3forge Elevates Enterprise Efficiency:
Introducing Automated Report Scheduling, Micro Dashboards, and PINs-Powered Version Control

Q4, 2022 witnessed the successful launch of The Historical Database (HDB), positioning the 3forge platform as a comprehensive solution for constructing full-stack enterprise applications. Our clients have leveraged HDB to store substantial volumes of data (petabytes/trillions of records) within the 3forge ecosystem, a testament to its effectiveness. Building on the success and critical role HDB plays in our client deployments, we're pleased to announce several feature enhancements that raise our platform to new heights.

3forge's latest release enables users and third-party applications to launch multiple dashboards simultaneously. By using layouts in the URL along with specific data elements, our micro dashboard concept optimizes dashboard real-estate, allowing user access to diverse dashboards at the same time. Control all open dashboards effortlessly with our new session management web UI.

One standout innovation is our headless session concept. This feature streamlines the creation of automated reports, aligning it with the simplicity of building real-time dashboards on 3forge. Set up a dashboard, schedule report runs, designate recipients, and finally, deploy the dashboard into a headless session for automated, non-stop operation. This advancement marks a significant stride in automating the report generation and distribution process.

Addressing a long-standing issue within the Drag-And-Drop GUI builder sector, we've innovatively dealt with inadvertent actions causing lasting changes to the dashboard. Our solution, the PINs concept, ensures that manual/scripted modifications are not stored permanently in the dashboard unless the PIN is pressed, thereby keeping inadvertent changes out of the dashboard's change history.

Every enhancement in our latest release reflects the ongoing evolution of the 3forge platform. Each feature, big or small, is designed with the intent of simplifying complex application development. While the highlights are mentioned above, they only represent a fraction of the platform's enhanced capabilities, and we encourage you to explore the many other features in this release below.

AMI Web

- Added where option to RELAY
- Store amiCustomCss in .ami files as multi-line array
- Incorporate mallon training videos. Use redirects for login and forgot password pages
- Support videos in mimetypes
- Use relative urls for redirects in http file system stuff
- Add secure file handler
- Openfin: fix error message
- Add \"getexistingvalues\" property for hazelcast maps + fixed AmiMessage outOfBounds exception\n\t | Merge from verition by vk4752
- Rollback index2
- Last round of dmlistener leak cleanup
- Fix memory leak with not cleaning up DmManagerListeners
- Can only redirect to index.html if the directory ends with a slash (otherwise relative references break)
- Added BAM logo
- IMPORTANT forward and redirect for file system handler uses relative paths instead
- Support remove value in f1:set tab
- Remove wafra logo
- Fix build for old java version
- Change LH.info for logging listeners to LH.fine and also update to SH.toObjectStringSimple for getting object ids
- Don't bother calculating default WHERE clause unless WHERE is part of params. Importantly, close temporary dmlink to avoid mem leak
- Remove commented out code
- 3forge.com added tutorials.dir
- 3forge.com 404 page has link back to dashboard if logged in
- Fix RAILB-1674
- Fix RAILB-1681
- Merging using tommy
- Fix RAILB-1672 added TransientIdPrefix
- Fix for RAILB-1661
- Add more logging for listeners count, also add initManagers method and clearManagers method
- Make ldap more generic (kimberly)
- Add service.init boiler code, add loggging for service panelsListener
- Add logging INFO for listeners remove getListeners and setListeners
- Fix RAILB-1683 table selection causing nested javascript which causes error
- AssertEq/assertNe handles NaN (ex Nan == Nan)
- Fix RAILB-1679 fix NPE in Static Tree Panel when quick filter applied with changing tree settings (Rob need feedback)
- Add support for subscribing to hazelcast maps\n\tFix for Oracledb ds adapter invalid url with special character passwords | Merge from verition by ma5775
- Fix RAILB-1682, RAILB-1424 hdb not starting on partial file
- Added sts support for sqsfh | Merge from verition by ma5775
- Fix RAILB-1654 Realtime Tree sort doesn't remain with a quick filter
- Fix RAILB-1618 fix count not working after recompile amiscript and rebuild + reviewed with Rob
- Fix RAILB-1623 | Merge from tommy by ma5775
- Fix RAILB-1655 | Merge from tommy by ma5775
- Add better logging for RAILB-1652
- Fix RAILB-1661
- JsonBuilder needs to escape unicode
- Support emoticons in menu items
- RootAssister toJson uses ObjectToJson classes
- Support UTF surrigate char pairs (emoticons)
- Add RAILF-1662 change for PR27 - support html selector id for TablePanelColumns
- Refactor, add comments to make ldap more generic
- Fixed RAILB-1653
- Add baseDN as a property instead of hardcoded value.
- Fix RAILB-1522, RAILB-1657 static tree currentWhere does not work
- Fix RAILB-1453

