CyFlex® 6.2.16
Release Notes

Overview

This release notes document identifies and describes the updates for CyFlex version 6.2.16.

The following application types are included for this release.

- General Applications

- Central Server Applications

- Java Applications

- Qt Applications

- Weighroom Applications

- Abatement Applications

Refer to the sections below for the specific application, script or library updated for this release

Installation Notes

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avl_link - CFBUG-2068

In some configurations, avl_link was timing out waiting for results.

avl_link will now check the value of the INDICOM_RESULT_TIMEOUT environment variable. The default timeout is 10000 milliseconds. If you need a 15 second timeout you would add the following line to the go.scp before the avl_link command.

```
export INDICOM_RESULT_TIMEOUT=15000
```

Submitting Maximo Work Orders Through MSU – this only applies to the CTC site – CFBUG-2021

Properties within the /cell/cui_properties.txt file need to be modified to continue sending work orders to Maximo.

Determine if the maximo-config-new-mount RPM has been installed by executing the following command:

```
rpm -qa | grep maximo-config-new-mount
```

If nothing was returned from the above command, the following command should be executed to install the RPM:

```
sudo yum install maximo-config-new-mount
```

If the RPM is already installed, there are no additional steps to be taken.

The properties added within the /cell/cui_properties.txt file from the RPM allows a way to specify the destination of Maximo work order files. In previous versions of CyFlex, the work orders went to the sftpfilegateway that is no longer available.

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subsonic and gas_prop – CFBUG-2111

To avoid slaying and restarting the subsonic and gas_prop tasks to read modified specification files, processing of a re-read event has been added to the tasks. When the re-read event is received, the task will re-read the spec file and reconfigure.

The re-read event name for subsonic -   `subsonic-read`
The re-read event name for gas_prop -   `gas_prop-read`

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dc_Akg – CFBUG-2199

An optional new keyword was added called '$Errorname' that can be added to the specfile. After specifying '$Errorname', you can give it a variable that will store the error status.

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adv_time - CFBUG-2213

The new application is called "adv_time". It will create an "output variable" which will track an "input variable" by value, but the timestamp will precede the input timestamp by a specified number of seconds.

adv_time <priority> <interval/sync event> <delta_time> <input> <output> &

Example:
  adv_time 14 MED 10 my_track my_leading_track &

Release Candidates

Maximo Work Order Widget

A Qt widget has been created to display the Maximo Work Order Status information.

The following steps must be taken to setup the widget for use:
- Execute: `sudo yum install maximo-oracle-config`
- Once the maximo-oracle-config RPM has been installed, **log out** and log back in to activate environment variables used by the widget

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flash_rpt - CFBUG-2179

'flash_rpt' will now act similar to get_comp, and work with the options of 'flash_rpt'

The 'flash_rpt' task did not behave the same when specifying a single variable or a computed expression as an entry. Now 'flash_rpt' has been updated and the computed expressions are handled very similarly to the 'get_comp' function. You can specify units with a 'u=units' option towards the end of a expression now. It also now follows the 'f=format' and '+u' options now for expressions as well. Previously those options were ignored for expressions. An example of a working entry now would be:

{"SL1_lck*0.11[mol/min]/100[%]" /%.3f u=mol/min }

This will leave the entry with only 3 decimals places, and convert the expression into units of 'mol/min'. Previously this would have 20 decimal places, and not convert to 'mol/min' units.

