

## ReadMe Freedom EVOware 2.8 SP7

Build 2.8.49

2024-01-08

### Introduction

This document describes known issues and where possible workarounds, hints and warnings. To make navigation of this document easier it's divided up into 3 sections.

1. **What's new** – This gives information concerning what is new in the most recent Freedom EVOware updates.
2. **Additional Information** – This gives details about enabling some features that are not described in the Application Software Manual.
3. **Known Issues** – this gives information about known issues and guidance on avoiding the issues. If you do encounter issues not described here, so get in touch with your local help desk.

### What's new in Freedom EVOware 2.8 SP7

#### EVOware General

- The following changes and bug fixes have been implemented / resolved.

Change ID	Description
116743	API command SaveScript() writes into virtual store
117193	Compatibility with Magellan Spark Control V3.2
117291	Validation of scripts slows down loading of scripts in TouchTools
117400	EVOware Plus ignores Relative Movements setting in MCA_Pipette macro
118907	[90409] CarouselNT: PresentPlateByBC sometimes cannot present plate although barcode is known
118962	EVOApi DLG code for the option ENABLE_CONTINUE_AFTER_MANUAL_DITI_MOUNT
119551	No quotation marks and commas allowed when using string variables
120658	[CAROUSEL] PresentPlateByBC lead to cannot find position for specified barcode
120742	During script recovery EVOware freezes at the first LiHa command
119797	Include new Communication Server
117302	include the new DiTi Type: 1000ul wide bore tip in a SBS box
118230	Remove labware definitions for Tecan microplates
121631	Collision avoidance can move LiHa aside during pipetting and LiHa pipettes at incorrect position

### What's new in Freedom EVOware 2.8 SP6

#### Enhancements

- Support for Windows 10 LTSC 2021 (21H2)

#### EVOware General

- The following changes and bug fixes have been implemented / resolved.

Change ID	Description
111505	Add new Dongle Driver Version 8.3.0.0

Change ID	Description
110408	Hide Temo commands
111980	WRC loses connection to T-CU during run
106470	No user prompt after "not enough liquid" error
103440	[82686] Variables set in a subroutine and queried at script start are assigned to their default value [3619]
112806	Incorrect "Aspirate without mounted DiTi" error message for the MCA in EVOware Plus
110872	After instrument error during "Detect Liquid" command there is no error handling window
109502	EVOware crashes with "Unknown exception" after Start Script command
110071	EVOware does not show error message when using script editor of EVOware Plus
109392	EVOware crashes when "User query at script start" is used in subroutine
103936	[101779] Tips don't retract to global Z-Travel in error handling
103932	[101502] When variable name contains special characters then there can be validation errors or wrong calculations
110398	"Unknown exception" during validation when starting a script
103458	[82712] POOR error while dispensing is not logged as error [3577]
107648	Not able to give Call and Driver Name of up to 16 characters with Duplicate Device tool
103505	[82766] When using two physical incubators as a logical one, the second incubator won't stop shaking after end of run [3445]
106780	EVOware Plus: freeze at LLD error when running one single node only
103626	[82896] Tildes are not allowed in String Variable Names [3079]
112429	Make sure EVOware can be operated with an EVO S/N >220100000

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## What's new in Freedom EVOware 2.8 SP5

### Enhancements

- SMTP Now supports encrypted communication (108098)
- Added Latest IoT Client V2.5 to EVOware Installer (109971)
- Included UMS 1.1.11 in EVOware (110771)
- Added Move Counters to Log file for Introspect (106761)
- Increased default values for delays in CarouselNT driver (109163)
- Alarm is no longer triggered when script is aborted from TouchTools (109979)

### EVOware General

- evom.exe no longer crashes when sending notification via MAPI (107886)
- During pipetting the evoware.opt no longer becomes empty (104914)
- Now possible to resume a script when arm is moving in asynchronous subroutine (110632)
- MS954 driver no longer assigns previously read barcode to LAST\_BARCODE after a no read variable (109767)
- Collision avoidance no longer moves LiHa aside during pipetting (110866)
- Fixed a crash after "Adding aspirate step to RetryWorklist for object "" followed flowing clot or pressure out of range error (104648)
- Corrected MCS message sent after "DiTi lost" in the next run (110233)

- Alarm sounds after PosID-3 scan errors (109651)
- Zip & Send tool no longer writes its log file to the virtual store [85211] (103851)
- Existing scan.csv file is now correctly moved to configuration folder when barcode scan is performed after EVOware Standard start [3383] [82790] (103527)
- Start script command no longer triggers the red alarm in EVOware 2.8 SP4 (108128)
- There is no longer an error in the Log File when using Start Script [3015] [82917] (103646)