AMI Center/AMIDB/AMIHDB

- Added allowExternalUpdates option on PROJECTION trigger
- Fix race condition with autoflush

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- Changed to parserName instead of className so that protobuf can work.
- Finsemble: typo
- Multicheckbox: color dodge on X based on field background color; reduced opacity for better visibility
- Added amiscript: timestampNano
- Fix rtevent getValues failing due to recent change in entrySet()
- Reduced whitespace on dynamic dm option on edit datamodel window.
- Fix RAILB-1740
- Remove redundant code that wont get hit + rob
- Fix RAILF-1734 - min/max not updating for empty layers | Merge from joe by jr6708
- Added AmiClient.ENABLE_AUTO_FLUSH_OUTGOING, setBufferSizeIn(...), setBufferSizeOut(...), setAUtoFLushBufferMillis(...)
- Update protobuf parsing for solace FH | Merge from wesley6 by wc2511
- Fix not able to reference copied field
- Decorate trigger now properly fires downstream onUpdates
- Remove unused filreUpdating that doesn't take a prepared row
- Fix PreparedRow null flag
- Possible fix for the ldap bind getting corrupted due to incorrect password (kimberly)
- Renamed canMutateTarget to allowExternalUpdates
- Fix for invalid chart shapes and missing face in 3d cube (Jieling's work)\n\t | Merge from wesley6 by wc2511
- Fix RAILB-1724 - exception in update join statement with namespace in where clause | Merge from wesley5 by wc2511
- Logging
- Fix RAILB-1718 per Wesley
- Added canMutateTarget to AGGREGATE trigger
- Update relayTrigger throw error if trigger can't connect to AMI Relay
- Fix last ci
- After USE clause clear all stop words except EXECUTE,SHOW and INSERT
- Remove unused executeSql code

- Fix HDB: delete rows when there is an index
- Remove commented ount code
- Comment out unused code; remove redundant else
- Ensure menubarPosition is a string when layout gets build
- Fixes __SESSIONID/__USERNAME in show vars
- Add support for SLO single logout for OAuth and adding properties: oauth.logout.redirect.uri oauth.logout.endpoint oauth.single.logout.enabled
- Add support for jsonbuilder adding float lists
- Add support for non json messages
- Fix logging out triggering an refresh token request

AMI Script

- Fix RAILF-1602
- Remove whitespace
- Rmv redundant exception check in GUITOOL, reviewed by George
- Fix RAILB-1612
- Fix RAILB-1611
- Change variable name (from millis to seconds)
- Fix railb-1606 (Joe)
- Ensure getFdcVersion uses await, per George
- Fix data filter denying query for bofa entitlements
- Fix issue with GUITOOL onResponse argument mismatch
- Logging on index removal error. Handle drop table causing npe
- Fix caching for hdb index
- Fix RAILB-1595
- Fix npe in hdb for groupby on empty table
- FIX RAILB-1594 correct memory leak when removing from index
- Renaming of realtime processors
- Integrate with openfin fdc3
- Approve adding background to charts pdf generation | Merge from anand by gl5698
- Fix issue with user setting styling
- Fix issue with user setting window styling
- Approve fix for RAILB-1557 | Merge from anand by gl5698
- Fix for RAILB-1526