General Applications

Issue type key: **NF** = New Feature   **B** = Bug   **I** = Improvement

Application, Script or Library	Issue Type	Issue Number	Description
cell_map_db_create_insert 6.2.1	I	2215	Queries using site and test-cell are case sensitive, the should be case insensitive
adv_time 6.2.0	NF	2213	Create an application which will continuously advance the time stamp of a variable by a specified number of seconds
dc_Akg 6.2.2	I	2199	dc_AKg can now accept an error variable name from the specfile A new keyword was added called '$Errorname' that can be added to the specfile. After specifying '$Errorname', you can give it a variable that will store the error status.
cf_scales 6.2.1	B	2193	Removed hard coded values so cf_scales functions like mode 2 in lc_scales
flash_rpt RC-6.2.1	B	2179	'flash_rpt' will now function similar to get_comp, and work with the options of 'flash_rpt' See Release Candidate section above.
limx 6.2.0 limits 6.2.2	B	2178	The limx executable was added to set the display resolution of logical variable The limit task was modified to set the display resolution of logical variable. A display format of %d was installed for limit flags and latches
ck 6.2.1 gp_test 6.2.9 libtestgp.so.6.2.0 6.2.3	I	2168	Increase the maximum allowable number of DEVCOM commands from 20 to 200
connsrvr 6.2.2	B	2153	Fixed issue where connsrvr incorrectly allowed duplicate ip_addresses or hostnames in configuration file

Application, Script or Library	Issue Type	Issue Number	Description
eblox_srvr 6.2.1	B	2152	eblox_srvr will no longer trigger false UDPTimestampErr events
cmds/verify_testcell_config.sh	I	2122	Add qt version information
limit 6.2.2 evnt_rsp 6.2.4 cell_mon 6.2.3 datapoint 6.2.6	I	2120	modify applications to NOT suspend during a global reconfiguration Since variables are not re-located in newer CyFlex versions, there is no need to suspend operation during a global reconfiguration
gas_prop 6.2.1 subsonic 6.2.2	I	2111	Add re-read event support to "subsonic" and "gas_prop" so they don't have to be slayed and restarted when the spec files are changed. See Installation Notes
snapio_strm_new 6.2.1 snapio_srvr_new 6.2.1 ai_snapio_new 6.2.1 ai_transfer_new 6.2.1	B	2110	snapio_srvr_new will no longer core dump from a bad socket connection and ai_transfer_new will properly read the new driver events
asam3_cmd 6.2.1	I	2173	Add wait_for_name() function to asam3_cmd so a sleep will not need to precede the call This will help speed-up afix scripts
libtestgp.so.6.2.0 6.2.3	I	2172	ck did not correctly identify the mode where an invalid mode was specified When an invalid mode is specified, the error message previously pointed to the last mode in the file as the location of the error.
tca.10c 6.2.2	I	2156	Changed "Cummins Confidential" within the tca report to "Confidential Data"

Application, Script or Library	Issue Type	Issue Number	Description
comp_ctrl 6.2.2	I	2081	Calculate dn/dt based on the delta-time between speed samples

Modify comp_ctrl to use timestamp difference between speed samples instead of the process interval. |
| avl_link 6.2.1 | B | 2068 | avl_link was timing out waiting for results, because the timeout was too short. |
| cfv_1065 6.2.0 | NF | 2059 | Add the cfv_1065 program |
| floger 6.2.3 | B | 2057 | Update the default FTP host name to reflect changes to the Cummins server.

Cummins updated the name of the FTP host for fast logger data and the default value used by CyFlex needs to be changed as well. |
| gp_test 6.2.9 | B | 2039 | Problem with continual evaluation of an expression containing array variables

A computed expression which contains array variables using variable indices do not compute properly. |
| limit 6.2.2
libasset.so.6.2.0 6.2.4
scheduler 6.2.1 | B | 2031 | Watchdog problems were created during reconfiguration

limit task automatically attaches to SLO process interval whether it is needed or not - reconfiguration would cause a watchdog failure for instances of limit that did not use SLO specs |
| caParameter 6.2.1
libapi_cyberapps.so.6.2.0   6.2.2 | I | 2026 | Add the capability to see what value was sent to the CyberModel via a real variable and to view the success/failure of the command via a logical variable. |
| eng_specs   6.2.2
PAMheader   6.2.1 | B | 2022 | Multiple lines within /specs/pnp/eng_pnp can be used

