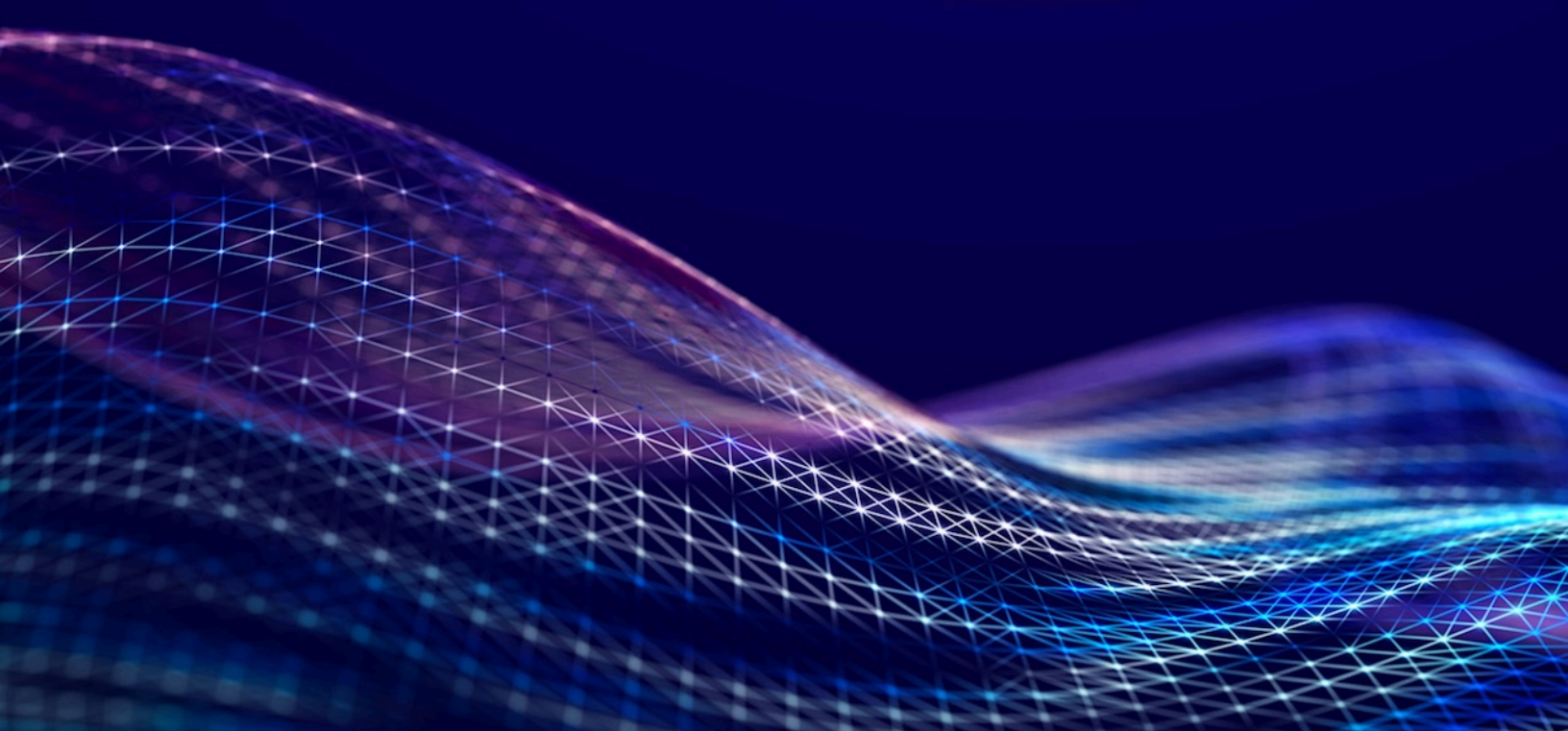




Tungsten Analytics for Capture Administrator's Guide

2025.4

TUNGSTEN
AUTOMATION

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Preface

This guide includes instructions for installing and using Tungsten Analytics for Capture 2025.4. Procedures for upgrading from an earlier version are also included.

Read this guide completely before using the software. The guide is written with the assumption that you have a basic understanding of Tungsten Capture, Tungsten Transformation, and Tungsten Insight (formerly Kofax Capture, Kofax Transformation Modules, and Kofax Insight).

Related documentation

The Analytics for Capture product documentation, including the release notes, is hosted online:

<https://docshield.tungstenautomation.com/Portal/Products/KAFC/2025.4-mmbztwz6vb/AFC.htm>

Be sure to review the release notes document, which contains information that is not available in other Analytics for Capture documentation.

Offline documentation

If the security policy for your organization restricts Internet access, you can view the documentation in offline mode (without an active Internet connection) while working with Analytics for Capture. To obtain the documentation for offline use, download it from the Tungsten Automation Fulfillment Site.

1. On the [Tungsten Fulfillment Site](#), use the filtering options on the Downloads page to display the list of Tungsten Analytics for Capture 2025.4 files.
2. Download **TungstenAnalyticsForCaptureDocumentation_2025.4_EN.ZIP**.
3. Extract the contents of the compressed documentation file to a folder that is accessible to your Analytics for Capture installation.

Tungsten Insight documentation

This version of Analytics for Capture is based on Tungsten Insight 6.5.0. The Tungsten Insight hosted documentation site is available here:

https://docshield.tungstenautomation.com/Portal/Products/en_US/Insight/6.5.0-55oo6u6oqu/Insight.htm

Training

Tungsten Automation offers both on-demand and instructor-led training to help you make the most of your product. To learn more about training courses and schedules, visit the [Tungsten Automation Learning Cloud](#).

Getting help with Tungsten Automation products

The Tungsten Automation Knowledge Portal repository contains articles that are updated on a regular basis to keep you informed about Tungsten Automation products. We encourage you to use the Knowledge Portal to obtain answers to your product questions.

To access the Tungsten Automation Knowledge Portal, go to:

<https://knowledge.tungstenautomation.com/>

 The Knowledge Portal is optimized for use with Google Chrome, Mozilla Firefox, or Microsoft Edge.

The Knowledge Portal provides:

- Powerful search capabilities to help you quickly locate the information you need.
Type your search terms or phrase into the **Search** box, and then select the search icon.
- Product information, configuration details and documentation, including release news.
To locate articles, go to the Knowledge Portal home page and select the applicable Solution Family for your product, or select the View All Products button.

From the Knowledge Portal home page, you can:

- Access the Tungsten Automation Community (for all customers).
On the Tungsten Automation Resources menu, select the **Community** link.
- Access the Tungsten Automation Customer Portal (for eligible customers).
Go to the [Support Portal Information](#) page and select **Log in to the Tungsten Automation Customer Portal**.
- Access the Tungsten Automation Partner Portal (for eligible partners).
Go to the [Support Portal Information](#) page and select **Log in to the Tungsten Automation Partner Portal**.
- Access support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.
Go to the [Support Details](#) page and select the appropriate article.

Chapter 1

Introduction

Tungsten Analytics for Capture is an extension of Tungsten Capture and Tungsten Transformation that produces a graphical business intelligence dashboard based on near real-time data collected during the batch processing workflow.

Use the dashboard to display standard or custom views based on data stored within the Analytics for Capture database. Select from the comprehensive set of view types provided with the product, or use the [Dashboard Designer](#) to create custom views based on the predefined components.

