



# **CyFlex® Release Notes**

**Release Version 7.0.21**

**Developed by TRP Laboratories**



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## Overview

This release notes document identifies and describes the updates for CyFlex version 7.0.21. The following link contains Jira issues within this release: [cyflex.7.0.21 - Jira Issues](#)

Refer to Installation Notes below for install-related considerations.

## Installation Notes

### Prerequisites:

If you have cyflex systems using cyflex 7.0.19, it is strongly recommended to upgrade to cyflex 7.0.20 before installing 7.0.21 following these instructions:

#### [7.0.20 Installation Instructions](#)

Ensure you are on kernel **5.4.17-2136.318.7.2.el8uek.x86\_64**

If you are not then follow these instructions starting at **Section 3.1**:

#### [Oracle 8 / CyFlex 7 Installation Instructions](#)

### To install cyflex.7.0.21, follow the instructions below:

1) Install CyFlex 7.0.21 rpm

Non-Cummins site: **sudo yum install cyflex.7.0.21**

Cummins site: **sudo yum install cummins-cyflex.7.0.21**

2) Ensure the cyflex\_sys\_log\_replicate and cyflex\_error\_viewer RPMs are installed:

**sudo yum install cyflex\_sys\_log\_replicate cyflex\_error\_viewer**

If the 2 RPMS were not already installed, then the computer should be rebooted to apply changes from the 2 RPMs.

**To revert to a previous version assuming it was not removed manually, follow the instructions below:**

- 1) Execute: slay\_stuff
- 2) Execute: sudo unlink /cyflex
- 3) Execute: sudo ln -s /cyflex.<version number> /cyflex
- 4) Execute: sudo /sbin/ldconfig

**CFBUG Notes:**

[CFBUG-3309](#)

svar has a new optional argument, --update\_by, that allows for bash scripts to be specified as the process that last updated the CyFlex variable. When total length of value for --updated\_by is greater than 23 just the file name without the path shows. If the file name exceeds 23 characters, then truncation occurs.

Example usage:        svar [--updated\_by </path/to/script>] <variable\_label> <value>

[CFBUG-3326](#)

gen\_labels real type field of 'format' can contain valid floating point format specifiers.  
gen\_labels int types can have an OPTIONAL field following the units which can contain valid integer type format specifiers.

svar has an option -f flag that takes a format specifier. The format string must be valid for the type of variable that is being set. Only int and real type general use variables are supported.

gval will use the variable format string when displaying INT\_TYPE and REAL\_TYPE variables.

For more information refer to page 16 of the [Creating User Computation and User Variables Guide](#)

[CFBUG-3392](#)

See [New control tasks conversion tips and new features](#) to convert from using the old control tasks.

## Issue Type and Jira Issue Legends

Refer to the following legend for **Issue Type**:

Issue Type Key	Definition
NF	New feature
B	Bug
I	Improvement

X = denotes additional information about change within the **Related Jira Issue**.

## General Applications

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
svar	Y	NF	<a href="#">CFBUG-3309</a>	Added --update_by argument functionality to svar to allow for specifying a bash script as the process to last update a specific CyFlex variable.
error_mgr		B	<a href="#">CFBUG-3314</a>	Prevent removal of all instances of duplicate errors, and instead only keep the first instance of the duplicate error.
slay		B	<a href="#">CFBUG-3315</a>	Allow for ecat_svr to now be killed correctly by slay.
dumpit libasset.so.7.0.0		B	<a href="#">CFBUG-3319</a>	Change units of liquid fuel composition parameters NF, HF, OF and CF to mass_ratio from frac_conc.
libasset.so gen_labels svar create_var gval	Y	NF	<a href="#">CFBUG-3326</a>	Add formatting options for general use REAL and INT type variables. Standard compatible C printf format specifiers are valid.
ecat_svr		B	<a href="#">CFBUG-3330</a>	Updated to have better re-connection capabilities per master and channel.

