

RELEASE NOTES

Monarch Server 2024.0

Report Warehouse (Formerly Content Server), Automator, Report Mining Server

Table of Contents

1. Welcome	1
2. Monarch Server Upgrade	2
3. Monarch Server Automator - Upgrading or New Installation?	3
4. Software Support	4
5. Access to Software Updates	5
5.1. Release Overview	5
6. Release Benefits	6
6.1. Installation and Upgrade	6
6.2. Deprecated Functionality	6
6.3. Altair Monarch Complete SDK/Engine alignment	6
6.4. Reduced Risk for Security Breaches	7
7. New Features / Changes	8
7.1. Altair Units (AU) Consumption Adjustment	8
7.2. SQL Server 2022 Support	9
7.3. New Monarch Complete functionalities parity	9
7.4. DST-2551 – Provide guidance on configuring Monarch Server to get rid of "Unhandled Exception" errors	12
7.5. DST-2870 – Add ability to select sheet number for Excel Template/Trapping based inputs	12
7.6. DST-2261: Automator: add an ability to use "Bulk Behaviour for OleDb" option for Summary export (Standard and Visual processes)	13
8. Full List of Fixes / Improvements	14
8.1. General Fixes / Improvements (2)	14
8.2. Automator Fixes / Improvements (20)	14
8.3. Report Warehouse (Formally Content Server) Fixes / Improvements (0)	15
8.4. Report Mining Server (RMS) Fixes / Improvements (1)	15
9. Known Issues	16
9.1. Monarch Server General	16
9.2. Automator	16
9.3. Report Warehouse	16
9.4. RMS	16

1. Welcome

Welcome to Altair Monarch Server release 2024.0.

This release is generally available from July 2023, following on from the previous 2024.0 release in Nov. 2023.

This document provides an overview of the new features and enhancements provided by Monarch Server 2024.0 release.

For information on installation and upgrade procedures, as well as details on supported platforms and software requirements, see the separate installation guides that are provided with this release.

If you are upgrading from a version 2022.x or lower, please ensure that the changes relating to Data Connectors in in version 2023.0 are reviewed prior to the implementation or upgrade to 2024.0.

NOTES:

- This is a major release. You must uninstall the currently deployed version and install 2024.0 wholly.
 - o The Monarch Server database can then be upgraded, and relevant settings re-applied to corresponding web.config / config.xml files relating to the instance.
 - o Please ensure the application database and if required, the web.config and config.xml files are backed up prior to the uninstall for reference or for regression.
 - o Post install, it is advised that end users of the MSAdmin, MSCClient or RMSClient based interfaces perform a clear browser cache activity to ensure outdated styles/scripts/resources are removed and ensuring the best performance & functionality of Monarch Server.

- It is strongly recommended that at minimum, Altair Support / Professional Services is involved with reviewing any upgrade activity prior to the same being carried out. A full backup of the existing deployment must be made and verified before commencing the same to enable regression should it be required. Without a backup, data loss is unavoidable. Altair recommends utilizing our Professional Services to assist you with planning or completing an upgrade activity to minimize downtime, disruption, and risk.

- **Per the previous 2023.0 release of Monarch Complete & Monarch Server (Automator Feature), the following changes have been made to Data Connectors.**
 - o ***The Following Connectors have been deprecated:***
JIRA, Zendesk, Box, SugarCRM, Google Sheets, Google Ads & Google Drive
 - o ***functional changes to the following Connectors:***
MySQL, NetSuite, Cassandra, Spark SQL Big Query, HubSpot, ServiceNow, SharePoint, OData, Active Directory

Altair highly recommends upgrading to the most recent available release to make use of the latest functionality and feature enhancements, improvements in performance and stability, and to be best prepared for the next release.

Monarch Server 2024.0 is compatible with Monarch Complete/DPS 2024.0 and earlier. Please note,

- Monarch Server Assembly Version is 24.0.0.30
- The full version of Datawatch.SDK, which is used in the build, is 24.0.0.36548
- The full version of Datawatch.DataPrep Engine, which is used in the build, 24.0.0.36548

2. Monarch Server Upgrade

This section covers general principles for backup of the Monarch Server instance as part of any upgrade / migration activity. Note for Automator, please refer to the section '3. Monarch Server Automator - Upgrading or New Installation?'