- Fixes to LIMIT processor. Added import processor menu item
- Fix exception on restart
- Fixed RAILB-1524
- Approve for making the amps adapter work for java 1.6 | Merge from anand by gl5698
- Fix unsupported exception in java 1.6
- Fix build issue with multiple catch in single statement
- Approve amps kereberos support | Merge from anand by gl5698
- Fix join trigger getting fired unnecessarily
- Approving Anand's work on fixing chart pdf generation + masking password for amps datasource | Merge from anand by gl5698
- Re-add tablePanel::setHiddenColumns(...)
- Fixed RAILB-1526
- Added LIMIT realtime processor
- Added a method where the user can change the background of the page for the pdf builder.
- Fix non userpref columns remaining visible after applying user prefs
- Log exception for FormPanel::addField...(...)
- Add parquet project (wesley's work)
- Fix html green button -> edit html
- Field editor selection is maintained on refresh, panel resize, etc.
- Fix var tree navigation; also fix key navigation in table/tree with horizontal scorllbar present
- Fix for multi checkbox dropdown giving error when dm data updates
- Fix admin instructions in triggers (ex: CREATE, DROP, ...)
- Fix issue where clicking x during first time field create would err out
- Fix issue with missing rect from changing the dm in a fresh dm field without going to design mode first
- Fix issue with deleting a HTML field and right click on mouse
- Fixed row style bug in tree panel where it was not applied automatically after the layout was opened again.
- Fix halt-on-hidden table should maintain selection
- Don't trigger click on the loading gif on user mode
- Fix issue with trigger having onupdating and vars
- Add sftp adapter icon
- Fixed bug for tree grid with vertical alignment. Also added a top choice.
- Added sftp datasource adapter.
- Made more generic (prepare for sftp adapter)
- Fixed includeData directive, added newline directive. Made generic (for use in sftp adapter too)
- Rmv unused style options
- Created getter methods for heatmap, filter panel, and added a new chart legend Ami script class.
- Fix arrangement of tabs when align right
- Fix bug - tab bug where having a scrollpanel and then adding a tab then setting the tab to be default with a layout rebuild throws a js error - found June 6 by Tommy
- L&f: change 3forge sessions page visuals
- Fix downloads
- Fix transient/imported relationship callbacks not firing
- Fix issue with changing dm setting on a field right after importing a layout
- Fix issue with not able to switch field type after entering editor; optimize logic
- Undo last change
- Aded exec(...) to admin console
- Don't try to show windows if root is not visible
- Force refresh of forms on initJs (fixes blank buttoms panel in confirm dialog on initial dashboard load)
- Fix switching session when in end user mode
- Cleanup URL consts
- Only apply properties if they aren't manually set
- Correct getCanonical for \"/\" case
- Fix issue where user is able to modify readonly styles by changing the values in export/import window
- Cicilian H3: default to TLSv1.2
- Fix issue with inherit from's field plus button
- Fix issue with applying styles involving series color
- Rename 3forgePortals to 3forgeSessions
- Optimize code for dm focus after create
- Fix return type for amiscript percentileCont/percentileDisc
- Undo last branch

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- Fix file -> new
- /portal/portal.jsp is now /3forge
- Added addHttpHandlerStrict(....)
- Rmv formPanel::createImageUrl, per Rob
- Better error message
- IMPORTANT: slight modification on code placement from previous agg panel fix
- When a new dm editor is opened, datamodeler will focus on it. The focus stays until user changes branch or cancels creation
- Create interface for alert and confirm dialog, avoid redundant onButton
- Remove redundant call
- Code clearnup
- Fix url params when starting new session
- Added ami.web.headless.file default property
- Add
- LARGE CHANGE: Support multiple sessions, headless.txt, LAYOUT url param, admin console added showPanels + showLogins + killHeadlessSession, amiscript session:getBrowserZoom, Transient objects DRI now start with \"%\"
- Redirect tab supports non-string returning methods
- HttpSession attributes are concurrentmap
- Debugger can be null
- Removed divider settings from style options
- Return attributes as concurrent map, timeout of -1 does not expire

Adapters

- Typo
- Better firing of onMoved
- Up memory on website to 12gb
- Fix RAILB-1731
- Website: rearranged BAM logo, added interop logo
- Bulk process inserts for hdb
- Added getHostName() to FileSystem
- Typo
- Added toString()
- Openfin: workaround for copy&paste issue
- Fix PortletId not found error
- Force hdb table filehandle pool size to be at least the

number of columns + indexes
- Fixed description of setSpacing method for pdf builder.
- Openfin: fix log out causing openfin window to close, per Rob
- Added RELAY trigger
- Fix truncating of width and height causing tooltips to be rendered incorrectly\n\t | Merge from wesley3 by wc2511
- For HDB, only flush persisted after all queued actions are processed.
- Add RAILF-1727 update OAuth plugin allow for disabling refresh token
- Add support for refreshing temporary sqs credentials | Merge from verition by ma5775
- Use different search scope (sub) for backwards compatibility, add log line (kimberly)
- Add 2 portable classes for Verition + property to set table name in AMI for hz maps\n\t | Merge from verition by ma5775
- Add RAILF-1613 - IDs in quick filters for trees and tables for XPATH | Merge from wesley2 by wc2511
- Fix RAILB-1715 fix saving absolute included layouts for relative child layouts *may need to revert
- Fix RAILB-1717
- Add comment per railb-1585 hotfix
- Fix bug with style not saving for div
- Clear out boxShadow when size unset
- FIX SUPRT-1703 allow tooltip to display over panels | Merge from wesley3 by wc2511
- Fix realtime queue with update followed by delete
- Fix realtime queue with add followed by delete
- Cacilian H3 - added required http.hostname property
- Added hostnameEnforced
- Use secure random
- Strict check for enable last N days for calendar in date/dateRange field; better error message for invalid input; dateTime field now has same calendar options
- Cacilian H4
- Cacilian H2
- Feature: autocomplete amiscript case INsensitive
- Fix recursion in amiscript