 Analytics for Capture views are based on values from predefined Tungsten Automation [records and metrics](#). When using the Dashboard Designer within Insight Studio to add custom views, do not modify the predefined views, records, or metrics that come with the product. You can make a [copy](#) of existing views and then customize the settings. For details, see the *Tungsten Analytics Project Customizations Application Note* on the Tungsten Automation Knowledge Portal at <https://knowledge.tungstenautomation.com>.

Dashboard overview

The Analytics for Capture dashboard (called the "Viewer") consists of interactive views and reports. Administrators can access the Admin tab to manage the dashboard.

Operations

- [Overview](#)
- [Breakdowns](#)
- [Process Latency](#)
- [Remaining Labor](#)
- [Capacity Planning](#)

Batches & Docs

- [Batch Search](#)
- [Search by Field](#)
- [Deleted Batches and Pages](#)
- [Error Batches](#)
- [Rejections](#)
- [Swimlane - Batches](#)

- [Swimlane - Documents](#)
- [Workflow - Batches](#)
- [Workflow - Documents](#)
- [Trending and Stats - Batches](#)
- [Trending and Stats - Documents](#)
- [Trending and Stats - Group by Batch Field](#)

Labor

- [Operator Time](#)
- [Labor Costs](#)
- [Session Time](#)
- [Sessions Over Time](#)
- [Operator Performance](#)
- [Operator Benchmark](#)

Quality

- [Classification](#)
- [Classification Chart](#)
- [Extraction](#)
- [Extraction Chart](#)
- [Separations](#)
- [No Touch Processing](#)
- [Benchmark - Classification](#)
- [Benchmark - Extraction](#)

Reports

Classification and Recognition

- [Classification versus Review](#)
- [Reclassified Document Types](#)
- [Field Accuracy](#)
- [Field Confidence](#)

Workflow Management

- [Document Processing Time](#)
- [Operator Productivity Summary](#)

Licenses

- [Station License Trending](#)
- [Volume License Trending](#)

Admin

- [Data Processing](#)
- [Alerts](#)
- [Special fields](#)
- [Systems](#)
- [Labor Cost Configuration](#)
- [Change Password](#)
- [Projection Settings](#)
- [Audit](#)

Chapter 2

System requirements

Most software requirements for Tungsten Analytics for Capture, including the supported versions of Tungsten Capture and Tungsten Transformation, are listed in the [Tungsten Analytics for Capture Technical Specifications](#) document. The document is updated regularly, and we recommend that you review it carefully before installing your product.

This chapter is intended to supplement the *Technical Specifications* document with information about hardware requirements and additional prerequisites.

Hardware

The Analytics for Capture hardware requirements vary, depending on the specifics of your deployment. Each server should have sufficient power and resource levels to support the anticipated load on the applications that are running.

Deployment scenarios

You can install the Workflow Agent, Event Listener, and Insight Server on the same computer or on different computers. One Workflow Agent can send to one or more Event Listeners via a load balancer.

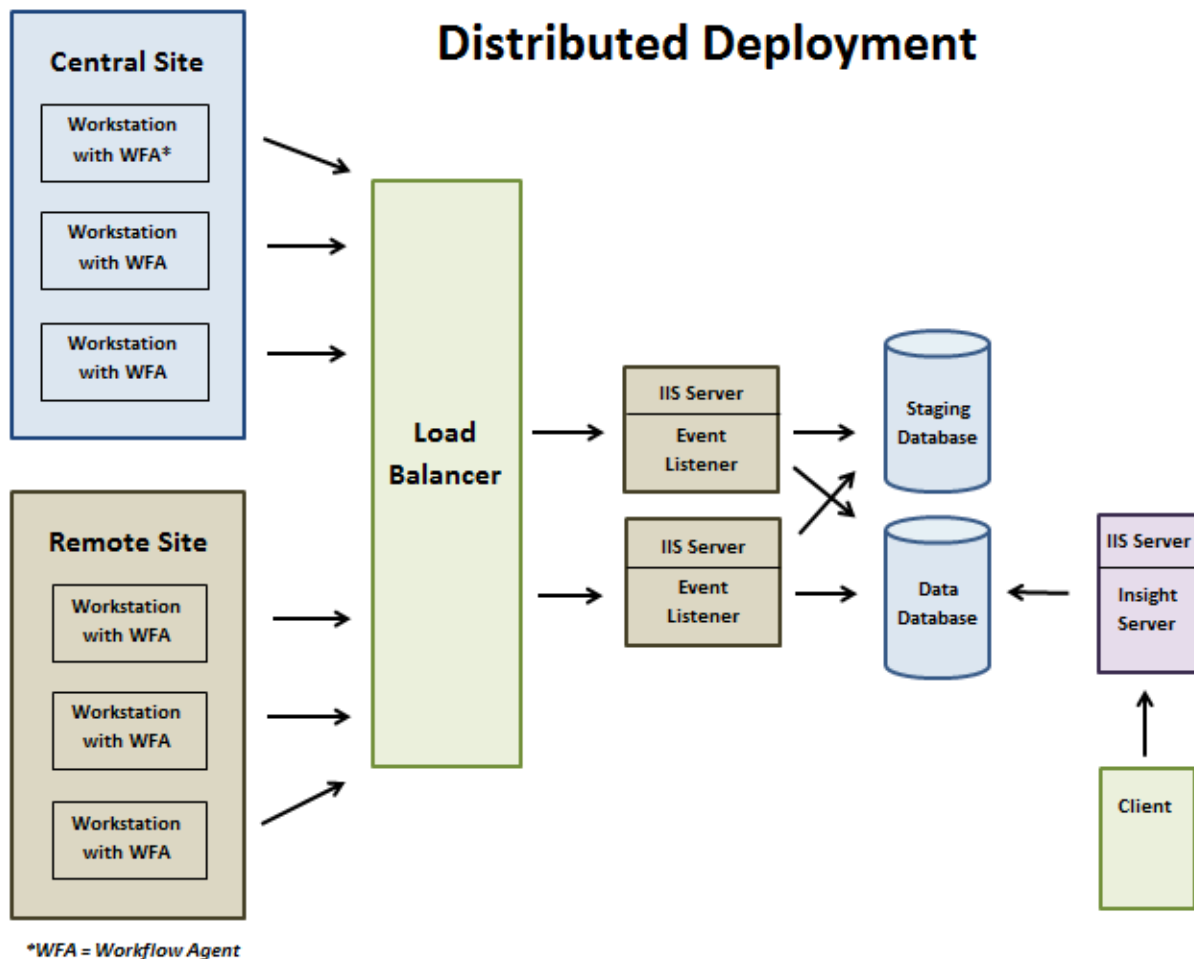
One Workflow Agent is deployed for each Tungsten Capture station.

This section describes two typical deployment scenarios:

- Distributed
- Standalone

Distributed Scenario

You can deploy Analytics for Capture in a distributed environment for use with Tungsten Capture Network Server (TCNS) central and remote sites.



Standalone scenario

In this scenario, the Workflow Agent resides on the Tungsten Capture server and sends data to a single Event Listener installed on the same computer (along with Tungsten Capture). This configuration, which does not offer load balancing or failover mechanisms, can be used for testing or demonstration purposes.

Event Listener server

The Analytics for Capture Event Listener receives transactional data from the Analytics for Capture Workflow Agent for every module processed in the Tungsten Capture workflow.

With a load balancer, you can configure multiple instances of the Event Listener to run simultaneously on separate servers, or on the same server. If one instance of the Listener service stops working, the other active instances are available automatically to take over the work from the failed instance.

