

Subject: **OriLink® R10, What is new**

To: **OriLink® users**

From: **OriLink® Support Team**

PM

General info

This version has advanced new features that will only work with the installed file sets for OriLink® WinTools and WinDb manager. It also have a new folder \BackwardCompability\ containing files that will make it backward compatible if wanted. All system versions can be updated to R10

- **IMPORTANT, Always make a backup of the complete C:\Orilink folder before doing anything !**

This makes it easy to go back if something goes wrong.

The database has some design differences for improved support for

more advanced script features
more advanced presets
receipt printing on anything
Messaging service
DbDock Service
Work order and Line number separation
fully operational Work order database

This means that if you want to keep the currently used database after changing to R10 it must be updated so it is designed as the one that comes in R10. This is not difficult and the easiest way to do that is by MSAccess. If you want help with this mail the database (OriLinkDB_O2K.mdb renamed to OriLinkDB_O2K.ooo) to orilink@alentec.se with "R10 database update" as subject.

- **The module software of LED and MPDM that comes in this update supports FloatPPU**

For a computer float values (327.78) and integer (328) are stored in totally different ways so if your current module software supports IntegerPPU and you flash it with the FloatPPU software it cannot interpret the set PPU value so the dispense point fails to open when you try.

To correct it can be done either from the PC or from a keypad. It shows

On a PC something like this is shown "-#.5". Change it to the correct PPU. If you do not know set it to 328.00, in most cases that is good enough.

On a keypad something like "PPU:-6666666666666666...." is shown. **Do not press <CE>**, that will fail. Press <ENTER> and the dispense point will try to auto-calibrate since it starts with a "-" sign and the result will be something like "PPU:-0.25". Press <ENTER> and then type in the correct PPU. If you do not know set it to 328.00, in most cases that is good enough.

OBSERVE ! If it is a MPDM configured for industrial functionality remember to also set the PPU of Port 2 (0.00), 3 (0.00) and 4 (0.00 or 65535.00) otherwise it will not work.

- **The module software of LED and MPDM and the WinDb Service that comes in R10 supports full use of the OriLink work order database.**

WorkOrder, LineNumber, PartNumber, Remaining volume, Open/closed,.....
Reports with Lines on the work order

If there is a faulty mix between module software and WinDb Service you will see log rows in WinDb .log containing text like "unknown callback locale C"

What is new ?

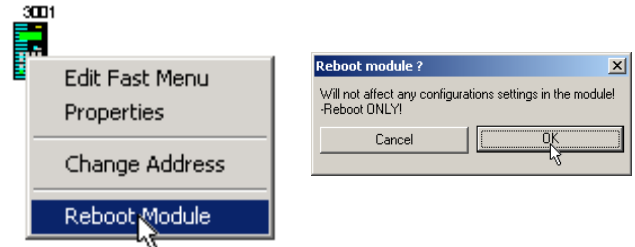
There are a lot of things that are new so the following is not an attempt to give complete information only the main and latest enhancements.

Modules in General

Reboot Module

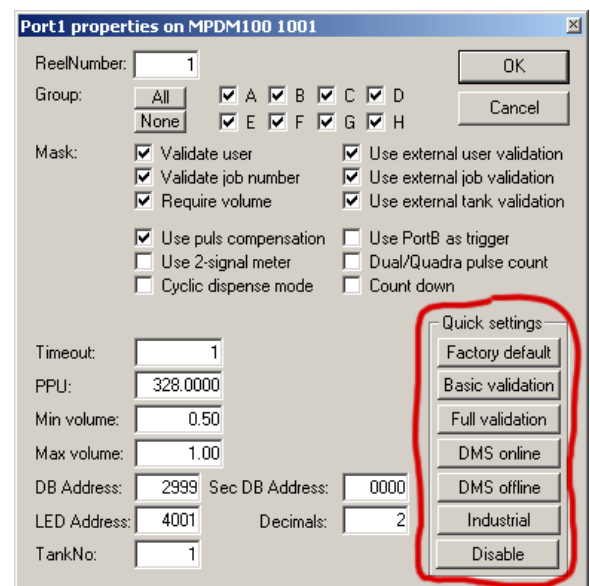
All module software and corresponding active controls now support module reboot from a PC. It is added as a property menu item like this.

Since not all configuration parameters "can be"/"are practical to" read in real-time this feature makes it possible to take such configuration use without pressing the reset button of the module or do a "power down" -> "power up".



QuickSettings

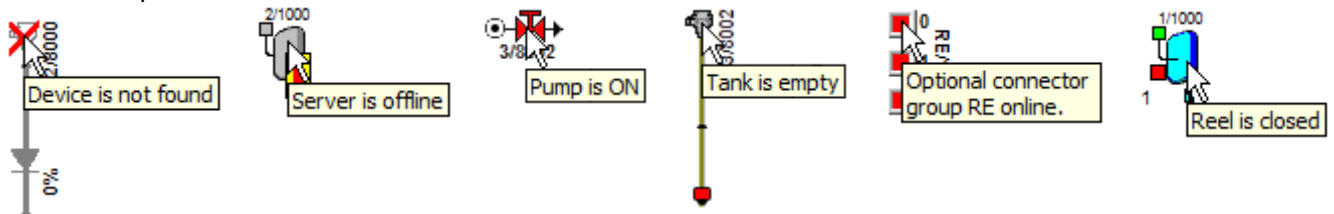
All modules have quick settings buttons where each button results in a commonly used setting.



Tool tip

All graphic objects now shows a "Tool-Tip" info box when howered over with the mouse cursor. The info box shows what it is and the current status of it.

