

A nighttime cityscape with a network overlay of white lines and nodes connecting various points across the scene. The city lights are visible in the background.

OneVizion

Debugging and Design Considerations

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Agenda

- Security Design Considerations
- Debugging in OneVizion

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Security Design Considerations

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Security Design Considerations

Can you segregate different fields onto separate tabs to control Security?

You can make similar Tabs just leaving certain fields off, or partition off sensitive fields.

Do you have any Row-level security?

Trackor Restrictions handle this but consider maintenance of linkages to support Restrictions.

Are there certain fields that have special considerations for updates?

Statuses that might be changeable based on Roles, use metadata to drive this.

Do Data Fields need review or approval before being accepted?

Consider Workflows to capture data into temporary fields pending approval.

Need to tightly control Workplan Task Dates for Reporting?

Consider alternate Task Date Pairs and copy with approval process.

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Debugging in OneVizion

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Rule Run Tracing

Each Rule has a checkbox to "Enable Tracing". Enabling Tracing will cause this Rule to log into the Rule_Run table whenever it is run as well as Audit Call Stack information.

You can tell the origin of what changed to eventually call this Rule.

You can see timings for how long the execution takes to identify performance issues.

The screenshot displays the 'Rule Run' interface in a web browser. The browser address bar shows the URL: `https://sandbox-2022.onevizion.com/admin/rulerun/Form.do?id=2583575`. The interface is divided into two main sections: a list of rule runs on the left and a detailed view of a selected rule run on the right.

Rule Run List (Left):

Process ID	Rule Name
2583575	Process Notifications
2583576	Update Email sending sta Project Team
2583577	Setting current status from Notif Queue
2583578	ACT_AGE_OF_LAST_UPDI minutes
2583579	Update tasks date when u Frcs/Fnl Finish Date
2583580	ACT_AGE_OF_ACTION_IT minutes
2583581	US_LAST_LOGIN
2583582	P_DAYS_TO_ONAIR daily
2583583	Snug Add Missing Tasks t NUMS
2583584	P_DAYS_TO_CONSTRUCT RT daily
2583585	Action Item Notification N
2583586	Copy Projected Dates - W
2583587	Update SQL Accrual date
2583588	Copy Projected Dates - M
2583589	Create Daily Sys Perf Trac
2583590	TT_TARGET_FINISH_DAT nums
2583591	Add id_num in Task Date rule
2583592	Add id_num in rule "Updat Forecast/Final Finis.."

Rule Run Details (Right):

Process ID: 2583575
User: ovdadmin
Rule Name: Process Notifications
Rule Type: Process Notifications
Start: 08/20/2022 00:00:01
Finish: 08/20/2022 00:00:01
Status: Executed without Errors ✔
Rows Processed: 0

Buttons: Show Error Log

Fields for Error Message, Warning, Returned String, Search Tracker SQL, ID Numbers, and Primary Keys are present but currently empty.

SetMessage And GetAuditCallStack

UTIL.SetMessage:

Autonomous Transaction, so it commits outside of the current session.

While debugging, this function can be used liberally through Rules to figure out exactly which line is problematic.

This can help you narrow down specific lines in a Rule that might be causing a problem.

Don't leave these Calls in the Rule after you are done debugging.

If you have a Rule or Package that will need periodic debugging over some time, you can make a wrapper procedure around your SetMessage calls in the Rule or Package, where you can update a single spot in the SQL to turn debugging on or off.

UTIL.GetAuditCallStack:

