WHEN YOU NEED TO BE SURE



CyFlex® Release Notes

Release Version 6.3.24

Developed by SGS North America, Inc.





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Overview

This release notes document identifies and describes the updates for CyFlex version 6.3.24. The following link contains Jira issues within this release: cyflex.6.3.24 - Jira Issues

Refer to *Installation Notes* below for install-related considerations.

Installation Notes

- **CFBUG-2657** A script file, ctrl_spec_converter, within the /cyflex/cmds directory has been added to aid in going to the new control programs when users upgrade to cyflex.6.3 versions. The script file can be used to convert a ctrl_specs file formatted to work with the ctrl_task to an eng_ctrl_specs format. https://cyflex.com/usage-help-manual/7-control-systems/ctrl_spec_converter/
- CFBUG-2654 user manual: https://cyflex.com/wp-content/uploads/AVL-Indicom-Services-using-AVL-Link.pdf
- **CFBUG-2653** The new ErrorViewer GUI allows a user to explore the errors reported by CyFlex. This is intended to allow a user to filter a large number of errors down to what they need. It provides filtering based on application, severity, and time, as well as the ability to search for keywords. The ErrorViewer program is installed with the errorviewer RPM that is a dependency to the cyflex version installation RPM.
- **CFBUG-2629** Various performance improvements have been made to the error manager process, along with new arguments for 'errs' which can be seen at CyFlex.com.
- **CFBUG-2611** The /cyflex.6.3.24/cell.def/cui_properties.txt file has been modified to add properties to be used for Maximo work order creation and completion through msu_edit. These properties will need to be added to /cell/cui_properties.txt file to enable Maximo work order creation and completion in msu_edit. Without these properties, this functionality will be disabled.
- CFBUG-2607 Refer to https://cyflex.com/wp-content/uploads/Convert-PAM-to-DARTS-KA.pdf for steps to changing/creating the appropriate files.
- **CFBUG-2605** The tca_header.12 program was looking for keywords from cvs_specs.dat that are not in tri_specs.dat and giving error messages.

The keyword names have been changed to match those in tri_specs.dat. However, the keywords for taking fuel readings at rated



power and torque peak are not available in tri_specs.dat. Therefore, the user will have to review the instructions from TRI and manually set the appropriate CyFlex variables.

• CFBUG-2599 - As coded, the new eng_ctrl_task and the old comp_ctrl (used with the old ctrl_task) programs attempted to correct the speed used for control if the user specified a PERIOD_RPM value in the special channels specification file. The code checked to see if the speed on successive iterations was stable and, if it was, the speed used for control would be gradually set to the period speed which would generally be more accurate. However, a coding bug would cause the speed for control to toggle between the corrected speed and the analog or frequency input value.

With today's methods for measuring speed, this error probably didn't happen in very many test cells. If there is no period speed measurement available, the keyword should not be used in the special channels file. The user should not point it to a dummy value.

The code for the new control program has been fixed but the old comp_ctrl program has not. If a problem is noted, the user should upgrade to CyFlex version 6.3.24 when it becomes available or remove the keyword if upgrade is not possible as a solution.

CFBUG-2598 - If users want to have the last data-point for a test-id managed, they need to add a key and value to the specs file
for loading data-point files. The following is a typical value line which might be added to the spec file.
 cyflex.extdatman.testid directory /data/PAMtestids

The spec file is typically at /specs/extdatman.cummins.darts.PAMdatapoint. See /cyflex.6.3.23/specs.def/extdatman.cummins.darts.PAMdatapoint for example.

• **CFBUG-2594** - In order to implement a warning about a missing user loop the old ctrl_task would have to be changed and this will not be done.

However, if the new control programs are being used, there is a new command called u_ctrl which can do any/all of the same things as the old u_* programs can do and that program has been updated to check for existence of the loop in question.



Issue Type and Jira Issue Legends

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

| Issue Type Key | Definition |
|----------------|-------------|
| NF | New feature |
| В | Bug |
| I | Improvement |

General Applications

| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---|--------------------------|---------------|------------------------------|---|
| u_ctrl | Y | Ι | <u>CFBUG-</u> <u>2594</u> | u_gains does not give an error if the control loop doesn't exist |
| ctrl_disp eng_ctrl_specs eng_ctrl_task | | I | <u>CFBUG-</u> <u>2596</u> | Better way to display new engine control variables |
| eng_ctrl_task specs.def/spcl_chans.def specs.def/burn_emis.def specs.def/logr_spec.def | Y | I | <u>CFBUG-</u> <u>2599</u> | Unwanted behavior when using PERIOD_RPM in the special channels file |
| run_aver libasset.so.6.3.0 | | I | <u>CFBUG-</u> <u>2600</u> | The running average program did not produce an error if too few events were specified in the go script |
| unico_modbus_srv | | В | <u>CFBUG-</u> <u>2601</u> | Increased max number of lines to read in archive file from 2000 to 4096 |
| specs.def/gen_labels.def | | В | <u>CFBUG-</u> <u>2603</u> | Removed invalid character from the end of the status section termination line that caused "Premature end of file" message |
| libtestgp.so.6.3.0 ck gp_test | | В | <u>CFBUG-</u> <u>2604</u> | Erroneous specification of the limit value in a gp_test @LIMIT_SPECS key was not flagged as an error |





| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---|--------------------------|---------------|------------------------------|--|
| subsonic | | NF | <u>CFBUG-</u> <u>2606</u> | subsonic when using square root method will no longer be able to calculate with a value equal to or below 0 |
| libcyflexPAMmua.so.6.3.0 darts_datapoint | Y | I | <u>CFBUG-</u> <u>2607</u> | darts_datapoint can now read new darts_pnp file |
| setDARTStestid darts_datapoint | | В | <u>CFBUG-</u> <u>2610</u> | The DARTS tasks will now correctly update the test ID extension |
| cell.def/cui_properties.txt | Y | I | <u>CFBUG-</u> <u>2611</u> | Added Maximo work order properties to /cyflex/cell.def/cui_properties.txt |
| browse.dat channel.dat parameter.dat units.dat | | I | <u>CFBUG-</u> <u>2615</u> | New *.dat files generated on 2/3/21 |
| darts_datapoint | | В | <u>CFBUG-</u> <u>2616</u> | Updated darts_datapoint to be able to read the /specs/pnp/eng_pnp file |
| qt5_up RPM 5.12.7 cyflex-6.3-basic-upgrade RPM 6.3.36 cyflex-6.3-upgrade RPM 6.3.32 | | В | <u>CFBUG-</u> <u>2617</u> | Fixed the designer.sh script file to handle an argument for the config file – this fix is installed by updating the cyflex-6.3-upgrade RPM |
| dc_GenSync | | В | <u>CFBUG-</u> <u>2622</u> | Added better errors for dc_GenSync when a timeout occurs |
| ai_ecat ecat_srvr | | I | <u>CFBUG-</u> <u>2624</u> | ethercat now signals ai_transfer whenever new data is ready to process. |
| logi_specs | | I | <u>CFBUG-</u> <u>2628</u> | Add SAT_active to logi_specs to eliminate error within PAMheaderSAT |
| cmds/errs get_errs error_mgr backup_errors | Y | В | <u>CFBUG-</u> 2629 | Made various updates to the error manager to increase performance along with better usage for errs |





| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---|--------------------------|---------------|------------------------------|--|
| darts_datapoint | | В | <u>CFBUG-</u> <u>2630</u> | Updated darts_datapoint to close files on some errors |
| get_errs error_mgr | | I | <u>CFBUG-</u> <u>2631</u> | Made improvements to the error_mgr so that it inserts into the database quicker |
| libapi_cyberapps.so.6.3.0 | Y | В | <u>CFBUG-</u> 2632 | Modified to set engine control mode and targets directly Multiple changes were made to the Simulink s_functions and CyFlex API library functions to properly handle units conversion and to write model outputs directly to variables instead of sending events to the new engine control program. |
| libcyflexPAMmua.so.6.3.0 | | В | <u>CFBUG-</u> <u>2633</u> | Channels with an alias did not get included in MUA data |
| specs.def/ecat_mon.hbm | | I | <u>CFBUG-</u> <u>2636</u> | Added file to specs.def with a header explaining what it is to be used for and some notes to users for configuration |
| error_mgr clear_error get_errs | Y | I | <u>CFBUG-</u> <u>2637</u> | The error manager now keeps both last go time, and last clear time |
| specs.def/ecat_mon.unico | | I | <u>CFBUG-</u> <u>2638</u> | Updated the header of the /cyflex/specs.def/ecat_mon.unico file with relevant information for running ecat_mon in a Unico cell |
| vrbl_to_file | | В | <u>CFBUG-</u> <u>2639</u> | Eliminate extra single quotes in WRITE feature of vrbl_to_file |
| test_limit libtestgp.so.6.3.0 | | В | <u>CFBUG-</u> <u>2641</u> | Modifications made to fix @LIMIT_SPECS_ALL that caused it to stop working |
| delta_split delta_hst perf_labels | | I | <u>CFBUG-</u> <u>2642</u> | Detune tolerances, history window and introduce delays in delta_split to reduce the delta_split cpu overhead |
| cf_scales | | В | <u>CFBUG-</u> <u>2643</u> | Change to fix fuel readings not triggering and FR_request staying on |





| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---|--------------------------|---------------|------------------------------|---|
| libeval.so.6.3.0 evaluate eval_demo libasset.so.6.3.0 | | I | <u>CFBUG-</u> <u>2644</u> | Add capability for cal_table functions in the "evaluate" app to support a cal table name that may be either a table name or a string variable containing a table name |
| backup_errors | | I | <u>CFBUG-</u> <u>2647</u> | The backup errors database will no longer have empty entries inserted into it |
| release_evaluate release_evnt_rsp release_gp_test release_run_aver release_snap_stats release_statistics release_task | | I | CFBUG- 2650 | Modified release_* programs to not give error when the tasks have not been started |
| avl_link libindicom_inter.so.6.3.0 libconnsrvr.so.6.3.0 getIndicom getResultsIndicom setIndicom startIndicom startContIndicom testIndicom | Y | I | CFBUG- 2654 | Add support for avl indicom and avl xion in avl_link |
| libtestgp.so.6.3.0 | | ı | <u>CFBUG-</u> <u>2655</u> | Fixed log_error print formatting |
| cmds/ctrl_spec_converter | Y | NF | <u>CFBUG-</u> <u>2657</u> | Converter script file added to convert a ctrl_specs file formatted to work with ctrl_task to an eng_ctrl_specs file format. |
| delta_hst | | I | <u>CFBUG-</u> <u>2659</u> | Implement tracking the events specified in delta_specs |



Java Applications

| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---|--------------------------|---------------|------------------------------|---|
| specfilegui/ExternalDataMan ager.jar | Y | I | <u>CFBUG-</u> <u>2598</u> | Support data-point test-id directory information PAM data loading used to manage information on the test data-point for a test-id in a test-id directory. This capability has been added to the DARTS data loading process. |
| specfilegui/ExternalDataMan ager.jar | | В | <u>CFBUG-</u> <u>2618</u> | Address issue with data-point loading tracking latest data-point by test-id |

QT Applications

| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|--|--------------------------|---------------|------------------------------|---|
| libQt5Plot_Engine_Core libplot_engine_core | | В | <u>CFBUG-</u> <u>2612</u> | Fixed Save Settings within qt plot programs to show the current file name as default |
| Qtstripchart qthistoryplot qt5loggerplot qtxyplot libQt5plotterplugins | | В | <u>CFBUG-</u> <u>2623</u> | qtstripchart now checks parent string before splitting to prevent core dump |
| libQt5cyflexplugin | | I | <u>CFBUG-</u> <u>2627</u> | Modified the layout of the cmx_pushbutton to match the layout of the cmx_togglebutton |
| libQt5cyflexplugin | | В | <u>CFBUG-</u> <u>2640</u> | Fixed problem with CmxString widget variable not blinking when it is supposed to |
| abate_mgr abate_cal_viewer abate_ec_viewer abate_log_viewer | | I | <u>CFBUG-</u> <u>2652</u> | Convert abatement qt programs to qt5 |





| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---------------------------------|--------------------------|---------------|------------------------------|--|
| ErrorViewer | Y | N | <u>CFBUG-</u> <u>2653</u> | errs is insufficient in 6.3 versions, an error viewer is required |
| libcyflexqobase_plugin | | N | <u>CFBUG-</u> <u>2660</u> | Added Cyflex_qobject class to support QML applications access CyFlex Variables |

Transient Emission Applications

| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---------------------------------|--------------------------|---------------|------------------------------|--|
| tca_logr.12 tca_header.12 | Y | В | <u>CFBUG-</u> <u>2605</u> | tca_header.12 giving errors on obsolete keywords |
| tca.10c | | I | <u>CFBUG-</u> <u>2646</u> | Modified to check the WOT sweep time from 95% of measured idle speed to the highest speed at 50% max power |
| tca.12 | | I | <u>CFBUG-</u> <u>2648</u> | Modified to check the WOT sweep time from 95% of measured idle speed to the highest speed at 50% max power |
| tca_header.12 | | I | <u>CFBUG-</u> <u>2649</u> | Obsolete tca_header.12 program |
| tca.10c tca.12 | | I | <u>CFBUG-</u> <u>2651</u> | Replace hardcoded datapoint number values with define values for datapoint types and fix error messages |





Weighroom Applications

| Application, Script, or Library | Install Note Above | Issue Type | Bug Fix Name | Description |
|---------------------------------|--------------------------|---------------|------------------------------|---|
| wtrm_*_cnvt | | В | <u>CFBUG-</u> <u>2609</u> | Fixed error within wtrm reports where Daylight Savings Time was always set to true |
| All weighroom applications | | I | <u>CFBUG-</u> <u>2608</u> | Create an interface program that will allow data from MTL to be stored in the CyFlex PM database. |

Release Notes for Previous cyflex.6.3 Versions

• CyFlex 6.3.23

• CyFlex 6.3.21

• CyFlex 6.3.19 - Initial Release