Some examples



MPDM(10010), REEL100.ocx(1.10)

PPU:

Float PPU (Decimal PPU) gives a possibility for increased accuracy especially for meters with low PPU and when dispensing small volumes. Together with the Dual/Quadra mode it can increase accuracy a lot in these situations.

PPU decimals increased from 2 to 4. When semi automatic calibration is done the PPU is calculated with several decimals so to not degrade calibration when changing other settings the number of decimals has been increased. This is also a demand when high accuracy dispensing of small volumes is needed.

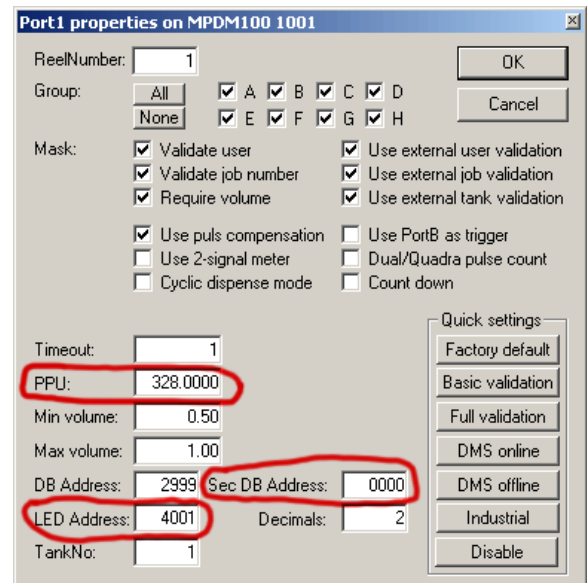
Sec DB Address: (Secondary Database)

This makes it possible to store transaction record copies in the database of a printer module even if it is a PC based system. When a record is stored in the printer module a receipt is printed if a printer is attached so this feature can be used for local receipt printing without involving the PC.

If this feature is not used the address should be set to 0000 to avoid unnecessary communication.

LED Address:

If the dispense point should not show dispenses on a LED this should be set to 0000 to avoid unnecessary communication.



Industrial mode

Now supports dual pulse trains.

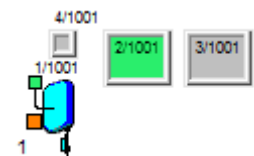
With single pulse train you have 5/7 presets and with dual pulse trains you have 4/6 presets.

Boost valve on port 4 feature

Gives the possibility to use one small direct operated valve as primary and a big pilot operated valve as a secondary flow boost. The Boost valve is open until the remaining volume reaches the MaxVolume setting of Port 4 then it closes.

New graphics

Instead of reel icons the icons for port 2 and 3 turns to OK/Error signals and for port 4 it turns into Boost valve status.



New preset feature.

It is now possible to have 2 dispense points with 2/3 presets each.

Cyclic dispense mode.

This feature is enabled again and gives the possibility to make a dispense point dispense a certain volume with a specified interval.

Automatic Short circuit protection.

Is enabled and improved a lot to reduce the risk for faulty detection

Optional connector

The MPDM board has a foot print for an 8-pin optional connector. These pins are

- +5VDC
- RC0
- RC1
- RC2
- RE0
- RE1
- RE2
- GND

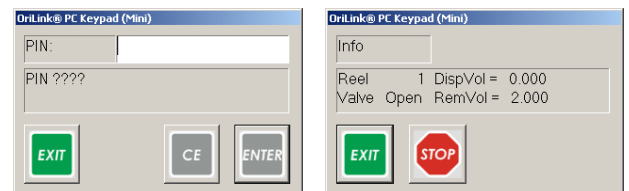
RCn and REN are IN/OUT - HIGH/LOW digital I/O that can be used by PLC code, Cyclic dispense mode and script.

New in R10 is that the status of the pins is shown in layouts.



Virtual Mini keypad.

Now looks and works more like a real keypad.

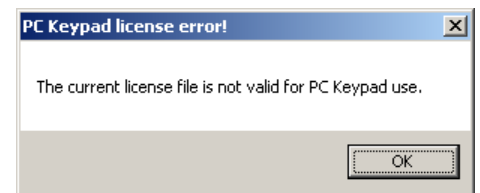


To enable it there must be a valid License.dat file for the PC used that contains the key

[PcKeypad]







Run=1

Otherwise it will fail with the following message.



Dispense point (Reel) status graphics extended

A dispense point can have several different statuses and so far only Locked, Shorted, Open and Closed has been visualized. In R10 also the Pre-open and PPU Locked statuses are visualized.

Closed	Pre-open	Open	PPU Locked	Locked by key-switch	Shorted
					

Keypad(10010), KP100.ocx(1.10)

Reader input

Power-up issue with some barcode readers attached when both keypad and reader are connected to the same mains supply fixed.

Time-out.

Prompt time-out setting in seconds where 0 disables the time-out. This is feature can for example be used when the reader is outside a door you want to open and the keypad is inside and configured to the PIN prompt as default.

Pin code prompt.

Now supports 16 characters instead of only 4.

Printer module (10010), PM100.ocx(1.10)

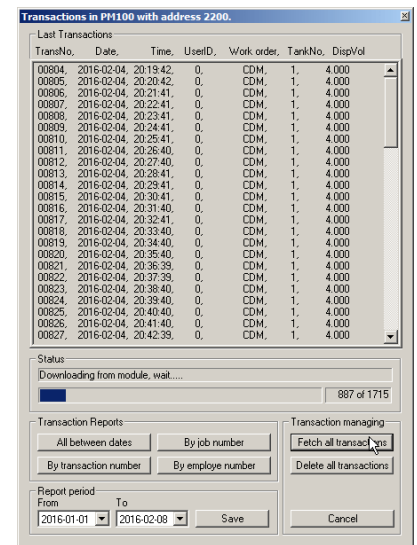
Power-on boot issues for some individual PM's has been sorted out.