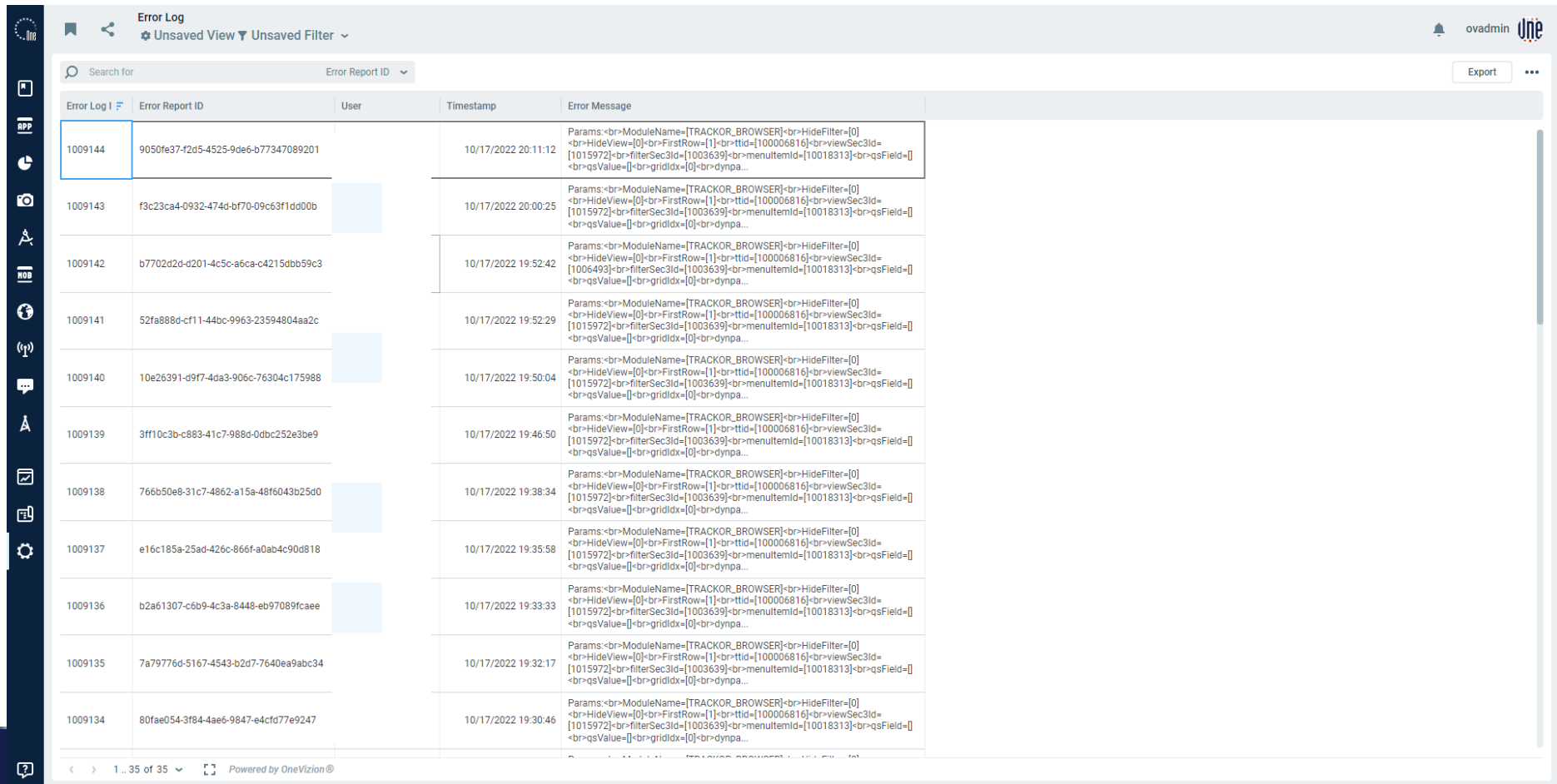
If an error is raised, the entire session is rolled back, so this means that the AuditLog and CallStack info do not get committed for the transaction.

UTIL.GetAuditCallStack allows the rule writer to grab that information into a string value and use it via some other method to get that info to the debugger outside the session's rollback.

Error Log

The Error Log enables the Administrator to see error messages that have been sent to users when errors have been made in the OneVizion® System.

Users will need access to the Security Group: ERROR_LOG



The screenshot displays the 'Error Log' interface in the OneVizion system. The interface includes a search bar, a table of error reports, and a sidebar with navigation icons. The table has the following columns: Error Report ID, User, Timestamp, and Error Message. The error messages are truncated and contain technical details such as ModuleName, HideFilter, FirstRow, Ttid, ViewSec3Id, FilterSec3Id, MenuItemId, and QsField.

Error Report ID	User	Timestamp	Error Message
1009144	9050fe37-f2d5-4525-9de6-b77347089201	10/17/2022 20:11:12	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009143	f3c23ca4-0932-474d-bf70-09c63f1d0d0b	10/17/2022 20:00:25	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009142	b7702d2d-d201-4c5c-a6ca-c4215dbb59c3	10/17/2022 19:52:42	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1006493] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009141	52fa888d-cf11-44bc-9963-23594804aa2c	10/17/2022 19:52:29	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009140	10e26391-d9f7-4da3-906c-76304c175988	10/17/2022 19:50:04	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009139	3ff10c3b-c883-41c7-988d-0dbc252e3be9	10/17/2022 19:46:50	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009138	766b50e8-31c7-4862-a15a-48f6043b25d0	10/17/2022 19:38:34	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009137	e16c185a-25ad-426c-866f-a0ab4c90d818	10/17/2022 19:35:58	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009136	b2a61307-c6b9-4c3a-8448-eb97089fcaee	10/17/2022 19:33:33	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009135	7a79776d-5167-4543-b2d7-7640ea9abc34	10/17/2022 19:32:17	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...
1009134	80fae054-3f84-4ae6-9847-e4cfd77e9247	10/17/2022 19:30:46	Params: ModuleName=[TRACKOR_BROWSER] HideFilter=[0] HideView=[0] FirstRow=[1] Ttid=[100006816] viewSec3Id=[1015972] filterSec3Id=[1003639] menuItemId=[10018313] qsField=[qsValue=[] gridId=[0] dynpa...

Other Debugging Tips

Be sure to check Field History for other related fields to make sure the user didn't make other changes that might drive Rules and confuse matters.

Make sure to put exception blocks around any select-into statements so that you can detect against NO_DATA_FOUND or TOO_MANY_ROWS errors and give the user or SetMessage a better message about what is happening and where the problem is taking place.

SQL%RowCount can be used to find how many rows were selected, updated, or inserted from the last SQL statement.

SQL%NotFound can be used to fortify update statements with warning messages if you didn't find what you expected.

SQLERRM is the last error that happened.