

Clarius Automation Framework Release Notes

Version 3.0.0

Clarius Automation Framework	<ul style="list-style-type: none">• Version - 3.0.0• Release month: Jun-2025
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Release features

Sources and Signals enhancement

- Sources and Signals panel displays all the required sources for the selected technology with easy check boxes and intelligent defaults for sources, signals, and predefined groups eliminating manual configuration.
- Enabled synchronization between the Sources and Signals configuration, test settings, ensuring bidirectional updates of sources, signals, and groupings based on selections in either area.
- Applications that share identical default sources configurations can be seamlessly integrated into a test sequence, leading to more efficient testing and reduced potential for errors.

Scenario and step selection and visibility enhancements

- The visibility, select ability, and selection state of scenarios and steps can be adjusted based on the chosen test settings or sources.
- Selecting step or scenario will automatically select and disable its dependent step or scenario, ensuring logical consistency of your tests by executing all necessary steps.
- You can save and load sequences while preserving the visibility, select ability, and selection state of scenarios and steps. This feature ensures that these configurations remain unchanged when sequences are reloaded.

Admin Console enhancements:

- "Restart All" triggers a restart of both the Measurement Service and the Clarius VM, ensuring a complete service refresh, while "Stop All" halts both services, stopping all related operations.
- The "Restart" and "Stop" buttons associated with the Platform Core initiate a restart and shutdown of the Clarius VM, respectively, providing direct control over the virtual machine.
- When the "Restart" button is clicked, a notification is triggered, and the Platform Core status updates to "Restarting." During transient states such as "Restarting," "Starting," and "Stopping," the "Restart," "Start," and "Stop" buttons are disabled.
- After successful VM restart, the Platform Core details are updated to display the latest CPU and Memory usage metrics.
- The Measurement service can only be started, stopped, and view the logs through the Admin Console.

Events and Logs enhancements:

- Enabled Automator to log its events to Events/Logs.

SSL Certificate:

- The Admin Console displays SSL certificate details for improved visibility and management.
- If the SSL certificate expires within 15 days, a notification is sent to Clarius to prompt timely renewal.
- The Password Utility Tool allows users to view and renew SSL certificate details using commands.

Defects fixed

- New notification now will appear at the top of the notification widget.
- The source that needs to be changed during test execution now appears in the test notification.

- User can generate a report from the **Test tab > View results > Generate report** from any page.

Upgrade expectations

Clarius automation framework provides capability for application definitions to be changed to offer more flexibility and ease of usability. Therefore, there could be upgrade restrictions when transitioning from versions 2.0.0 or 2.1.0 to 3.0.0.

If application definitions have not changed, then there are no restrictions on upgrade and tests run on version 2.0.0 or 2.1.0 can be used seamlessly in version 3.0.0.

Refer application release notes to check specific upgrade expectations.

Known limitations

- SSL certificates are tied to the machine's initial domain name during the installation. If the machine's domain changes, accessing the URL via the new domain name will result in a certificate validation failure. However, as Clarius supports peer-to-peer and router-based communications primarily use the machine name or IP address for URL access, this has minimal impact.
- Log view in the admin console requires manual refresh to display the latest entries at the bottom, necessitating scrolling.
- Users cannot view the status of steps on the Test Status page during test execution.
- The session remains active if the user locks the PC for a short period after using the Clarius Automation Framework, before eventually logging out.
- For SX oscilloscopes operating in standalone mode, AT1 channels are not selectable in **Sources and Signals**. Selections for non-AT1 channels remains unaffected.
- Search feature on the Reports and Test List page is confined to the results of the page currently being viewed.
- If a user creates a duplicate username for login, no error is displayed but duplicate username will not be created.
- Maximum of 10 applications can be added in a single sequence.
- Installation operations cannot be cancelled once they are in progress.
- Pan and zoom capabilities are limited in waveform view.
- The "Fail" status in **Tests > List of Tests** page and in Reports indicates that either the test execution was unsuccessful, or the measurements did not meet the specified limits.
- Re-analysis of waveforms captured from a previous test can only be done by downloading waveforms and analyzing the pre-recorded mode.
- Export/Import of tests from one Clarius VM to another is not supported.
- The progress bar reflects the count of scenarios executed. If certain scenarios require more time, the progress bar will remain in the same status until those scenarios are fully executed.
- When a test is configured with multiple sequences; progress bar of individual sequences does not function.
- The functions of starting, restarting, and stopping instances of test benches (instrument service) and monitor remote instances of measurement services are not available.
- In multi-stack oscilloscope scenarios, extension oscilloscope instrument services cannot be monitored.
- When running tests back-to-back in LIVE acquisition mode, test may have different run times or fail intermittently due to instrument connectivity. User may provide a time delay between test runs to avoid failure or contact Tektronix to update TekVisa.
- In multi-iteration acquisition mode, the software determines overall measurement pass/fail status based solely on the results of the final acquisition. However, the results from all individual acquisition iterations are accessible through the SDK, allowing users to perform custom calculations and determine their own overall measurement status if desired.
- Based on the timeout duration, when Instrument does not respond, test gets aborted and a log message detailing the error is available.
- There is no differentiation between the error icons for critical or system errors in notification.