None PC receipt and report printing has been optimized and now supports both Start200 and Star700 models by default. The default receipt and reports has to be loaded and flashed from a PC.

It is now possible to download and show all transactions stored in a printer module in a PC layout.

Db Docking Service works on all PC's.

Improved graphics' and a transaction download progress bar have been added.



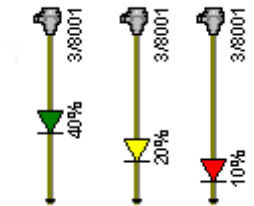
TransNo.	Date	Time	UserID	Work order	TankNo.	DispVol
00804	2016-02-04	20:19:42	0	CDM	1	4,000
00805	2016-02-04	20:20:42	0	CDM	1	4,000
00806	2016-02-04	20:21:41	0	CDM	1	4,000
00807	2016-02-04	20:22:41	0	CDM	1	4,000
00808	2016-02-04	20:23:41	0	CDM	1	4,000
00809	2016-02-04	20:24:41	0	CDM	1	4,000
00810	2016-02-04	20:25:41	0	CDM	1	4,000
00811	2016-02-04	20:26:40	0	CDM	1	4,000
00812	2016-02-04	20:27:40	0	CDM	1	4,000
00813	2016-02-04	20:28:41	0	CDM	1	4,000
00814	2016-02-04	20:29:41	0	CDM	1	4,000
00815	2016-02-04	20:30:41	0	CDM	1	4,000
00816	2016-02-04	20:31:40	0	CDM	1	4,000
00817	2016-02-04	20:32:41	0	CDM	1	4,000
00818	2016-02-04	20:33:40	0	CDM	1	4,000
00819	2016-02-04	20:34:40	0	CDM	1	4,000
00820	2016-02-04	20:35:40	0	CDM	1	4,000
00821	2016-02-04	20:36:39	0	CDM	1	4,000
00822	2016-02-04	20:37:39	0	CDM	1	4,000
00823	2016-02-04	20:38:40	0	CDM	1	4,000
00824	2016-02-04	20:39:40	0	CDM	1	4,000
00825	2016-02-04	20:40:40	0	CDM	1	4,000
00826	2016-02-04	20:41:40	0	CDM	1	4,000
00827	2016-02-04	20:42:39	0	CDM	1	4,000

TCM/TSM(TCM20010), TCM100.ocx(1.10)

Analogue sensor

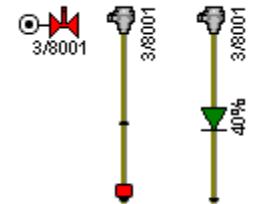
Now supports coloring of level marker according to the current stock and the set Max, Reorder and Stop volumes

It also shows the current stock in %.



All graphic objects

Now shows address and port as Port/Address.



Port properties

Have been split more logical in Tank, Fluid, Pump, Discrete sensor, Analogue sensor and LED part.

Better explaining text.

Now shows the currently set tank area or if a tank profile is used.

LED update interval can be prolonged to not cause unnecessary load.

Port1 properties on TCM200 8002

Tank:

TankNo: ☐ Waste Oil

Max volume:

Reorder volume:

Stop volume:

Geometry:

TankArea(m²):

Or load a tank profile from file

Fluid:

Fluid name: Density = 1

Fluid partno.: If tank profile is used or analogue sensor is not used

Density:

Pump control (5-pole connector):

☒ Enable automatic pump control (Sol)

Discrete sensor (5-pole connector):

☒ Invert input A ☐ Invert input B

Analogue sensor, 4-20mA (2-pole connector):

Time constant:

Zero Offset:

Span Gain:

Sensor range:

Show volume on a LED:

Address: 4??? (Def = 0)

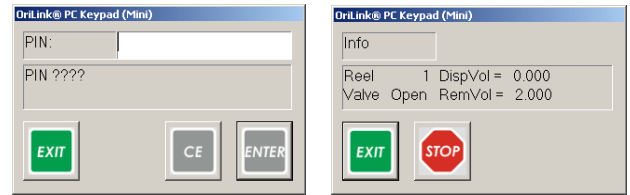
Update interval: Seconds (Def = 1)

LED module(LED10110), LED100.ocx(1.10)

Virtual Mini keypad

Now looks and works more like a real keypad.

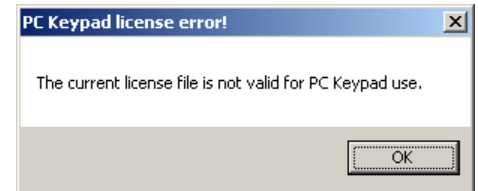
To enable it there must be a valid License.dat file for the PC used that contains the key



[PcKeypad]

Run=1

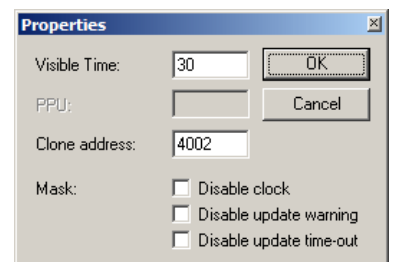
Otherwise it will fail with the following message.



Clone LED

This makes it possible to clone one LED on another. For example show the dispense of a dispense point on two or more LEDs.

Clone address: 4002 means that this LED also will show the same thing as the LED with address 4002.



Update warning.

Blinking warning and timeout can be disabled or enabled to support prolonged update intervals.

Improved graphics

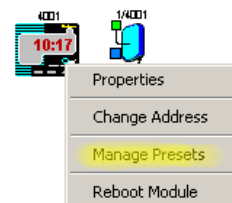
The graphics of the ActiveX control now looks like the actual LED module.



Presets

The 1-16 Presets can now also be managed from the PC graphics.