Each Event Listener must be installed on a server where IIS is installed as outlined in [IIS Web server](#).

Insight server

The Tungsten Automation Insight server is used to process Tungsten Capture data sent by [Workflow Agents](#) to a Staging database via the [Event Listener](#). The Listener also processes the data from the Staging database and places it in the Analytics for Capture Data database.

Insight execution plans are used to process the data from the Staging database and prepare it for use in the dashboard views. Execution plans may consume a substantial amount of CPU, disk, and database resources, depending on the amount of data to be processed.

i Insight 6.5.0 does not support multiple instances. If there is more than one Insight instance in the current environment, a notification appears directing the user to remove the current instance of Insight before continuing with the installation.

Analytics for Capture sizing considerations

This section describes sizing considerations related to the Event Listener, Insight Server, and Database Server components. Note that our observations are not exhaustive; they are based on a particular set of environment specifications, and a workload that is representative of certain customer deployments. You can take these observations into consideration while making sizing decisions for your own environment.

The sizing information provided here is based on the following configuration:

- Event Listeners hosted on a quad core server with a minimum of 2.7 GHz and 16 GB RAM
- Insight and Database Servers deployed on a 16 core server with a minimum of 2.7 GHz and 16 GB RAM
- Workload used to create transactional data in the servers was based on the following:
 - 11 documents per batch
 - 40 fields per document
 - Scan, Tungsten Transformation Server, Tungsten Transformation Document Review, Tungsten Transformation Server 2, Tungsten Transformation Validation, and Export modules
 - 6 Analytics for Capture sessions per batch with one session per module
- Oracle and SQL Server database servers

Event Listener server

Consider the observations in this section when deploying Event Listeners in a high performance environment.

Each Event Listener can utilize not more than one core for processing and writing session data to the Insight database. Each Event Listener can utilize the rest of the CPU with no limits for accepting connections and saving the received messages to the Staging database.

Based on our testing configuration and workload described earlier, a system with four Event Listeners sustained a throughput of up to 200 batches per minute. If your systems are required to

handle a higher number of batches per minute, additional instances of the Event Listener may help to sustain the expected level of performance.

For High Availability purposes, we recommend separate servers for multiple instances of the Event Listener. See [Install the Event Listener](#) for implementation details related to multiple instances. Also see [Appendix E, High Availability](#).

For failover purposes, each Event Listener must be sized to handle the entire batch workload if necessary. This provides for the unlikely event that all Event Listeners fail, except for a single instance.

Insight server

We recommend that you install Insight on a server that differs from your database or other servers. The Insight and database servers should be installed in the same time zone. If the Insight server is installed on the same server as your database server or other Tungsten Automation servers, it may impact production throughput. The resource requirements for the Insight server must be considered along with the requirements defined by the database vendor for Insight-related operations.

Dashboard Viewer performance

The Analytics for Capture dashboard viewer response time performance is proportional to the number of active users, and with the Swimlane and Workflow views, dependent on the number of active batches and documents in the system. We recommend that you configure user roles carefully to manage access to the dashboard Viewer, and to prevent issues when views are accessed concurrently by multiple users. In our testing, the following observations were noted:

- Decreasing the number of active users with a fixed number of documents in the Tungsten Capture system improved response times.
- Decreasing the number of documents in the Tungsten Capture system with a fixed amount of active users improved the response times.

Rendering of the dashboard views can be a CPU and memory-intensive task. Some views required up to 36% CPU utilization, and up to 6 GB of dedicated memory in our testing configuration based on the complexity of data retrieved (Swimlane and Workflow views). We recommend configuring your user roles to provide appropriate access to these views.

The following tables summarize our observations.

Insight Server with SQL Server database

Users	Active Documents	Response Time (seconds)	Insight Server		SQL Server
			Peak CPU Utilization (%)	Memory Usage (GB)	Peak CPU Utilization (%)
1	0	2	11	3 to 4	7
1	30000	3	15	3 to 4	7
1	300000	16	20	5 to 6	10
5	30000	10	18	3 to 4	25

Users	Active Documents	Response Time (seconds)	Insight Server		SQL Server
			Peak CPU Utilization (%)	Memory Usage (GB)	Peak CPU Utilization (%)
5	300000	27	36	5 to 6	40

Insight Server with Oracle database

Users	Active Documents	Response Time (seconds)	Insight Server		Oracle
			Peak CPU Utilization (%)	Memory Usage (GB)	Peak CPU Utilization (%)
1	0	1	7	1 to 2	4
1	30000	3	10	2 to 3	5
1	300000	11	14	2 to 3	12
5	30000	5	15	2 to 3	22
5	300000	13	36	4 to 5	42

Execution plan performance

Execution plan performance is proportional to the amount of data provided by the Event Listeners in time intervals, and it varies based on database server performance. Using our configurations, executing data load plans for a workload of up to 15,000 batches required up to 40 minutes for the Hourly Plan, and up to 50 minutes for the Nightly Plan.

Executing data load plans is a CPU moderate task. Executing data load plans accounted for up to 20% CPU utilization on the Insight server.

Database servers

The largest database in the Analytics for Capture system is the Data database. The second largest is the Staging database. Because data in the Staging database is transient, the size may vary as the workload is processed. For optimal performance, we recommend a separate database server to host each of these databases.

Database server memory and storage should be sized appropriately, depending upon the expected number of rows active in the system per period of time. As a point of reference, consider the following thresholds while deploying Analytics for Capture:

- At least 8 GB RAM: For databases with up to 5 million rows
- At least 16 GB RAM: For databases with 5 to 20 million rows
- At least 24 GB RAM: For databases that exceed 20 million rows

CPU utilization is another factor to consider when deploying the database server with Analytics for Capture. In our configurations, the CPU utilization for the Data database and Staging database servers was as follows:

- When processing transactional data with up to 4 listeners, the CPU utilization reached up to 60% CPU in the database. The CPU utilization in the Staging database server was up to 15%.

- When transactional data was retrieved for rendering the Analytics for Capture views, CPU utilization reached up to 40% in the Data database server. The Staging database server was not leveraged in this process.
- When data plans were executed, the CPU utilization reached up to 60% in the Data database server.

Data compression

Use of database server data compression capabilities must be factored into the overall CPU load calculations.

Software prerequisites

Most software requirements for Analytics for Capture, including the supported versions of Tungsten Capture and Tungsten Transformation, are listed in the [Tungsten Analytics for Capture Technical Specifications](#) document on the product documentation website. The document is updated regularly, and we recommend that you review it carefully to ensure success with your product. If you attempt to install Analytics for Capture without the supported versions of Tungsten Capture or Tungsten Transformation, a warning is displayed.

The following software should be manually installed before you proceed with the installation. See the [Tungsten Insight Technical Specifications](#) for details.

- Microsoft .NET Framework 4.7.2 or later
- Microsoft Visual C++ 2015 SP1 Redistributable
- IIS Version 10

IIS Web server

Internet Information Server (IIS) must be enabled and configured. While IIS is provided with all Windows servers, it is not installed by default; you must ensure that IIS is enabled.

 When you configure Insight on IIS, the application pool (default or custom) must be .NET CLR 4.0 (Windows Server 2019 or 2022).

