page value for labels with tabular conversion didn't work

- Nothing happened, If the user tried to restore the value of a characteristic label with a tabular conversion to the value of the reference page: ModasSport retrieved the current value from the work page instead of the reference page.

OPL944: Download data to MS15 uses modified algorithm

- The download algorithm for MS15 ECUs is modified to prevent temporary data/pointer corruption, while writing data to the ECU. Especially if pointers were not updated within a single write call, an unrecoverable crash of the MS15 was possible.

OPL904/915: Improved performance in characteristic table view

- If the user modifies several cells at once (via Edit/Set, Edit/Add, Paste, Restore, … functions) ModasSport chooses the algorithm for writing the changes to the ECU depending on the number of effective changes and the overall size of the table.
- If two or more cells were modified in the past, ModasSport has always written the whole label data to the ECU. Now ModasSport writes only the changed cells to the ECU as long as less than 30% of the cells are changed.

OPL892: After deleting the last worksheet an empty worksheet is creates

- If the user deletes the last worksheet of a work folder, a new empty worksheet is added by ModasSport. The original crash of this issue was already solved with implementation of the Office 2007 Ribbon UI.

OPL758: After a successful copying of work page to reference page no error message appears

- If the copying of the work page data to reference page data was successfully finished ModasSport displayed a error message box with. Now the successful copy is logged in the log window and no error message is displayed.

OPL706: "Set Value" function shows value of x-/y-axis but changes field values

- If the user clicks on a row / column header, ModasSport selects all cells of the clicked row/column. If the user wants to set the value of the selected cells (e.g. by press '=' key), ModasSport opens a dialog to enter the desired value. By default ModasSport normally sets the value of the current selected cell. In this case, ModasSport uses the value of the clicked row/column header and afterwards changes all selected cell to this value.
- ModasSport now always shows the value of a selected cell. If the focused cell is not selected – as in the case described above – the value of the first selected cell is used.
- Note about a side effect: To use the hotkeys for set, reset, increment, decrement, … the user has to select a row/column and afterwards to move the focused cell with the keys (left,right,up,down). If doing so, the row/column header cell is focused/selected and the change value functions affect this cell.

OPL372: Logged text after successful loading LevelX Dll, doesn't show the used DLL name

- The text written to the log window doesn't contain the file path of the successfully loaded LevelX dll.

ModasSport v1.04.004
10.07.2009

OPL944: DataManager limits values of type "ULONG" to max(LONG)
- If data manager copied label values of type ULONG, the values were limited to MAX(LONG) instead of MAX(ULONG).

OPL938/931: Hot keys "N" (decrement), "M" (increment) and "Ctrl+R" (restore) are shown in context menus
- The hot keys for decrement , increment and restore value are shown in the context menu.

OPL932/946: Changing the label in characteristic grid window can cause crash "division by zero"
- If the user changes the label in a characteristic grid view, ModasSport could crash because of a "division by zero", if the grid is scrolled to the right.

OPL929: Sometimes the window position were lost when saving a work folder
- If the user saves a work folder, it could happen, that ModasSport didn't save the position and size of windows, if the user didn't activate a sheet at least once after loading the work folder.

OPL928: The ribbons quick access toolbar is supported
- The user can add commands to the "quick access toolbar" of the ribbon. To do this, the user can right click on a ribbon button and attach it to the quick access toolbar.

OPL919: Some file dialogs didn't show file types because of duplicated, but incomplete, text resources
- Some file dialog didn't show the file type filters, because of duplicated, but incomplete, text resources. Especially the "Save as" dialog of hex/s19 data files was affected.
  Due to the missing file types, the "Save as" dialog appended a "xml" extension to the files, if the user didn't enter a file extension.

OPL804: ModasSport couldn't save work folder / work sheets after some time
- Because of an error in the LevelX-DLL, the LoadLibrary API of windows was corrupted and loading additional DLLs wasn't possible any more. This caused an error, most seen when saving a workfolder or worksheet, if ModasSport wanted to write a file using XML syntax, because the XML API couldn't be loaded.
  The problem only occurred, if ModasSport is used without an attached MSA-Box. In this scenario ModasSport unloaded and reloaded the LevelX-DLL after a couple of seconds. After > 1000 unload/reload cycles the LevelX-DLL caused an internal error and ended up in the corruption of the LoadLibrary windows API.

ModasSport v1.04.003
02.07.2009

OPL926: ModasSport crashed, if flash tool is started in the project manager
- If the flash tool is started while the project manager is active, ModasSport crashed, because a helper routing for updating the ribbon didn't validate, if the control to be updated is available.

OPL925: ModasSport can deadlock, if user stops a loop macro
- If the user stopped a loop macro while a sub macro is executing and the sub macro has a stop notification set, ModasSport wasn't responding anymore.

OPL924: Measurement wasn't started, if a label got an invalid sample rate.
- If a label is configured to use a sampling rate, which is not available with the current project, the measurement wasn't started. Now, Invalid settings are detected and replaced by valid settings (-> label defaults or ModasSport default behavior)

OPL924: Measurement is not restarting properly after reconnecting ECU

- If the ECU is disconnected while the measurement is running, the measurement didn't restart after the ECU connection was reestablished. This was caused, because the measurement windows didn't receive an internal message to enable screen updating.

OPL923: Measurement values were displayed even no measurement is running

- ModasSport showed measurement values while measurement is not running. Now ModasSport clears measurement label fields as soon as the measurement is stopped.

OPL922: Accept new name for worksheet after mouse click outside of edit control

- A click outside of the edit control while renaming a worksheet will accept the new worksheet name.

ModasSport v1.04.002
08.06.2009

OPL920: Crash, if ModasSport is closed while a measurement with monitoring labels is running

- ModasSport crashes, if the user closes ModasSport under following conditions:
  1. A ECU is online
  2. Measurement is running
  3. At least one label is monitored on the active worksheet
- The monitoring settings are only available, if a measurement label is selected.

OPL918: Removing a project in the project manager now available

- Instead of deleting a project (and it's file) from the project manager, it's now possible to simply remove a project. Because the project files are not deleted, the existing project can be added later again.

OPL917: Invalid folder name characters in project name

- An issue was reported, where the message "Saving the work base failed" appeared, which seems to occur only, if the work base file creation on the computer didn't succeed.
  The only possibility to reproduce the error was the use of invalid characters in the project name, which is used as a component of the project folder.
  A check for the correctness of the project name was added and the logging during work base creation was improved to investigate such problems in the future.

OPL916: The label combo box of a map/curve window closes automatically

- If the user clicks on the drop down button of the label selection combo box in a characteristic curve/map window, the combo box is opened and immediately closed if the window is activated by the same action. This behavior is fixed: The mouse click first activates the window and subsequently opens the drop down list.

OPL913: Missing support of 32-Bit float values as x-axis

- Several functions and methods didn't support the use of 32 float values. Especially the use of float as data type for x- / y-axis values wasn't supported correctly. This is the reason, why an monotony error was displayed by ModasSport.
- The label info dialog displayed the wrong computation method for x- / y-axis of curves and maps. Instead of showing the computation method of the axis description, the computation method of the assigned measurement label was shown.
  In the reported issue, the computation method for the axis was different from the measurement label:
  The measurement label is recorded as an integer value while the axis values were floats.