Float PPU can be calibrated by buttons on 23457 and 23455.



Preset adjustments now follow the set number of decimals. This makes 23455 and 23457 supports presets volumes ranges

0.0001-9.9999

or

0.001-99.999

or

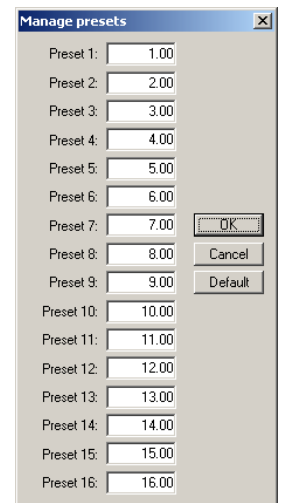
0.01-999.99

or

0.1-9999.9

or

1-99999

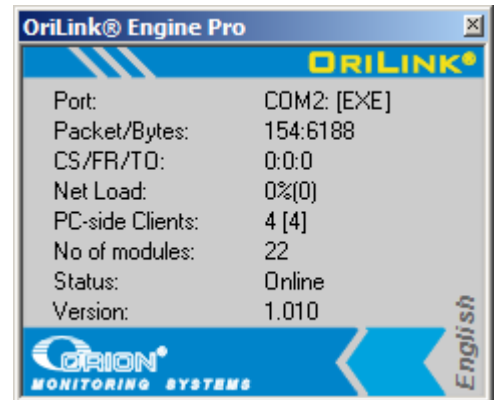


Engine (1.10)

New graphics.

Works better for all Windows versions and make it easier to see the version of OriLink®.

It now also shows the language setting.



Automatic tank warnings

New setting in the OriLink.ini file that enables/disables sound alert

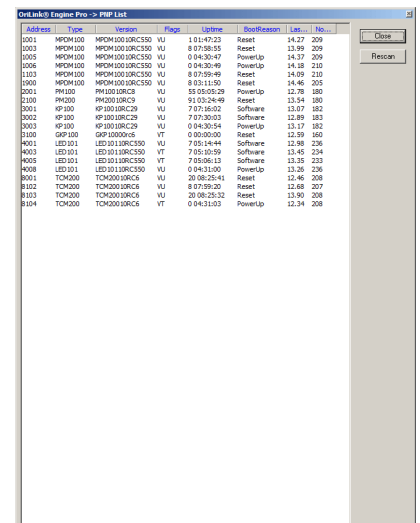
[Warning]

SilentTime=0

Sound=0

Update PNP Array

Is now resizable with auto vertical scroll list



Address	Type	Version	Flags	Light	Reason	Loc	No.
1001	MPOM100	MPOM100.00RC350	VU	1 01:40:23	Reset	14.17	209
1003	MPOM100	MPOM100.00RC350	VU	8 07:58:55	Reset	13.99	209
1005	MPOM100	MPOM100.00RC350	VU	0 04:30:47	PowerUp	14.17	209
1006	MPOM100	MPOM100.00RC350	VU	0 04:30:49	PowerUp	14.18	210
1103	MPOM100	MPOM100.00RC350	VU	8 07:59:49	Reset	14.02	210
1000	MPOM100	MPOM100.00RC350	VU	8 03:11:50	Reset	14.46	205
2001	PM100	PM100.00RC8	VU	55 05:05:29	PowerUp	12.78	180
2100	PM100	PM100.00RC9	VU	51 03:14:49	Reset	13.54	180
3001	KP100	KP100.00RC29	VU	7 07:16:02	Software	13.07	182
3002	KP100	KP100.00RC29	VU	7 07:30:03	Software	12.89	183
3003	KP100	KP100.00RC29	VU	0 04:30:54	PowerUp	13.17	182
3100	GSP100	GSP100.00RC6	VT	0 00:00:00	Reset	12.99	160
4001	LED101	LED101.00RC350	VU	7 05:14:44	Software	12.88	236
4003	LED101	LED101.00RC350	VT	7 05:20:59	Software	13.45	234
4005	LED101	LED101.00RC350	VT	7 05:06:13	Software	13.35	233
4008	LED101	LED101.00RC350	VU	0 04:31:00	PowerUp	13.26	236
8001	TCM200	TCM200.00RC6	VU	20 08:20:41	Reset	12.46	208
8102	TCM200	TCM200.00RC6	VU	8 07:59:20	Reset	12.68	207
8103	TCM200	TCM200.00RC6	VU	20 08:20:32	Reset	13.99	208
8104	TCM200	TCM200.00RC6	VT	0 04:31:03	PowerUp	12.34	208

Logging

Several new possible log flags have been added, see the manual inside the OriLink.ini file.

OS version detection

It now detects Windows 7, 8, 8.1 and 10 correctly.

Clock Service (1.10)

Now supports all time zones with or without daylight saving.

WinDb Service (1.10)

Pin codes.

Supports 16 characters alphanumeric pin codes. This makes the use of tags/cards/Dallas keys much easier.

Work order handling.

Supports Work order line number split, part number, volume verification and status verification

Printing.

Now supports both classic ascii direct printing and printing by the operative system printer queue. This means that you can now print on "anything" that exists in the network or on the PC itself.

Tanks.

It now fully supports all combinations of tank type and TCM settings.

Logging.

It has several new possible log flags and the logging is improved a lot. It detects Windows 7, 8 and 8.1 correct.

Analogue sensor.

Update time is now adjustable through setting in WinDb.ini file.

[Service]

AnalogueUpdateTime=120

OS version detection.

It detects Windows 7, 8, 8.1 and 10 correctly.

Db application (1.10)

Logging

Proper logging to Db.log added.