An upgrade operation involves the backup, upgrade procedures per product documentation and potential for other bespoke operations relevant to the instance environment including possible reconfiguration activities. In the event of a problem the restore/recovery of the SQL Server based Application database is critical to the recovery.

As part of validating & completing the install/upgrade, there may be a need to perform activities on the SQL Server database instance via Management Studio. For this reason, familiarity with/experience of administrating a SQL Server instance and its connectivity/availability/maintenance is required by the person(s) carrying out the upgrade operation. Potentially, there may be the use of a fuller version of SQL Server as part of the Monarch Classic cache database configuration. This may need to be included as part of the upgrade considerations.

Before commencing an upgrade, the application database should be backed up to allow for regression if problems occur and cannot be resolved within the desired upgrade window.

Monarch Server can be deployed such that all components reside on one server, including its SQL Server Application database. However, you should ensure that for your upgrade, you identify if more than one server requires backup actions. Ensure also if there is a need to perform a separate SQL Server backup if you are using an external SQL Server instance. By referring to the Monarch Server Configurator, servers used to host the Monarch Server application and its application databases can be identified.

A full backup should be taken when the Altair Monarch Server services are stopped (Monarch Server Config Service and Monarch Server Agent Service). Where there is more than one server, then the Agent Service on all other servers hosting Modules must also be stopped (refer to your Configurator to determine your server(s) and their hostname(s)).

For Monarch Server Report Warehouse & Automator in particular, there may be a need to validate and monitor the inputs to ensure post restart, all required inputs are present and will commence processing to allow for a complete and accurate catchup of pending inputs as well as subsequent newly delivered inputs. The mechanisms for this will vary depending on the input types as well as the storage/delivery methods used to make the inputs available to Monarch Server. Altair Support or Professional Services can assist with any questions or queries in this aspect.

If using Virtual Servers, then snapshots are also viable. However, these should also be taken when the services are stopped to ensure the snapshot is in a clean, restorable state. These will be used to perform a 'point-in-time' recovery should they be used. This means for Monarch Server Report Warehouse and Automator, there may also be a need to ensure any inputs delivered post this 'point-in-time' may need be captured and restored to enable 'catchup' of processing deferred during the upgrade downtime.

3. Monarch Server Automator - Upgrading or New Installation?

In the previous 2023.0 version of the Monarch Product family, changes were made to the data Connectors. These changes are reflected in 2024.0 also.

A summary of changes made to Connectors are,

- The following Connectors have been deprecated.
JIRA, Zendesk, Sugar CRM, Google Sheets, Box, Google Ads, Google Drive
- The following Connectors have had their functionalities modified.
MySQL, NetSuite, Cassandra, Spark SQL Big Query, HubSpot, ServiceNow, SharePoint, OData, Active Directory

The Monarch Server 2024.0 installers (Single Server or Advanced) can be used to perform the following.

- a new install of Monarch Server, with an empty database, or
- to perform a clean install of Monarch Server and then point to and upgrade an existing database to the latest version.

Please review the following information relating to a clean install or upgrade before proceeding.

Clean Installation

If you are performing a new / clean install and creating a new, empty database, and thereafter using Workspaces created / edited in Monarch Complete 2024.0 or higher, you can proceed with no further checks required. Workspaces created in Monarch DPS 2024.0 reflect the most recent features & functionalities by default and will therefore be compatible with Monarch Server 2024.0 accordingly.

Upgrading Monarch Server

This installer may be used as part of upgrading from a previous version of Monarch Server. If the previous version is 2022.0.2 or lower, then there is the possibility of Processes, Workspaces, Change Lists or Exports using the affected Connectors listed above.

If you are performing an upgrade and will be using a database from Version 2022.0.2 or lower of Monarch Server, then you must complete one of the following before proceeding:

- have reviewed the release notes and confirm that you are **not** affected by the connector changes implemented in Monarch Server 2023.0 and above (i.e., you do not use any of the affected Connectors)
- and / or have used the Monarch Server Inspector Tool to verify the existing database is **not** affected by the connector changes and no issues were identified.
- and / or have used the Monarch Server Inspector Tool to verify the existing database was affected by the connector changes and any issues have been **identified and have been or will be addressed** accordingly.