OPL914: In certain cases the number format of a label could get lost.

- This problem couldn't be reproduced fully as described but loosing the decimal precision could be lost, if the user clears the number decimals field and applied the change to the selected labels.
  Setting the number format was implemented in a way that it's not possible to lose either number length or number decimals.

OPL912: ModasSport applied property changes to the label, which is selected after an action

- If the user changed a label property using the ribbon bar and then selects another label, it could happen that the same change is applied to the selected label.
  The behavior war reproducible:
    1. The user changes a label property and the input focus stays in the ribbon bar (e.g. the user presses the spin buttons of the number decimals)
    2. The user selects another label in the same measurement window.
    3. The change in 1) is also applied to the label in 2)
- Because it was necessary for the bug fix, a behavior improvement was also implemented:
  After adding one/more labels to a measurement window, the added labels are selected for further property changes.

OPL911: The grid control is not redrawing cells correctly

- If a grid control need to redraw a single cell, the refresh is not working correctly, if the grid control doesn't have fixed column and row headers.
  This is true for the measurement window and the cause, why the cell isn't redrawn after the user changed a monitoring setting.

OPL909: The root node in project manager renamed

- The root node in the project manager is renamed to "Bosch Motorsport Projects"

OPL908: The default path for new projects can be preset in modassport.ini

- The default path for new projects in ModasSport can be preset in the "modassport.ini" file. The corresponsing entry is:

  [MODAS EXPERT CLIENT]
  DefaultProjectFolder =<RelativePath>

  Note: The path can be set as relative path to the ModasSport application folder. E.g. ModasSport is installed in "C:\Bosch\ModasSport" and the path in ModasSport.ini is "..\Data\ModasSport". The default project folder will resolve to "C:\Bosch\Data\ModasSport".

OPL907: Switching the number format not possible after window creation

- After creating a new window changing the number format of a label was not possible. E.g. after opening a workbase, loading a workfolder or adding a label to a sheet.

OPL905: The different labels count showed sometime wrong values

- The difference count sometimes didn't show the correct count of different labels, if the count got invalid because of some reason. Because the different labels are saved to the work base file, even after loading the work base the error wasn't fixed.
  ModasSport now recalculates the difference count after loading a work base.

The ribbon category "Page Preview" was visible instead of "Project Manager"

- On some computers the category "Page Preview" was shown instead of the category "Project Manager", if the user opened the project manager (or after ModasSport is started).

ModasSport v1.04.001
02.06.2009

New UI with Ribbon technology

- The UI of ModasSport is redesigned using the Microsoft Office 2007 UI technology.
- Instead of a menu, ModasSport uses the ribbon technology.
- The tool windows can be docked to any side of ModasSport.
- A lot of other features were added, which aren't listed in this changelog (except of the most important)

OPL 458/459 Windows snap to grid / snap to other windows

- For an easy layout of work sheets, windows (labels, arrays/maps, oscilloscope) can snap to a virtual grid or to other windows.

OPL 696 ModasSport supports monitoring and alerting of measurement labels
- The user can set monitoring values for measurement labels. If a measurement value exceeds the set limits, the label will flash in the desired color.

OPL716 ECU can be disconnected / connected manually
- The user can disconnect/reconnect the ECU from ModasSport by clicking on the connection status button.

Modas OPL306: Up-/Download work page to/from PC fails on KWP ECUs
- ModasSport fails up/downloading the work page to/from the computer, if the K-Line baud rate is very low (e.g. 10 kbit), because the time to transmit the data between ECU and PC takes more time as the command timeout used by ModasSport.
- ModasSport was modified to take the number of bytes in account, if the timeout is calculated.

Modas OPL305: ModasSport established connection to PIN protected MS3.1
- ModasSport established a connection to PIN protected MS3.1 ECUs.
- Because the connection was established, ModasSport displayed the current measurement and characteristic values. Changing characteristic values was possible on the screen but weren't applied to the ECU – thus adjusting was still not possible.
- Now ModasSport shows a status bar message, that the connection was denied by the ECU, if starting the diagnostic session fails.

ModasSport v1.03.007
02.04.2009

OPL887: Recording is not changing byte order of DLS bases ECUs
- The data recording function was not changing the byte order on DLS based systems (Motorola integer format). This caused WinDarab, that such recorded files didn't show the correct values.
- The current version of the data recording library is used. This library creates WinDarab files, which are compatible with WinDarab version before v6.23.001.

OPL881: Data Manager always gets the breakpoint values of group axis from the work page
- The data manager retrieved the breakpoint values for group axis from the work page, if the data manager prepares the data of curves or maps – even if the user selected the reference page of a work base.
- An example is the comparison between the work / reference page, after the group axis break points were changed in the work base. The comparison result showed the group axis as different, but the break points inside the maps using the group axis didn't show any differences.

ModasSport v1.03.006
28.01.2009

OPL858: DataManager copy operation changes characteristic values
- Sometimes the values of used group axis weren't copied correctly. The issue occurred only randomly depending on the content of a memory locations, which wasn't initialized by ModasSport.
- If the user tried to copy a single group axis without curves/maps using the axis, the copy process didn't had any effect.

OPL792: ModasSport remembers recently used files of the data manager in the project file
- The files used in the data manager are saved in the project file.
  Note: Project files created/modified with this version of ModasSport cannot be read by previous versions.

ModasSport v1.03.005
27.01.2009

OPL858: DataManager copy operation changes characteristic values
- If the data manager copies very large integer values from source to destination, the values have been changed due to some implementation issues.
- All unsigned integers greater as 0x80000000 were affected. These values were limited to 0x80000000.
- Integer values with more than 7 decimal digits were changed due to precision limitations of the 32bit floating point data type, which was used to transfer data from the source to the destination characteristic.

OPL855: Setting in the characteristic data grid were not saved in workfolder/worksheet files
- The settings of a characteristics data grid were not saved in workfolder/worksheet files. After closing ModasSport or changing the project/workbase ModasSport always used the settings defined by the A2L file.

ModasSport v1.03.004
23.01.2009

OPL857: Changing value arrays with verbal values not possible
- Changing values of a characteristic array wasn't possible in the characteristic data grid. The dropdown list wasn't positioned correctly an also caused crashed, if the user still tried to use them.

OPL854: Display of current source filenames in DataManager dialog
- The line break of the label controls was disabled and end ellipses are added, if the filename is too long to be fully shown.

OPL852: DataManager didn't load a dataset, after the users pressed ok in the load dataset dialog
- If the user opens the "select source" dialog and closes with ok but without doing any changes, the DataManager is not reloading the dataset from hard disk, because the current dataset in memory is assumed to be the same.
  This was also true, if no dataset is in memory and only defaults are shown in the "select soure" dialog. In consequence the dataset wasn't loaded.
- Now DataManager loads the dataset, if the "select source" dialog is closed with ok.

OPL815: Importing verbal values from PAR-file failed, if values contain space characters
- If verbal values are imported from a parameter file and the values contain space characters, the import failed / the values were not imported correctly.

ModasSport v1.03.003
21.01.2009

DataManager: Exporting data to a hex file causes crashed or corrupted hex files (OPL 848/848)
- If the data manager was used to create hex files, ModasSport could crash or created corrupted/incorrect hex files, because memory corruption while preparing the output file.

