
Release notes

March 20, 2024



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v1.29.152

This version updates the internal Xml module to v2.2.1 to fix an issue with a conflicting dependency.

v1.29.151**Fixes**

- Ensure `Table.update` always uses a non-cached table. [!1277]

v1.29.150**Fixes**

- Fix missing window field finder problem [!1275]
- Fix a crash that occurred when setting negative heights and/or widths for embedded notifications. [!1274]
- Fixes a loss-of-precision issue in the `Excel.updateCell` function. [!1272]

Misc

- `Wait.forClick` now supports dynamic fields [!1270]

v1.29.149**Misc**

- Categorize `FlowTracer.LatestStep` as a sensitive value in log output [!1268]

v1.29.148**Fixes**

- ContextBar buttons should also show debugger when alt-clicked. [!1252]

v1.29.147**Fixes**

- Fix broken compatibility with flau plugin [!1253]

Features

- Add setting whether non-http prefixed launch urls are allowed in non-hosted browser apps or not. [!1248]

v1.29.146**Fixes**

- Do not access `JsonConvert.DefaultSettings` at startup to avoid GAC-installed other version incompatibilities. [!1249]
- Fix for issue that prevented callbacks to be used in Notifications with markdown content. [!1244]
- Fix issue with `MarkdownStyleName` assignments. [!1243]
- Fix highlighting fields from Cuesta [!1229]

Misc

- Fixes an excessive logging issue in the FAC with immediately attaching applications. [!1245]

v1.29.145**Fixes**

- Change default `GrpcInterfaceHost` setting value to `"127.0.0.1"`; to avoid port re-use. [!1226]
- Fix issue with `Notification.progress` timing out too quickly. [!1220]
- Ensure all forms of null/undefined values trigger the `isRequired` validation. [!1219]
- Make a few exceptions (on exiting) less chatty. [!1218]

- Include more modules in auto-documentation process. [!1217]
- Exclude js files from signing in per-user build. [!1216]

Features

- Expose inputs and outputs for `LocalActions` API endpoint. [!1213]

v1.29.144

Fixes

- Use correct occupancy row for global table lock (multiple actors could enter critical region simultaneously). [!1212]

Features

- Ensure that a reason for Manatee shutdown is always logged. [!1211]

v1.29.143

Fixes

- Fix some triggers not firing as they should [!1208]
- Add some resilience for native (dynamic) applications when eager window scan is enabled. [!1206]

v1.29.140

Fixes

- Fix for missing `JsonConvert.DefaultSettings` [!1203]

Misc

- Improve robustness of Krom attach [!1200]

v1.29.139

Misc

- Add options to disable select options for context conflict resolution dialog. [!1198]

- Unblock a blocking operation when launching applications using the same `ItemManager`. [!1197]

v1.29.137

Fixes

- Fix an incorrectly formatted log message. [!1192]
- Immediate restart via `Manatee.restart(true)` caused a shutdown. [!1189]

Misc

- Allow MAP flows to overwrite shared state values (in particular owned state). [!1193]
- Mitigate a vulnerability in linked JSON parser. [!1190]

v1.29.136

Fixes

- Ensure all exceptions caught in retry-loop are catchable from flows. [!1187]

Misc

- Introduce an `url`, `base64` and `html` encode operations for application launch arguments. [!1179]
- Expose `Mouse.LEFT`, `MIDDLE`, `RIGHT` `BUTTON` properties to flows. [!1178]
- Improve multi-monitor support [!1175]

v1.29.135

Fixes

- Fix issue with window tracking in dynamic web-based applications. [!1177]

Misc

- Switch to gitlab hosting for internal package resolution [!1155]

v1.29.134**Fixes**

- Fix issue with duplicated log messages getting sent to remote loggers. [!1170]

Misc

- Throttle downstream cache events for better performance in handling of batched events. [!1169]

v1.29.133**Fixes**

- Fix issue with increased CPU usage on abnormal disconnect of Dugong driver. [!1167]
- Make it possible to change default value for `SELECT` inputs in `Dialog.input`. [!1166]
- Fix issues with `Attached` throwing an exception in native apps (ViewPoint) [!1164]
- Fix header and edge issues with `Dialog.inputHtml` [!1163]
- Fix string coercion issues for `Field` type (cause for "ToStringJS is not generic" error). [!1161]
- Fix stack overflow in `Dialog.input` with function-based validation items. [!1160]
- Fix issue with multiple Edge/Chrome windows opening when app is configured to open in new window. [!1159]
- Improve performance of cache encryption. [!1158]
- Adds missing cleanup to the `Http` methods (regression). [!1156]

Features

- Add a `Flow.stop()` function to bail from a running flow. [!1157]

Misc

- Minor performance improvement for Kwanza notification handling. [!1168]
- `Notification.close(...)` soon after `Notification.open(...)` now works better. [!1165]

v1.29.132**Fixes**

- Provide an `<kbd>esc</kbd>` for a field-finder session. [!1151]