NOTE: If the Inspector Tool is not used / identified issues not addressed, then Visual Processes affected by the connector changes may fail to run or, report errors.

If you require assistance, please refer to the Installation Guide or Release Notes for this version. The Release Notes contain a full list of new features, changes, bug fixes & known issues.

Alternatively, you can contact Altair DA Support here; <https://community.altair.com/community>

4. Software Support

Altair will support the current major version of a product release, and one major version behind the latest product version (N -1).

This means supported versions at the time of this release will be Altair Monarch Server 2024.x and 2023.x.

Support includes:

- Response to questions about using product features
- Operational questions
- Guidance on installing new updates, service updates, and patch fixes (Altair strongly suggests that Altair Knowledge Works Professional Services be involved with your upgrades and patches)
- Investigation into operational failures and/or issues

The Altair Customer Support Page can be found here; [Customer Support | Altair \(https://altair.com/customer-support\)](https://altair.com/customer-support).

5. Access to Software Updates

Customers with an active Maintenance Plan are automatically provided access to the latest product releases via the Customer Support Portal (<https://community.altair.com/community>). This includes major software releases and service releases for updates and fixes.

5.1. Release Overview

Altair Monarch Server is a deployment platform for the Monarch based Server products within the Knowledge Works product set. The server-based platform is scalable from a single-server implementation to a multi-server web distributed system, providing failover, scaling and pooling capabilities accordingly.

Altair Monarch Server consists of 3 products:

- Report Warehouse
 - Traditional Enterprise Server / Content Server functionality
 - Filing, storage, retrieval of TXT & PDF based reports
- Automator
 - Traditional Data Pump Engine
 - Project Editor
 - Visual Process Editor
- Report Mining Server (RMS)
 - 'Overlaying' Report Warehouse (Formally Content Server) functionality on top of an existing Content Management System

Altair Monarch Server 2024.0 continues the following:

- To simplify providing a centralized, browser-based report warehouse with rich data extraction/manipulation/export capabilities
- To enable the automation of data preparation based on Altair Monarch Workspaces and Models
- To enhance the user experience of existing Content Management Systems by enabling richer interactions with compatible report content, enabling rich data extraction/manipulation/export capabilities

Enhancements in the general user experience are added to process definitions/logic, and improvements are made for data connectivity and exports.

Additionally, a few general enhancements are included in this release relating to upgrades, performance & security.

Finally, Veracode Static Application Security Testing (SAST), Veracode Software Composition Analysis (SCA), OWASP Dependency Track & WebInspect Dynamic (PCI Data Security 3.2.1) scans for vulnerability issues were used to ensure that no significant risks for security breaches were apparent and appropriate remedial work undertaken to address issues found accordingly.

6. Release Benefits

This document is divided into the major areas where improvements and additions of new features provide significant benefits to the users of Altair Monarch Server 2024.0.

A summary of changes / new features is as follows:

- Installation & Upgrade
- Deprecated functionality
- Altair Monarch Complete SDK / Engine alignment
- Reduced risk for security breaches
- New features / Improvements

6.1. Installation and Upgrade

Support of newer technologies that are reflected in this release of Altair Monarch Server 2024.0:

- Support for SQL Server 2022 (NOT SQL Azure)

6.2. Deprecated Functionality

Deprecation of older technologies are reflected in this release of Altair Monarch Server 2024.0:

- N/A

The following Connectors have been deprecated per previous 2023.0 release:

- *JIRA, Zendesk, Box, SugarCRM, Google Sheets, Google Ads & Google Drive*
- *Any visual processes utilizing these connectors will fail with error advising of the same in the job log. Likewise, the Inspector Tool will advise of the same as part of its scan summary.*

6.3. Altair Monarch Complete SDK/Engine alignment

Altair Monarch Complete 2024.0 was released in July 2024.

To align with the desktop tools, Altair Monarch Server 2024.0 makes use of the Altair Monarch Complete 2024.0 SDK engines accordingly (also referred to as the Monarch Classic and Data Prep Studio SDKs).

It is important to ensure desktop and server components are of a common version to avoid issues with models/projects/workspaces generated in the desktop product and subsequently used in server product(s). The version of the Engine/SDK is provided as part of the Altair Monarch Server major/minor releases and patch release notes. These should be checked to ensure commonality between the products accordingly. Altair Knowledge Works Support can provide further assistance if required (<https://community.altair.com/community>).

