Cora SeQuence 9.0 Release Notes

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Welcome to Cora SeQuence Release Notes.

As they become available, additions and updates to these release notes can be found here.
The latest releases appear at the top of the list.

What's in the Release Notes?

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About Cora SeQuence

Cora SeQuence is an Intelligent Business Process Management Suite (iBPMS) that facilitates rapid build and change of high availability, mobile-enabled workflow applications. Cora SeQuence is built on the HotChange® technology, an architecture used for software development in the field of Business Process Management (BPM). HotChange® enables consultation in the field of design, development, implementation and integration of information technology solutions for business processes. Business users and developers can seamlessly design and execute workflows on a single canvas using Dual View. Cora SeQuence is a low-code platform that also supports advanced development capabilities.

What's new in Cora SeQuence V9.0

Cora SeQuence V9.0 is now a fully scalable platform that provides integration into CI/CD processes, easier maintenance, light-weight immutable applications, and agile deployment.

Cora SeQuence architecture has been restructured into independent modules. These modules are building blocks for building applications, which you can deploy separately. Main benefits include:

- Scalability: Adding new servers is faster, easier, and less risky.
- Simplified deployment (silent installation): The deployment process takes only a few minutes and can easily integrate with customer tools using PowerShell scripts.
- Programming flexibility: Faster and easier to implement changes, with better product support and shorter release cycles.

Additional improvements include:

- Improved organization management: The Organization Management module was redesigned to support robust organizational structures and improve user experience.
- Improved system performance: Workflow execution is now performed in batches. In addition, the UWF tables have been consolidated and USL tables' schema have been redesigned.

- Fully responsive layout: Workflow runtime page better accommodate on different screen sizes.

New features

- Cora SeQuence applications: This release introduces the concept of immutable applications. Each system component, site or service, is now a separate application.

  For more details, see this article.

- Performance counters: V9.0 introduces several performance counters to help you monitor Cora SeQuence performance and system health. The new counters help you find performance issues related to the execution of workflow instances and BRS or JES performance. The counters are automatically installed with the application deployment scripts.
  Following is a list of the available performance counters:
    - Cora SeQuence BRS
    - Email Listener Queue Size
    - Workflow Instance AVG Execution Time (milliseconds)
    - Executing Workflows

  For more details, see this article.

- Dynamic stage bar: Cora SeQuence processes now support dynamic stages. Dynamic stages allow Cora SeQuence implementations to have more flexibility and functionality in the process flow.

  For more details, see this article.

- Reduced workflow execution footprint: All workflow activity instances are now created in memory. This feature completes the performance improvements started with V8.8. Now activity instances are completely persisted in batches.

  For more details, see this article.

- Custom archiving options: There is now an extension option that you can use to set up a custom archiving mechanism for database tables. The extension option is part of the Background Runtime Service (BRS) Closed Instances Separator thread.

  For more details, see this article.

General enhancements

- Improved organization management: The Organization Management module has been updated to provide better performance and easier navigation. V9.0 provides a robust OBS (organizational breakdown structure) mechanism capable of handling large organizations with thousands of groups and subgroups.
  Following is a partial list of the improvements and changes:
    - New navigation tabs have been added to enable you to work without the organization tree.
    - The search feature has been completely changed to provide better search results and expedite your work.
    - You can set up application variables to change the default behavior of the Organization Tree.
    - System remembers user's last state.

  For more details, see this article.

- Refactored workflow runtime page: The runtime page structure is now responsive.
- Hot Operations: The Tasks and Cases list pages are now the default landing pages for Team Leaders and Operations Managers.
- System performance: Data from several tables have been consolidated for efficiency and improved system performance.
  - USL tables: Hot Operations solution tables, previously known as USL tables, have been consolidated into global tables, and an archiving mechanism was created to store data from closed tasks and cases into a separate table.
    Each new table includes data related to all solutions. Previously, there was one table for each Hot Operations solution.
    Following is the list of the consolidated tables.

Open tables data	Closed tables data (archive)
tblSolutionCases	tblSolutionCasesClosed
tblAllocatedSolutionCases	tblAllocatedSolutionCasesClosed
tblSolutionTasks	tblSolutionTasksClosed
tblAllocatedSolutionTasks	tblAllocatedSolutionTasksClosed

  - UWF tables: The UWF table, which stores the values of each workflow instance variables, now stores data related to an entire workflow space, including all workflow versions.
    The naming convention is: UWF[Workflow Space GUID].

    > **NOTE**
    > After the migration procedures are released, data migration scripts will be provided for systems upgrading from previous versions to Cora SeQuence V9.0.

  - Background Runtime Service (BRS) Closed Instances Separator Thread is now performed in batches.

    For more details, see this article.

- Database read-only connection for Always On availability groups: You can configure database connection redirection to enable read-only queries. This feature is useful to improve system performance, and can be configured for any of the Cora SeQuence providers, such as portal view providers or providers used to retrieve read-only data.

  For more details, see this article.

Breaking changes

As a result of structural changes in Cora SeQuence, there is a list of changes that you need to consider when migrating from previous versions to V9.0.

- There are no upgrade procedures. Existing implementations need to follow a migration path.
  For more details, see this article.
- USL and UWF tables have been consolidated.
  For more details, see the *General enhancements* section.

- The `fldID` column is no longer incremental in `tblInstanceActivities`. For sorting purposes, use `fldCreationDate`.
- During workflow execution, activity execution data is stored in the application memory. Consider this if your implementation uses data directly from `tblInstanceActivities` during execution. For more details, see this article.
- The Runtime.aspx page markup structure has been changed.
- The following items have been *removed* from the product:
  - Cora SeQuence 6 forms
  - ProcessTOGO application
  - SharePoint Listener activity
  - Sequence CRM Edition (SCE)
- The Description field has been remove from Workflow Stage Set screen.
- The `activityInstanceUpdateStateBufferSize` parameter in config file has been updated to `activityInstanceUpdateStateBufferSizeFactor`.

Resolved issues

Component	Issue	Ticket #
App Studio	Activities Properties pane did not refresh when user moved between containers.	66361
API	When you created a master workflow through the create solution wizard, and used the API to start it, the workflow instance failed.	68207

Known issues

Component	Issue	Ticket #
HotOperations grids	Team Leader's Team column does not filter columns with "Many Teams" value	67606
	The Assign options do not work when the Team Leader selects All in the Tasks List.	
	Different behavior between Open view and Completed view when user clicks the Open.	69210

Installation

There are five pre-build application deployment packages available, depending on the type of application that you are deploying. You can install each Cora SeQuence application separately.

Site applications	Service applications
Administration	Job Execution Service (JES)

Site applications	Service applications
Flowtime	Background Runtime Service (BRS)
	Active Directory Synchronization Service (ADSS)

When you deploy pre-built applications, you can choose between the Standard and Premium packages. The Premium package includes HotOperations.

If your implementation requires integration with CRM or SAP, contact the Support team.

You can also build and deploy your own Cora SeQuence applications.

For more details, see this article.

Migration

As a result of the V9.0 structural changes, it is not possible to upgrade Cora SeQuence directly from previous versions to V9.*x*.

You first need to upgrade your database to V8.8, and only then you can follow a migration path, using SQL scripts to migrate data from your previous database and performing the V9.*x* application deployment.

For more details, see this article.