Misc

- Make it configurable where log files are placed on the local machine. [!1154]

v1.29.131**Misc**

- Improvements and configurability for steller open-in commands. [!1153]

v1.29.130**Misc**

- Add retries for Edge opening Edge tabs. [!1152]

v1.29.128**Fixes**

- Ensure that a browser process is only valid if it has a window. [!1150]

v1.29.127**Fixes**

- Fix performance problem when duplicating large app configuration [!1149]

v1.29.126**Fixes**

- Add a win32 fallback for process finding to increase robustness of `Windows.forApp()` [!1148]
- Increase robustness for window trigger regex parsing. [!1147]

v1.29.125**Fixes**

- Fix NPE in `Windows.forApp()` method [!1145]

Features

- Add a setting to control whether a scheduled restart is allowed based on uptime. [!1146]
- Improve automation for Java 9+ applications. [!1144]

v1.29.124**Fixes**

- Allow multiple connections for the same participant across multiple sessions (regression). [!1140]
- Upgrade Krom to get localised strings included in build. [!1139]
- Do not load plugins automatically, rather when they're needed. [!1135]

Features

- Add support for regex-based restrictions. [!1141]
- Add a random component to the `KwanzaStreamFlushIntervalInSeconds` configured via `KwanzaStreamFlushMaxRandomSecondsAdded`. [!1138]

Misc

- Add `.exitCode` and `.exitTime` to `ProcessProxy`. [!1143]
- Plugins and modules can now be loaded from install directories enabling them to be installed using e.g. msi installers. [!1142]
- Performance improvements for application launch and attach. [!1137]

v1.29.123**Fixes**

- Add more logging for the CM lifecycle. [!1136]

v1.29.122

- Update embedded Xml module to align dependencies.

v1.29.121**Fixes**

- Fix anchor/intercept not working in KantPlugin [!1132]
- Ensure the default value for restriction user prompt timeout is -1. [!1131]

Misc

- Introduce `Excel.RETAIN` to allow for merge of existing cell values in `Excel.updateCells` invocations. [!1134]
- Optionally escape quotes when writing to Tables (csv). [!1133]
- Performance improvement for `LocalActions` endpoint and recursing groups in general. [!1129]

v1.29.120**Fixes**

- Fix bug in field finder [!1130]

v1.29.119

No content in this release. Done to resolve a CI issue.

v1.29.113**Fixes**

- Fix issue with context trigger (delete) not getting run or getting run multiple in some cases due to a concurrency issue. [!1126]

v1.29.112**Fixes**

- Fix a missing update to a `SelectBetween` caused by a bad `Innumerable` comparer. [!1125]
- Add `{{PluginPath}}` and `{{ManateeHome}}` to values that can be interpolated in launch-path and -arguments. [!1123]

Misc

- Make steller app launch timeout configurable [!1124]

v1.29.111**Fixes**

- Fix issue with items functions in SelectFrom on TYPEAHEAD dialog elements. [!1122]

Misc

- Add noLaunch option to more triggers [!1121]

v1.29.109**Fixes**

- Restrictions now only apply to the version they are specified for. [!1118]
- Fix issue with missing timeout in API restriction configurations. [!1117]
- Reintroduce support for old native window scanning strategy [!1116]

Misc

- Support for exchange server oauth authentication [!1119]
- Add missing alt + right click handling for new plugin api [!1114]

v1.29.108**Fixes**

- Fix regression in querySelectorAll for app embedded browsers [!1108]

v1.29.107**Fixes**

- Fix stack overflow on certain `Dialog.input` configurations. [!1113]
- Fix recovery when plugin drivers fail [!1112]

v1.29.106

Features

- **BREAKING** Better support for plugin-based apps. Immediately attaching apps and automatic plugin start. [!1111]

Misc

- Protect embedded chrome command line arguments from prying eyes [!1110]
- Better support for multi-select controls [!1109]
- Add configurable timeout for WebSocket proxy commands. [!1107]

v1.29.105

- Fixes to Db module for x64

v1.29.104

Fixes

- Ensure folders for attachments are created on `writeAttachmentsToDisk()` invocations. [!1102]
- Fix browser discovery bug due to missing IE COM object [!1101]

Features

- Replace `Db` module in Manatee with plugin - also adds the `.close` method to a connection. [!1106]
- Produce signed MSI installers during build. [!1104]
- Add support for priorities on triggers and fix issue with multiple trigger events when windows appears. [!1100]

v1.29.103

Fixes

- Optimize Tip placement resolution. [!1099]

Features

- Add support for markdown formatting in `Sticky`, `Notification` and misc `Dialogs` [!1097]

Misc

- WebView-based Cuesta-window [!1098]
- Upgrade icons library. [!1096]

v1.29.102**Features**

- Feature: Tips for fields [!529]