In the prior 2023.0 release of the Monarch Product family, changes were made to the data Connectors.

A summary of changes made to Connectors are,

- The following Connectors have been deprecated:
JIRA, Zendesk, Sugar CRM, Google Sheets, Box, Google Ads, Google Drive
- The following Connectors have had their functionalities modified:
MySQL, NetSuite, Cassandra, Spark SQL Big Query, HubSpot, ServiceNow, SharePoint, OData, Active Directory

Monarch Server 2024.0 is compatible with Monarch Complete/DPS 2024.0 and earlier. Specifically,

- If using workspaces created in Monarch DPS 2024.0, these will be compatible with Monarch Server 2024.0
- If using workspaces created in an earlier version of Monarch DPS (2023.2 or lower) and **upgraded** in Monarch DPS 2024.0, these will be compatible with Monarch Server 2024.0
- If using workspaces created in an earlier version of Monarch DPS (2022.1 or lower), that utilise one or more of the connectors listed above and **not upgraded** in Monarch DPS 2023.0, these will **NOT** be compatible with Monarch Server 2024.0. Visual Processes that utilise these workspaces will fail accordingly.

For Monarch Server 2024.0:

- Monarch Server Assembly Version is 24.0.0.30
- The full version of Datawatch.SDK, which is used in the build, is 24.0.0.36548
- The full version of Datawatch.DataPrep Engine, which is used in the build, 24.0.0.36548

6.4. Reduced Risk for Security Breaches

Regular review of the software eliminates the risk to have vulnerabilities exposed. The code scans performed on Altair Monarch Server permit deployments to comply with major regulatory requirements and industry standards more easily.

Vulnerability code scans were performed on Altair Monarch Server 2024.0 using a combination of:

- Veracode Static Application Security Testing (SAST) - Auto-update PCI Policy
- Veracode Software Composition Analysis (SCA)
- OWASP Dependency Track
- WebInspect Dynamic (using PCI Data Security 3.2.1 - AllCheck policy (Includes all the PCI vulnerabilities))

Scans for vulnerability issues are used to ensure that no significant risks for security breaches were apparent and appropriate remedial work undertaken to address issues found accordingly.

7. New Features / Changes

An overview of major new features / improvements follows.

7.1. Altair Units (AU) Consumption Adjustment

The Altair Units consumption logic is defined as follows;

Monarch Server Pricing Details

- No Paid-up
- No distinction between Dev/ Test / Production Servers
- 1 Server is 8 Cores
- For Automator:
 - Unlimited Processes can be offered when count exceeds 5 Servers
- Although the pricing will be adhered to; Provision for Dev/Test can be granted as sales promotion or Seed Units

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Working Table	
# of Servers	Price in Dollars
1	\$ 75,000.00
2	\$ 135,000.00
3	\$ 195,000.00
4	\$ 245,000.00
5	\$ 295,000.00
6	\$ 335,000.00
7	\$ 375,000.00
8	\$ 405,000.00
9	\$ 435,000.00
10	\$ 460,000.00

# of Server		# of Units	Discount
Min	Max		
1	1	150	0%
2	3	120	20%
4	5	100	33%
6	7	80	47%
8	9	60	60%
10	15	50	67%
16	20	25	83%

3

In the initial implementation, for multiple servers, the calculation assumed the count of servers implied a flat AU cost per server. This will now use a decay whereby additional servers would incur a sliding scale of discount that increases for those servers whose number in the instance aligns to the bands / buckets outlined above.

Unlimited processes will now require a count of 6 Servers / 670 Altair Units Minimum.