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## What's new in Freedom EVOware 2.8 SP4

### Enhancement

- IoT Client is now an integral part of the EVOware Master media (104043)

### EVOware General

- Well pipetting offset now working correctly for Mix and Aspirate (103764)
- Pausing and resuming during a Rich User Prompt (RUP) no longer leads to a doorlock error (103918)
- "CheckOccupation failed" error from Scheduler can now be configured to no longer abort the run (103933) (For details, see description of the setting "IgnoreCheckOccupationFail" in Appendix A.6 in the Freedom EVOware Software Manual)
- "CURRENT\_USER" variable is now always updated correctly when different users log in during a run (103937)
- EVOware will no longer freeze after an instrument error during teaching (103947)
- Modifying automatic DiTi handling subroutines when using Active Directory login will no longer cause validation errors (104107)
- EVOware will no longer throw an "Invalid Operand" error after two successive "Overpressure Errors" during worklist execution (104145)
- EVOware will no longer freeze when multiple runtime errors are thrown simultaneously via asynchronous subroutines (104385)
- EVOware API will no longer block indefinitely when letting EVOware handle a runtime error rather than handling it via API in hidden GUI mode (105115)
- When a run ends with errors, the status lamp is now switched to a continuous red light until recovering, aborting or starting a new run (104042)
- EVOware no longer supports Windows 7 (104471)

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## What's new in Freedom EVOware 2.8 SP3

### Enhancement

- Symbol MS-954 barcode scanner now re-establishes communication when unexpected answer received (99949)
- EVOware Configure and "Tecan.UserManagement.Manage" now use the same password aging and complexity rules [3264](83198)
- Retry after DiTi loss during liquid transfer is possible (99019)  
Put the following values under the section [OPTIONS] in the evoware.opt file  
ENABLE\_CONTINUE\_AFTER\_MANUAL\_DITI\_MOUNT = 1
- Option to clean up custom LC file(99619)
- Adobe Acrobat Reader has been removed from the Master Media(101551)

### EVOware General

- Validation of subroutines no longer consumes too much memory [3608] (82692)

- Barcode is not associated with no / wrong labware in a specific EVOware Plus scenario [3301] (82817)
- Multiple PrepareSingleScript Commands no longer leads to high memory usage of Te-DB [3298] (82818)
- DataExplorer: Files in AuditTrail\Log now have a valid checksum [3272] (82823)
- Lid handling combined with EVOware Reader Driver in EVOware Plus now works [3181] (82850)
- Duplicate device tool: ensures marco names are not too long, and duplicates all attributes [2747] (82999)
- Validate Configuration: now works with Redirections in ini files [2345] (83087)
- Worklists using barcodes now work correctly in EVOware Plus [1323] (83115)
- EvoApi: Once a script failed, all subsequently started scripts no longer complete "Run finished with errors" although no errors occurred (95772)
- Pause buttons activated during script execution (97153)
- EVOware no longer misses the response when EVOApi responds to user prompts too fast, (97197)
- EVOware does not crash with frequent user prompts with EVOApi and hidden GUI mode active (97198)
- Validate Configuration tool validates VacMan.ini and Te-ST.ini correctly (97303)
- EVOware becomes no longer becomes increasingly slower for scripting with time (97737)
- Script no longer stops with 'End of Loop without Begin Loop' error (99536)
- Error dialog when PauseInScriptNode=1 is set does not stop the process (99787)
- Device drivers setting EVOware plus to pause and unlock doorlocks do not cause device status to flash red. [3035] (99974)
- Race condition resolved when two driver commands are called at the same time (100008)
- Multi dispense step in a subroutine no longer uses single pipetting mode (100081)
- Script now validated after removing a line which causes an error via undo (100507)
- CustomLCs.xml no longer resets after clean up when Liquid Class Editor is closed via OK (101662)
- Runs with user prompts or error dialogs no longer get stuck if the previous run was aborted after an instrument error (100529)

#### **EVOware devices and arms**

- Mix after Dispense now uses the indicated volume (97550)
- ROMA\_MOVE returns error if not executed (100220)
- MCA384 macros with pipetting commands can be used again in Plus (100797)
- Edit script rights not needed to teach MCA (100197)
- MIO: no longer offers additional temperature parameter (101422)

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#### **What's new in Freedom EVOware 2.8 SP2**

##### **Enhancement**

- File Validation tool can be run from command line with user name and password (94947)  
"ValidateConfig -u [USERNAME] -w [PASSWORD] -f [FILEPATH]"  
Validate all files (that are listed when opening Validate Configure in regular GUI mode)  
"ValidateConfig -u [USERNAME] -w [PASSWORD] -f"  
"ValidateConfig -u [USERNAME] -w [PASSWORD]"
- Import / export tools returns a value for unsuccessful import when run from command line (94583)

- EVOware checks for sufficient rights when starting (85643)
- EVOware is compatible with Windows 10 LTSC 1809 (96563)
- New communication server that checks prevents arm movements when doorlocks unlocked, except during teaching (96565)
- Transfer Tool does not get mounted when SAMPLE\_CNT reaches 0 directly before ADH (99192).