Misc

- Better default launch working directory (now using the directory of the launched executable) [!1095]

v1.29.101**Fixes**

- Fix issue with multiple attachments with the same name in Exchange (2nd attempt) [!1094]
- Fix issue with Edge applications not launching when Edge is running but no Edge windows are open. [!1093]

v1.29.100**Features**

- Add a `Progress` type which can be used in a sticky or notification. [!1092]

v1.29.99**Misc**

- Make inspect result interactive [!1091]
- Add pre-upgrade jurassic tests [!1090]

v1.29.98**Fixes**

- Fix issue with repeated removes for outdated plugins. [!1087]

v1.29.97**Fixes**

- Fix reader leaks in `Db` module. [!1086]
- Modules can now be `included` via their subject (previously only name was possible). [!1085]

Features

- Add options to enable `Fs.mv` and `Fs.cp` to overwrite destination files. [!1083]

Misc

- Add more detailed JSON-RPC error codes for CCOW errors. [!1088]
- Ensure that sub-groups are also returned when LocalActions API is invoked. [!1084]
- Add support for new field path indexes [!1013]

v1.29.96**Features**

- Add support for fore- and background colours and other minor changes to sticky appearance and behaviour. [!1079]

Misc

- IE app `.exists` exceptions now bubble to the flow [!1082]
- Add support for scrolling via mouse wheel simulation. [!1081]
- Add `receivedDate` property to emails [!1080]

v1.29.95**Fixes**

- Fix problems with option property parsing [!1078]

- Fixes broken highlight functionality [!1077]
- Handle duplicate filenames in mail attachments by making them unique. [!1072]
- Fix an issue with Edge failing to start. [!1071]
- Fix field finder problems when desktop scaling is active [!1068]

Misc

- Accept id, name or subject for flows in Sticky ACTION links. Previously only name was allowed. [!1076]
- Perform automatic maintenance to delete unused plugins from disk. [!1075]
- Retry module load after downloading module if initial load fails. [!1074]
- Resolve variables for app workingdirectory field [!1073]

v1.29.94

Fixes

- Fix issue with default values for DATETIME input type for Dialog.input. [!1069]

Misc

- Add option to output a hex encoded string from `Crypto.hash` [!1070]

v1.29.93

Fixes

- Fix issue with invalid JSON for `.inspect(...)` [!1067]
- Fix issues with lauch-with-flow for proxied apps and more options for launch-flow return values. [!1066]

Misc

- Add support for launching applications via flows. [!1065]

v1.29.92

Fixes

- Fix an issue with repeated joins from same ContextParticipant. [!1064]

v1.29.91**Fixes**

- Fix some issues seen with Cuesta in Krom [!1063]

Misc

- Add support for using WebView2 (Edge) browser in internal browser views (sticky and html input dialog). [!1062]

v1.29.90**Features**

- Add support for dynamically created applications in flows. [!1057]

Misc

- Performance improvement for native and plugin app attachments. [!1061]
- Add support for groups on groups. [!1060]
- Added stability to the loading of plugins. [!1059]
- Sticky keyboardNavigation option fixed [!1058]

v1.29.89**Fixes**

- Fix deadlock in HotFailoverContextManager triggered by `Flow.run` [!1052]
- Fix issues with empty messages (and empty input values) for is-required validation. [!1051]

Misc

- Allow keyboard press of computed key codes [!1055]
- Add a `version` property to all loaded modules. [!1054]
- Add options to disable adding new rows and deleting existing. [!1053]

v1.29.88**Fixes**

- Fix an issue with application configuration updates getting propagated correctly for the full-auto controller. [!1047]
- Fixes an issue with space characters for `Keyboard.send` [!1044]
- Fix issue with missing cleanup after `HID.blockInput` [!1037]
- Fix an issue with busy loop caused by disconnecting socket. [!1036]

Features

- Extract the Xml module in a separate repo and effect build changes to match. [!1048]
- Add explicit support for cookies in the `Http` module. [!1041]
- Include env variables in possible resolvable items in launch strings. [!1039]

Misc

- Use Html module from independent repro. [!1049]
- Allow up to N (configurable) failed pings before ejecting a participant from the context. [!1045]
- Improve chrome/edge/firefox attach stability [!1043]
- Register Chrome/Edge native messaging host under HKLM [!1042]
- Expose driver line protocol in separate artefact [!1040]
- Let plugin drivers report app rectangles [!1038]
- Better performance for `Wait.forWindow`. [!1035]

v1.29.87**Fixes**

- Fix an issue where return values from action invocations were not correctly delivered to external participants. [!1034]

v1.29.86**Features**

- Tighten encryption for cache to Manatee-eyes only. [!1032]

v1.29.84**Features**

- Add the Chat service. [!1029]