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
ai_specs		B	<a href="#">CFBUG-3332</a>	Deprecate the use of 'add' as an argument in ai_specs. Leaving the add argument in current scripts will not affect anything adversely.
get_errs		B	<a href="#">CFBUG-3339</a>	Ensures that the error database exists before attempting to open it.
panel		B	<a href="#">CFBUG-3347</a>	Modification to allow panel to startup on Oracle 8 systems.
table_report libcaltblread		B	<a href="#">CFBUG-3349</a>	Modification to show percent deviation and engineering units deviation in the output of the table_report program
ongadata		B	<a href="#">CFBUG-3350</a>	ongadata will now move missed older files into the directory to go to DARTS. Additionally, this should only trigger the onga_onga event on the last file to ensure that old data is not transmitted through the event.
eblox_srvr		B	<a href="#">CFBUG-3351</a>	New optional argument accepted by eblock_srvr, NODATA, to control running of functions that cause size send/receive functions to not run. Some firmware versions need these functions to run, but others will lead to an error to be triggered.
gmodbus gmodbus_child /cyflex/specs.def/gmodbus.def		B	<a href="#">CFBUG-3353</a>	Spec file field added to force original call for floats in gmodbus. 'ORIG' can now be specified as a spec file argument for float values to have the original call process the data.
/cyflex/specs.def/logr_spec.def		I	<a href="#">CFBUG-3355</a>	Updated floger spec files to include all keywords available to floger.
evnt_info iQueueVrbls		B	<a href="#">CFBUG-3360</a>	Modification to all programs to slay when slay_stuff is executed.
limit_info		B	<a href="#">CFBUG-3361</a>	Added additional newline for more neat output when errors are printed.
NFS_write emq		I	<a href="#">CFBUG-3364</a>	Deprecated

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
ongadata		B	<a href="#">CFBUG-3365</a>	Updated headers for ongadata
libelog		I	<a href="#">CFBUG-3366</a>	Added alter table statements to make sure the local elogbook database is up to the phase 2 specification.
emcon_comm		B	<a href="#">CFBUG-3368</a>	Modification to ignore bad packets and throw an error.
cf_scales lc_scales generic_scales		I	<a href="#">CFBUG-3370</a>	Modification to calculate overrun value based on the intervals the process is attached e.g SLO, MED, FAS.
devcom_coll		B	<a href="#">CFBUG-3371</a>	Modification to correctly check if another instance is running.
cf_scales		I	<a href="#">CFBUG-3373</a>	Removed second registered name for cf_scales
perf_labels		I	<a href="#">CFBUG-3375</a>	Modification to add instr_rel_hum and instr_t variables to perf_labels.
slay_stuff		B	<a href="#">CFBUG-3376</a>	Added evnt_info to slay_stuff command.
asam3cli asam3_specs asam3_initvar		NF	<a href="#">CFBUG-3377</a>	Keyword @ASAM3_DISPLAY_FORMAT added to asam_specs
asam3_faults		B	<a href="#">CFBUG-3378</a>	asam3_faults core dumps from uninitialized memory access. Use alternate variable that duplicates function and is being initialized.
/cyflex/cmds/slay		B	<a href="#">CFBUG-3379</a>	Modification to slay to add another check if the full path of an executable has not been specified
ao_modbus_tcp ao_modbus_serial		B	<a href="#">CFBUG-3382</a>	Updated error message for modbus driver when using an invalid type



Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
/cyflex/cmds/cuty*		I	<a href="#">CFBUG-3385</a>	Remove cuty* files from /cyflex/cmds since these executables have officially been deprecated and should no longer be executed.
libcsar floger hogger dlogger gvar gval		B	<a href="#">CFBUG-3387</a>	csar names using [] on the end that are not units should now work.
All of CyFlex		I	<a href="#">CFBUG-3388</a>	Updated asset library to have shared memory call for global configs.
snapiio_srvr inpt_handler CanDbc ai_eblox snode_link unico_dynlink_stream modbus_strm_tcp gmodbus gmodbus_child asam3cli multi_asc ai_transfer eblox_strm eblox_srvr		I	<a href="#">CFBUG-3391</a>	Updated various error messages to state errors.
ctrl_task ctrl_specs ctrl_specs_new		B	<a href="#">CFBUG-3392</a>	Deprecated.
asam3cli asam3_initvar		I	<a href="#">CFBUG-3393</a>	Hide asam3 global config behind env variable.
channel.dat parameter.dat units.dat		I	<a href="#">CFBUG-3394</a>	New *.dat files from 10/24/24