If Windows authentication is used for any database, the application pool identity must have database access. You must have a dedicated application pool configured with the LocalSystem identity that is used by the DataFileProcessorService. If you use an Active Directory account for an application pool, it must have the same level of permissions as the NetworkService and LocalSystem identities. Also, the application pools should have the Idle Timeout set to zero, so they always remain active.

If you create an IIS website, errors may occur if you use Custom Site Delegation to change the default delegation states. In particular, the delegation state for Modules should be set to Read/Write rather than Read Only.

Configure IIS

If you use the default configuration for IIS, Internal Server Error messages may appear during the product installation process. You can prevent the errors by configuring IIS using the following steps based on Windows Server 2022.

Also, review the list of [IIS settings](#) that should be selected.

1. In the Control Panel, navigate to **Administrative Tools > Server Manager** .
The Server Manager Dashboard appears.
2. Select the **Add roles and features** link.
The Add Roles and Features Wizard screen appears.
3. Select **Next**.
4. Select the installation type as **Role-based or feature based installation** or **Remote Desktop Services installation** and select **Next**.
5. Select a server or virtual hard disk on which to install roles and features and select **Next**.
6. On the **Server Roles** tab, expand **Web Server (IIS)** and do the following:
 - a. Expand the **Web Server > Common HTTP Features** and select **Static Content**.
 - b. Expand the **Web Server Security** and select **Windows Authentication** .
 - c. Expand **Web Server > Application Development** and select **ASP.NET 4.8** .
7. Select **Next**. Ensure that in the **Feature** tab, **.NET Framework 4.8 Features** is selected and under **WCF Services**, **HTTP Activation** is selected.
8. Select **Next**.
9. On the **Confirmation** tab, select **Install**.

IIS settings

This section lists the Internet Information Services (IIS) settings to select for IIS.

IIS 10 settings

Analytics for Capture works with the default settings for IIS 10, as listed here. After you install Analytics for Capture, some additional Web Server (IIS) Roles and Features are added, and they are listed with an asterisk.

Common HTTP Features:

- Static Content
- Default Document
- HTTP Errors

Security

- Request Filtering

Health and Diagnostics

- HTTP Logging

Performance

- Static Content Compression

Management Tools

- IIS Management Console

Application Development

- .NET Extensibility 4.6 or 4.5*
- ASP.NET 4.8*
- ISAPI Extensions*
- ISAPI Filters*

.NET Framework 4.7 Features

- WCF Services
 - HTTP Activation*

Metadata repository

Analytics for Capture stores metadata and calculated key performance indicators in Microsoft SQL Server or in Oracle. The server used for storage can be a separate server or a new database on any existing server for which you have specific database owner (DBO) privileges.

To support the extended set of views in Analytics for Capture 2025.4, inform your DBA that sufficient data storage (more than in earlier versions) should be allocated. As a basic guideline, we recommend a data storage allocation that is equivalent to approximately 2-3 times the size of the HistoryOfDocument table.

The DBA should monitor the Analytics for Capture Data database indexes for fragmentation on a routine basis, based on your organization's workload. If necessary, the DBA can perform index defragmentation to optimize disk space and overall performance.

If you wish to use a separate server, install it prior to installing Analytics for Capture. For SQL databases, ensure you have installed Microsoft SQL Server Studio or Studio Express. If you are not using an enterprise level database management system, you can install SQL Server Express Edition, which is available from the Microsoft website. SQL Server Express Edition is appropriate only for small deployments such as demo systems.

Databases other than SQL Server or Oracle are not supported for use with Analytics for Capture.

Database collations

The same collation should be used for all Analytics for Capture and Tungsten Capture databases. If the database collation is not consistent, it may adversely impact the ability to populate dashboard views, especially the labor and quality views. To view details about errors related to inconsistent database collation, set the Event Listener [log files](#) to debug mode. The default logging level (Info) does not include details for errors caused by running databases with different collations.

Database driver

Analytics for Capture must have access to the data you want to analyze. If the database is accessed over a network connection, you must also verify the necessary security/firewall settings and the availability of the necessary drivers for the target databases.

Oracle

If you plan to use Oracle, you must create an empty schema for each database (staging, metadata, data, and admin) before installing Analytics for Capture.

For each database, create an empty schema where you want to store Analytics for Capture information. The user name provided when you install Analytics for Capture must have the schema set as the default schema for that user. The user must also have user rights to create objects in that schema.

Database client software requirements

Analytics for Capture requires the use of Microsoft .NET data providers for Oracle database management systems. The Microsoft .NET data providers for Oracle are installed by the client software on each workstation. The supported version of the client software is ODP.NET with 64-bit ODAC 19.3 or later, which can be used to connect to a lower version of the Oracle database.

We recommend installing Analytics for Capture and Tungsten Capture on separate machines to avoid potential conflicts between x64 and x86 versions of ODP.NET.

Oracle client software should have properly configured settings files in the `Network\Admin` folder, including the "sqlnet.ora" and "tnsnames.ora" files.

Oracle machine_wide_config parameter

Oracle components must be present in the .NET Framework machine.config file prior to the Analytics for Capture installation. The Oracle parameter *machine_wide_config* determines whether or not the components are written to machine.config. For more information about this parameter, refer to your Oracle documentation.

Tablespace creation

A dedicated Oracle tablespace for Analytics for Capture database objects is recommended, but not required. If you create a dedicated tablespace, identify it as the default tablespace for the Analytics for Capture user. Additionally, the Analytics for Capture user needs adequate quota on the tablespace to maintain the application schema.

Analytics for Capture does not support separation of object types into separate tablespaces. All Analytics for Capture application objects are stored in a single tablespace. The separation of tables and indexes may be included in a future release.

i Be sure that your tablespace configuration complies with best practices for Oracle. Refer to the Oracle website for more information.

Tablespace usage

Be sure to allow sufficient space to accommodate the amount of historical data you need to maintain. You may want to reduce the number of fields to minimize storage requirements.

Create user privileges

To use Analytics for Capture with an Oracle database, the application owner must already exist in the database. This user requires certain privileges to ensure that Analytics for Capture is installed properly and operates successfully after installation. After installation, Analytics for Capture uses this database user account to connect to the database for all subsequent database-related operations.

1. Verify that the user has database level authentication.
2. Verify that the user has quota on the appropriate tablespace (and temporary tablespace) for the Analytics for Capture data.
3. Verify that the user has the Analytics for Capture data tablespace identified as the default tablespace.
4. Verify that the user has the following minimum system privileges to install and use Analytics for Capture:
 - CREATE SESSION
 - CREATE TABLE
 - ALTER ANY TABLE
 - DROP ANY TABLE
 - CREATE PROCEDURE
 - CREATE ANY INDEX
 - ALTER ANY INDEX
 - DROP ANY INDEX
 - CREATE SEQUENCE
 - DROP ANY SEQUENCE

Sample create user and grant statement:

```
CREATE USER <USER NAME>
  IDENTIFIED BY <PASSWORD>
  DEFAULT TABLESPACE <TABLESPACE NAME>
  QUOTA UNLIMITED ON <TABLESPACE NAME>;
GRANT
  CREATE SESSION,
  CREATE TABLE,
  ALTER ANY TABLE,
  DROP ANY TABLE,
  CREATE PROCEDURE,
  CREATE ANY INDEX,
  ALTER ANY INDEX,
  DROP ANY INDEX,
  CREATE SEQUENCE,
```

```
DROP ANY SEQUENCE  
TO <USER NAME>;  
/
```

Dashboard clients

Computers that run the Analytics for Capture Dashboard in either Designer or Viewer mode require a web browser, access to the computer running the IIS instance hosting the dashboard, and HTML 5. The minimum configuration for these computers is Windows 11 with 4 GB RAM and a microprocessor with a clock speed of at least 2 GHz.