Misc

- First class support for radiobuttons/checkboxes [!1031]

v1.29.83**Fixes**

- Fix issue with PDF sticky item retaining a lock on the presented PDF file. [!1030]
- Fix no-value-returned-from-editable-combobox issue. [!1027]
- Fix bug in WindowProxy.class [!1020]
- Fix issue with `Module.load`. [!1018]
- Fix excessive logging with malformed linereader messages. [!1016]
- Fix bug affecting plugin-provided drivers and their attach procedure [!1014]
- Fix launch issue when using known-executable in a native application. [!1012]

Features

- Expose the locally available applications over all available external interfaces. [!1025]
- Add support for launch-flows. [!1024]
- Feature: CI build base image update [!1022]
- Add a `resolve` method to `Field` class. [!1015]
- Expose cordless-puppeteer for transparent access to Dugong embedded browsers. [!1011]

Misc

- Allow function-based inputs in the input dialog to depend on other function-based inputs. [!1028]
- Improve accuracy of `HID.mouse.moveBy` [!1026]
- Add `owner` and `group` properties to files returned returned from `Fs.ls` [!1023]
- Correct unpredictable positioning in `HID.mouse.moveTo` [!1021]
- Add focus option to screenshot command [!1019]
- Allow use of `*` (wildcards) in native (white) field paths. [!1017]

v1.29.82

Fixes

- Allow use of FQDN in `grpc` host-names. [!1010]
- Allow more usages of concatenated strings. [!1009]
- Allow use of concatenated strings in `Excel.load`. [!1008]
- Allow use of Javascript `Date` objects as initial values for `DATE` values in `Dialog.input` (regression). [!1003]

Misc

- Field finder and debugger get automatic session switching [!1007]
- Make skipping **uninterested** external participants in tx changes configurable. [!1006]
- Add `decode` and `encode` methods to the `Html` module. [!1005]
- Make `i18n/certs/etc` load more reliably from Kwanza. [!1004]
- Make driver communication more predictable [!1000]

v1.29.81

Fixes

- Really, really don't use a (disk) cached version of a `Table` when `useCache=false`. [!1002]
- Fix browser apps sometimes not attaching [!999]
- Fix an issue with bad certs getting included in the CA validation chain causing connection issues with letsencrypt certificates. [!994]
- Fixed Edge extension port discovery problem [!992]
- Fix problem with field finder [!988]
- Fix issue with file last-modified etc times in the `Fs.ls` module. [!981]
- Make it easier to click add/remove icons for LISTOF elements in the `Dialog.input` feature. [!980]

Features

- Add `Registry.LocalActions` to the CCOW API and add the `Subject` to `ContextAgent.ContextChangesPending` invocations. [!1001]
- Add reconnect logic to the remote log collector (aripuana) initialization. [!991]
- Use emojis with colors to indicate connected status instead of colored blobs. [!983]

Misc

- Increase performance for right-click menu and LocalActions API endpoint. [!996]
- Make file: true input wait configurable [!995]
- Add support for `includeInvisible` field constructor option [!993]
- Include Windows certificate store certs in CA chain verification for gRPC communications. [!990]
- License report upload to S3 [!987]
- Two unattended features; RDP session switch and keep-Manatee-alive (from helper). [!986]
- Driver plugins are now easier to start and manage [!985]
- This causes inspect to work in drivers provided by manatee plugins [!984]
- Adds the `Extends` module implementing extension points for published inlined flows. [!982]
- Add support for enforcing API restrictions. [!976]

v1.29.80**Fixes**

- Better error handling for the Sticky module. [!977]

Misc

- Add option to only run cron-triggered flows when app is already attached. [!979]
- Add possibility to ignore missing White window on attach. [!948]

v1.29.78**Features**

- Allow documentation of optional params for module methods. [!975]
- Add `delete`, `update` and locking methods to use Tables for cross-machine synchronization. [!973]

Misc

- Use random ports for services. [!970]

v1.29.76**Misc**

- Add subject info to each LocalAction returned in the LocalActions endpoint. [!972]

- Only the sensitive parts of a log message are now redacted, not the full line. [!968]

v1.29.75

Fixes

- Fix issue with `Flow.run` selecting a duplicated flow. [!961]

Features

- Add caching of select `WindowProxy` properties. [!967]
- Allow use of strings as initial value for DATE input. [!962]
- Introduce a fixed-hosts load-balancing strategy. [!958]