To illustrate;

Server Count	Initial Logic (Pre 2024.0)	New Logic (2024.0 +)
1	150	150
2	240 (120 + 120)	270 (150 + 120)
3	360 (120 + 120 + 120)	390 (150 + 120 + 120)
4	400 (100 + 100 + 100 + 100)	490 (150 + 120 + 120 + 100)

5	500 (100 + 100 + 100 + 100 + 100)	590 (150 + 120 + 120 + 100 + 100)
6	480 (80 + 80 + 80 + 80 + 80 + 80)	670 (150 + 120 + 120 + 100 + 100 + 80)
7	560 (80 + 80 + 80 + 80 + 80 + 80 + 80)	750 (150 + 120 + 120 + 100 + 100 + 80 + 80)
8	480 (60+60+60+60+60+60+60+60)	810 (150 + 120 + 120 + 100 + 100 + 80 + 80 + 60)
9	540 (60+60+60+60+60+60+60+60+60)	870 (150 + 120 + 120 + 100 + 100 + 80 + 80 + 60 + 60)
10	500 (50 + 50 + 50 + 50 + 50 + 50 + 50 + 50 + 50 + 50 + 50)	920 (150 + 120 + 120 + 100 + 100 + 80 + 80 + 60 + 60 + 50)

7.2. SQL Server 2022 Support

Application database can utilize SQL Server 2019 & 2022. Note, NOT SQL Azure.

7.3. New Monarch Complete functionalities parity

Enhancing Monarch Server to compliment improvements in Monarch Complete.