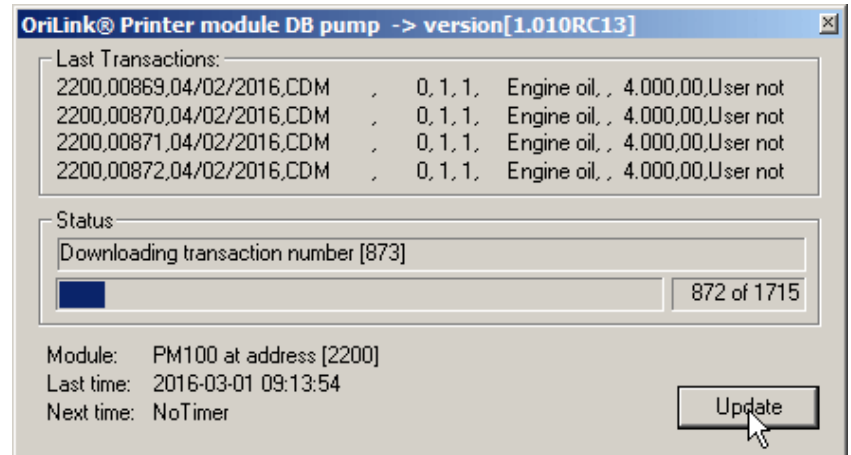
Graphics.

Improved information.

Progress bar added.

Auto resynchronization.

It autosynchronised fetched transactions and transactions in the module if it gets out of sync.



HwMon2, layouts (1.10)

Graphics

Icons are packed more tightly.

Window max size is increased to support larger systems.

DbDocking Service (1.10)

OS version detection.

It detects Windows 7, 8, 8.1 and 10 correctly.

Graphics.

Improved information.

Progress bar added.

Communication

Uses all latest features and communication libraries.

Works again on all (?) PC's.

Auto resynchronization.

Resynchronize automatically if synchronization is lost due to FIFO overwrite occurs.

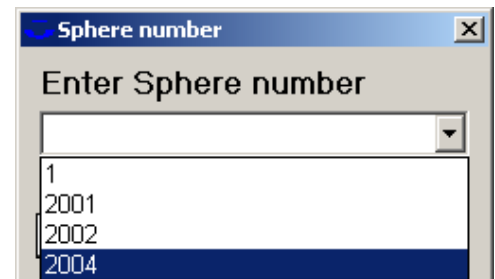
Logging

Proper logging to Db.log added.

History and reports

History view and reports have been added to WinDb Manager.

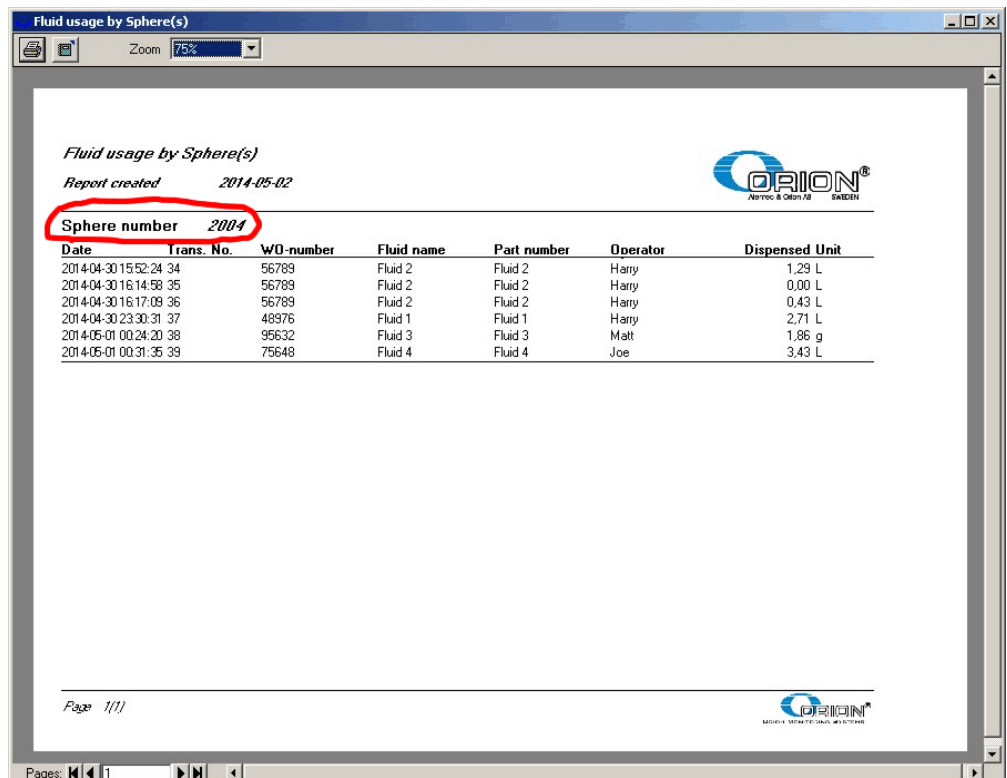
Adds PM address to Sphere number field in the transaction database. This makes it possible to select reports for one mobile system at a time.



Sphere number

Enter Sphere number

1
2001
2002
2004



Fluid usage by Sphere(s)

Report created 2014-05-02

Sphere number 2004

Date	Trans. No.	W/O-number	Fluid name	Part number	Operator	Dispensed Unit
2014-04-30 15:52:24	34	56789	Fluid 2	Fluid 2	Harry	1.29 L
2014-04-30 16:14:58	35	56789	Fluid 2	Fluid 2	Harry	0.00 L
2014-04-30 16:17:09	36	56789	Fluid 2	Fluid 2	Harry	0.43 L
2014-04-30 23:30:31	37	48976	Fluid 1	Fluid 1	Harry	2.71 L
2014-05-01 00:24:20	38	95632	Fluid 3	Fluid 3	Matt	1.86 g
2014-05-01 00:31:35	39	75648	Fluid 4	Fluid 4	Joe	3.43 L

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Script Service (110)

Has now bypass code for the Windows Vista, 7, 8, 8.1 and 10 data access bug.