Chapter 3

Perform a new Tungsten Analytics for Capture installation

i The instructions and sample paths in this guide are based on a Windows 64-bit operating system and Insight 6.5.0. Steps and paths might vary from the samples in this guide, depending on your operating system and Insight version.

Follow the instructions in this chapter to perform a new Tungsten Analytics for Capture 2025.4 installation. If you are upgrading from an earlier version, see [Upgrade Tungsten Analytics for Capture - SQL Server](#) or [Upgrade Tungsten Analytics for Capture - Oracle](#).

Your product is delivered as a compressed file, TungstenAnalyticsForCapture-2025.4.0.ZIP, which includes the files required to successfully install the Analytics for Capture components listed in the following table.

Analytics for Capture Component	Folders / Files
To install Analytics for Capture components according to the instructions in this guide, use the folders and files listed here.	
Tungsten Insight	Tungsten Insight folder: TAFC_Installer.exe For silent installation: InstallerConfig.xml
Event Listener	Event Listener folder: KFXWebAgentSetup.exe For silent installation: KFXWebAgentSetup.exe.config
Workflow Agent	Workflow Agent folder: TungstenCaptureEventSender.msi

Databases

SQL Server or Oracle databases are supported for use with Analytics for Capture.

- **SQL Server:** A Staging database must be created before you start the product installation; you can have the installer create or initialize the other required databases (Metadata, Data, and Admin). See [Required databases](#) below.

You must have a database account with sufficient rights to create the required databases, and to create and modify database tables. Otherwise, you must first create databases prior to installing the product. In the latter scenario, you define a user with database ownership rights and then manually create the databases and individually assign ownership rights to each one.

- **Oracle:** All database schemas must already be in place before you proceed with the product installation. See [Oracle](#). Also, Analytics for Capture requires Oracle components to be present in the .NET Framework machine.config file. For details, see [Oracle machine_wide_config parameter](#).

We recommend installing Analytics for Capture and Tungsten Capture on separate machines to avoid potential conflicts between x64 and x86 versions of ODP.NET.

Required databases

Use a new or existing database management system instance to create the four databases required for use with Analytics for Capture. We recommend that you use a consistent naming convention for each database, such as tafc_staging, tafc_meta, tafc_data, and tafc_admin.

- **Staging:** Receives data from the Event Listener each time processing is finished for a Tungsten Capture module (except Export).

 You must manually create an empty Staging database before starting the product installation. Assign a name such as tafc_staging.

The Staging database tables are created automatically the first time the [Event Listener](#) receives data from the [Workflow Agent](#). The Event Listener places the Tungsten Capture data in the Staging database, and processes it for use by Analytics for Capture. Data is placed in the Staging database each time that processing is finished for a Tungsten Capture module (except Export).

- **Metadata:** Stores configuration information such as metric definitions and calculation logic. Assign a name such as tafc_meta.
- **Data:** Stores the processed records and metrics. Assign a name such as tafc_data.
- **Admin:** Stores Insight administrative data related to users, roles, filtering, alerts, logs, and more. Assign a name such as tafc_admin. With a new installation, the Admin database must be empty.

Windows authentication

If you are using Windows user authentication, access to all Analytics for Capture databases must be given to the following:

1. User account used to perform the Analytics for Capture installation.
2. Account / identity for each IIS application pool.
Verify where Insight and the Event Listener are installed within each application pool. If different Analytics for Capture components are installed for multiple users, each account / identity must be configured with the same rights assigned for the other user accounts.
3. Logon account for the Insight Scheduler Service. Note that accounts for Windows services must be granted the "Log on as a service" right. Otherwise, the installation will fail to set the logon account.

Install Analytics for Capture

Use the procedure in this section to install Tungsten Insight, which serves as the internal "engine" for Analytics for Capture.

Tungsten Insight is used to process Tungsten Capture data sent by [Workflow Agents](#) to a Staging database via the [Event Listener](#). Insight, which is installed only on IIS Web Servers, interacts with all Analytics for Capture databases. Insight implements an hourly plan to process the raw data in the Staging database and then update the Data database. This data is used to populate the views on the Analytics for Capture dashboard.

As an alternative to the standard installation process, you can silently install Tungsten Insight. See [Install Tungsten Insight silently](#).

i For a new installation using SQL Server databases, you must have a database account with sufficient rights to create the administration database. If the administration database already exists, database ownership permissions are sufficient.

1. Do the following:
 - a. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
 - b. Run the installation as a user with administrator rights.
 - c. Temporarily disable your antivirus software.
2. Copy the compressed Analytics for Capture product file, **TungstenAnalyticsForCapture-2025.4.ZIP**, into a folder and extract the contents. Copy your product license file to the same folder. Do not use a shared network folder.
3. In the Tungsten Insight folder, right-click **TAFC_Installer.exe** and select **Run as administrator**. The **Analytics for Capture - Insight Installation** window appears.
4. Proceed to the following sections to configure the installation:
 - a. [General tab](#)
 - b. [Insight Configuration tab](#)
 - c. [Analytics Databases tab](#)
 - d. [Capture Databases tab](#)

General tab

1. **Insight Setup File:** Specifies a path to where the Tungsten Insight Setup file is located or select **Browse** to navigate to another location for the Insight setup file.
2. **Insight Patch File:** Specifies a path to where the Tungsten Insight Patch setup file is located or select **Browse** to navigate to another location for the Insight patch setup file.
3. **Installation Path:** Use the default installation path, or select **Browse** to navigate to another location for the installation.

4. **Project Name:** Select **TAFC** as the project name (the default on initialization). The project contains the built-in views, records, and metrics for Analytics for Capture. The project name is set by default and cannot be changed.
5. **License File:** A license file is not required if Insight is installed and the license is activated. However the installer might return errors if the license is not valid when the project is imported. Select **Browse** to navigate to the folder where your product license file is saved and select the file.

 If Tungsten Insight is already installed, the license must be activated in the [Admin Console](#) and not in this step.

6. Select **Next** to advance to the **Insight Configuration** tab.

Insight Configuration tab

1. **Protocol:** Select one of the following:
 - **https:** Applies if you plan to use an SSL connection for Insight.
Use IIS Manager to create a site that uses SSL before you continue the installation. An SSL certificate on IIS is required.
 - **http:** Applies if you plan to use a non-secure connection for Insight.

 We strongly recommend that you use an SSL connection. For information on how to set up SSL on IIS, see the Microsoft support website.

2. **Web Site Name:** If you have already created an IIS website, select it from the list. Otherwise, select **Default Web Site**.

 If you created an IIS website and used Custom Site Delegation to change the default delegation states, errors may occur during installation. To prevent errors, set the delegation state for **Modules** to **Read/Write** rather than Read Only.

3. **Port:** The default TCP/IP port when using HTTPS is 443, and the default non-secure (HTTP) port is 80.
4. **Application Pool Name:** Select the name of the application pool to use, which typically is ASP.NET v4.5 or v4.0. The list includes the application pools detected on your system. When using Windows authentication, the user for the application pool needs to be able to connect to the database. For information about creating a custom application pool, see [IIS Web server](#).
5. **Viewer Authentication Type:**
 - Select **Insight** if you plan to use Insight login credentials to authenticate users when they access the dashboard Viewer. With Insight authentication, each Insight user's login ID must exactly match a corresponding user ID in Tungsten Capture.
 - Select **Windows** if you plan to use Windows login credentials to authenticate users when they access the dashboard Viewer. In this case, each user must be a linked user or belong to a linked group in Tungsten Capture.