Known issues

- The tests which are running will not be aborted automatically if you restart the Clarius VM.

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- On the Test List page, searching for tests and deleting selected tests from the filtered list will remove all matching tests from the filtered list and not only the selected tests. Selecting 'Delete Waveforms' will delete all waveforms associated with the matching tests.
 - Sequences created via SDK will load the default de-embed filter, even if a different filter file is specified in the Clarius UI.
 - Hyper-V Default switch issue: Windows updates may cause the default Hyper-V switch used by Clarius Core Services to become unresponsive. This can lead to installation failures or connectivity problems. Refer to the FAQ section in Clarius Getting Started guide for resolution steps.
 - Uninstalling Clarius instrument service necessitates re-installation of required application instrument service.
 - When the test execution is in progress, the Events and Logs pages would refresh to the most recent page even if the user selects to view a different page.
 - In some cases, due to temporary disruptions in internal services (example: constraint service in admin console) may lead to inconsistent error messages in the UI and SDK.

Version 2.1.0

Clarius Automation Framework	<ul style="list-style-type: none"> • Version - 2.1.0 • Release month: Mar-2025
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Release features

- Platform enhancements to improve performance in long duration tests, waveform upload time and waveforms deletion time.

Known limitations

- For SX oscilloscopes operating in standalone mode, ATI channels are not selectable in **Sources and Signals**. Selection for non-ATI channels remains unaffected.
- Re-running tests does not accommodate lane changes or the use of multi lane configurations with grouping features.
- Search feature on the Reports & Test List page is confined to the results of the page currently being viewed.
- If user creates a duplicate user name for login, no error is displayed but duplicate username will not be created.
- **Test tab > View Results > Generate report** generates report only for 30 tests displayed in the current page.
- New notifications are populated at the end of the list within the notification widget.
- Maximum of 10 applications can be added in a single sequence.
- Installation operations cannot be cancelled once they are in progress.
- Pan and zoom capabilities are limited in waveform view.
- The "Fail" status in **Tests > List of Tests** page and in Reports indicates that either the test execution was unsuccessful or the measurements did not meet the specified limits.
- Re-analysis of waveforms captured from a previous test can only be done by downloading waveforms and analyzing them in pre-recorded mode.
- Export/Import of tests from one Clarius VM to another is not supported.
- The progress bar reflects the count of scenarios executed. If certain scenarios require more time, the progress bar will remain in the same status until those scenarios are fully executed.
- When test is configured with multiple sequences; progress bar of individual sequences does not function.
- The functions of starting, restarting, and stopping instances of test benches (instrument service) and monitor remote instances of measurement services are not available.
- In multi-stack oscilloscope scenarios, extension oscilloscope instrument services cannot be monitored.
- When running tests back to back in LIVE acquisition mode, test may have different run times or fail intermittently due to instrument connectivity. User may provide a time delay between test runs to avoid failure or contact Tektronix to update TekVisa.
- In multi-iteration acquisition mode, the software determines overall measurement pass/fail status based solely on the results of the final acquisition. However, the results from all individual acquisition iterations are accessible through the SDK, allowing users to perform custom calculations and determine their own overall measurement status if desired.
- Based on the timeout duration, when Instrument does not respond, test gets aborted and a log message detailing the error is available.
- There is no differentiation between the error icons for critical or system errors in notification.
- Lane change notification does not provide information on the lane that needs to be changed.

Known issues

- Hyper-V default switch issues: Windows updates may cause the default Hyper-V switch used by Clarius Core Services to become unresponsive. This can lead to installation failures or connectivity problems. Refer to the FAQ section in Clarius Getting Started guide for resolution steps.