### **EVOware General**

- Dongle driver updates to latest driver (94508)
- Sample Tracking log files are now included in AuditArch too (95068)
- Date change is visible in log files that run overnight (93539)
- Variable with scope instance are now handled correctly in EVOware Plus (83010)
- During retry worklist, disposable tips are always exchanged between samples (96443)
- Execute application is hidden when using HIDE\_ALL\_GUI from API (96556)
- '1to1' OR the '4to1' MCA 384 adaptors can now be used with EvoSim (83029)
- evom.ini file is now longer changed after Zip&Send (82753)

### **EVOware devices and arms**

- Precise Positioning is disabled (97028)
- The number of DiTis picked up with partial pickup with MCA 96 and MCA 384 is logged for Introspect (94623, 94624)
- Operator and Power user are only allowed to retry or abort in case of collision error - Ignore is not available (93133)
- "Adapter 96 DiTi MCA384" now uses correct sub liquid class in "Customize" dialog (86730)
- TIP\_MASK has expected function when using CondensedPipetingModeOff=1 (91958)
- Drivers don't crash when language setting incorrect (82690)
- On a 4 tip system, editing an aspirate / dispense or mix command does not change the tip select parameters (93962)
- On teaching panel Z values for not change for DiTis when switching to "Well dimensions" tab and back (82831)
- You can now use variables in transfer labware when a carrier and a hotel share the same grid (94522)
- MCA384 Lock DiTi Carrier in Edit Labware now works when dialog is opened multiple times (96453)

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## **What's new in Freedom EVOware 2.8 SP1**

### **Enhancement**

- Dropping MCA384 adapterplate with mounted DiTi is possible [3586] (83172)
- Update EULA (91378)
- Safe Path Move possible to activate after getDiTi already with SAFEMOVE\_ON\_GETDITI under evoware.opt parameters, [OPTIONS] (92311)
- Self diagnostics test now supports 1000ul DiTis with filter and possible to define x-/y- offset (92782)

### **EVOware General**

- Incorrect usage of TIP\_MASK during pipetting corrected(89389)
- With Safemove turned on and Ditis reused EVOware dispenses at the correct position (91765)

- EVOware will now working in the year 2020 (Standard\_Type.xsd File corrected) (93317)
- Open doorlock at start of process will not lead to Run finished with errors anymore (84752)
- AuditArch can now archive/delete files with a read-only flag (87024)
- Prevent to causes script to restart from line 1 and sometimes causes EVOware to crash when pressing pause button twice on device (91380)
- With the On Error GoTo and a RoMa/PnP grip error the lamp blinks green when handled [3473] (82760)
- With enabled file validation it is possible for an Operator or Power User to change directories when opening/starting scripts/processes (88775)
- Prevention implemented so EVOware will not crash at the end of the run (92779)
- File validation status transfer to Intro.ini corrected(84749)
- Self Diagnostic Test with 4 Tips will be executed on the correct Labware (94394)
- MCS connection will be closed after sending error message to prevent time out on overflow (93525)
- Detect Liquid command is using wrong well when WELL\_OFFSET and TIP\_MASK is set (95428)

#### **EVOware devices and arms**

- Prevent RoMa moving with open doorlocks stalling driver with tool functionality (88009)
- When the system is paused in EVOware Plus with deactivated resource locking, the RoMa will not move its last vector with open doorlocks (88108)
- API in hidden mode: pressing the "Cancel" button after doorlock error while other error dialog is open continues the script only when door is closed(93316)
- System will not initialize with open doorlocks when there is no wash station for MCA384 and system times out (91530)
- When PauseInScriptNode=0 and "Pause on error" is set in Plus then after a timeout the macro will not continue with open doorlocks (82730)
- Script will not execute with open doorlocks after an arm collision while driver command is executed in subroutine (93434)
- After arm collision run will not continue with open doorlocks (93505)
- With a combination of PauseInScriptNode=1 and time out the pipetting script will first finish before system is stopped in EVOware Plus (94741)

#### **New and updated Labware & Liquid classes**

- Added new Clear DiTi labware, 24 and 48 well plate and liquid classes (93710)
- Corrected carrier definition for "DiTi Nest 2+W LiHa" (92537)

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### **What's new in Freedom EVOware 2.8**