- Browse functionalities for HTTP, HTTPS, FTP, SFTP, WebDAV / Secured WebDAV

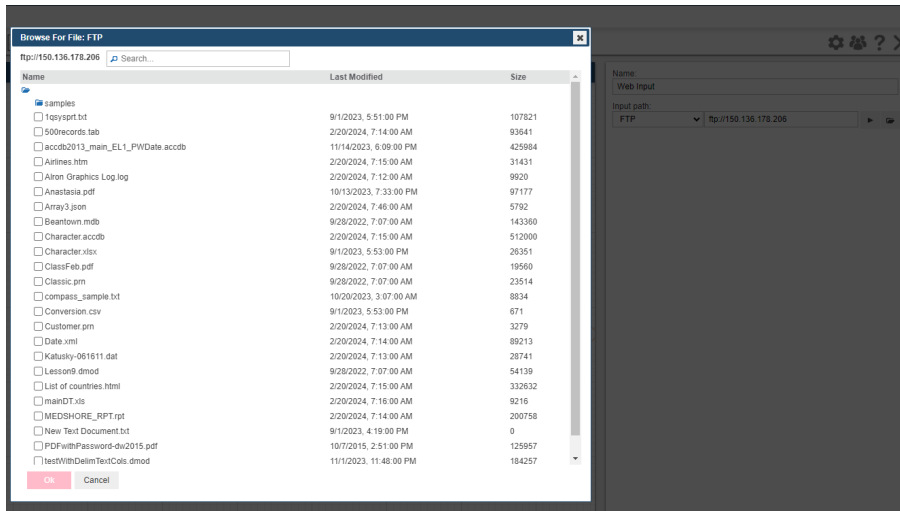


Figure 1 - New FTP Browse Dialog

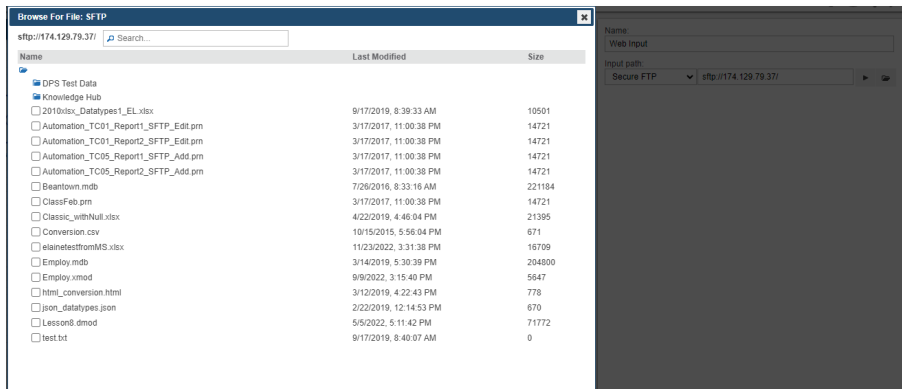


Figure 2 – New SFTP Browse Dialog

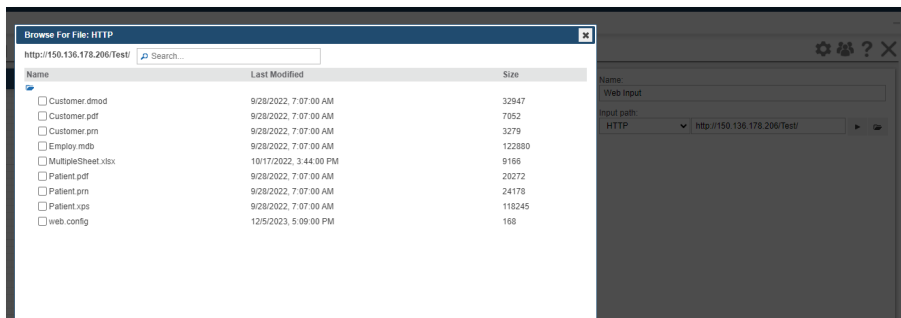


Figure 3 - New HTTP Browse Dialog

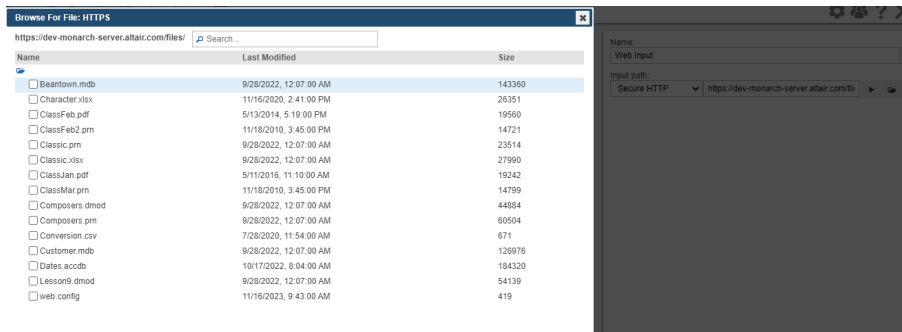


Figure 4 – New HTTPS Browse Dialog

- Display Width for Columns and subsequent Exporting Fixed Width Text Data will utilize the same accordingly

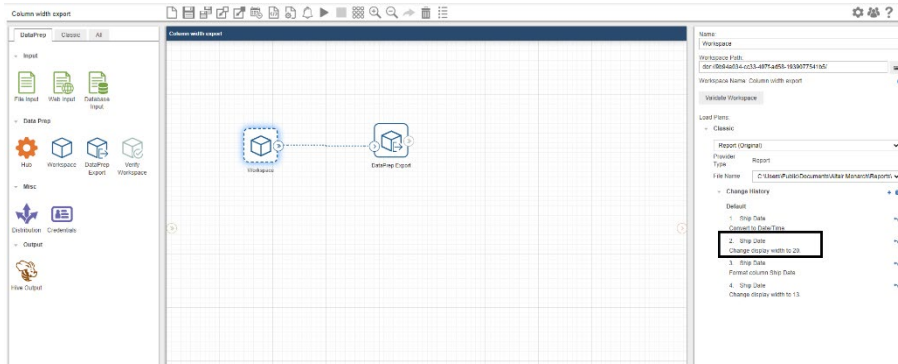


Figure 5 - Column Width Setting from Load Plans

- Other Monarch Complete improvements such as Dynamic Date Filtering, improved XML & JSON Importers will carry through into Monarch Server as a result of the more general SDK Integration.

7.4. DST-2551 – Provide guidance on configuring Monarch Server to get rid of "Unhandled Exception" errors

A deployment can now utilise generic error pages and error handling logic to inform end users of potential problems. UI does not provide system information or other data that could be utilized by an attacker when orchestrating an attack.