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
stat_child		B	<a href="#">CFBUG-3395</a>	Updated way program processes command line arguments
meriam		I	<a href="#">CFBUG-3396</a>	Updated task to work in CyFlex 7
test_limit		B	<a href="#">CFBUG-3399</a>	Fix to uninitialized variable leading to incorrect limit evaluation.
modbus_slave modbus_strm_tcp eblox_srvr		I	<a href="#">CFBUG-3401</a>	Updated state errors for some modbus errors
libelog		B	<a href="#">CFBUG-3403</a>	Improve error messages with correct information and table names if problem occurs when inserting data into database
libelog		NF	<a href="#">CFBUG-3404</a>	Modification for new requirement to save engine specification variables to database on every elog entry
asam3_specs		B	<a href="#">CFBUG-3405</a>	Fixed memory address violation.
eblox_srvr libasset.so		I	<a href="#">CFBUG-3406</a>	Updated misleading error message about config event
ecat_srvr		I	<a href="#">CFBUG-3407</a>	Fixed bug that caused ecat_srvr to not initialize properly
gval gvar svar asam3_initvar asam3cli libasset		B	<a href="#">CFBUG-3408</a>	asam3 variable initialization got update for default
evnt_adm		B	<a href="#">CFBUG-3409</a>	Fix to prevent core dump

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
arr_specs asam3_faults asam3_initvar asam3cli cpgdfa avl_link gen_labels eng_ctrl_task events more_events gmodbus eng_specs libasset.so cyrius_inputs ecat_mon ai_specs bld_tables do_specs fici_specs user_ctrl_task		B	<a href="#">CFBUG-3414</a>	Modifications to allow sending global_config_event with multiple SM_AREA_IDs
libasam3cli.so asam3_initvar asam3cli cvar libasset.so		B	<a href="#">CFBUG-3416</a>	Found and fixed issue with format changing from what it was previously specified
channel.dat parameter.dat units.dat		I	<a href="#">CFBUG-3417</a>	New *.dat files from 11/26/2024
libasset svar gen_labels		B	<a href="#">CFBUG-3418</a>	Remove L sub-specifier from real format regex
asam3_initvar		B	<a href="#">CFBUG-3419</a>	Modification to add tracking of line number in asam3_initvar when error is received

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
set_inactive set_active		I	<a href="#">CFBUG-3421</a>	Modification to improve error message if not enough arguments supplied and improve error message if the specified variable is not of AI, FI, CI or DI type
/cyflex/cmds/getfile_cyflex		B	<a href="#">CFBUG-3422</a>	Modification made to find current directory
asam3cli		B	<a href="#">CFBUG-3423</a>	Fixed problem when executing multiple runs of asam3_specs was leaving variables inactive
gmodbus libasset.so		B	<a href="#">CFBUG-3426</a>	Modifications to use new shared memory calls
MsgProtocol		I	<a href="#">CFBUG-3427</a>	Modification to set the debug option to default to FALSE
gval		B	<a href="#">CFBUG-3428</a>	Fix problem causing core dumps
libasset.so dump_it dumpit		B	<a href="#">CFBUG-3433</a>	Modification to fix spacing of output
gvar		B	<a href="#">CFBUG-3434</a>	Modification to prevent core dump when variable format contains #
/cyflex/cmds/asam3_stop_all.sh slay_stuff		I	<a href="#">CFBUG-3435</a>	Modification to prevent causing kernel panic
sarr libasset.so		B	<a href="#">CFBUG-3439</a>	Modification of how string array variable values are getting saved and retrieved
connsrvr		B	<a href="#">CFBUG-3443</a>	Fixed issue where message size was incompatible between cyflex.7.0 and cyflex.7.1 versions

## Java Applications

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
/cyflex/cmds/moved_java_file_check.sh		B	<a href="#">CFBUG-3358</a>	Change cyflex_java to cyflex_sys_log_replicate within the /cyflex/cmds/moved_java_file_check.sh file

## QT Applications

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
libQt5cyflexplugin.so		B	<a href="#">CFBUG-3333</a>	Update cmxgroup widget to check the CyFlex variable linked at startup.
qtstripchart qthistoryplot qtloggerplot qtxyplot		B	<a href="#">CFBUG-3362</a>	Modification to not show Title/Subtitle and Note within the plot window by default.
runqtui libQt5cyflex_plugins_sql.so libqt5cyflexplugin.so		B	<a href="#">CFBUG-3436</a>	Fixed issue with runqtui where application would core dump when closing/exiting the application

## Transient Emission Applications

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
star2_17.12		B	<a href="#">CFBUG-3320</a>	Remove reading cell config file and requirement of cell config argument. Changes to add and write liquid fuel elements if liquid fuel is specified in @FUEL_ID keyword in tri_specs.dat with C. variable.