#### **Windows 10.**

- Freedom EVOware now supports Windows 10 professional (64 bit). Windows XP is no longer supported. (85057)
- New USB driver for commination with Freedom EVO and hard-lock. The USB driver is now signed by the original manufacturer, and requires a windows patch that is automatically installed if you don't have it already. (84855)
- To control a Freedom EVO under Windows 10, slot 41 must be enabled. This is slot is automatically enabled for new purchases of Freedom EVOware 2.8 and higher. An upgrade can be purchased for existing installations. (85058)

#### **Other Enhancements**

- EVOware lock screen disappears when user logs into TouchTools (84877)

- New liquid classes; Wide Bore tips, LC Serum free dispense PMPAir DiTi 1000 filter (86384)
- Enhanced debug information is written in case EVOware crashes. The files EvoDump.dmp and EvoDump.txt will be written to c:\ProgramData\TECAN\EVOware and will be timestamped so they are not overwritten. (86544)

### Bug Fixes

- DiTi sites no longer missing on default nested MCA DiTi carriers [3615] (82688)
- PosID3: two barcode errors on one rack while RoMa is moving no longer leads to crash [3601] (82697)
- Tips go back to 9mm after dropping 5ml DiTi. [3592] (82702)
- Force to pick-up empty tray with Transfer Tool is optimised [3568] (82718)
- PMP: Exception during PMP verification, possibly due to timeout" on Dispense is now recorded in Sample Tracking [3092] (82888)
- "Edit existing script" button is no longer gone when "Basic user" rights are assigned [3637] (83365)
- API: It is possible to start run although the safety panel is open [3633] (83367)
- Running a partial script with a subroutine command with a variable in the path no longer crashes EVOware (84753)
- Tecan.ErrorHandling.History.xml is no longer written to virtual store when user does not have adequate user rights. [3644] (84862)
- Tip no longer unselected when Asp/Dis command is open on some mixed tip combinations (84917)
- Script API does now returns information on loaded script contents (85238)
- Parameters in evoware.opt no longer get partially overwritten in some circumstances. (85821)
- EVOware does not crash when shutdown via Touch Tools (86274)
- When file validation is active, validated maintenance scripts are now displayed (87208)
- memory leak when API command PrepareScript reduced (87240)
- Pop-up message when an invalid filename is given to the API ReadScript command removed (87842)
- When initializing EVOware thru the API devices driven by external drivers no longer move with open doorlocks (87874)
- EVOware no longer crashes Power User starts a script from TouchTools – the User is prompted to restart EVOware (87930)

## Additional Information

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### Export Import tool login options

The Export Import Tool supports the following command line options:

- u <User name> User name to use for login
- w <Password> Password to use for login
- a Automated mode (no user interaction, no GUI)
- e Export mode
- s Skip existing items on import (in automated mode only)
- o Overwrite existing items on import (in automated mode only)
- k <Secret Key> Secret key allowing login without user name and password (e.g. for Installer)
- v Verbose mode (extended logging)

-p <SaveMode> Flags imported processes to be saved automatically on next EVOware start with an optional parameter to select SaveModes for linked worktables:

s – only save the active file

d – show the dialog for linked worktables as default “Save file and selection” will be used

<Import file> Full path and filename of export/import EXD file. In import mode, this file is loaded; in export mode, it is generated.

<Item> \* List of items to be exported, separated by spaces. (in export mode only)

The command line parameters are evaluated and handled as follows:

- If both user name and password are specified, the login is performed automatically.
- If the correct secret key is specified, login is skipped.
- If the automated mode option is specified, the options –s and –o are accepted. If none of the latter two is specified, existing items are skipped on import (i.e. –s is default behaviour).
- If the automated mode option is specified, an import file has to be specified as well; Otherwise the tool starts in normal mode.
- If the export mode switch has been specified, a list of items to be exported has to be provided as well as the export file name.
- In import mode, the list of items – if provided – is ignored.
- Remark: Login is also skipped if the User Management has been disabled in the EVOware Configuration Tool.

### Better control over diti and excess volume handling

Freedom EVOware now offers more control over how excess volume is handled when discarding ditis. The default behaviour is according to tecan’s liquid handling recommendations, but it’s possible now, to control where excess volume is discarded (liquid waste or Diti waste), and also to eject tips without dispensing excess volume.