Misc

- Ignore `grpc://` in balancer with fixed hosts [!971]
- Make native driver features available to all app types [!969]
- Adds a `transparency` property (get/set) to the `WindowProxy`. [!966]
- Aliases `editCell` and `editTable` to `editcell` on `Field`. [!964]
- Adds `connected` property and Kwanza about information to `Env` module. [!963]
- **BREAKING** Support activation of web drivers ignoring invisible elements by default [!960]

v1.29.74

Misc

- Downgrade chatty log message related to empty field locators [!957]
- Hosted Chrome support for pre-approving camera/microphone use [!956]
- Upgrade the embedded Krom browser to v1.7.4 to fix issue with context-menus. [!955]

v1.29.73

Fixes

- Fixes an issue with writing float, double or formula values to an Excel spreadsheet. [!954]

v1.29.72**Misc**

- Redact some *possibly* sensitive log statements for v1.29 only functionality. [!952]
- Redact some *possibly* sensitive log statements. [!951]

v1.29.70**Misc**

- Restores log statements without allowing any actual logging from ManateeHelper [!950]

v1.29.69**Fixes**

- Fix an issue with embedded IE, legacy mode and Windows logon prompts. [!942]

Misc

- Remove logging from ManateeHelper. [!949]
- Add setting to determine whether embedded (browser) apps should suicide on detach. [!945]
- Adds Fs.buildPath [!944]
- Ctrl + right click opens advanced manatee menu [!940]

v1.29.68**Misc**

- Add Env.sessionType property [!941]

v1.29.67**Fixes**

- Fix issue with headers in `Http.upload`. [!939]

v1.29.66**Features**

- Add support for custom status codes returned from flows which are invoked via http. [!938]

v1.29.65**Fixes**

- Fix an issue reading headers from an `HttpReply`. [!934]

Misc

- Add support for headers in `Http.upload`. [!937]
- Prevent chrome/firefox/edge from launching a tab twice [!936]
- Add scrollbars on overflow to the application list. [!935]

v1.29.64**Fixes**

- Fixes missing click intercept events in hosted ie and experimental ie app types [!929]
- Fix window title reading problem [!927]

Misc

- Add support for multipart uploads to `Http.upload`. [!933]
- Improve `Debugger` window responsiveness while evaluating code [!932]
- Plugin apps react to driver disconnects [!931]
- Speed up flow start-time [!930]
- Try to guess `cuesta` url when one isn't configured [!928]

v1.29.63**Fixes**

- Fix optical field related manatee crash [!923]
- Fix a Manatee crash (in Windows 7) due to `System.Windows.Automation.Automation.TransactionTimeout` not being implemented [!919]

Misc

- Add `upload` methods for uploading files from disk to `Http` and `Ftp` modules. [!926]
- Adds a configuration switch to disable sending of "sensitive" information to the remote log collector. [!922]
- Finally fix the occasionally failing tests [!921]
- Add support for opening popups in internal windows. [!915]

v1.29.62**Fixes**

- Fix an issue with `EndContextChanges` returning a reason for rejection even if participant approved transaction. [!917]

v1.29.61**Fixes**

- Fix an issue with clearing of cache entries. [!916]
- Window title changes are now also included when triggering for `WINDOW_SHOWN` and `WINDOW_HIDDEN`. [!910]
- Fix an issue with log-statements from `Log.info` and `Log.warn` getting mangled if the message contained a `{something-in-here}` type of string. [!909]
- Fix issues with `maxDialogWidth` on `Dialog.inputHtml`. [!908]
- Add configuration option for native UI transaction timeout. [!905]
- Fix `Wait.for` treating null as truthy [!903]
- Fix issue with cron ranges. [!897]

Misc

- Make tests more stable [!914]
- Add `Log.debug`, `.warn`, and `.fatal` to log with corresponding level. [!913]
- Adds methods for interacting with a window given its window handle. [!912]
- Give better error when invoking Field constructor like a function [!911]
- Make `Debug.ger` window responsive when slow evaluation is running [!906]
- `Wait.forField` now cycles through all available locators before giving up [!904]
- Forward all inputs given for `api/url-handler` invocations to flow. [!902]
- Always use the freshest texts in the right-click menu for `i18n`. [!901]
- Restrict restart and shutdown in 5m after restart. [!900]

- Read settings from the command-line. [!899]
- Add support for MSI flag `BRANCHSHORTCUT` to include the name of the branch in shortcuts created by the installer. [!898]
- Add support for evaluating javascript inside java apps with 'eval' [!893]

v1.29.60

Fixes

- Include the version in the cache-key for Kwanza provided Manatee settings. [!896]
- Ensure that all `Fs` paths ends with a `\` [!894]
- Fix issue with clicks in context-menu when scaling-factor was not 100% [!892]

Misc

- Make it possible to override language from settings. [!895]

v1.29.59

Features

- Add support for tooltips and helpful texts on all input elements. [!891]

v1.29.58

Fixes

- Fix a leak in `Field.highlight()` [!889]

v1.29.57

Misc

- Add `.eval` and `.querySelectorAll` to `.browserAt` element api [!890]

v1.29.55

Misc

- Also log dugong errors. [!888]
- Holding the control key will temporarily pause the field finder [!887]

- Adds support for `Fields.xx.asBrowser()` for automating browsers embedded in java apps [!886]

v1.29.54

Fixes

- Make `isRequired: true` work for CHECKBOX input. [!882]