ModasSport v1.03.002 couldn't read existing projects (OPL 847)
- Because of a change in the project file format in v1.03.002 without changing the file version number, it wasn't possible to open older project files. (ModasSport was never shipped).

If the potiboard dialog was opened, the "working point" setting has been discarded (OPL 845)
- If the potiboard dialog was opened, ModasSport sometimes replaced the setting "working point" by "selected cell" for characteristic maps/curves. This happens, if the "working point" is currently not available because the measurement is not running or the label is not visible.

Sometimes flashing a MS4.3 ecu didn't succeed (OPL 844)
- Sometimes the flashing of an MS4.3 ecu didn't succeed because ModasSport was using a fixed transfer buffer size instead of using the size given by the CNF file. ModasSport now used

the size given by the CNF file.
Note: The value has to be between 16 and 220 bytes due to limitations of the KWP/LevelX protocols.

Message text changed, if the user tries to assign a poti multiplicator outside 1< f <=2 (OPL 842)
- The message text was changed to emphasize, that the multiplier "1" isn't a valid option.

Recorded data files seemed to be empty, if they are opened in WinDarab (OPL 837)
- Because of an incorrect version of the library, which is used by ModasSport to create WinDarab files, the quantisation rate of the measure labels was set to 0 and WinDarab showed all labels to be zero instead of the actual values.
This error occurred only in environments, where the point is not uses as the decimal comma.

Reconnecting to ECU after a reset sometimes failed using KWP (OPL 836)
- If the ecu was reset (e.g. due to saving the working page to the reference page), ModasSport couldn't reconnect to the ecu because of an error while unlocking it. The problem should be fixed after the command order and timeouts for reconnecting were changed.

ModasSport crashed, if an invalid/corrupted HEX file is loaded to the working page (OPL 832)
- If the user selects an invalid/corrupted HEX file to be loaded to the working page, ModasSport could crash.

ModasSport may hang, if label of table view is changed (OPL 818/841)
- If the current label of an table view is changed while measurement is running, ModasSport may hang because of a deadlock condition

ModasSport v1.03.002
15.01.2009

Flashtool crashed, if the user wants to select the HEX/Seed file (OPL 839)
- ModasSport crashed, if the user wants to select the Hex/Seed file in the flashtool dialog.

Default path for recording files set (OPL 838)
- If the recording dialog is opened the first time, the destination folder is initialized with the DATA folder of the current project.

Last used path for HEX files wasn't written to the project file (OPL 835)
- The path of the last used HEX file wasn't saved to the project file. Thus after loading a project file ModasSport always used the default path.

Sometimes incrementing/decrementing values doesn't work as expected (OPL 834)
- If the user wants to increment/decrement a value which has a descending monotony, the value always jumps to the upper/lower limit.

ModasSport crashed, if the last label is moved from an oscilloscope with to another (OPL 833)
- If the last label of an oscilloscope view is moved to another view, ModasSport could crash if the view is closed.

ModasSport v1.03.001
07.12.2008

ModasSport remembers recently used folders in project file (OPL 792)
- The latest folder used to open or save a file is stored in the project file. ModasSport saves the folder for each file type separately (e.g. hex-files, workfolder/worksheet, A2L, DCM, PAR, …)

Labelsetting are saved in workfolder/worksheet files (OPL 653)
- Labelsettings like number format increment/decrement step size are saved in worksheet/workfolder files, but the latest assigned/loaded settings will be valid for all worksheets within the save workfolder.
- Labelsettings like measurement rate are saved in worksheet/workfolder files, nevertheless the values can be different on each worksheet of a workfolder.

ModasSport v1.02.008
28.11.2008

ModasSport writes textual values into PAR files (OPL 815)
- If a label has a textual value table, ModasSport writes the corresponding text into PAR-files instead of the numeric value.

KWP: Correct behaviour, if measurement list is full (OPL 800)
- If the user adds more measurement labels to a worksheet as possible, the additional labels are showing "meas. lists full". The text is shown as long as the label cannot be measured. As soon as it's possible to measure a label (e.g. after the user removed another label from the measurement) the text disappears and the measured value is shown.

Pasting data into table view shows a message box for each limit exceeding (OPL 759)
- If the user pastes data into a table view, but the values are exceeding the limits of the label, ModasSport showed for each exceeding a separate message box.
- Now ModasSport shows only one message for the first occurrence of a soft limit or a hard limit exceeding.

Potiboard dialog: Settings were not validated immediately (OPL 655)
- Changes of the potiboard configuration were not validated immediately.
- The behavior of the in-place controls was improved to support forcing the user in a cell until the value is valid or changes were discarded.
- If the user selects a label, a corresponding effect is automatically selected.
- If the user changes the adjustment type to "Multiply", the factor field is cleared and the user is forced to enter a value.

Potiboard is not switching the worksheet after a label was deleted from one sheet (OPL 759)
- If the user deleted a label from the first worksheet, ModasSport didn't change to the next sheet, which contains the label, which is adjusted with the potiboard.
  This was because, ModasSport was first checking opened windows to find the label and, because not all windows are created immediately on startup, in the loaded configuration. In case that a label is deleted, the label disappeared from the screen, but was still enumerated in the loaded configuration. Now ModasSport checks the configuration only, if the corresponding worksheet is/was not created yet.

ModasSport v1.02.007
27.11.2008

DataManager crashes, if the user tries to export labels to DCM files (OPL 811/812/822/831/840)
- The crash occurred only, if the user used a function filter when selecting the labels which should be exported into the DCM file.
  To reproduce the error, the following steps are necessary:
  - Opens the dialog to select the labels, which should be exported.
  - Remove all labels from the "selected" list.
  - Select a function filter
  - Add one or more labels from the label list into the "selected" list.
  - Press Ok.
  - List the labels into a DCM file -> Crash.

Endless loop, if data grid window is too small (OPL 810)
- If the user resizes a data grid window so that it's not possible to make a cell completely visible, ModasSport hangs, because ModasSport didn't detect, that the cell is too big.
- The problem can be reproduced, if the width of the cells is very wide and afterwards the window is set smaller. If the measurement is running ModasSport tries to show the current working point cell, but because it cannot be completely visible ModasSport hangs.

ModasSport crashed, if a value label is added to a table view (OPL 806)
- If the user tries to drop a value label into a table view, it could happen that ModasSport accepted this operation.

It's not reproducible, how the user is able to drop a value label into a table view, because this is checked/prohibited in the Drag'n'Drop operation.
But because the user could drop the label, ModasSport assumed that the drop destination is a measurement view. This caused an invalid type cast of the window and ended up in a crash of ModasSport.
ModasSport now verifies the drop operation by checking again, if the label can be dropped into the selected window.

ModasSport hangs, if certain CCP communication errors occur (OPL805)
▪ If CRC_CLASS_C2 or CRC_CLASS_C3 errors occur while up-/downloading data to the ecu using the CCP protocol, ModasSport tries to repeat the command. Because these errors cannot be recovered by repeating the command, the commands will fail forever and ModasSport hangs.

Workfolder cannot be saved (OPL805)
▪ The problem couldn't be reproduced yet, but additional error messages were added to get a better hint, which issue causes the error.