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
set_eng_specs12		B	<a href="#">CFBUG-3329</a>	Modification to check for units group compatibility when initializing ^ variables
star2_7.b09 star2_7.12		B	<a href="#">CFBUG-3331</a>	Change the COMPONENT_FRACTION units from mole_ratio to %_mole_ratio
esvd_star5_12.raw		B	<a href="#">CFBUG-3340</a>	Modification to handle the arguments correctly and to handle if star8 argument has been specified.
esvd_star5.12 esvd_star5_12.raw		I	<a href="#">CFBUG-3341</a>	Modification to not write value for Optical path length of Celesco opacity meter in *5 section 7 record #35 if NONE is specified in the cell config file for that keyword.
Anything creating array variables		I	<a href="#">CFBUG-3343</a>	Remove the make_tri_arrays executable and change the amount of memory allocated for string, integer and real array variable
run_num_mgr.12		B	<a href="#">CFBUG-3346</a>	Modification to add an optional argument for specified_cell_number to eliminate the problem of atoi of cell_name when the cell_name is an alphanumeric string. Other changes to clean up redundant error message and fix error messages to correspond to the correct event creation.
ecg_header.12		B	<a href="#">CFBUG-3352</a>	Fixed problem causing variables to be stomped on due to length modifications
alternator_torq		B	<a href="#">CFBUG-3356</a>	Modification to prevent divide by 0 error if measure speed = 0 when net torque is calculated.
alternator_torq		B	<a href="#">CFBUG-3359</a>	Modification to grab real time variable value of coefficients. Modification to set outputs = 0 if measured_speed = 0
set_eng_specs12		I	<a href="#">CFBUG-3372</a>	Add processing of @GENSET... @ALTERNATOR... keywords and set specified variables.
ecg.10c ecg.12		B	<a href="#">CFBUG-3381</a>	Modification to remove writing of the data/cvs/tr_fil.### binary file since nothing is done with that file.
set_eng_spec12		I	<a href="#">CFBUG-3384</a>	Make @GENSET... and @ALTERNATOR... keywords optional when setting ^ variables if the corresponding variables do not exist

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
All esvd12 programs tri_specs		B	<a href="#">CFBUG-3386</a>	Modification to handle over 100 cycle_labels and fixing problem with adding data to tri array variables
libtri_nface12.so.7.0.0 libesvd_nface10c.so.0.0		I	<a href="#">CFBUG-3425</a>	Modification to handle pnp subsystems differently if CVS_MULTIPLEXING environment variable = ENABLED
tri_specs		B	<a href="#">CFBUG-3438</a>	Modification of way ECM DATA CHANNELS are getting saved to string array variable

## Weighroom Applications

Application, Script, or Library	Install Note Above	Issue Type	Bug Fix Name	Description
wtrm_qt libwtrm_dbase.so		B	<a href="#">CFBUG-3345</a>	Memory leaks that occur on the exit of the wtrm_qt application have been fixed.
wtrm_qt wtrm_sessionRpt		I	<a href="#">CFBUG-3369</a>	Modification to allow for Barometer units to be specified in the ini file and displayed on the wtrm_qt application window and session report.
/cyflex/cmds/wtrm_run_sessionRpt_load wtrm_sessionRpt		NF	<a href="#">CFBUG-3389</a>	Changes for session report to contain Load and Unload time for 17025 compliances based on when the puck was loaded/unloaded with the filter.
wtrm_qt		B	<a href="#">CFBUG-3413</a>	Change to make OK button default when both OK and Cancel buttons were shown in a dialog.
wtrm_sessionRpt		B	<a href="#">CFBUG-3424</a>	Modification to fix pass/fail flag to set = MISSING DATA if the sample filter doesn't have load/unload times

## [Release Notes for Previous cyflex.6.3 and cyflex.7.0 Versions](#)