Misc

- Improve placement of notifications. [!885]
- Ensure only one restart can be scheduled at any given time. [!884]
- Add public properties to suggestions/typescript api. [!883]

v1.29.52

Misc

- Add hooks for `ContextSession.Create` and `.Activate` methods for JSON-RPC. [!881]

v1.29.51

Misc

- Instantiate the perf logger as late as possible. [!880]

v1.29.50

Fixes

- Reduce the number of processes we enumerate for all process-enumerating cases to those in the same session. [!879]

v1.29.49

Fixes

- Add a fallback method for getting the name of a module. [!877]
- Fix an access issue with the NamedPipe external integration protocol. [!876]
- Fix scrolling in *all* combo-boxes (not just the first one opened). [!874]

Misc

- Add configuration setting to disable WMI perf counter logging. [!878]
- Write branch-name to registry on startup. [!875]

v1.29.48**Fixes**

- Fix an issue with Dates returned in SQL queries. [!871]

Misc

- Export Cuesta type information for the App api. Adds support for modern string methods. [!872]
- Support SMTP servers that do not require authentication. [!870]
- Add option to specify colors for buttons in dialogs. [!869]
- Add options to indicate `contains` and `exact` on `Fields[...]select()` to change the match semantics. [!868]

v1.29.47**Fixes**

- Fixes an error in the flow-tracer that would occasionally cause flow-runs to be reported as erroring when they were not. [!867]
- Monitor and kill other competing Manatees continuously. [!866]
- Fixed two issues with initial values for input dialogs when the initial values are supplied by flows. [!865]

Misc

- Improve Cuesta type info and fix module-including bug [!864]

v1.29.46**Fixes**

- Fix scrolling with mouse-wheel not working in combo-box dropdowns for input dialogs. [!862]

Features

- Allow relative paths in Dugong preferred jvm configuration and add better logging for Dugong injection process. [!863]
- Add functionality to list and stop-all plugins for the `Plugin` module. [!859]

Misc

- Exchange email `importance` flag support [!861]

v1.29.45

Fixes

- Reduces the amount of task leakage done by `GetWindowTextRaw` [!858]

v1.29.44

Fixes

- Allow an empty color to be supplied when creating new sessions. [!860]
- Fix issue with leaking tasks caused by asking unresponsive windows for their title. [!857]
- Fix issue with leaking tasks caused by asking unresponsive windows for their title. [!856]
- Fix problem with multiplying newlines in java text areas [!853]
- Fix bug in chrome extension detection [!851]

Misc

- Add support for `[start-at]` / `[every]` run-specs. [!855]
- Manatee now kills *all* competing manatee processes on launch [!854]

v1.29.43

Fixes

- Fix an issue with CCOW `GetItemValues` when `onlyChanges` was `true` and the target of the invocation was the latest transaction. [!852]
- Fix (no 2) to headless apps having no access to `App.session()` [!850]
- Fix an issue with starting Plugins. [!849]
- Fix permissions issue with url-commands running flows. [!848]
- Fix NPE for groups with no descriptive. [!847]

v1.29.42**Fixes**

- Fix issue with attachment failure when there exists a State flow with no `subject`. [!846]
- Fix an issue with browser-based flows triggered on Manatee start. [!845]
- Fixes issue with `Dialog.inputHtml` and `dialog:close` navigation [!843]
- Run `Cron`-triggered flows in STA threads. [!842]
- Fixes issues with installer when multiple Manatees should be installed. [!841]
- Fix problem sometimes preventing emails from being listed with mail service [!839]

Features

- Adds a `showStepButton` option to the `FLOWTRACER`; sticky element. And makes "absolute" position the default. [!840]

Misc

- Options are optional in `Http` module methods. [!844]
- Do not restart Manatee on settings change if possible. [!838]

v1.29.41**Fixes**

- Improvement for build process. [!833]

Features

- Enable positioning for info and warn dialogs. [!834]

Misc

- Adds a `Registry` module to access the Windows registry. [!836]
- Add support for `foregroundColor` and `backgroundColor` for `Dialog.inputHtml`. [!835]

v1.29.40**Fixes**

- Fix performance counter related crash and wrong scheduling [!832]

Features

- Sticky now supports showing a flow-control element to stop, play/pause and debug a flow. [!831]

v1.29.38**Fixes**

- Fix a memory leak in the plugin/script-engine interop. [!828]
- Enable `App.session()` for headless apps. [!824]

Misc

- Do bot init async for faster startup in some case. [!830]
- Log more detailed performance diagnostics [!827]
- Help user install the browser extension if missing. Support for silent extension installation. [!825]

v1.29.37**Misc**

- Add support for appending text to a file rather than overwriting it [!823]

v1.29.36**Fixes**

- Make sure that table-triggers are executed as soon as possible and do not wait on flush interval. [!820]