ModasSport crashed/hangs, if the connection to the Ecu is lost (OPL799)
▪ The LevelX-Controller is waiting endless for some response by the Ecu, if the connection is lost after sending a request to the Ecu.
▪ The UI-Thread hangs, because it want to reestablish the connection by sending initialization requests to the LevelX-Controller and Ecu, but has to wait for the LevelX-controller to be ready.
▪ A similar problem occurred, if the user launches the flash tool while the connection to the Ecu is in the "Unlock ecu" state. Because of launching the flash tool the communication to the Ecu is stopped by the UI-Thread. If at this moment the Ecu Thread is unlocking the Ecu, the thread is waiting for a request response, which will never arrive, because the communication thread is stopped.

ModasSport crashed sometimes, if a label is removed from a view (OPL790/787/794/821)
▪ If a label is removed from a view, ModasSport may crash, because of accessing structures after they were freed. Depending on the affected view the crash occurred only in certain situations:
  • If the user removes the last label of an oscilloscope view by pressing the "Delete" key.
  • If the user removed a label using the label context menu, while its value is edited currently.
▪ If the current value of a label is in edit mode and the user opens the context menu of the label, the edit mode is immediately canceled.

HotKey "=" ("Set Value") for labels with verbal value maps implemented (OPL781)
▪ If the user presses the "=" key (command Edit/Set value) to assign a value to one or more cells of a table view showing a label, which is using a verbal value map, ModasSport show a new dialog with a drop down list containing the defined verbal values instead of the previous value which contained the current numeric value.

Support of "Parameter Operating Panel" (POP / poti board) added (OPL 655)
▪ ModasSport supports the use of the "Parameter Operating Panel" (POP / poti board).
▪ Up to 16 POPs can be linked together and connected to the computer using the serial interface.
▪ A POP has four potentiometers which can be assigned to any characteristic label.
▪ Value can be adjusted by increment/decrement of a multiple of the labels increment step size or by multiplying/dividing the current value with a given factor.
▪ If a label is adjusted by multiplying/division but the value is too small, so that the relative adjustment is smaller as the labels increment step, ModasSport is incrementing/decrementing the value by a single step.
▪ If the label of a potentiometer is currently not visible (e.g. on a different worksheet), the potentiometer is locked. Before adjusting a value, the potentiometer is first unlocked and ModasSport is switching to the affected label. After a small timeout the potentiometer can be used to adjust the value.
▪ Characteristic values support a simple adjustment which can be switch On/Off, Characeristic maps and curves support adjustment Off, "selected cells" and "working point cells". The user can switch between the operation modes by pressing the potentiometer button.

- The up/down keys can be used to increment/decrement (multiply/divide) the current value. If the keys are pressed, ModasSport is doing the first increment/decrement. After 500ms ModasSport starts to repeat the increment/decrement and will accelerate the increment/decrement as long as the key is pressed (using three different increment speeds)

ModasSport v1.02.005
23.10.2008

Increment/decrement of label with descending monotony fixed (OPL 782)
- If the user increments/decrements a label the physical values was not incremented / decremented as expected, if the label used a conversion function with a descending monotony.

ModasSport hangs, if a label with verbal value table is in-/decremented outside its valid range (OPL 780)
- ModasSport hangs, if a label with verbal value table is adjusted using the increment / decrement function and the resulting value would be outside of the valid range.

Combobox to select a value for curves/maps isn't shown in offline mode (OPL 779)
- If the user wants to adjust a cell of a curve/map, which is using a verbal value table, a textbox was shown instead of the combo box containing the possible values.
  The combo box was shown as soon as the user adjusted the value by using the increment/decrement function or the ECU was online.

Trailing "f" behind values in curves maps (OPL 778)
- Because of a value formatting issue a duplicated "f" was added to a number format causing the formatter to append an "f" to all values in a grid and later the incorrect format was saved as a user defined format.
  Because the problem was introduced by OPL 653 in the previous version, this version of ModasSport doesn't have code to fix the invalid user defined formats. This means, that the user – as far as someone has the problem – has to remove the trailing "f" by his own. Simply remove the "f" in the decimals field of the label settings, which can be accessed by the context menu of a label.

ModasSport crashs if menu is opened but no project is opened (OPL 777)
- ModasSport crashs, if the user closes the project manager without opening any project and then opens some items of the menu in the main view. The crash occurred, because the state of some menu items is updated accordingly to the state of the current project, which is not available.

MS3/MS4 checksum check succeeds even the ECU pages and PC pages are different (OPL 769)
- Due to older MS3.1 ECUs there was some code in ModasSport, which limited the checksum validation to a part of the address space of workpage/reference page data.
  Because other ECUs like MS3 Sport or MS4 are almost equal to the MS3.1 ModasSport used the same application code with the MS3.1 specific code.
  This caused that differences between ECU and PC work/reference page were not detected. Instead ModasSport told the user, that the pages are synchronized successfully.
  The special handling of the older MS3.1 ECU is now used only in the case the workbase belongs to a MS3.1 ECU.

ModasSport v1.02.004
20.10.2008

Characteristic values are not recorded anymore (OPL 776)
- The feature to record characteristic values was removed.

ModasSport needs the filename for recording before recording is started (OPL 775)
- Because ModasSport may stop a recording at any time (caused by user interaction like switching the current worksheet, adjusting a characteristic value of an inactive worksheet, lost connection to ECU), it's better to ask for the filename before starting a recording.
  This may be important, if the user needs full control while performing some action which causes a stop of the recording.

ModasSport may hang after stopping recording (OPL 774)
- If the user stops recording, ModasSport may hang because of a deadlock condition between the user interface and the recording thread.

Characteristic values are not recorded anymore (OPL 773)
- The feature to record characteristic values was removed.

ModasSport may hang, if the user changes the selection in a characteristic map/curve view (OPL 772)
- ModasSport may hang, if the user selected another map/curve in a view while the measurement is running, because of a deadlock condition between the user interface and the measurement thread.

Writing more setting to worksheet files (single files and in workfolder files) (OPL 653)
- Some additional label specific settings are stored in a worksheet file (also in the sheets of a workfolder file), e.g. number format, refresh rate settings, step increment value.
- Note: If a worksheet is loaded, label specific settings like number format, refresh rate and increment values will be changed to those of the loaded worksheet. This means that all other worksheet will use the same settings.

ModasSport v1.02.003
13.10.2008

Adjusting a characteristic with verbal value table using the combo box not possible while measurement is running (OPL 771)
- If the user tries to change the value of a characteristic while measurement is running was not possible, if the characteristics uses a verbal value translation table and the user tries to select one of the values using the combo box.

No values in PAR file using the parameter file manager (OPL 770)
- Accidently a formatting instruction was removed and Modas was writing the text ".21g" instead of the values into a PAR file.
  This happened only, if the parameter file manager is used to create the PAR file. The data manager wasn't affected.

Implementation of KWP2000 protocol improved (OPL 737)
- The implementation of the KWP 2000 protocol was reviewed and improved.
- Under normal operation conditions "Connection lost" shouldn't occur anymore.
- Establishing a connection is faster and more stable (especially on startup of ModasSport).

Difference count between work and reference page wasn't updated (OPL750)
- After changing a characteristic value the difference count between work and reference page wasn't updated.

Function to compare quickly current work page with reference page (OPL457)
- The different label count display was changed to a button. If the button is pressed, ModasSport will compare the current work page with the reference page and display the results as a HTML file.
  Actually ModasSport is using the compare operation offered by the data manager.