6. **Administrator Password:** Create a password for the built-in Insight Administrator user by typing it in the first entry field. In the second field, type the Administrator password again to confirm it.

The Insight Administrator user can log in to any Insight application: Admin Console, Studio, Data Loader, and Themes and Formats.

7. Enter the login and password for the Insight Scheduler Service user. These entries are required only if Windows authentication is used for any database specified on the **Analytics Databases** or **Capture Databases** tabs.
 - **Scheduler Service User:** Enter the user ID for the Insight Scheduler Service user.
Enter the login and password for the Insight Scheduler Service.
 - **Scheduler Service User's Password:** Enter the password for the Insight Scheduler Service user.
8. Select **Next** to continue to the **Analytics Databases** tab.

Analytics Databases tab

On the Analytics Databases tab, configure the connections to the Insight Admin, Data, and Meta databases. The required entries may vary, depending on the database type (SQL Server or Oracle).

 On this tab, after step 1, you can save time by using the Copy and Paste buttons to copy entries from one database group to another. After pasting the entries, review and adjust the values as necessary.

1. **Admin Database:** In this group, specify details for connecting to the Admin database, which stores Insight administrative data related to users, roles, alerts, logs, and more.
 - a. Select **MS SQL Server** or **Oracle** as the database type.
 - b. If **MS SQL Server** is selected:
 - Select the authentication method: **SQL Authentication** or **Windows Authentication**.
 - If **SQL Authentication** is selected:
 - **Server:** Enter the **server name** for the default instance (MSSQLSERVER) or **server \instance** format for named instances.
 - **Database / DNS / TNS:** Enter the database name or connect identifier. Assign a name such as taafc_admin.
 - Enter the user login and password required to connect to the database.
 - If **Windows Authentication** is selected:
 - Ensure that Scheduler Service authentication information is specified in **Insight Configuration** tab.
 - **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.
 - **Database / DNS / TNS:** Enter the database name or connect identifier. Assign a name such as taafc_admin.
 - c. If **Oracle** is selected:
 - **Database / DNS / TNS:** Enter the connect identifier.
 - Enter the user login and password required to connect to the database.

- d. Select **Test** to verify the connection.

With SQL Server, the connection will fail unless the Admin database already exists.

2. **Data Database:** In this group, specify details for connecting to the Data database, which stores the processed records and metrics.
3. **Meta Database:** In this group, specify details for connecting to the Data database, which stores configuration information such as metric definitions and calculation logic.
4. Select **Next** to continue to the **Capture Databases** tab.

Capture Databases tab

Use the Capture Databases tab to specify details for connecting to the Tungsten Capture database, and if applicable, the statistical database. The required entries vary, depending on the database type (SQL Server or Oracle).

 You can save time by using the Copy and Paste buttons to copy connection values from the [Analytics Databases](#) tab. After pasting the entries, review and adjust the values as applicable to the Tungsten Capture database.

1. **Capture Database** drop-down list:
 - If you are using the Standard database, select a preset value that corresponds to your version of Tungsten Capture. Based on the preset selection, the appropriate values are applied in the Tungsten Capture Database group.
 - If you are not using the Standard database, select **Custom**.
2. **Capture Database** group: In this group, specify details for connecting to the Tungsten Capture database. In a TCNS environment, the values should correspond to the Tungsten Capture database for the primary central site.
 - a. If a Standard database preset is selected, **localhost** will be specified in Server field. Change **localhost** to the correct Tungsten Capture server name if necessary.
 - b. If Custom is selected, select **MS SQL Server** or **Oracle** as the database type.
 - c. If **MS SQL Server** is selected;
 - Select the authentication method: **SQL Authentication** or **Windows Authentication**.
 - If **SQL Authentication** is selected:
 - **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.
 - **Database / DNS / TNS:** Enter the Tungsten Capture database name or connect identifier.
 - Enter the user login and password required to connect to the database
 - If **Windows Authentication** is selected:
 - Ensure that the Scheduler Service authentication information is specified in the **Insight Configuration** tab.
 - **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.

- **Database / DNS / TNS:** Enter the Tungsten Capture database name or connect identifier.
- d. If **Oracle** is selected:
 - **Database / DNS / TNS:** Enter the connect identifier.
 - Enter the user login and password required to connect to the database.
- e. Select **Test** to verify the connection.
- 3. In the **Statistical Database Storage Options** group, select one of the following:
 - **Use System Database:** Select this option if Tungsten Capture is configured to use the Capture database for both system and statistical data.
 - **Use Separate Database** (for use with Tungsten Capture 11.x and later): Select this option if Tungsten Capture is configured to use the Capture database for system data and a separate database for statistical data. When selected, a **Statistical Database** group is added to the **Capture Databases** tab. Provide the required authentication details to connect separately to the statistical database, and select **Test** to verify the connection. Use the same credentials and details that are specified for the statistical database in the Tungsten Capture Database Utility for statistical purposes.
- 4. Verify that the required values are entered accurately on **all** installer configuration tabs.
- 5. Select **Install** to start the installation process.

As the entries are validated, you may be prompted to return to the applicable tab to make corrections. In this situation, make the correction and then select **Install** to restart the installation. Use the Status section to monitor the progress of the installation.
- 6. When the installer is finished, proceed to the next section to complete the installation.

Finish the installation

Complete these steps to finish your installation.

1. Restart or enable the following:
 - Tungsten Capture and Tungsten Transformation modules and services, including custom modules and services
 - Antivirus software
2. [Install the Event Listener.](#)
3. [Install the Workflow Agent.](#)
4. Verify or update settings related to authentication, users and roles, and the Tungsten Capture database connection to ensure that your Analytics for Capture views produce the expected results. Proceed to [Tungsten Insight administration](#).

Post-installation results

After you complete the Tungsten Insight installation, the Insight 6.5.0 program folder is available from the Start menu.

Here is a summary of the items in the Insight program folder:

- Administration
 - Admin Console: Application for managing Insight administrative settings.

- **Import-Export Tool:** Tool for importing or exporting Insight project settings related to views, records, and metrics. See [Import and export a project](#).
- **Installation Manager:** Wizard that walks you through configuration of your database.
- **Setup Analytics Project:** Not supported for use with Analytics for Capture.
- **Themes and Formats:** Application for applying a theme that affects the color scheme and appearance of different dashboard components; also includes settings for updating date and time formats that appear on the dashboard.
- **Data Loader:** Application for running execution plans that collect data from your Tungsten Capture installation for use in Analytics for Capture dashboard views.
- **Studio:** Application for managing project metadata and designing custom dashboard views; requires an appropriate license.
- **Viewer:** Dashboard where you access views based on statistical data collected during the Tungsten Capture batch processing workflow.

Install Tungsten Insight silently

As an alternative to the standard installation process, you can silently install Tungsten Insight. During a silent installation, no manual entries are required.

Before starting a silent installation, review [System requirements](#) to ensure that your environment meets all of the prerequisites.

1. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
2. Temporarily disable your antivirus software.
3. Copy the compressed Analytics for Capture product file, TungstenAnalyticsForCapture-2025.4.ZIP, into a folder and extract the contents. Do not use a shared network folder.
4. A license file is not required if Insight has been installed and the license has been activated and is valid.
5. Update **InstallerConfig.xml** to configure the parameters for your installation. The required parameters are listed in the file and the values are described in the following list.
 - **01: Insight Administrator application credentials**
These parameters do not apply to a new installation, and you can leave the values blank.
 - **02: Installation path**
Specify the installation path for Tungsten Insight.
Example:

```
<silent_installpath>C:\Program Files\Tungsten\Insight 6.5.0</silent_installpath>
```
 - **03: Project name**
The project contains the built-in views, records, and metrics for Analytics for Capture. Use **TAFC** as the project name for a new installation. This value is **case-sensitive**.
Example:

```
<silent_projectname>TAFC</silent_projectname>
```
 - **04: Upgrade**
False = Perform a new installation.

True = Upgrade from earlier version.

Example:

```
<silent_upgrade>False</silent_upgrade>
```

- **05: Insight license file path**

Specify the path and file name for your Analytics for Capture product license, or leave blank if a license file is not required if it has been activated and is valid.

Example:

```
<insight_license_file>C:\productfiles\Altosoft.Insight.License.xml</insight_license_file>
```

- **06: Insight file setup path**

Specifies a path to where the Tungsten Insight Setup file is located. Leave the value blank if Tungsten Insight 6.5.0 or higher has been already installed.

Example:

```
<silent_insightsetupfile>C:\productfiles\InsightSetup_6.5.0.0.0.820_x64.msi</silent_insightsetupfile>
```

- **07: Insight patch file path**

Specifies a path to where the Tungsten Insight Patch file is located, and you can leave the value blank.

Example:

```
<silent_insightpatchfile>C:\productfiles\InsightSetup_6.5.0.1.0.837_x64.msp</silent_insightpatchfile>
```

- **08: Use SSL**

Indicate whether you are using a secure or non-secure connection for Tungsten Insight.

True = HTTPS

False = HTTP

Example:

```
<silent_usessl>True</silent_usessl>
```

If True, update the default port number in parameter 10.

- **09: IIS website name**

Set to Default Web Site, or provide the name of a custom IIS website.

Example:

```
<silent_websitename>Default Web Site</silent_websitename>
```

i If you created an IIS website and used Custom Site Delegation to change the default delegation states, errors may occur during installation. To prevent errors, set the delegation state for **Modules** to **Read/Write** rather than **Read Only**.

- **10: IIS website port**

Specify the port number for your IIS website.

Default port numbers:

443 = HTTPS

80 = HTTP

Example:

```
<silent_port>443</silent_port>
```

- **11: IIS website application pool name**

Set the application pool name for Insight web applications. This installation does not configure the access rights for the account of the application pool to the database, so ensure that they are set up in advance.

Example:

```
<silent_poolname>ASP.NET v4.0</silent_poolname>
```

- **12: Viewer authentication type**

Use Insight or Windows. This parameter does not apply to an upgrade. Your existing authentication method is retained during an upgrade.

Example:

```
<silent_viewerauthenticationmode>Insight</silent_viewerauthenticationmode>
```

- **13: Insight Administrator password**

Set the password to be used by the Insight administrator. The password is required to access the Insight applications: Admin Console, Studio, Data Loader, and Themes and Formats.

Example:

```
<administrator_password>insightadminpassword</administrator_password>
```

- **14: Insight Scheduler Service login and password**

Enter the login and password for the Insight Scheduler Service user. These entries are required only if Windows authentication is used for any database specified in items 15-18.

Example:

```
<silent_insightserviceaccount>ABCName\ABCadmin</silent_insightserviceaccount>
```

```
<silent_insightservicepassword>insightservicepassword</silent_insightservicepassword>
```

- **15: Insight Admin database connection string**

Set the connection string for the Insight Administration database.

Example - SQL Server using Windows authentication:

```
<silent_admindbconnection>data source=ServerName;initial catalog=TAFC Admin;trusted_connection=True;persist security info=False</silent_admindbconnection>
```

Example - SQL Server using SQL authentication:

```
<silent_admindbconnection>data source=ServerName;initial catalog=TAFC_Admin;userid=user;password=thepassword</silent_admindbconnection>
```

Example - Oracle:

```
<silent_admindbconnection>data source=orcl;userid=TAFC_Admin;password=thepassword</silent_admindbconnection>
```

- **16: Insight Data database connection string**

Set the connection string for the Analytics for Capture Data database.

Example - SQL Server using Windows authentication:

```
<silent_datadbconnection>data source=ServerName;initial catalog=TAFC_Data;trusted_connection=True;persist security info=False</silent_datadbconnection>
```

Example - SQL Server using SQL Server authentication:

```
<silent_datadbconnection>data source=ServerName;initial catalog=TAFC_Data;user id=user;password=thepassword</silent_datadbconnection>
```

Example - Oracle:

```
<silent_datadbconnection>data source=orcl;user id=TAFC_Data;password=thepassword</silent_datadbconnection>
```

- **17: Insight Meta database connection string**

Set the connection string for the Analytics for Capture Meta database.

Example - SQL Server using Windows authentication:

```
<silent_metadbconnection>data source=ServerName;initial catalog=TAFC_Meta;trusted_connection=True;persist security info=False</silent_metadbconnection>
```

Example - SQL Server using SQL Server authentication:

```
<silent_metadbconnection>data source=ServerName;initial catalog=TAFC_Meta;user id=user;password=thepassword</silent_metadbconnection>
```

Example - Oracle:

```
<silent_metadbconnection>data source=orcl;user id=TAFC_meta;password=thepassword</silent_metadbconnection>
```

- **18: Tungsten Capture database connection properties**

Set the connection string required to connect to your Tungsten Capture database.

Example - SQL Server using Windows authentication:

```
<silent_kcdbconnection>data source=ServerName;initial catalog=KC11;trusted_connection=True;persist security info=False</silent_kcdbconnection>
```

Example - SQL Server using SQL Server authentication:

```
<silent_kcdbconnection>data source=ServerName;initial catalog=KC11;user id=user;password=thepassword</silent_kcdbconnection>
```

Example - SQL Server - Standard database:

```
<silent_tcdbconnection>data source=[<server name>];initial catalog=[Preset Capture 11.2]</silent_tcdbconnection>
```

 For more information about connection settings for your Tungsten Capture database, see [Connections](#).

Example - Oracle:

```
<silent_kcdbconnection>data source=orcl;user id=KC11;password=thepassword</silent_kcdbconnection>
```

- **19: Custom encryption key file**

Path to the custom key used for encrypting database connection strings. The length of the key should be 32 or 256.

Example:

```
<insight_keyfile>c:\temp\secret.key</insight_keyfile>
```

- **20: Tungsten Capture Stats Database mode**

Set to True if Tungsten Capture is configured to use the Capture database for both system and statistical data. If set to True, you do not need to enter parameter 21 for the Tungsten Capture Stats DB connection properties.

If set to False, statistical data and system data are stored in separate databases, and you must enter parameter 21. The use of separate databases is supported only with Tungsten Capture 11 and later.

Example:

```
<silent_kcstatsdb_systemmode>True</silent_kcstatsdb_systemmode>
```

- **21: Stats DB connection properties**

Set the connection string required to connect to your Tungsten Capture statistical database. This option is supported for use with Tungsten Capture 11 and later.