Previously, when more than 1 line was in the /specs/pnp/eng_pnp file, the first line was always skipped. Modified code to process all the lines within the /specs/pnp/eng_pnp file. |

Application, Script or Library	Issue Type	Issue Number	Description
datapoint 6.2.6 limit_specs 6.2.2 limit 6.2.2	B	2019	Timing issue on LIMIT_MEM reconfigurations could cause limit memory reconfiguration to time out Running a script such as 'afix' which contains multiple limit_specs launches can cause a reconfiguration timeout on 'limit' memory
bin/modules/vcanpcid-2.6.32-754.6.3 bin/modules/MTL-2.6.32-754.6.3 bin/modules/tc9513-2.6.32-754.6.3	I	2006	The 754-6.3 kernel modules are available for SL6.9
ctrl_specs 6.2.1	B	1991	The control specs program does not return with a new line When executing completely and without errors, the control specs program did not exit properly, and this left the user not knowing when it was complete. A return was added to the end of the main.
gas_prop 6.2.1	I	1986	Add the higher heating value by volume (HH) member value to the property variable Add the higher heating value by volume (HH) member value to the property variable. Currently the value is output to the HV member. This will also output it to the HH member. Also output HHVM to HM and HV members.
*.dat files	I	1976	New *.dat files - 09/30/2018 channel.dat - ETV_IN_P, ETV_IN_T, ETV_OT_P and ETV_OT_T added
gp_test 6.2.9 libtestgp.so.6.2.0 6.2.3	I	1974	gp_test logs -1634 warning message if the default_next_mode is a variable label CTT encountered 2 problems with gp_test in 6.2.14. 1) false warning message logged if default_next_mode is a label 2) @CREATE_EXPRESSION requires that target variable exist #1 fixed by an upgrade of the rd_mode.c code #2 fixed by creating the variable first. This issue is resolved in 6.3.0

Application, Script or Library	Issue Type	Issue Number	Description
			This was release candidate in cyflex.6.2.15
gp_test 6.2.9	B	1968	Mode timeout in gp_test is influenced by control commands when old "ctrl_task" is used

Control commands include delays if the old "ctrl_task" is in use, to the specified mode timeout was inaccurate. It takes longer than specified when these commands are used - @SPEED, etc. |
| init_properties 6.2.1 | B | 1958 | Modified the init_properties app to clear the emissions memory after allocation |
| gp_test 6.2.9 | I | 1821 | Increased retry count for sending DATA_CRITICAL queue fuel warning messages to avoid reporting unnecessary log_error messages

Increased retry count from 10 to 15 for DATA_CRITICAL messages to avoid unnecessary log_error messages
Also increased queue size of the event from 2 to 5 |
| volef   6.2.1
volef2 6.2.1 | I | 1794 | Eliminate bogus volumetric efficiency computations at or near zero engine speed

This change forces the volumetric efficiency result to 0.0 when the engine speed is 0.0 |
| cf_scales | B | 1753 | Allow a fuel reading to be requested while the engine is down when using cf_scales. |
| gp_test   6.2.9 | I | 1652 | Allow errors in @GLOBAL_EVENTS to count as strict enforcement errors

Previously, if a procedure file was invalid in a @GLOBAL_EVENTS specification, this did not count as an error for STRICT_ENFORCEMENT. With this fix, it will count. |

Application, Script or Library	Issue Type	Issue Number	Description
update_composition 6.2.1	B	1558	Fixed error message for update_composition pertaining to saving output file when permissions are incorrect
ctrl_task 6.2.1 comp_ctrl 6.2.2	I	1535	Increased watchdog timeout for comp_ctrl
gas_mix 6.2.1	I	1271	For "gas_mix" app, allow mass flow input field to be a STATISTICAL variable