Misc

- Reduce NamedPipeServer initialisation logging. [!822]
- Remove any files created in the install-dir at runtime when uninstalling via the per-machine msi. [!821]

v1.29.35**Fixes**

- Do not show window-tracker top-most when running a flow. [!819]
- Fix non-functioning hotkeys. [!813]

Misc

- AES en/decryption support for the Crypto module. [!818]
- Add support for named parameters in db transaction `execs`. [!817]
- Make it possible to move dialogs when dragging the header. [!816]
- Ensures that a cache can only be used for the url/host of Kwanza from which the data was fetched. [!815]
- Add option to *not* show dialogs topmost. [!814]
- Allow `Flow.run` to be called with flow-ids. [!812]
- Upgraded log library. [!811]

v1.29.34**Fixes**

- Fix issue with versions preventing the id, ver cache from working for some types. [!810]

Misc

- Better JSON-RPC parsing and routing. [!809]
- Reducing the bandwidth of configuration fetching by piggybacking actions and states onto the more generic flow-collection. [!794]

v1.29.32**Misc**

- Simplified communication logic used with browser drivers [!806]

v1.29.31**Fixes**

- Fixes a shared-buffer issue with Netstring/TCP. [!808]

- Resizeable debugger window and other small improvements for that window. [!807]

v1.29.30

Misc

- Adds a `hasfocus` property to the output generated by `inspect()`. [!805]
- Add support for JSON-RPC for the CCOW apis. [!802]

v1.29.29

Misc

- `Flow.run` and `Flow.include` prefer flows from calling flow's app in case of ambiguity [!804]
- Supply CWD for `IRunnablePlugin.Start` to allow the plugin to load resources etc [!803]

v1.29.28

Features

- Add settings to control app-menu behavior and tray-icon on click depending on session-type (e.g. on Citrix or RDP) [!801]

v1.29.23

Fixes

- Fix an issue with the initialization of `KwanzaGrpcServer`. [!800]
- Fixes an issue with the startup of headless, lifecycle triggered apps. [!798]

v1.29.22

Fixes

- The cache can now delete entries again. [!799]
- Do not attempt to focus headless apps when they're started. [!797]

Features

- Add support for mapping agents. [!793]

Misc

- Hidden apps no longer affect the manatee tray icon color [!796]

v1.29.21**Fixes**

- Fix a critical issue which duplicated items (applications, flows etc) on update. [!795]

v1.29.20**Fixes**

- Fixes an issue with launching of lifecycle triggered flows when Manatee was connected to a remote CM. [!792]

Misc

- Better logging for `TransactionInProgress` exception. [!791]

v1.29.19**Fixes**

- Fix a deprecation issue with self-signed cert generation. [!790]

Misc

- Adds support for settings stored at Kwanza. [!785]

v1.29.18**Fixes**

- Fix bug causing windows on secondary screens to the left of the primary screen not to be detected by manatee [!789]

Misc

- Only receive outdated items from Kwanza when cached (and up-to-date) versions of the same exist. [!779]

v1.29.17**Fixes**

- Fix deadline/UTC issue with Nantucket requests. [!788]

Features

- Add option to disable keyboard navigation in sticky. [!787]
- Switch to enable/disable log to disk. [!786]
- Adds an option (`keyboardNavigation`) which when set to `false` will cause the Sticky to ignore keyboard events. [!782]
- Add a `DATETIME` input element for `Dialog.input` [!780]

Misc

- Add setting to toggle logging to disk. [!784]
- Allow user to input text in SELECT input if `isSelectable` is set. [!783]
- Hold down the `alt`-key while clicking application in application list to launch the `Debugger()` window. [!781]

v1.29.16**Fixes**

- Fixes issues with performing actions when connected to a remote context manager (seacow). [!778]

Misc

- Make accepted http security protocols configurable [!774]

v1.29.15**Fixes**

- Fix cert extraction when `tls > 1.0` again and properly this time. [!777]

v1.29.14**Fixes**

- Fix an issue when connecting to Kwanza running `tls > 1.0` and self-signed certificate. [!776]

v1.29.13**Fixes**

- Fix a scenario in which client leaks streams when throttled by Kwanza. [!775]

Features

- Feature: Encrypted localhost traffic [!735]

v1.29.12**Fixes**

- Fixes an issue with `null` or `;""` values for input element in the input dialog. [!773]
- Fix an issue with `preselecting` in `TYPEAHEAD` when using a table as data. [!772]
- Allow dynamic text on `DESCRIPTION` and `HEADER` inputs via the *new* `text` property [!770]
- Fixes an issue with `maxDialogWidth` and calculated properties [!769]
- Fix missing validation error message for `TYPEAHEAD` [!766]
- Fixes an issue when specifying `minInputLength` and using a table as completion-items for a `TYPEAHEAD` input. [!764]
- Fix manatee restarting when url commands are executed while they are disabled in settings [!763]
- Fix bug causing manatee to attempt attaching to the wrong IE windows [!762]
- Fix manatee sometimes taking a long time to attach to applications after launch [!761]