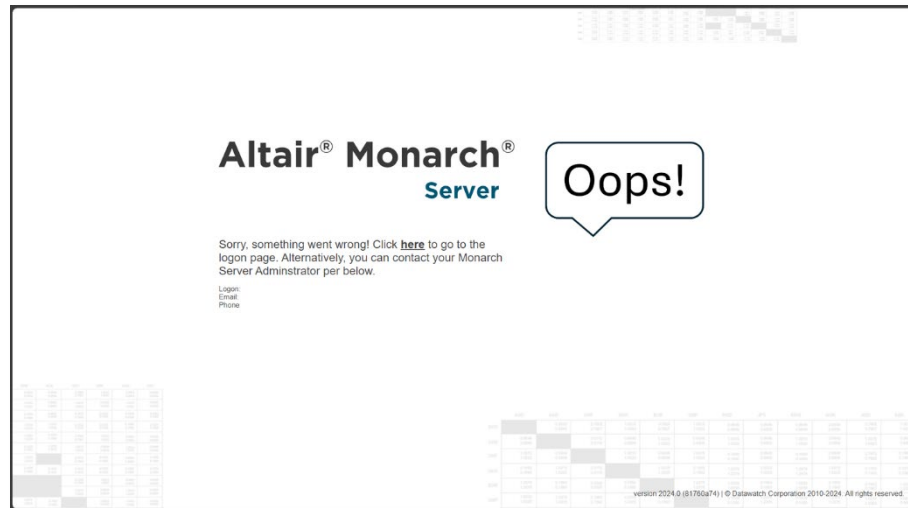


Figure 6 - Monarch Server Web UI generic error page (MSAdmin, MSClient, RMSClient)

7.5. DST-2870 – Add ability to select sheet number for Excel Template/Trapping based inputs

Like a print selection dialog allowing the user to provide a range or ranges of pages in a document to print selectively, the same approach is utilized in Monarch Server Automator for Excel Sheet selection.

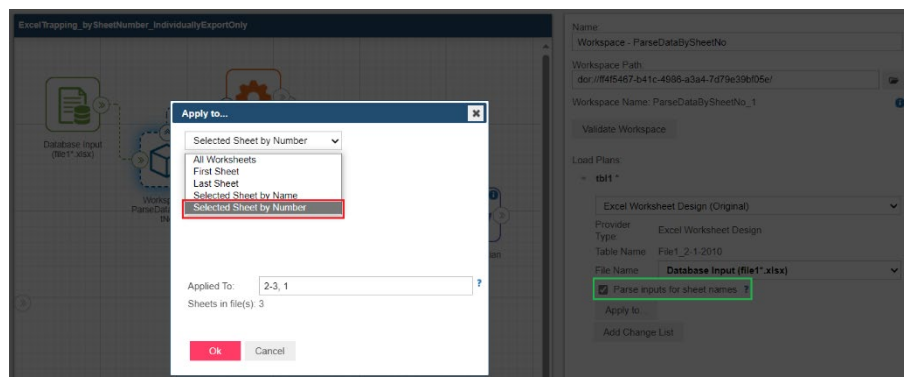


Figure 7 - Excel Sheet Number Selection Dialog

This allows for individual and combined ranges of sheet numbers such as the following to be referenced.

- 1 (sheet 1 only)
- 1, 3 (specified sheet numbers)
- 2-3 (range as per, inclusive)
- 1- (stated sheet and all sheets thereafter)
- -3 (Sheets 1-3 inclusive)
- 1, 2-3 (combination)

7.6. DST-2261: Automator: add an ability to use "Bulk Behaviour for OleDb" option for Summary export (Standard and Visual processes)

Bulk behaviour allows for the faster load of large volumes of data into a database. For Automator, this now applies to summary derived datasets, exporting into SQL Server or Oracle. The functionality was previously only available for Tables.

NOTE: The option is available for Visual Processes only.