- Clarius Compliance user interface may become unresponsive due to lack of required resources such as network speed, memory, disk space, and CPU. This can be tracked by using the Admin console and Monitoring.
- Uninstalling Clarius instrument service necessitates re-installation of required application instrument service.
- When the test is running, the Events and Logs pages would refresh to the most recent page even if the user selects to view a different page.
- In some cases, due to temporary disruptions in internal services (example: constraint service in admin console) may lead to inconsistent error messages in the UI and SDK.

Version 2.0.0

Clarius Automation Framework	<ul style="list-style-type: none"> • Version - 2.0.0 • Release month: Dec-2024
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Release features

Test bench creation enhancements

- Simplified test bench creation aligned with user workflows.
- Capability to create test benches for various acquisition modes, including Live and Recorded.
- Display of necessary instruments for selected applications/technologies on the Live Test Bench.
- Capability to fetch the instrument properties of the connected instruments on providing the VISA resource addresses in live setup.
- Functionality to check instrument service connectivity during test bench creation and display connectivity status within the test bench list.
- Enables flexible instrument control for application-defined instruments. Supports integration with diverse instrument classes (e.g., AFG, AWG) or custom specific controls.
- Refreshing master oscilloscope properties ensures all extension oscilloscopes are visible.

Test creation and test run enhancements

- Simplified access to acquisition mode selection for a test.
- Recorded tests utilize pre-acquired data from specified waveform folder path. Standardized for the test rather than for individual applications.
- Flexibility to run recorded tests on Recorded and Live test benches, while Live tests are exclusive to Live test benches.
- Flexibility to run recorded tests with Instrument Service installed on the Clarius installed computer either during the initial installation or added subsequently.
- Notifies the user on start of the test if Clarius disk storage is over 90% capacity or essential Clarius services are not operational.
- Test execution terminates automatically if Clarius disk storage exceeds 90% allocated capacity or the essential Clarius services are not operational.

Test and waveform deletion enhancements:

- Facilitates efficient storage management and ensures retention of relevant data by enabling users to delete multiple selected tests or waveforms.

Bulk waveform download using SDK:

- Enables users to download waveforms (exceeding 1GB) using SDK.

Notification enhancements:

- Critical Error and Warning Indicators as notifications in Clarius UI, upon exceeding thresholds [user-configurable].
- System Error notification displayed when essential Clarius services are not operational.

Clarius Admin Console

- Streamlined service management with start, stop, and restart capabilities.
- User Configurable settings [threshold and alert frequency] for Critical Error and Warning notifications.

In-App Help:

- A comprehensive in-app help is enabled in the Clarius webpage under Help for immediate user assistance and guidance.

Known limitations

- For SX oscilloscopes operating in standalone mode, AT1 channels are not selectable in **Sources and Signals**. Selection for non-AT1 channels remains unaffected.
- Re-running tests does not accommodate lane changes or the use of multi lane configurations with grouping features.
- Search feature on the Reports & Test List page is confined to the results of the page currently being viewed.
- If user creates a duplicate user name for login, no error is displayed but duplicate username will not be created.
- **Test tab > View Results > Generate report** generates report only for 30 tests displayed in the current page.
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- Maximum of 10 applications can be added in a single sequence.
- Installation operations cannot be cancelled once they are in progress.
- Pan and zoom capabilities are limited in waveform view.
- The "Fail" status in **Tests > List of Tests** page and in Reports indicates that either the test execution was unsuccessful or the measurements did not meet the specified limits.
- Re-analysis of waveforms captured from a previous test can only be done by downloading waveforms and analyzing them in pre-recorded mode.
- Export/Import of tests from one Clarius VM to another is not supported.
- The progress bar reflects the count of scenarios executed. If certain scenarios require more time, the progress bar will remain in the same status until those scenarios are fully executed.
- When test is configured with multiple sequences; progress bar of individual sequences does not function.
- The functions of starting, restarting, and stopping instances of test benches (instrument service) and monitor remote instances of measurement services are not available.
- In multi-stack oscilloscope scenarios, extension oscilloscope instrument services cannot be monitored.
- When running tests back to back in LIVE acquisition mode, test may have different run times or fail intermittently due to instrument connectivity. User may provide a time delay between test runs to avoid failure or contact Tektronix to update TekVisa.
- In multi-iteration acquisition mode, the software determines overall measurement pass/fail status based solely on the results of the final acquisition. However, the results from all individual acquisition iterations are accessible through the SDK, allowing users to perform custom calculations and determine their own overall measurement status if desired.
- Based on the timeout duration, when Instrument does not respond, test gets aborted and a log message detailing the error is available.
- There is no differentiation between the error icons for critical or system errors in notification.
- Lane change notification does not provide information on the lane that needs to be changed.

