ecflow release 5.1.0

Bug

- [ECFLOW-534] - server: log hostname for ecflow_client users commands (protocol change)
- [ECFLOW-631] - server: allow suite clock to be synced for use before why command (protocol change)
- [ECFLOW-1451] - ecflowUI: ecflow 5 GUI pings the ecflow 4.0 servers. Caused operational issues.
- [ECFLOW-1461] - ecFlowUI: repeat date with one date should not start with ... in tree view
- [ECFLOW-1470] - server: add proper error string in reply when a version 5 client tries to connect to a 4 server
- [ECFLOW-1510] - server: status change time reported in info panel is wrong
- [ECFLOW-1513] - ecFlowUI: client command errors are not shown in popup
- [ECFLOW-1546] - ecFlowUI: edited repeat is not updated automatically in tree view

New Feature

- [ECFLOW-1454] - Last day of the month in cron expression

Task

- [ECFLOW-899] - doc: Update confluence about new features for 5.0.0 release
- [ECFLOW-900] - ecflowui: Update zombie panel with additional column for explanation
- [ECFLOW-901] - ecflowui: The why command should be preceded by sync_local(true/*sync_clock*/)
- [ECFLOW-920] - server:Add migrate/restore autoarchive/autorestore to reduce server memory load(protocol change)
- [ECFLOW-923] - client: convert use of ecf::Flag::MIGRATED -> ecf::Flag::HIDDEN
- [ECFLOW-930] - server: allow arbitary attributes
- [ECFLOW-931] - ecflowui: Remove hide/show menu options related to Flag::MIGRATED
- [ECFLOW-932] - ecflowui: Add menu/commands to support archive/restore
- [ECFLOW-933] - client: current way of splitting strings for parsing is very slow
- [ECFLOW-934] - installation: Upgrade to latest boost
- [ECFLOW-939] - server:replace boost serialisation in the check pt file with the defs file
- [ECFLOW-1483] - remove unused clock option startStopWithServer
- [ECFLOW-1484] - What happens to scheduled tasks when Ecflow is not running?
- [ECFLOW-1487] - ecflowUI: Info panel for inlimit does not show -s or -n option

Improvement

- [ECFLOW-501] - server: queue attribute (protocol change)
- [ECFLOW-675] - eliminate usage of std::auto_ptr
- [ECFLOW-829] - refactor class attributes to improve packing, more cache friendly
- [ECFLOW-878] - server: family inlimit (protocol change)
- [ECFLOW-881] - installation: Test the latest boost 1.68
- [ECFLOW-883] - server: refactor SSyncCmd, since Servers will always return a Defs (protocol change)
- [ECFLOW-885] - server: integrate password functionality for 5.0.0(protocol change)
- [ECFLOW-886] - tests: Update tests to avoid old migration workarounds
- [ECFLOW-887] - server:ecflow should return how a zombie arose.(i.e. pid mismatch, password mismatch, etc)(protocol change)
- [ECFLOW-973] - client: remove use of ECF_NODE
- [ECFLOW-974] - server:Investigate alternative to boost serialisation
- [ECFLOW-1009] - server: allow non-blocking query for state,dstate,repeat,event,meter, variable,trigger
- [ECFLOW-1059] - client: make the parsing of defs file format fault tolerant
- [ECFLOW-1060] - server: uses the defs format for wire transfer, when loading the whole defs
- [ECFLOW-1064] - server: Use defs file fomat in place of boost for client<->server.
- [ECFLOW-1065] - server: Replace command wire format with json. (replace boost for client<->server)
- [ECFLOW-1144] - ecFlowUI: authentication should allow specifying a user and a password
- [ECFLOW-1157] - server: Update queue attribute to support error handling
- [ECFLOW-1178] - client: allow inline scripts for testing and python
- [ECFLOW-1179] - server: investigate template library in addition ecflow pre-processing directives
- [ECFLOW-1180] - gui: remove ecflowview from the build/test in Jamfile and cmake
- [ECFLOW-1245] - server: when job creation takes too long , create a flag to notify the user
- [ECFLOW-1259] - overload protection, burst prevention
- [ECFLOW-1272] - server: take advantage of c++11/c++14 features to improve performance
- [ECFLOW-1308] - replace boost::string_ref with boost::string_view
- [ECFLOW-1317] - optimise client server interaction for ecflow_ui, reduce latency
- [ECFLOW-1320] - installation: build both python 2.7 and 3.0 boost libs
- [ECFLOW-1329] - server: modernize c++ , by using clang-tidy
- [ECFLOW-1336] - server: The zombie attribute should record the ecflow_client host
- [ECFLOW-1355] - Update log readers to take into account changes in log file format
- [ECFLOW-1372] - ecflowUi: Should use ClientInvoker::set_auto_sync() to avoid calling sync_local
- [ECFLOW-1457] - server: run encription on password on client and server
- [ECFLOW-1474] - use std::regex instead of of boost regex
- [ECFLOW-1489] - Extend query command to include labels
- [ECFLOW-1490] - Possibility to mix ssl and non ssl servers in ecflow_ui
- [ECFLOW-1526] - server: Allow specifying initial value of an Event
- [ECFLOW-1527] - Create Repeat type for iterating through an arbitrary list of dates and which understands date arithmetics

- [ECFLOW-1537] - date attribute validity
- [ECFLOW-1538] - task/family reordering, based on runtime
- [ECFLOW-1549] - client: allow simple reporting of server definition statitics
- [ECFLOW-1552] - installation: Build with latest boost/1.71 , python3 and cmake/3.15.0