Note; Be sure to validate any cross contamination issues when ejecting diti with liquid in tip especially when using small capacity diti Ejecting excess volume in Diti Waste can cause ditis the waste to become contaminated or sticky

This configuration is possible in the EVOware.opt. (C:\ProgramData\Tecan\EVOware\database under window 7)

```
:  
[Options]  
:  
DISPENSE_EXCESS_INTO_LIQUIDWASTE=0  
DISCARD_DITIS_WITH_LIQUID=0  
:
```

DISPENSE\_EXCESS\_INTO\_LIQUIDWASTE

When 1 excess volume is dispensed to liquid waste by default (if no liquid waste available an error appears)

when 0 excess volume is discarded to DiTi waste according to the DISCARD\_DITIS\_WITH\_LIQUID option

DISCARD\_DITIS\_WITH\_LIQUID

when 0 excess volume is dispensed to DiTi waste before dropping DiTis

when 1 excess volume is discarded by dropping DiTis to DiTi waste



**REPLACE\_EXCESS\_BEFORE\_ASPIRATE=0** // When set to 1 checks whether the Excess Volume should be replaced before aspirating again. This takes place in conjunction with the advanced replace after settings in the Liquid Class. Prior to aspirating, the excess volume will be dispensed to waste. In 2.6 SP1, dispense to vessel is now also corrected,

If the option: **TrailingAirgapAfterEachDispense** is activated in the LC then the TAG will not be aspirated for this dispense. <sup>[L]</sup><sub>[SEP]</sub>If the counter has not been reached then the TAG will be dispensed before the sample for the next cycle is aspirated. This needs to be done because there should not be any air between the excess and the sample. If there is any remaining sample from the previous cycle then it should be dispensed too.<sup>[L]</sup><sub>[SEP]</sub>If your Liquid Class does not have a sub-class for suitable for the excess volume,

**NO\_SUBCLASS\_SEARCH\_FOR\_CONDITIONING\_AND\_EXCESS** must be set to 1.

NOTE; If you are using this feature you must carefully validate your pipetting script according to the guidelines in the EVOware Application Software manual

**NO\_SUBCLASS\_SEARCH\_FOR\_CONDITIONING\_AND\_EXCESS=0** // When excess volume is dispensed to waste or to source, EVOware now looks for the appropriate sub-class for the volume being dispense. This can cause an appropriate sub-class not to be found for the volume to be dispensed. The Tecan QC Kit wizard liquid classes are like this, and you can either set up the sub-class in the liquid class or set this entry to 1 for compatibility.

**LOG\_TIP\_CONTENT=0** // Activates extended liquid handling logging.

**DROP\_TAG\_SPEED** - Speed used to drop the TAG (default=60ul/s)

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## MCA 384 Enhanced Washing

Freedom EVOware supports enhanced washing with the MCA 384 fixed tip blocks. When enabled, it is possible to vary the XY positions of aspirate and dispense of the wash fluid, and introduce a delay in between movements.

To enable enhanced washing with MCA 384, edit EVOware.xml (C:\ProgramData\Tecan\EVOware\database\ in windows 7 or C:\Program Files\Tecan\EVOware\database\EVOware.xml under win XP), and add the <Wash>section to the <MCA384> section ;

```
<MCA384>
  <Wash>
    <VaryPositions>1</VaryPositions>
    <!-- global switch 1-vary positions 0-switch setting off -->
    <WaitAfterXYMove>2000</WaitAfterXYMove>
    <!-- waiting time after move -->
    <Plate Name="Adapter Fixed 125ul MCA384">
    <!-- setting is per adapter plate -->
      <AspOfs> <!-- aspirate offset (1/10mm) from wash channel -->
        <X>0</X>
        <Y>0</Y>
      </AspOfs>
      <DispOfs> <!-- dispense offset (1/10mm) from wash channel -->
        <X>22.5</X>
        <Y>-22.5</Y>
```

```
</DispOfs>
<XYSpeed>20</XYSpeed> <!-- speed for XY movement -->
<XYTolerance>2</XYTolerance>
<!-- Movements less than XYTolerance (1/10mm) are ignored -->
</Plate>
</Wash>
<Plunger>
```

### Enabling Enhanced MCA 96 Diti Pickup;

This feature enables additional Z movements after the DiTi pickup from Nested Ditis that can help to ensure the tray is not retracted.

The following set of parameters (MCA section of EVOware opt) allow configuration:

```
ENHANCED_DITI_PICKUP=1
Retract_Move_Diti_PICKUP=200
Relative_Move_Diti_PICKUP=100
Retract_Speed_Diti_PICKUP=20
DELAY_DITI_PICKUP=400
```

ENHANCED\_DITI\_PICKUP has to be set to 1 to enable this special handling. All settings of (Retract\_Move\_Diti\_PICKUP, Relative\_Move\_Diti\_PICKUP, Retract\_Speed\_Diti\_PICKUP) have to be > 0 to allow this special handling.

#### Note:

Positive or Negative values depend on actual configuration regarding ZStart / ZMax / ZTravel.