OS version detection.

It detects Windows 7, 8, 8.1 and 10 correctly.

Added support for

- Fetch dispense point MinVolume and MaxVolume setting.
- Wildcard validation.
- Print on "anything".
- Full control of all possible in and out pins on MPDM board.
- Reel open, pre-open and Trigg.
- Fetch port and address for a given Reel number and sphere.
- Interacting with a windows desktop form.

Not visible ASCII signs in input strings.

Typically some readers send encrypted information and then ASCII characters like 01H, 10H,... (below 20H) are received and such signs are not visible so they cannot be transferred as a dynamic parameter. In Script Service 1.10 there is a parameter in the Script.ini file

ConvertToAsciiCode=0

Setting this to 1 will translate for example 01H to 30H 31H and that are visible and can be used as dynamic input to a script session.

Special keypad / reader characters.

Characters that are "non standard" for all languages like å, Ä, ö, Ö, ø, Ø, æ, Æ, ü, Ü, are not supported by the standard character map of the keypad LCD so they are graphically added to the LCD dynamic memory. They are now converted correctly before sent to a script session.

HwFlash 1.10

Graphics

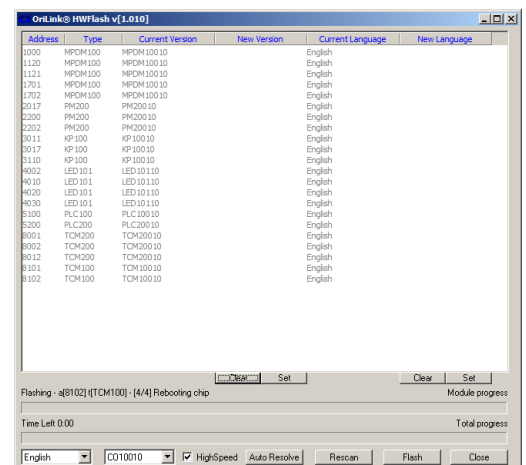
Application window is now resizable.

Buttons added for the "New version" and "New language" columns.

Clear will clear the whole column to make it easier to select specific modules to update.

Set New language will set the whole column to the selected language in the lower left corner language selector.

Set New version will right now only tell you how many modules that are found.



Messaging Service (1.10)

OS version detection.

It detects Windows 7, 8, 8.1 and 10 correctly.

Needed Windows libraries

Is now fully developed in Visual studio 2010 so only .NET 4 and C++ 2010 run-time libraries is needed.

Logging.

Is very much improved and with several possible log flags to choose from.

Supported methods.


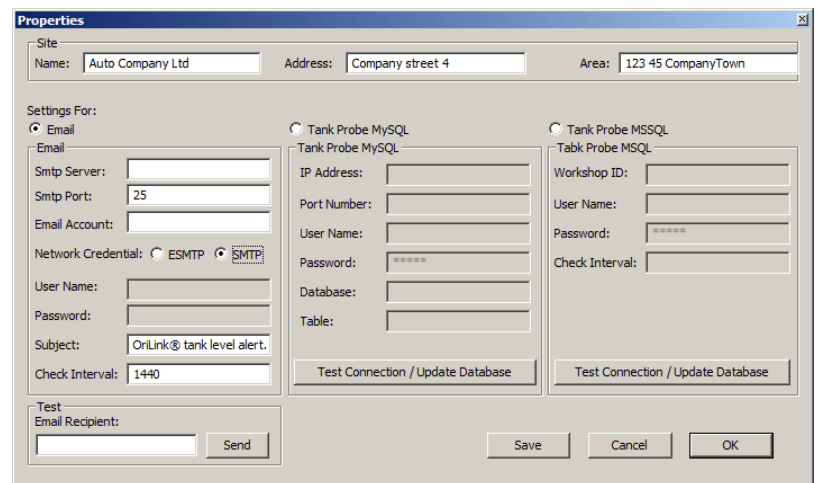
Mail, MySQL and MsSQL interaction.

Mail

Now support changing SMTP Port.

Subject line also in test mails.

Warning, scheduled and test mails now works, logs and looks good.

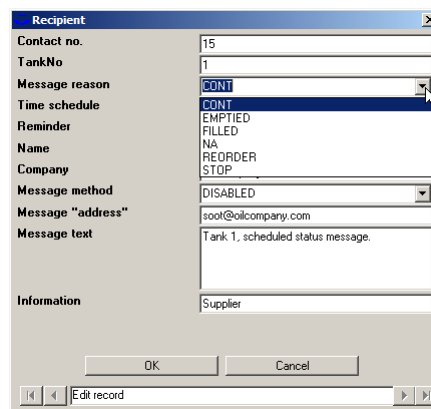
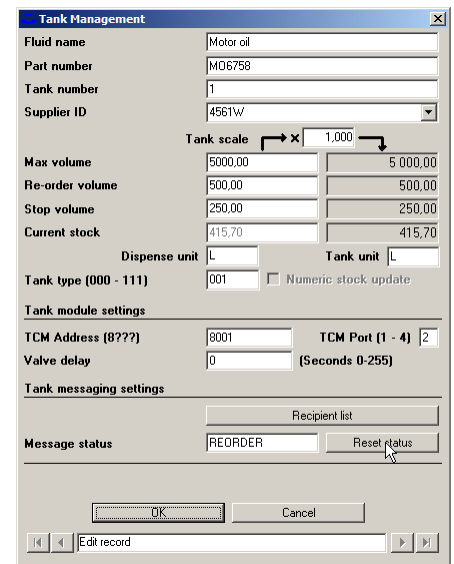



Manual reminder mail

It is now possible to manually send a reminder mail by clicking on the <Reset status> button in the WinDb manager Tank management form.