ModasSport may hang, if a characteristic is removed from a worksheet while measurement is running (internal test)
- ModasSport hanged, if the user is removing a characteristic value from a worksheet and new measurement data arrives at the same moment.

Measurement started after up/downloading data from/to the ecu (internal test)
- ModasSport automatically started the measurement after data is up-/downloaded from/to the ecu after there were differences between work/reference page between the ecu and the computer.

Start of recording crashes, if no characteristics are on the current worksheet (internal test)
- If the current worksheet doesn't contain at least one characteristic (one using an auto refresh and a second without auto refresh), ModasSport crashes when starting a recording.

ModasSport v1.02.002
29.09.2008

Resumption of measurement not working after switching current worksheet (OPL 765)
- If the user changes the current worksheet while measurement is running, the measurement manager was disordered because of multiple calls to start the new measurement.
The problem had more effect, if KWP communication protocol is used and the worksheet was selected the first time after loading the work folder.

ModasSport may hang, if a array/table view is minimized while measurement is running (OPL 763)
- If the user has a minimized view of a data grid (characteristic map/curve/axis points) and the measurement is running, ModasSport may stop responding.
To reproduce the problem additional conditions have to be met:
* There is no selected cell in the table (e.g. after opening a workfolder with such a minimized table view)
* A measurement is running and ModasSport wants to update the current working point.

Multiple changes of an axis point (non group axis) were not accepted (OPL 763)
- If the user is doing multiple changes of the same x-axis point only the first change was accepted but following changes were discarded.

Measurement values not updated immediately after changing number format (OPL 761)
- If the number format of measurement values was changed but measuring is not started, ModasSport didn't update the value display of the affected measurement labels.

ModasSport uses country settings of the operating system (OPL 760)
- ModasSport uses the country settings (locales) of the operating system. Mainly this affects the use of the corresponding decimal point (characters: point or comma, depending on the locales).
- All output of ModasSport – except written files – use the current locales of the operating system.
- All text files written (e.g. XML, PAR, DCM files) by ModasSport use the English locales as the invariant culture. This makes it possible, that files can be shared across different locale settings.
- Additionally DCM and PAR files contain all numbers with a full precision of up to 21 digits. This ensures reading the files will result in exactly the same values.

DataManager – PAR file parser
- The PAR-File parser was implemented like in the parameter file manager.

After saving the workfolder, minimized windows of all worksheet are visible on the current worksheet (OPL 756)
- After saving the current workfolder all minimized windows of all worksheets were visible on the current worksheet. This was caused, because ModasSport restored the windows to retrieve their current placement and afterwards minimized the windows but without hinding them. ModasSport now uses an different way to get the window placement, which is not causing the problem anymore.

Several fixes when updating/downloading AppRam labels (OPL 739)
- If an ECU is connected to ModasSport after the workbase has been loaded, AppRAM labels weren't updated by ModasSport. Instead ModasSport showed the latest known values.
An update was only issued, if the current worksheet was changed.
ModasSport now updates all AppRAM values as soon as the ECU is going online.
- If a parameter file containing AppRAM labels was downloaded to the work page, ModasSport didn't show any notification telling the user, that AppRAM labels cannot be downloaded as

long as no ECU is online.
ModasSport now shows a notification message, that AppRAM labels cannot be downloaded.

Crash, if saving a sheet to a file (OPL 704 - OPL 597/598/599)
▪ The crash documented by the MiniDumps was fixed in ModasSport v1.00.014.

Measurement button shows "Measurement stopped" but measurement is running (OPL 704)
▪ While switching the current worksheet the measurement is temporarily stopped and later restarted. But sometimes the restart didn't update the state of the measurement button to "Running".

ModasSport supports refreshing of adaptive characteristics (OPL 593)
▪ If a characteristic has a MAX_REFRESH entry in the A2L file, the values of this characteristic is updated frequently using the defined interval by MAX_REFRESH.

ModasSport v1.02.001
05.09.2008

Changes values of a group axis are not updated in data grids, if ECU is offline (OPL 752)
▪ If the user changes values of a group axis, the changes are not reflected in arrays/maps using this group axis, if the ECU is offline.

Crash of data manager, if a A2L contains labels with invalid references to COMPU_METHOD or RECORD_LAYOUT entries (OPL 751)
▪ If a A2L contained labels with invalid references to COMPU_METHOD or RECORD_LAYOUT entries, ModasSport crashed, if the user loaded a work base or A2L file into the data manager.
▪ ModasSport will skip such labels, if parsing the A2L file and writing some entry into the log files.
Actually the A2L file is corrupt, because the case should not occur.

Counting the different labels didn't work in offline mode (OPL 750)
▪ Updating the different label count was depended from a successful download of the changed values to the ECU. For sure the download failed, if no ECU is online, causing the different label count not to be updated.

Hotkey "Delete" in characteristics value and table view (OPL 747)
▪ The key "Delete" can be used to remove a label from characteristics value and table view. The hot key is disabled as long as a value is edited and therefore the key can be used to edit the current value.
▪ The hot key is shown in the context menus of all views.

Pasting data into an array/map took a long time (OPL 740)
▪ If data is pasted into a data grid, the paste operation takes a long time depending of the number of pasted values. The time was consumed because of an unnecessary flood of update messages for the whole table after the data were pasted.

Parameter file down-/upload didn't show, if it's finished but the last parameter file caused an error (OPL 738)
▪ If a parameter down-/upload was finished, but some error occurred while processing the last parameter file, the "Stop"-Button didn't get disabled and the "Finished"-Button enabled.

Crash / data corruption, if PAR file is downloaded to work page (OPL 738)
▪ ModasSport possibly crashes after uploading a PAR file contains characteristic curves. Because the cause of the crash is a memory corruption the crash occurs not immediately when downloading the PAR file but some time later (often reproducible if the same PAR file us downloaded twice).
▪ A data corruption could occur, if the PAR file contained axis, curves or maps using a descendant ordering of values within their structures. The problem occurs only, if the number of axis points is changed by the PAR file.
▪ Due to the problems above the PAR file loader of "Modas v3" was adopted to ModasSport.

Reconnection to MS 4.2 not working properly (OPL 703)
- Because of many changes in the past, this issue may be fixed. Actually we couldn't reproduce the problem.

Input focus and active window isn't changed, if the user switches to another worksheet (OPL 702)
- If the user switches the current worksheet, the windows of the previously selected worksheet are hidden and the windows of the new selected worksheet are shown. Nevertheless the input focus and active window is not updated correctly.
  If the user presses keys without clicking on a window first, the key presses are handled by the invisible previously active window. By this way even changing values in the hidden window was possible.

Hotkeys to change label values sometimes stop working, if measurement is active (OPL701/717)
- The hotkeys sometimes to change label values stop working, if a measurement is running. The problem occurs, if an array or map with horizontal or vertical scrollbars is on the current worksheet. If a data table in an inactive window scrolls because the working point would get out of the visible area, it's taking the input focus for the keyboard without activating it's window. If the user is pressing hot keys, they are not handled by the window he thinks of but by the other window, which is actually doing nothing because it's inactive.

German text translated (OPL 695)
- The German message text was translated to English.