Features

- Add a `NUMERIC` input type. [!768]

Misc

- Support for command line arguments for chrome/firefox/edge apps [!771]
- Option to disable individual input elements. [!767]
- Added diagnostics for url handler timing [!765]
- Introduces a `MASKED` input type for the input dialog. [!756]

v1.29.11**Fixes**

- Set configuration identifier s.t. lifecycle trigger does not fire all attached triggers [!759]

Misc

- Allow empty url matcher in IE driver CanAttach [!760]

v1.29.10**Fixes**

- Fix/los/1.28/1133 ie empty url matcher [!757]

v1.29.9**Fixes**

- Fixes an issue when Manatee would sometimes crash if there was an error when validating a setting. [!758]

Features

- **BREAKING** Make it safe to `JSON.stringify` Processes and Windows. This is a breaking change that;
- removes `ProcessProxy.mainWindow` and `ProcessProxy.window` properties in favor of methods with the same names
- removes `WindowProxy.process` property in favor of method with the same name [!755]

v1.29.8**Fixes**

- Upgrade Grpc.Core dependency to include fixes which in some (random) instances would crash Manatee [!750]
- Fix issue with concatenated strings used as `items` in a typeahead input [!749]

Features

- Disable Windows Error Reporting dialogs and let application continue crashing [!752]
- Add `hash` and `hmac` functions to crypto module [!747]

Misc

- Check more specifically for null/undefined to avoid converting falsy values... [!753]
- Improve support for embedded java apps with their own process and no window handle [!748]
- Reduced CPU usage. The native app field cache can now keep a small set of commonly used fields fresh in the cache. [!746]
- Native table inspect includes more data. Various improvements in native driver. [!745]

v1.29.7**Fixes**

- Fix: Also transfer the `SelectFrom` construct when merging inputs, fixes #1217 [!743]

Features

- Include the windows of the PID of the main window in `Windows.forApp()` collection [!744]

v1.29.6**Fixes**

- Fix: An NPE in the handling of streams, for #1215 [!741]

Features

- Feature: Encoding option for fs read and write [!739]

Misc

- Add commandLine and fileName props to fix #1216 [!742]
- Improve file input handling for hosted chrome applications [!740]
- Launch Cuesta from manatee right click menu [!738]
- Make window match (title or name) match as regular expression in fields with window-matchers [!737]
- CI: License check [!736]

v1.29.5**Fixes**

- Fix bug in MQ publishing logic [!733]
- Fix: Misc estero fixes [!731]
- Fix bug preventing some flows from being started from a sticky [!725]
- Fix: Attach detach performance [!720]
- Fix: FAC initialization npe race [!719]

Features

- Feature: Click cell with offset [!734]
- Feature: Search in other windows operator for native fields [!728]
- Feature: Inspect includes children for native list [!727]
- Feature: Event intercept flags for within window and focus [!726]
- Feature: (1.27) Process taskkill [!724]
- Feature: Sensitive logs [!718]

Misc

- Add configuration to allow automation and state transactions to run concurrently. [!732]
- Native driver: add support for orphan container indexing [!730]
- CI: Auto distribution to appcenter [!729]
- Show better error messages when connections between browsers and manatee fail [!723]
- Retry deployment of anchors and interceptors [!722]
- Add support for optical field details being communicated through the monitor websocket from cuesta [!721]
- Add support for new navigated lifecycle trigger [!717]

v1.29.4**Fixes**

- Fix: Expand color validation to include lowercase letters [!716]

Features

- Feature: Cache group name resolution [!714]

Misc

- When seeing a navigation event to "dialog:close" we'll close the dialog [!715]
- Introduce a setting to toggle the killing of embedded browsers [!713]
- Kill Krom on app disposed, fixes #1177 [!712]
- Add Wait.for api method to wait for anything [!711]
- A bunch of Sticky UI/X improvements [!708]

v1.29.3**Fixes**

- Fix: Show dugong mismatch warning on flow run (1.28) [!707]
- Fix: Error on settings change [!704]

Misc

- Add stderr logging for the krom executable [!710]
- Windowtrigger bug [!709]
- Add App.setPopupBehavior('navigate') api method [!706]
- Plug vulnerability to keep dispatchers alive even in exceptional circumstances [!705]

v1.29.2**Fixes**

- Fix: Include child windows in native intercepts [!703]
- Fix: Window trigger on closing of windows [!702]
- Fix: Proxy application depends on show warning setting [!701]

Features

- Feature: WMI approach to process name (commandline) [!700]

Misc

- Apply various fixes to observed problems regarding intercept triggering [!699]