Mail events

Support for events FILLED and EMPTIED have been added

PLC100 and PLC200 modules

Since the use of the PLC features of the MPDM, TCM and TSM has increased we have created unique softwares and ActiveX controls for that.

To start with the integrated functionality of them is similar to the ones of the original modules but by separating them we can remove the "tank specific" features and make room for much more general PLC features and number of PLC code lines. Our goal is to be able to support not only in module local PLC but also in OriLink® network remote PLC code.

The base address for PLC modules is set to 5000.

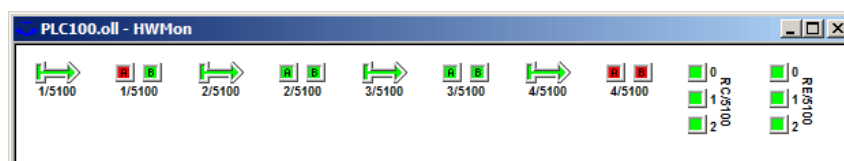
OriLink® Engine Pro -> PNP List

Address	Type	Version	Flags	Uptime	BootReason	Las...	No...
1000	MPDM100	MPDM100.10	VT	14 11:55:00	Software	0.09	80
1120	MPDM100	MPDM100.10	VU	14 19:20:03	Software	0.19	80
1121	MPDM100	MPDM100.10	VU	29 20:52:16	Software	15.85	79
1701	MPDM100	MPDM100.10	VU	29 20:51:46	Software	0.02	80
1702	MPDM100	MPDM100.10	VU	28 02:34:13	PowerUp	15.48	78
2017	PM200	PM200.10	VU	19 21:50:12	Software	15.29	66
2200	PM200	PM200.10	VU	64 23:07:01	Software	13.88	67
2202	PM200	PM200.10	VT	7 02:03:58	PowerUp	14.99	67
3011	KP100	KP100.10	VU	15 00:18:20	PowerUp	14.90	64
3017	KP100	KP100.10	VU	29 22:31:34	Unknown	15.09	66
3110	KP100	KP100.10	VT	19 03:12:21	BOD	14.71	67
4002	LED101	LED101.10	VT	8 23:57:12	PowerUp	15.57	85
4010	LED101	LED101.10	VU	6 20:19:35	Software	15.94	72
4020	LED101	LED101.10	VU	8 23:56:24	Reset	15.76	86
4030	LED101	LED101.10	VU	65 02:14:16	Unknown	15.66	88
5100	PLC100	PLC100.10	VU	0 00:04:48	Software	15.38	86
5200	PLC200	PLC200.10	VU	0 20:41:16	Software	14.60	78
8001	TCM200	TCM200.10	VU	0 02:56:22	Reset	14.81	75
8002	TCM200	TCM200.10	VU	15 00:11:17	Software	14.35	77
8012	TCM200	TCM200.10	VU	28 02:15:22	PowerUp	14.23	75
8101	TCM100	TCM100.10	VU	0 00:04:13	Software	15.20	95
8102	TCM100	TCM100.10	VU	0 00:03:26	Software	14.48	92

Close Rescan

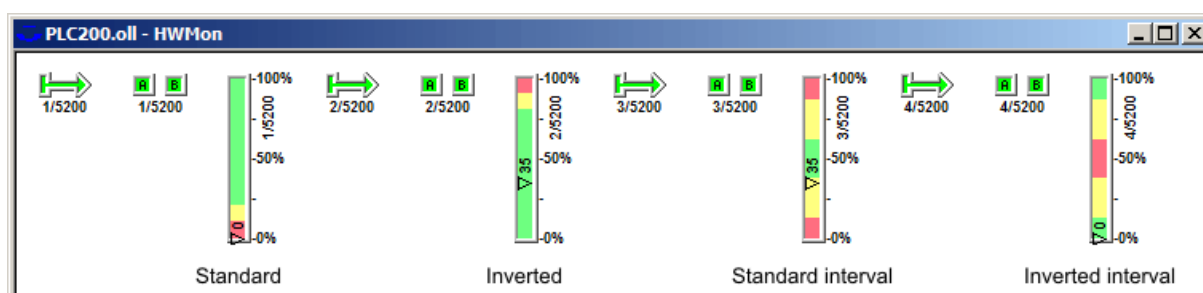
PLC100

Flashing a MPDM with PLC10010.bin will turn it to a PLC100 module and by this also enable the graphics for it in Neighbourhood and Layout.



PLC200

Flashing a TCM200 with PLC20010.bin will turn it to a PLC200 module and by this also enable the graphics for it in Neighbourhood and Layout. It supports interval in addition to level.



WinDb Manager (110)

For winDb manager the focus have been on adding support for more features, customisation flexibility and improvement on data handling.

Main window

The main Window has got a new background to work better in Windows 8 and 10.

A size lock feature has been added to counter act the auto-full screen feature of windows 7,8 and 10. This is enabled/disabled by the parameter

[DBManager]

AllowSizing=0

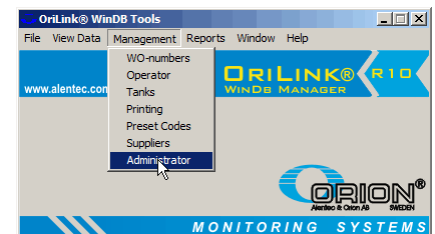
In Orilink.ini file.