#### How it works:

Different to the current ATF command the retract position is not the upmost position but is (zStart + Retract\_Move\_Diti\_PICKUP).

After that there is a relative movement down by (Relative\_Move\_Diti\_PICKUP).

Then there is the delay by (DELAY\_DITI\_PICKUP) milliseconds.

After that there is a relative movement up by (Relative\_Move\_Diti\_PICKUP).

Finally speed is reset and there is a there is a Z movement to the topmost position (which is the previous end position of the ATF command).

Since Freedom EVOware 2.6 SP1, this is now available for MCA 384 when using MCA 96 nested tips in conjunction with the EVA adaptor. To enable this add the following to the EVOware.opt;

```
[EVOware/MCA384]
    ENHANCED_DITI_PICKUP=1
    Retract_Move_Diti_PICKUP=200
    Relative_Move_Diti_PICKUP=100
    Retract_Speed_Diti_PICKUP=20
    DELAY_DITI_PICKUP=400
```

Please contact Tecan via your local Helpdesk if you need more help with setting this feature up.

### Minimum Y spacing for LiHa

Normally the LiHa tip spacing spreads to 9mm when moving in X&Y. A minimum spacing can be defined in EVOware opt file that forces the tip spread to remain between moves. In EVOware 2.6

Sp1, a new feature was introduced when working with 5ml dits so that the tip spacing is determined at diti pickup, and retained until the ditis are dropped.

[OPTIONS]

```
LIHA_TIPSPACING_MIN_1=90  
LIHA_TIPSPACING_MIN_2 =180
```

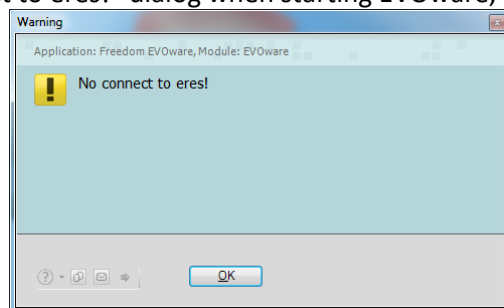
## Known Issues

- During an upgrade or repair installation the CarrierDefinition.xml gets overwritten and changes are lost (103905)
- SAMPLE\_CNT does count tips that are not used for pipetting (103898)
- MCA96 can track below z-max (103857)
- MCA384 can track below z-max (103856)
- "Optimize positions when fetching DiTis" not working properly for an 8+1 tips configuration (103859)
- Automatic lid handling on regrip station handles Grip\_Delta incorrect (103855)
- Pipetting with wrong DiTis when 2 worklists are loaded and executed (103852)
- Configuring Magellan software interface leads to an unresponsive state (M200 Pro) (103846)
- PROCESS\_NAME does not always contain the correct process name (103847)
- Memory leak in Plus when creating nodes in offline mode (103848)
- ControlPositionError after an Aspiration Error (103849)
- Detected\_volume displayed on screen and in log file differ from each other (103850)
- PosID-3 barcode error window can vanish behind runtime controller (103860)
- Plates removed too soon from the MIO incubator in EVOware Plus (103858)
- LiHa cannot move aside error during initialization (103861)
- If there is an error during user creation in EVOware due to missing numbers in password the user appears as created (103854)
- Endless script validation when exporting variables to the same file. (103892)
- Te-MagS: Two duplicated devices cannot run in parallel. (102975)
- Configure: Newly created roles with more than 32 characters are not saved. (103840)
- Tracking is incorrect when aspirating from a trough with MCA 384 using the 96 tip head adaptor. (103438)
- MCA384 commands allow well selection causing fixed tip adapter crashes (103453)
- Carousel command PresentPlate pre-selects wrong labware type when re-opened (103455)
- Execute retry worklist pipettes sample again when 'Ignore clot and continue' is chosen after a clot error (No Poor) (103456)
- ExportImport does not export liquid classes that are used in an SOE wizard (103460)
- MCA384 second DiTi Drop (incl. Side Steps) can only be configured for one adapter plate (103952)
- Automatic error handling 'continue, pipette nothing' after a clot error is not working as expected (103462)
- trac.ini is not updated correctly during an upgrade installation when deselecting modules (103465)
- CarouselNT: LoadBCFromFile does not work correctly when started the first time (102900)
- Worklists with brackets in filename cannot be used in scripts (103466)
- Impossible to change tip offset value for AirLiHa in Configure (103473)
- Centric RoMa cannot move as close as physically possible to MCA96 (103493)
- Excess volume is not dispensed into the liquid waste, when the 'Always safepath' option is active (103496)
- R command in line 1 of .gwl leads to validation error "unknown exception" has occurred (103501)
- Hettich Centrifuge temperature is restricted to values -10°C to 40°C (102907)
- Dilute error after a pmp clot error on an Air LiHa Evo (103507)
- ADH in Plus doesn't work with 'Optimize Positions when fetching DiTis' (103526)
- Change DiTi labware pops up even if ADH is active in EVOware Std (103529)