Data Manager copied random values (OPL 691)
- Actually we couldn't reproduce the problem, maybe some code transferred from Modas v3 fixed the problem …

Hard links between project, work base files and other work base related files were removed (OPL 690)
- The hard links between project and work base files were removed. Now ModasSport offers all work base files stored in the project folder (-> the project file *.mxprj is located there).
- Paths to other folders/files like (A2L-file, Hex-file and Seed2Key-Dll) are stored as a relative path to the folder of the file containing the link (-> project file, work base files)
- With these changes complete project folders can be moved between different computers and folders as long as all relative links can be resolved.

Data of a worksheet can be recorded into a WinDarab file (OPL 685)
- If ModasSport is online and running a measurement, it's possible to record the labels displayed on the current worksheet into a WinDarab file.
- All measurement and characteristic labels can be recorded but not characteristic curves, maps and axis points.
- Measurement values are recorded as they are received from the ECU – thus using the measurement interval set by the user as far as it's possible depending on the ECU.
- All characteristic values are recorded as soon as one characteristic value is changed by the user – and at the beginning / the end of a recording.
- Appending wds:// to the destination folder will send the data to the WDServer for online display in WinDarab instead of recording into a WinDarab file. In this case WDServer will create a WinDarab file at the end of online recording/transmission.

Behaviour of "Create/Edit project" dialog changed (OPL 683)
- If the user creates a new main project, he has to select the folder, where the new project file has to be added. The project name will be the same as the selected folder.
  If the user changes the project after selecting a folder, the selected folder will be renamed.
- If the user creates a new sub project, the folder of the parent project will be used (and cannot be changed). The sub project name entered by the user will be appended to the parents project folder.
- If the user edits an existing project, the projects folder will be renamed according to the new project name.

Deleting a project doesn't delete unknown file types (OPL 647)

- If the user deleted a project from ModasSport, ModasSport will delete only files of known file types, which are normally created by ModasSport in their appreciate folders.
- ModasSport folders will be deleted only, if they are empty.
- If the project folder cannot be deleted (because it's not empty), ModasSport will show a message and inform the user, that he should delete the folder using Windows Explorer.

Possibility to create a new work base after uploading work/reference page data from Ecu (OPL 645)
- Before ModasSport uploads the data of work and reference page (Menu "Memory Management / Read data from Ecu (Upload)", the user has the possibility to enter a new work base name (or enter/change the work base comment).
- The user cannot overwrite any existing work but the current one.

Increasing/decreasing values with a verbal output is limited to the values with a valid verbal translation (OPL 596)
- If the user is increasing/ decreasing a label with the hot keys / context menu, the possible values of labels with a verbal translation table is limited to those having a corresponding verbal translation.

Restore value from reference page into work page (OPL 539)
- The user can easily restore values from reference page to the work page by pressing Ctrl+R or using the context menu of a label.
- If the label is an array or map, the restore is done for the all currently selected cells.

Flash tool accessible from project manager view (OPL 531)
- The flash tool can be opened in the project manager by "Tools / Flash tool" before opening a current project/work base.

Macros are saved in individual files (OPL 56)
- Each macro is saved in a separate file named like the macro.
- Invalid file name characters are not allowed in macro names anymore.
- The macros of the obsolete project macro file are converted into single files on opening the first work base of a project and then deleted.
  Invalid file name characters in the macro file name are replaced by an underscore, while the original macro name is kept.

ModasSport v1.01.002
22.08.2008

Colors of change indicator in maps / arrays swapped (OPL 32)
- The colors of the change indicators in the map/array controls were swapped.

Change indicators of characteristic values aren't updated immediately (OPL 744)
- If ModasSport is offline (no control unit is attached) then ModasSport is not updating the change indicators immediately after the user has changed a characteristic value.

Sometimes x-Axis values of maps/arrays couldn't be changed (OPL 743)
- If a table control (-> characteristic maps/arrays) is scrolled horizontally, it wasn't possible to change the values of the x-axis and ModasSport always displayed the "change column width" mouse cursor, if the mouse is above a column header.

ModasSport automatically selects the A2L file, if a new workbase is created (OPL745)
- If a new work base is created, ModasSport automatically selects the A2L file, if the project folder contains this file. The previous code only worked for SEED & HEX file, but not for the A2L file.

Crash, if ModasSport want to write to the log file while the application is not completly initialized (OPL713)
- This bug was introduced because of the added log file functionality (OPL 713) after the bug invalid address bug (OPL 712) was implemented.

The crash appears, if ModasSport tries to write something to the log file, while a specific object is not initialized yet. This object is created after the first project is opened.

ModasSport v1.01.001
07.08.2008

Change indicator of current workpage value and the current reference value (OPL 32)
- If the value of a characteristic label defers from the current value on the reference page, ModasSport displays an smaller/greater indicator to visualize the difference.

Compatibility check if downloading a PAR file removed (OPL 472)
- There was a feature implemented in PAR-files, which was used by ModasSport to verify the compatibility of PAR files with the current control unit. But if this information is missing in the PAR file (because it was created by Inca) ModasSport showed a compatibility check warning. Because the feature is special in ModasSport, it was removed. At least the compatibility check is done by availability of labels and their kind.

Warning message "Cannot copy work page on reference page" changed (OPL 483)
- ModasSport simply showed an error message, if copying the work page to the reference page returned an error. Mostly the cause is, that the engine is running and therefore blocking this operation. The message text of ModasSport was changed in a way, that it's telling the user about the possibility, that the error occurs because the engine is running.

Copy physical values in fields showing the value as hex (OPL 524)
- Actually we cannot reproduce this problem. It's working in both direction to copy a value through the clipboard.

Dragging a label from a window into a new window (OPL 600)
- If the user drags a label from an opened window into a new window by dropping the label on the client area of ModasSport, the new window is created and the position were the users dropped the label.
  Before the existing window was moved to the drop position and the new window with the dropped label was created at the previous position of the existing window.

Insertion of a label in a view may cause other labels to be inserted too (OPL 601)
- If a user tries to insert labels into a view, but the labels are not supported by ModasSport an error message was shown. If the user now tries to insert another label into a view ModasSport is doing this, but also inserting the previously denied labels.
  This error occurred, because ModasSport is not clearing the selected label list after a drag'n'drop operation failed.

Data Manager: Showing the selected work/reference page (OPL 604)
- Showing the selected page of a workbase was added to the main dialog of the data manager. Before only the name of the project and workbase was displayed.

Project Manager: Remembering the previously used folder for A2L and hex files (OPL 684)
- ModasSport remembers the folders of the A2L and Hex-files for each project. Because normally the users stores all A2L and hex files at the same location, this change reduces to time to navigate to the folders each time.
- After creating a project, the settings default to the folder of the project.

Log Window: All errors showed in the log window cause a message box (OPL 686)
- If ModasSport log an error in the logging window, ModasSport will also notify the user by showing a message box.

Name of Hex file in tool bar removed (OPL 687)
- The name of the latest downloaded Hex file was removed from the toolbar, because this information can confuse the user. Because the name is simply stored in the current work base, it not ensured, that this hex file is really on the control unit – it may be, that the characteristics on the control unit have been change using another work base.

Support of MS3 using CCP (OPL 688)
- Modassport supports MS3 communication using the CCP-protocol.