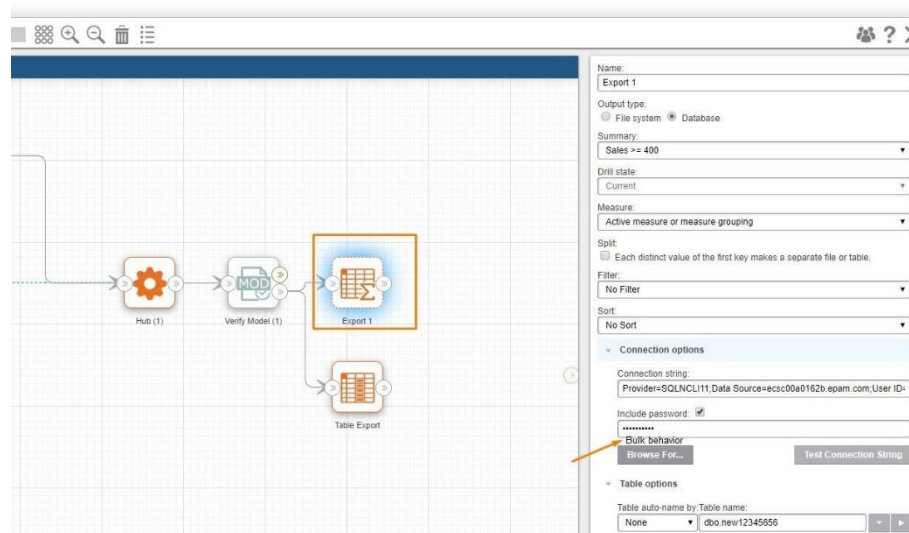


Figure 8 – Bulk Behaviour option for Summary Exports in Visual Process

8. Full List of Fixes / Improvements

8.1. General Fixes / Improvements (2)

Type	ID	Summary
Improvement	DST-2778	When using Security Provider -> Default security or Strong password provider, add "Force a user to change password on next login" to a Users profile.
Improvement	DST-2966	Support SQL Server 2022

8.2. Automator Fixes / Improvements (20)

Type	ID	Summary
New Feature	DST-2261	Automator: add an ability to use "Bulk Behaviour for OleDb" option for Summary export (Standard and Visual processes)
New Feature	DST-2344	Be able to zip all input files in one compress file.
New Feature	DST-3472	MS Integration - Enable reordering of columns on export
Improvement	DST-2551	Provide guidance on configuring Monarch Server to get rid of "Unhandled Exception" errors
Improvement	DST-2596	Job Logs: add column to distinguish job SDK in UI
Improvement	DST-2870	Add ability to select sheet number for Excel Template/Trapping based inputs
Improvement	DST-2884	Default Custodian should be part of new Monarch Server database content
Improvement	DST-3146	Allow Api.GetInputs() method to expose report path+name in a script when the file input node is connected to distribution node
Improvement	DST-3187	After export load plan data via oledb export type result data greater than 255 symbols is truncated (Bulk Behaviour option selected)
Improvement	DST-3362	Different output formatting for column names row (line spacing)
Improvement	DST-3425	Add browse functionality to HTTP, HTTPS, FTP, and SFTP
Improvement	DST-3450	Implement Display Width for columns when exporting data

Type	ID	Summary
Bug	DST-2571	System cannot retrieve web model information on the properties panel if credentials were entered after Credentials item was connected to Web Model item
Bug	DST-2653	It's impossible to open editing SQL plugin window of workspace with several load plans a second time once user has already opened it
Bug	DST-2680	looping issue with Visual Process object
Bug	DST-2748	When unable to delete SQL Server table, "Overwrite" option silently "Appends".
Bug	DST-3024	When a new workspace with Oracle settings uploaded to the server library the Visual process still uses the previous Oracle settings in the Workspace node.
Bug	DST-3049	It's impossible to open visual process after "Report Warehouse" trigger is set up
Bug	DST-3488	When Continue with verified only option is selected in Verify Workspace, and Verify workspace causes an exception the input is not available for Dataprep Export nodes.
Bug	DST-3513	Cannot open/use Report Warehouse Input in Standard / Visual Processes
Documentation	Various	Updates to documentation relating to changes / improvements per previous items.

8.3. Report Warehouse (Formally Content Server) Fixes / Improvements (0)

Type	ID	Summary
		No Report Warehouse specific items in this release.

8.4. Report Mining Server (RMS) Fixes / Improvements (1)

Type	ID	Summary
New Feature	DST-3378	RMS Apply data formatting from model is not working in Summary View

9. Known Issues

The following known issues are intended to be fixed in a subsequent release of Altair Monarch Server. The next planned release (2024.1) is expected for Dec 2024.

9.1. Monarch Server General

Category	ID	Summary
Bug	DST-2857	Unexpected Service termination / Server shutdown prevents modules restarting due to corrupt [module].exe.config files

9.2. Automator

Category	ID	Summary
Bug	DWCHIS-3268 / DST-3415	Invalid characters in Pre/Post Processing Scripts preventing Project opening in Project Editor
Bug	DST-3452	Data is truncated in Automator when using Fixed Text as export file type.

9.3. Report Warehouse

Category	ID	Summary
Bug	DST-2608	CS: Offline Tasks - mail client is NOT opened by clicking on "mail" icon

9.4. RMS

Category	ID	Summary
N/A		

EOF