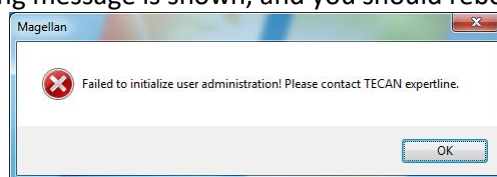
- In some cases, a pressure out of range error is not reported immediately by the Freedom EVO, and this can lead to an invalid operand. The script will end with errors, and there is a remote chance of contamination if an airgap was not aspirated. As always check runs that do not complete successfully before releasing results.
- When closing TouchTools in conjunction with EVOware Plus, close the run time controller of EVOware before closing TouchTools. If you do not close the Runtime controller, EVOware will crash harmlessly during the shutdown process. (103488)
- It's not possible to pick up rows AND columns when using the MCA 384 with the EVA Adaptor. (103964)
- The (current) Te-Centrifuge driver (5.3.6.0) is not fully compatible with the (old) Hettich centrifuge 46RSC. Contact help desk if you need a solution. (102917)
- Te-Shake: Shaker uses wrong temperature after teaching. Make sure you restart EVOware before running a script that used a shaker after teaching. (102915)

**Cannot connect to ERES (old electronic signatures, electronic records user management component) after de-installing Magellan or Setup and Service.**

If Setup and Service software or Magellan are de-installed, EVOware cannot connect to its user management when started, unless the computer is re-booted. If you see the “No connect to eres!” dialog when starting EVOware, reboot your computer.



Additionally if Magellan is started after de-installation of Setup and Service software, the following message is shown, and you should reboot your computer before retrying.



**MCA 384 adaptor definition**

If you are using the MCA 384 with both the 4to1 and the 1to1 adaptor, be sure the accurately teach the labware.

**Using a carrier that is shared between 2 processes with Freedom EVOware Plus.**

If you are running, two processes in parallel and they are using the same carrier, for example a LiHa and a MCA node are executed simultaneously on the same carrier, there is a possible barcode loss. This can be avoided by defining Groups in the carrier, and assigning a unique Group to each pipetting arm.

**Not all log files are written with checksum**

Files labelled as Log<nnnnn>.log created by the ExportImport tool do not contain checksum and show up in the data explorer as invalid.

Some macro<nnnnn>.log have no checksum if Freedom EVOware crashes between a process starting and EVOware bring shut down.

### **Import Export with nested sub-directories**

If attaching extra files using “Edit/Add files to export list”, adding a file from a parent directory and a second file from a subdirectory relative to the first file, neither file is attached to the export.

e.g. C:/ParentDir/Example.txt and C:/ParentDir/SubDir/Example2.txt cannot be added to the same export file

To workaroud this simply place the files in the same sub-directory.

### **Running Freedom EVOware under Microsoft Windows 10**

Freedom EVOware should not be run using the option “Run as admin” under Microsoft Windows Windows 10. Doing this may cause problems for add-ons.

### **Upgrading an existing installation of Freedom EVOware**

1. Check the Compatibility List for software compatibility. Only install and use compatible versions.
2. Do a complete backup using the EVOtransfer (this will assist a rollback)
3. Run the setup from the Freedom EVOware master medium.

This will update the programs and drivers but will leave the data intact. This means that new liquid classes, carriers, labware etc. are not updated. These can be imported individually from the master medium.

Export Import can be used to make version-independent backups of individual data objects, such as labware, carriers, robot and tube vectors, scripts and processes.

Backup and Restore (from within Configure) is for making backups with the same configuration. It is not intended for transferring or upgrading.

Do not copy single files (like carrier.cfg or scripts) because EVOware stores data in several different places and thus data can become inconsistent causing the software to be unstable.

### **Using filtered DiTis with PMP (Pressure Monitored Pipetting)**

To use filtered DiTis with PMP, be sure the Tip with Filter box is checked in the labware definition. This may need to be added to the default definitions.

## Excess volume

In previous versions of the software, it was possible to dispense an aspirated excess volume with a script command. This has now been corrected for all pipetting devices. If a script developed in a previous version of the software, which dispenses excess volume in a command line, is opened in version 2.2, a validation error will be generated. To correct the script, remove the excess volume from the liquid class and add the same volume in the aspirate command.

If calibration is used for multipipetting, a maximum of 10% of the excess volume might be offered to cover the extra volume. If the calibration volume would exceed 10% of the excess volume, a validation error is generated.