Multiple suspend and resume of computer support checked (OPL 691)
- The functionality of multiple suspend of the computer was checked.
  The error message, that the LevelX driver couldn't be loaded is downgraded (after a resumption) to a warning, because it seems to be normal, that the driver cannot be loaded. On our test machines it's taking about 10-15 seconds until the driver can be loaded successfully.

Pasting data into table control containing numbers with decimal comma (OPL 707)
- If data is pasted into a table control from an application using a decimals comma on the values from the first column are pasted correctly. From all other values the parts before/after the comma were pasted in separate columns.
  ModasSport was changed in a way that the values have to be separated by a tabulator or a semicolon.
- ModasSport always uses the last occurrence of a point / comma within a number to decide which to use as the decimal point/comma. Modas assumes that all occurences of the other character are thousands separator.
  Important: This works as long as a number using a thousand separator also has a decimal comma/point. If not, then ModasSport will assume the thousand separator as the decimal comma and will paste wrong values.

Improvements of recent changes in Modas v3 merged to ModasSport (OPL 711)
- The recent changes of Modas v3 were merged to Modassport. Mainly the changes affected the communication between application and control unit and also several problems concerning characteristic labels.

DataManager: Crash, if address of A2L label outside of all memory segments (OPL 712)
- If the address of a A2L label is outside of all memory segments, ModasSport crashed, if the user tries to copy the label using the data manager.
- Because such a kind of error is not usual (-> the A2L file is wrong), ModasSport assigns some other memory for the label. This ensures that ModasSport is not crashing, but actually still something is not good so shows labels with invalid address in the log window.

ModasSport creates LogFiles (OPL 713)
- All output to the log window is now also logged into log files in LOGFILES folder. Log files are kept for the past 30 days.
- Log files contain additional logging output (e.g. communication output, warnings or errors, which are useful for debugging in case of communication problems).

ModasSport v1.00.019
02.04.2008

Data Manager: Compare and copy of value block labels with verbal values are not working (OPL602)
- The data manager didn't handle copy and compare operations for labels of type "value block" using a verbal value representation.
  The copy and compare functions and also the HTML output function accessed random data instead of the proper current value verbs.

Hidden internal crash of ModasSport prevents saving worksheets (OPL673)
- If ModasSport is saving a worksheet/folder (e.g.. if exiting ModasSport) an internal crash, which is catched by ModasSport, prevents the saving of the worksheet without any message. The cause of the crash was removed, but still internal crashes are caught. In future, the catching of internal errors should be removed, because it prevents improvements of ModasSport, because of hiding crashes ...

Macro Manager: Dialog for selection of labels verified (OPL674)
- Sometimes ModasSport takes a different label as the selected one after pressing OK in the label selection dialog. This happens often after the user selected a label with the mouse just

before he typed a part of the channel name in the filter field, more often, if he pressed the "delete" or "backspace" key.

Changing the column width in measurement views not possible (OPL675)
- Changing the column size in a measurement view wasn't possible anymore, because some change of window message handling.
  Actually the drag'n'drop handler interfered with the handler for column sizing. The responsible change in the recent seems to cause this side effect (-> hot-key handling changes?). Never the less the problem is now fixed between Drag'n'Drop handler and the measurement view by disabling the drag'n'drop handler, if the user issues the resizing of a column.

Oscilloscope "Out of memory" / high memory usage (OPL679/680)
- In certain configurations it could happen, that the memory allocated for showing a label in the oscilloscope was too less and should be reallocated. Because of missing brackets in the calculation of the new memory to allocate, the memory size could be very big. This caused an error message, if the amount was not available any more or very high memory consumption. The problem occurred only during a running measurement. Also the memory was only freed, if the label(s) were removed from the oscilloscope, the oscilloscope or ModasSport was closed.

Assignment of thread priorities didn't work
- ModasSport used a relative file path to the INI-file containing the thread priorities for the several measurement threads. This caused, that sometimes the file couldn't be found. ModasSport now uses an absolute file path.

Small message box to user while creating crash dumps
- Because some clients kill the application while (very big) crash dump was written, the dumps were corrupt and not useable ☹

ModasSport v1.00.018
17.03.2008

ModasSport not responding, 100% CPU usage (OPL659)
- If the user has a minimized table view window and he is starting/running a measurement ModasSport runs into an endless loop. ModasSport will not respond anymore and has a CPU usage of 100%.

Crash, if last label is removed from table view window (OPL 664)
- If the user is removing the last label from a table view, ModasSport may crash.

ModasSport not responding, no CPU usage (OPL659)
- If the user moves a label from a measurement view to another view (-> oscilloscope view) while measurement is running, ModasSport is not responding anymore because of a deadlock condition between the UI thread and the measurement processing.

Project not saved after changing the name of workbase (OPL663)
- After changing the name of a workbase, the project file was not saved containing the link to the workbase. This caused, that the renamed workbase is lost because of the invalid link.

Project list not saved after changing the name of a top-level project (OPL665)
- After changing the name of a top-level project, the project list was not saved containing the link to the top-level projects. This caused, that the old project name was displayed after reopening the project manager and the project wasn't accessible anymore, because of the broken link.

Cannot close ModasSport after trying to load not-existing workbase (OPL648)
- If the user tried to load a workbase, but it failed with an error, the user cannot close ModasSport until he loaded another workbase.

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ModasSport setup copies CNF file from previous installation (OPL657)
- If the user tried to load a workbase, but it failed with an error, the user cannot close ModasSport until he loaded another workbase.

Not reproducible
- OPL 670: On „Save as" of a worksheet / workfolder a message appears, if the entered filename already exists. Also on the first call of "save" the "save as" dialog is shown.

ModasSport v1.00.017
14.03.2008

Hotkeys on not-german keyboards (OPL615)
- Hotkeys were modified, so they are working on not-german keyboards.

Table view: Editing a value not possible, if cell is not completely visible (OPL616)
- If the focused cell wasn't completely visible, ModasSport didn't allow the value to be edited. Now ModasSport ensures that a cell is scrolled into the visible area after selecting a cell or before starting to edit the cell.

Hotkeys sometimes not working (OPL617)
- After editing a label value the hotkeys are not working anymore until the users clicks again on window.

All label lists: The selected label is not completely visible (OPL619)
- If the user is typing a label name into the search field of a label list, the found label didn't become completely, if it was the last – only partially visible – entry of the label list.

Controlling the thread priority of all ModasSport threads
- For testing, it's possible to change the thread priority settings of the different threads ModasSport uses for communication with a control unit.
  The settings are read from "ModasSport.ini" in the application folder.

  Following settings are possible (the shown values are the defaults, if an entry is missing)

  [ThreadControl]
  LevelXManager=0
  LevelXReceiver=0
  CCPManager=0
  CCPReceiver=0
  KWPManager=0
  KWPReceiver=0
  MSABoxThread=2
  MSABoxPaketBuffer=5000

  Except the last entry the values mean the thread priority. The priority is between -15 (Idle) and 15 (Time-Critical). The "normal" values are:

2	THREAD_PRIORITY_HIGHEST
1	THREAD_PRIORITY_ABOVE_NORMAL
0	THREAD_PRIORITY_NORMAL
-1	THREAD_PRIORITY_BELOW_NORMAL
-2	THREAD_PRIORITY_LOWEST

ModasSport v1.00.016
10.03.2008

Project-Manager: Subproject-files were not saved (OPL634)
- If a new subproject is added to the project list, the project files were not saved and lost after closing the project manager.