Central Server Applications

Application, Script or Library	Issue Type	Issue Number	Description
kw_report 6.2.1	I	2101	improve kw_report modify to properly compute the terminal time of a financial week when the report is being run later in the week
all_sites_info 6.2.2	I	2100	Improvements to the ALL_CYFLEX_INSTALLED report • Added IP address and cleaned up formatting • Added the /data/version_list sorted output

Java Applications

Application, Script or Library	Issue Type	Issue Number	Description
specfilegui.jar 6.2.2		2182	Channel manager aborts when trying to enter an expression in the computed channels tab The channel manager would abort if an attempt is made to enter an expression into the calculated channels tab. This bug has been present in channel manager from the beginning. This bug is also present in the gen_labels editor - they share common code where the bug was actually located.
msu.jar 6.2.2	I	2162	In MSU allow closing multiple states when activating one When changing MSU states, the state change confirm dialog has been updated. When activating a state, the user now has an option to close all other active states. However, users are not permitted to change states they are not permitted to change manually, for example "Run".
msu.jar 6.2.2	B	2144	Fixed nullpointer for msu_edit when the maximo password is not set.
ExternalDataManager.jar 6.2.3	I	2035	Update PAM SSL data loading to deal with the PAMtestids directory better. The PAM SSL data loading process needed to be updated to better handle the location of the PAMtestids directory. Previously it defaulted to two levels above the hold directory. However, with PAM and DARTS data loading this is no longer appropriate. If the property cyflex.extdatman.siteType is "cyflex" then this directory will be managed by the code. This directory will default to /data/PAMtestids. However, this may be overridden by setting cyflex.extdatman.testids_directory in the property file to the desired location.
msu.jar 6.2.2 specfilegui.jar 6.2.2	I	2021	Added a way to specify maximo file target location via properties See Installation Notes

Qt Applications

Application, Script or Library	Issue Type	Issue Number	Description
libcyflexmaximo.so.6.2.0 6.2.0 libcyflexplugin_sql.so.6.2.0 6.2.3	I	2089	MSU and Maximo widgets now create an error file if cannot connect to the database successfully When either the MSU or Maximo widgets do not connect to the database, a file is created in the /data/errors/ directory and shows why it failed to connect. The maximo error file is called maximo_widget.errs and the MSU error file is called msu_widget.errs
libcyflexmaximo.so.6.2.0 6.2.0	NF	2032	Creation of maximo status widget – RELEASE CANDIDATE
libcyflexplugins.so.6.2.0 6.2.6	B	1983	Fixed problem with cmx_simplevaluechanindex widget core dumping The cmx_simplevaluechanindex was core dumping when the channel index was invalid (larger than maximum active channels for that memory type) and undefined cyflex variables were found in operator display .ui file. The code was changed to only use channel indexes less than the current number of active input channels for a particular memory type.
libcyflexplugin_sql.so.6.2.0 6.2.3	I	1961	MSU Status widget connects to the acdc database
libcyflexplugin_sql.so.6.2.0 6.2.3	B	1609	Prevent runqtui from core dumping when multiple MSUStatusButton widgets are used

Weighroom Applications

Application, Script or Library	Issue Type	Issue Number	Description
wtrm_pm_filter_rpt 6.2.3	NF	2219	Modified to display 3 digits after the decimal for dilution ratio within pm web report
filt_data_save 6.2.3	NF	2218	Add lookup of the next year, current year and the previous year for the filter_id in filt_data_save
wtrm_barcode_qt 6.2.0	B	2136	Fixed problem with SAVE AS or FOUND getting saved within the filter_id field when connection problems exist
cmds/wtrm_calRpt cmds/wtrm_refRpt cmds/wtrm_scalesRpt	I	1978	Modified report script files to remove year criteria of > 2017

Abatement Applications

Application, Script or Library	Issue Type	Issue Number	Description
abate_mgr 6.2.6 abate_ec_viewer 6.2.6	NF	2208	Email and Paging capabilities have been added