## MCA 384 liquid classes

There are no default liquid classes for multipipetting. Furthermore, only contact dispense is available as default.

For the MCA384, the logic from the disposable tip size assumption also applies for the fixed tip blocks. Pipetting volumes below 15 µl with fixed tips assumes that the small capacity fixed tip block is used. Therefore, if 10 µl is to be pipetted with the large capacity fixed tip block, a specific liquid class (i.e. "Water wet contact MCA 384 large capacity tip block") has to be selected.

## Dropping MCA 384 disposable tips in waste

The MCA384 is not designed to drop tips in a waste location. Doing this could damage the hardware. Therefore, do not eject tips over a waste with the MCA384.

## Home Vectors

Freedom EVOware is delivered with standard home vectors for the robot arm(s). Before using the instrument, the home vectors might need adjustment. This applies especially for the Freedom EVO 75.

If the home vectors are not adjusted correctly, it might be impossible to successfully initialize the instrument. Pay attention to the rotational axis.

## 8 Plus 1 Access dilutor resolution

After the EVOware installation or after switching from an EVO100/150/200 to an EVO75 with 8 Plus 1, the dilutor resolution stored in the EVOware.inf file may be inadequate for the 8 Plus 1 Access. Open the EVOware configuration, make sure that the XMP pump type is selected in the LiHa options and press Save.

## 8 Plus 1 Access Drop DiTi command

Even if z-travel optimization is not activated, the Drop DiTi command for the 8 Plus 1 Access may travel on a lower z-travel than expected. Make sure that all physically present carriers are present on the worktable in Freedom EVOware and that the used labware, especially the z-

travel, are all correctly defined. See also the section “Using older versions of the labware database” below.

### Using older versions of the labware database

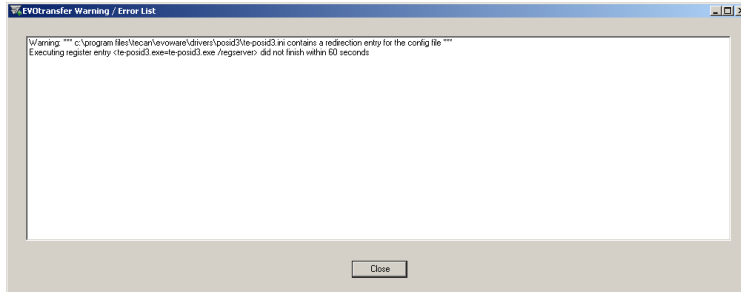
Please note that if you are upgrading an older version of the software and keeping the database, the labware “DiTi Waste Lower DiTi Eject” and “Washstation 2Grid DiTi Waste” had an incorrect z-travel and need adjustment. The z-travel needs to be defined in a proper way.

### EVOtransfer and different operating systems

An EVOtransfer image can only be installed on the same operating system version as it was created from. This is due to that files are stored in different locations under Windows XP and Windows 7 / 10 .

### EVOtransfer and certain modules

In some cases, certain drivers like the PosID-3 might cause a warning message (see below) when an EVOtransfer image is installed. In most cases, this message can be ignored. If the system is not starting up correctly afterwards, it might be necessary to modify the Redirect= setting in the ini-file of the driver in the EVOware folder. It must be set to the full path of the ini-file in the actual install directory of the driver.



### Export Import from CD

Using Export Import, data cannot be imported directly from the EVOware master medium or any other write-protected folder. To import from an EXD file on the master medium, just copy the file to another location and import it from there.

### Upgrading systems having liquid classes for PMP defined

On non-PMP systems that have Liquid Classes from former EVOware releases, it might happen that some Liquid classes are not visible in the Liquid Class editor. If that is the case, the PMP data files should be deleted manually.

### Using carrier group names in Plus



If one site in a carrier has a group name, all sites must have a group name. The length is limited to 32 characters.

### **Administrators must have password**

If a user without password is given administrator rights, the change will not be executed but no error message will be shown. A user without password cannot be granted administrator rights.

### **EVOSim ActiveX registration error after upgrade**

If after an upgrade opening EVOsim causes a “Virtual Serial Port ActiveX Control is not registered” error, this can be solved by unregistering the VSPort.dll. Using the Windows command tool, navigate to the C:\Program Files\Common Files\Tecan\VSPOINT directory. Then enter `regsvr32 /u VSport.dll`

### **Advanced DiTi Eject**

Advanced DiTi Eject introduces a small dilutor movement during diti eject to reduce the risk of cross contamination. NOTE: Tecan always recommends to use filter ditis where the risk of contamination could affect performance or assay results. Nevertheless, the risk of cross contamination can be reduced at the expense of throughput by enabling this feature.