- Feature: allow date and dateRange field to have go back N days and disable future dates options
- Stop sending emails when create account failed
- Added resetSeqNum
- Fix Amiclient to use long seqnum. THIS IS BACKWARDS INCOMPATIBLE, users must change int seqnum to long seqnum in listeners
- Seqnum should be a long
- Ami.session.check.period.seconds should be ami.session.check.db.period.seconds
- Fix typo, getKey should be getX
- Improve doc for setDividerOffsetPct; increased idle user warn time to 1 day
- Fix npe
- Alter/rename/drop of realtime table column needs to rebroadcast entire table
- ColumnarRow entrySet is in order
- Stop suppressing key events
- Support trigger calling HDB tables
- Update SSO plugin to be able to handle logout requests
- Better error handling for login request
- Update OAuth Plugin add support for roles add properties oauth.ami.roles.field oauth.ami.default.role.field oauth.ami.roles.enabled and role subproperties: oauth.ami.role.[attribute]= ...
- Add to oauth plugin support for roles
- In-use callback now show up first in the callback editor
- Add quoteOrNull or doubleQuoteOrNull for logging purposes to identify null vs empty string
- Ensure consistency between default alert styling and confirm styling
- Fix refresh token endpoint for oauth plugin
- Fix exception on query class inside custom menu code
- Fix chart axis line color being null, fix typo
- Fix global vars... It should use consts from the parser
- Fix an issue where column header not hiding if height set to 0, and font still visible in the background even if it hides.
- Improve logging for Rest Helper
- Update bofa usage logger
- Enforce static access; optimize code
- Added USE maxOptimizeSeconds to historical tables.

Better logic on combining partitions. Fixed index isOptimizeid flag
- Better debuggability for kx fh
- Fix double slash in oauth plugin for access token request
- Support java 17, Added AMI_TERMINATE_FILE and CLASSPATH env vars that start.sh (and stop.sh) take
- Fix dialog w/o backgroundDiv
- Fix hdb columns >2gb
- Added f1.license.warning.days to defaults
- If dialog does not have close button, don't allow escape key either.
- Fix showwarning on cancel link sequence
- Fix debug for hidden panels
- Trap exception in plugin
- Add better debugging to kxfh, add debug property log's schema when starting subscription
- Fix flicker/repositioning for menubar on repaint of title bar
- Fix amiscript sessoin::getProperty()
- Fix menu bar style
- Fix noheader obscuring title bar
- New callback for finsemble, get result from intent resolution if available
- Fix NPE on file upload field, better debuggability
- Add wafra jdbc project to source control
- Update bofa project pom.xml
- Fix pixel obo in menubar at bottom
- When menu bar is at bottom, ancrhor menu items to top
- Fix onInsertingScript return false with primary index should stop insert
- Fix break / continue not in for/while loop
- Fix persistence + expiry (E) column. Don't eval expiry time when restoring from disk
- Fix implicit aggregate with empty table should return one row

Look and Feel

- ISolace FH Implementation | Merge from wesley5 by ma5775
- Dev,qa branch: added backwards compatibility mode

for div

- Fix divider when offset on hidden window
- Backwards compatibility for offsetDflt in dividers
- Fix last ci
- Fix for various divider issues
- Website: add soc-2, remove soc-1
- Fix style inheritence (for Panel)
- Added IDSetter for portable classes, properties to set class & factory IDs, cleanup\n\t | Merge from verition by ma5775
- Better media queries for resizing windows for tutorials.htm
- Website: use tfwebsite user for better auditing
- Add more padding for tutorials website
- Hazelcast: added support for hz serializables, added \"getexistingvalues\" for individual maps, added sample RefPricePortable/Factory class for Verition | Merge from verition by ma5775
- Support 206 partial content (range header request)
- Added DynamicDM option to edit datamodel window. This also fixed RAILB-1634 .
- Website: add image

Misc

- Fix RAILB-1695 view getting clipped if there are more sessions that the page height, allow clicking on all cells, make code readble.
- Comment out unused code
- Added spanImage method to pdf Builder.
- Fix memory leak with Add Panels Portlet
- Website: display a page if user not entitled to view tutorials, remove verify email modal
- Fix memory leak with open datamodelers
- Fix onScroll cb not firing for small scroll\n\t | Merge from tommy by ma5775
- Website: remove \"twitter feed\"
- Website: remove \"site\" from the uri
- Website: add audit when user visits a tutorial page (TUTORIAL_PAGE_VISIT)
- Fix memory leak not cleaning up ChartOptionsPortlet on new layout
- Merging\n\t\n\t//depot/makers/verition/...\n\t\n\tto

//depot/dev/...

- Fix NPE with selection on missing node
- Fix style inheritance
- Website: fix twitter widget not loading
- Web Resources stored on web server, Optimized caching. Added options ami.web.resources.dir, ami.web.resource.cache.ttl
- Update AmiWebObjects_Union add additional logging
- Fix show leafs npe
- Support .db as binary
- Update userPrefs for dividers
- Added tutorials icon for website