Password support

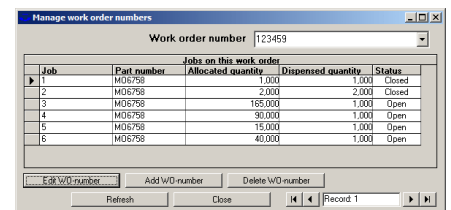
Management encrypted password have been added. Since it is encrypted it can only be added/changed from the management menu.

If all passwords are removed the login form will not be shown. Temporarily removing all passwords during install/configuring of a system saves a lot of time. Remember to put them back when the system is configured.

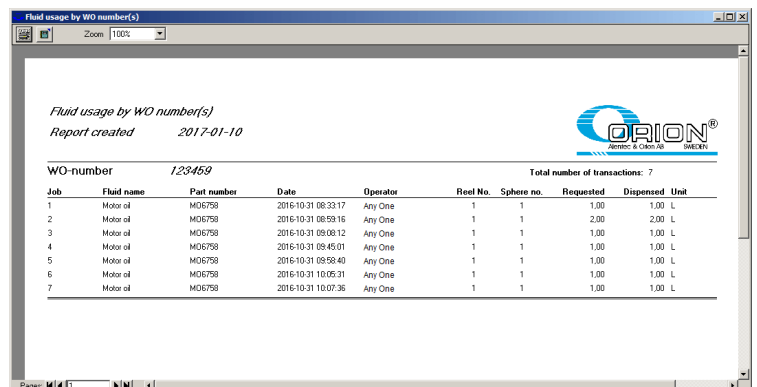


The manage work order form

The database has been changed to support more advanced work order layouts when using scripted and not scripted integration.



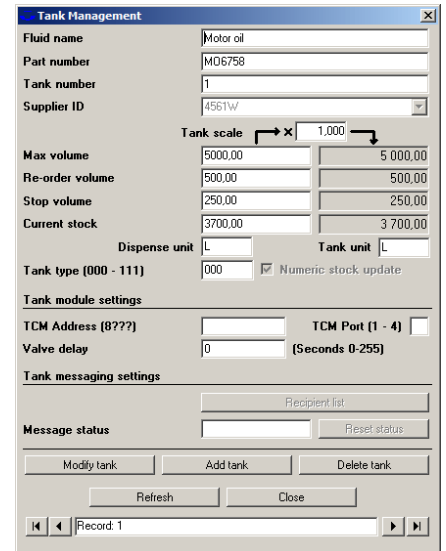
As a result all jobs done on a certain work order can be shown as a gathered report instead of one for each job.



Tank configuration

Now supports

- Dispense - tank scaling and units.
- Supplier.
- Numeric stock update ON or OFF
- Message status reset

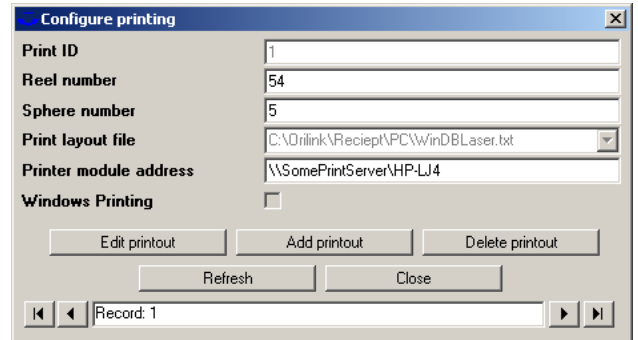


The screenshot shows the 'Tank Management' dialog box with the following fields and controls:

- Fluid name:** Motor oil
- Part number:** M06758
- Tank number:** 1
- Supplier ID:** 4561W
- Tank scale:** 1,000
- Max volume:** 5000,00
- Re-order volume:** 500,00
- Stop volume:** 250,00
- Current stock:** 3700,00
- Dispense unit:** L
- Tank unit:** L
- Tank type (000 - 111):** 000
- Numeric stock update:** ☒
- Tank module settings:**
 - TCM Address (8???):**
 - TCM Port (1 - 4):**
 - Valve delay:** 0 (Seconds 0-255)
- Tank messaging settings:**
 - Recipient list:**
 - Message status:**
 - Buttons:** Modify tank, Add tank, Delete tank, Refresh, Close
- Record 1:**

Print managing form now has

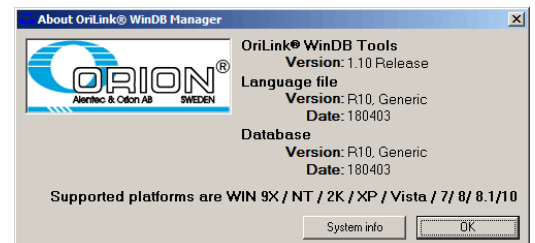
Better support for multiple prints for the same reel.
Windows printing enable/disable
Print template selection from the correct place.



The screenshot shows the 'Configure printing' dialog box with the following fields and controls:

- Print ID:** 1
- Reel number:** 54
- Sphere number:** 5
- Print layout file:** C:\Orilink\Receipt\PC\WinDBLaser.txt
- Printer module address:** \\SomePrintServer\HP-LJ4
- Windows Printing:** ☐
- Buttons:** Edit printout, Add printout, Delete printout, Refresh, Close
- Record 1:**

The "About" form now shows both database and language file versions.



The screenshot shows the 'About OriLink WinDB Manager' dialog box with the following information:

- ORION logo**
- Version:** 1.10 Release
- Language file:**
 - Version:** R10, Generic
 - Date:** 180403
- Database:**
 - Version:** R10, Generic
 - Date:** 180403
- Supported platforms are:** WIN 9X / NT / 2K / XP / Vista / 7 / 8 / 8.1 / 10
- Buttons:** System info, OK