Known issues

- Hyper-V Default switch issues: Windows updates may cause the default Hyper-V switch used by Clarius Core Services to become unresponsive. This can lead to installation failures or connectivity problems. Refer to the FAQ section in Clarius Getting Started guide for resolution steps.
- Clarius Compliance user interface may become unresponsive due to lack of required resources such as network speed, memory, disk space, and CPU. This can be tracked by using the Admin console and Monitoring.
- Uninstalling Clarius instrument service necessitates re-installation of required application instrument service.
- When the test is running, the Events and Logs pages would refresh to the most recent page even if the user selects to view a different page.
- In some cases, due to temporary disruptions in internal services (example: constraint service in admin console) may lead to inconsistent error messages in the UI and SDK.

Version 1.1.0

Clarius Automation Framework	<ul style="list-style-type: none"> • Version -1.1.0 • Release: Aug-2024
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Known limitations

- In the Manage>Test Bench section, while adding Instruments, the Model field should be set to "default".
- Download and installation operations cannot be cancelled once they are in progress.
- Limits are not shown with explicit units in the Results section and are presented in the same row of individual results indicating they take the same units as Value (measurement result).
- DUT Automator changes have to be done in the python scripts and there are no GUI options for those changes today.
- Waveform view controls have limitations with respect to pan and zoom.
- "Fail" status in **Tests > List of Tests** page and in Reports indicates that either the test execution failed or measurements have failed against limits.
- Re-analysis of waveforms captured from a previous test can only be done by downloading waveforms and analyzing them in Pre-Recorded mode.
- Export/Import of tests from one Clarius VM to another is not supported.
- Progress bar only shows progress based on number of scenarios executed. When some scenarios take a long time to run, progress bar will remain in the same status until the scenario is executed completely.
- User account will be locked after three unsuccessful login attempts and cannot be unlocked for an hour.
- The functions of starting, restarting, and stopping instances of test benches (instrument service) and monitor remote instances of measurement services are not available.
- Support for monitoring extension oscilloscopes instrument services of multi-scope scenarios is not available as functionality in this release.
- When running tests back to back in LIVE acquisition mode, test may have different run times or fail intermittently due to instrument connectivity. You may provide a time delay between test runs to avoid failure or contact Tektronix to update TekVisa.
- In multi-iteration acquisition mode, the software determines overall measurement pass/fail status based solely on the results of the final acquisition. However, the results from all individual acquisition iterations are accessible through the SDK, allowing users to perform custom calculations and determine their own overall measurement status if desired.

Known issues

- Occasionally, the default switch in the Windows system becomes unresponsive and the Clarius automation framework installation may fail. Rebooting the system and installing any pending windows updates should fix the issue.
- Clarius SDK will not be installed during Clarius automation framework 1.0.0 to 1.1.0 upgrade. User can always install the Clarius SDK from the target directory where the Clarius automation framework is installed, for example; `... \installer\sdk`.
- For LPDDR4, if you are using a stack configuration for oscilloscopes, make sure all extension oscilloscopes configured in test bench are available and the Instrument service must be running in all the oscilloscopes before running a test.
- Clarius Compliance user interface may become unresponsive due to lack of required resources such as network speed, memory, disk space, and CPU. This can be tracked by using the Monitoring and Admin console under 'Clarius Platform' in your system.
- Some oscilloscope parameters like bandwidth is taken as user input today in the GUI and the user input value is recorded in reports. However this will be auto fetched from oscilloscope in the future.
- When multiple applications are present in the system or oscilloscope, uninstalling one "application instrument service" necessitates re-installation of the required application instrument service.
- When the test is running, the Events and Logs pages would refresh to the most recent page even if the user selects to view a different page.

- The Generate Report button will not be functional for the test results that are listed after first page under the Tests tab. You can generate results for those tests from the result page of the test.
- Performance issues may be observed for the test with higher record length and higher iteration count.