Project-Manager: An existing project could be added twice to the project list.
- It was possible to add a project file twice to the project list. Because this doesn't make sense, ModasSport prevents the user from doing so.

ModasSport v1.00.015
07.03.2008

Crash: If opening a workbase in the data manager failed
- The datamanager caused a crash, if opening a workbase failed due of a corrupted or not existing workbase file.

Crash (Oscilloscope): Because of possible buffer overflow
- The oscilloscope could cause a crash, because of an buffer overflow. The buffer overflow occurred during removing a channel from the oscilloscope and/or if a channel was measured with an undefined max rate (-> fast 0ms).

Oscilloscope didn't show graph after removing a channel from the view
- The oscilloscope didn't restart the refreshing cycle after a channel was removed from the view. It worked after manually stop/start of the whole measurement.

Updating the values of the table view control after switching between Work<->Reference page (OPL 632)
- ModasSport didn't update the table content immediately after switching from work to reference page or reference to work page.

DataManager: Copying of maps could fail because of a wrong hard limit exceed (OPL 637)
- If a map is copied into an other dataset/workbase, ModasSport compared the y-values with the x-axis limits. This could cause a hard limit error and in consequence the map was not copied.

Access to LevelX driver centralized at one place/thread (OPL 611)
- Access to levelx driver initialisation centralized in the corresponding source file. KWP/CCP protocol are not interfering these functions.

ModasSport not responding after changing a cell in a map characteristic (OPL624)
- ModasSport was not responding after changing a value in a map while measurement is active, because of a thread deadlock.

Updating of map table during measurement (OPL622)
- The table was not always updating its content while running a measurement (-> working point).
- The current working point values were only updated, if the window owned the input focus.

Crash, if a label with a unit containing a percent symbol is added to the oscilloscope (OPL 641)
- If a label was added to the oscilloscope containing a percent symbol in its unit, ModasSport could crash because of accessing invalid memory.

Resuming a measurement after interruption of the connection / standby of the computer (OPL584/646)
- If the connection to the control unit was interrupted because of disconnecting the cable or the computer went into standby mode, the measurement is restarted if the connection is becoming available.

Height Calculation of measurement windows fixed (OPL609)
- Height of measurement windows is always calculated based on the number of labels in the list. Before the saved height was reused and some of the measurements might not be visible to the user.

ModasSport v1.00.014
29.02.2008

Crash, if saving a sheet to a file (OPL 597/598/599)

- ModasSport can crash, if a sheet is saved into a file. This happend on saving worksheets, workfolder or shutting down the application.

DataManager: Copy data to current/active workbase possible (OPL 595)
- The data manager can be used to copy data (-> PAR files, DCM-fles, ...) to the current/active workbase.

DataManager: Crashed, if a PAR file is copied into a workbase (OPL 585?)
- The data manager could crash, if a PAR file is copied into a workbase.

DataManager: If selecting a workbase the workbase list of a project is empty (OPL612)
- The dialog for selection of a workbase as source/destination didn't list any workbases.

K-Line flash tool: Changed timing after entering the diagnostic session (OPL 582)
- If the diagnostic session is entered the K-Line Flash tools wait the amount of time given by the P3Min value of the stimulation timing set (first timing set in the CNF file).

Open Dialog for Hex/S19-File
- The file type listbox contains an entry "all supported files". This entry is the default selection for the file open dialog.

Array index of 1-dimensional arrays wrong (OPL629)
- The index of array elements of 1-dimensional array were counted in steps of two

Measurement rates saved in workfolder/worksheet (OPL 573)
- The current measurement rate of labels is saved to workfolder and worksheet files.
- As before the latest used measurement rates of currently unconfigured labels are preserved in the current workbase. Nevertheless measurement rates of workfolder/worksheet files are winning againt those of the workbase.

Installer improved (OPL 583)
- The installer can copy the project list file and settings file from a previous ModasSport installation.
- The installer supports an unattended, silent installation:

`msiexec.exe`	Windows-Installer-Application
`/qn`	➔ Unattended, silent installation
`/i <ModasSport.msi>`	➔ Full path to the MSI-installer-file.
`INSTALLDIR=<folder>`	➔ Folder, where ModasSport should be installed. Default: C:\Bosch\ModasSport v<Version>
`INSTALLTYPE=<0/1>`	➔ Installation type: 0: Do not copy any setting from a previous ModasSport installation. 1: Copy the settings from a previous ModasSport installation.
`OLDAPPDIR=<folder>`	➔ Folder of the previous ModasSport installation Required for INSTALLTYPE=1 !

ModasSport v1.00.013
22.02.2008

Crash, if adding oscilloscope window while measurement is running
- ModasSport crashs, if a new oscilloscope window is added to a sheet while the measurement is running

Measurement not running for all sampling rates

- It could happen that some measurement lists were stopped by an internal thread while the measurement was initialized. In this case some labels were measured and some not.

Adding existing projects to the project manager (OPL 441, 548, 581)
- The user can add existing projects to the project manager of a new installation of ModasSport.

Flashtool: Delay after start of diagnostic session
- After initiating the diagnostic session of a control unit, the flashtool waits the P3Min wait time described by the CNF file.

S19 file parser: Unknown record type S5 causes failure when reading S19 file (OPL 594)
- ModasSport didn't know about the S5 record type in a S19 file. This caused a failure when loading a S19 file.

Naming of elements in two-dimensional measurement arrays
- ModasSport uses two dimensional array indices for naming the individual array elements.

ModasSport v1.00.012
15.02.2008

Possible crash: Deleting (Adding) a sheet if measurement is running
- ModasSport could crash, if a sheet is deleted while the measurement is running

Improved performance, if user is switching between worksheets while measurement is running
- If the user switches to another worksheet it took much time until ModasSport has finished the operation. Especially, if a worksheet is selected for the first time after loading the workfolder. This was because the measurement was reinitialized on each creation of a window.
- Now the measurement is interrupted and automatically restarted after all changes have been applied.
- The poor performance was a special issue with devices using the CCP protocol.

Screen updating disabled for new measurement views
- If a new window was added to a worksheet while measurement is running the current measurement values were not updated.
- This also occurred, if another worksheet is selected the first time after loading a workfolder.
- If a new label is added to a window showing previously measured value it may seems as if only the new label is not measured …

ModasSport v1.00.011
11.02.2008

Possible crash: Add/removing labels to/from measurement view
- If labels are added/removed from a measurement, it could happen, that ModasSport crashed. This happened if one of the internal threads tried to start a measurement list, while the user thread is adding/removing labels to the same measurement list and therefore the integrity of the data structures is not safe.

Function filter not working, if they have a description (OPL 580)
- If a function filter with a description text is selected, its labels aren't listed.

Function filter showing funtions of a different workbase
- After changing the workbase it could happen, that the function filter was still showing the functions of the previous workbase. (especially, if the workbases belong to different device types).

Characteristics updated only if measurement is running (OPL 578)

- The current value of characteristics were only updated, if the measurement was running. Now the values are updated even, if the measurement is not running.

Crash, if adding macro to oscilloscope
- If the user tried to add a macro label to an oscilloscope, ModasSport crashed.