Example - SQL Server using Windows authentication:

```
<silent_kcstatsdbconnection>data source=ServerName;initial catalog=KCStats;trusted_connection=True;persist security info=False</silent_kcstatsdbconnection>
```

Example - SQL Server using SQL Server authentication:

```
<silent_kcstatsdbconnection>data source=ServerName;initial catalog=KCStats;user id=user;password=thepassword</silent_kcstatsdbconnection>
```

Example - Oracle:

```
<silent_kcstatsdbconnection>data source=orcl;user id=KCStats;password=thepassword</silent_kcstatsdbconnection>
```

- **22: Tungsten Capture Database timezone**

This value represents the UTC offset (in minutes) for the time zone where the default Tungsten Capture database server resides, or in a TCNS environment, the time zone where the central site server resides.

Example:

```
<silent_kctimezone>420</silent_kctimezone>
```

6. Verify that the required values are entered accurately, and then save InstallerConfig.xml.
7. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
cmd /c TAFC_Installer.exe /silent /config:InstallerConfig.xml
```

8. When the silent installation is finished successfully, delete the following files:
 - a. InstallerConfig.xml and all files used to run the silent installation.
 - b. Altosoft.Insight.InstallManager.log, which contains the Administrator password.
Path: C:\Temp\Insight_6.5.0\Altosoft.Insight.InstallManager.log

Uninstall Tungsten Insight silently

Use this procedure to uninstall Tungsten Insight silently.

1. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
2. Temporarily disable your antivirus software.

3. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
msiexec.exe -x {449973DF-9044-4C07-B7A2-2E035EF60220} /q /L*V "C:\Temp\InsightUninstall.log"
```

4. Enable your antivirus software again.

Install the Event Listener

Use the procedure in this section to install or upgrade the Event Listener Web service, which populates the Staging database with data received from the Tungsten Automation Workflow Agent. The Listener also processes the data from the Staging database and places it in the Analytics for Capture Data database.

Important Considerations

Before installing the Event Listener, carefully review the following considerations:

- The Event Listener, which you can install on any computer with IIS, does not need to be on the same workstation as other Analytics for Capture components. You must preconfigure the IIS websites, which are available for selection during the Event Listener installation. If you install multiple Event Listeners on the same server, we recommend separate application pools, which offer the ability to reset Listeners independently or to monitor CPU usage and memory per Listener. The application pools should have the Idle Timeout set to zero, so they always remain active.
- If you install multiple instances of the Event Listener, a load balancer is required to provide a single URL accessed by the Workflow Agent configuration in the Tungsten Capture Administration module. (If the URL is changed later, the Workflow Agent configuration must also be updated).
- Each Tungsten Capture station that processes data, including remote sites, must have access to the Event Listener, which is hosted on IIS and optionally secured with SSL. You can configure the Event Listener web service for anonymous access.
- Set the credentials for the Event Listener to be used by the Workflow Agent when it is connected. The same credentials must be configured in the Tungsten Capture Administration module to ensure that the Workflow Agent connection is successful. If you need to change the credentials, reinstall the Event Listener. During installation, you also specify credentials to the staging, Insight data, and Tungsten Capture databases. The staging database must exist prior to the Event Listener installation, and the database tables are created when the Listener receives the first session from the Workflow Agent.

 The Event Listener runs on UTC time, and when it writes records to the Insight data database, the data is converted to the time zone of the server where the Insight data database is running. To ensure the integrity of data on the dashboard, do not change the time zone for the Insight data database server after you start using Analytics for Capture.

- You can configure multiple instances of the Event Listener to run simultaneously on separate servers, or on the same server. If one instance of the Listener service stops working, the other active instances are available automatically to take over the work from the failed instance.

Log Files

The Event Listener has three log files that are available from the `Temp` folder:

- `T AFC_listener.log.0`: General log for the Event Listener.
- `T AFC_listener_Core.log.0`: SQL log; if enabled, lists all queries executed by the Event Listener.
- `T AFC_listener_InsightDataDB.log.0`: Data log; if enabled, lists all the data written to the Insight data database.

Starting with .0, the log file extension numbering is incremented by 1 each time a log file is created. The 10 most recent log files are retained, and older logs are discarded automatically.

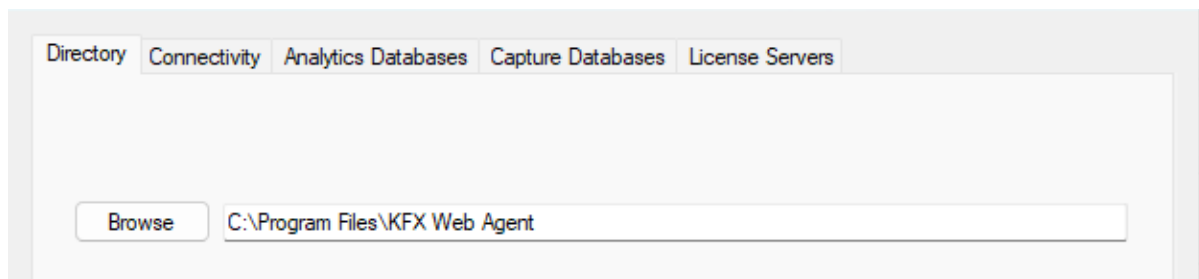
Although these logs are text files, the numeric file extensions are not associated with a text editor by default. To view the logs, you must explicitly specify Notepad or another suitable text editor.

Run the Event Listener installer

Use the procedure in this section to install the Event Listener Web service. As another option, you can [install the Event Listener silently](#).

1. If you are currently running an earlier version of the Event Listener, do the following:
 - a. Back up existing `Web.config` or IIS settings, and make a note of any custom settings that may be overwritten when you install the new Event Listener. `Web.config` is typically located here:
`C:\Program Files\KFX Web Agent`
For details about `Web.config` settings, see [Event Listener Web Service configuration file](#).
 - b. Make a note of the current credentials required by the Event Listener to communicate with the Workflow Agent; do not change them prior to installing the new Listener.
 - c. Use the Programs and Features utility to uninstall the existing Event Listener, listed as **KFX Web Agent**.
2. In the root folder containing your product files, right-click **KFXWebAgentSetup.exe** and select **Run as administrator**.

The Tungsten Web Agent installer opens the Directory tab.



3. On the **Directory** tab, select **Browse** to navigate to the folder where you want to install the Event Listener, or enter the path and select **Next**.
The **Connectivity** tab appears.

The screenshot shows the 'Connectivity' tab in the Tungsten Analytics for Capture 2025.4 Administrator's Guide. The interface includes a tab bar at the top with 'Directory', 'Connectivity', 'Analytics Databases', 'Capture Databases', and 'License Servers'. Below the tabs, there is a 'Protocol' dropdown menu set to 'http'. A 'Websites' section contains a table with columns 'Name', 'Bindings', and 'Application Pool'. The table has one row: 'Default Web Site' with a checked checkbox, '*:80:', and 'DefaultAppPool'. To the right of the table is a 'Select Application Pool' button. Below the table, there are 'User' and 'Password' fields. The 'User' field contains 'Administrator' and there is an unchecked 'Use existing' checkbox. The 'Password' field is masked with dots.

Name	Bindings	Application Pool
☒ Default Web Site	*:80:	DefaultAppPool

4. On the **Connectivity** tab, select the protocol and one or more websites, and then specify the credentials required to communicate with the Workflow Agent.

- Protocol:** Select **http** or **https** to display the applicable list of preconfigured websites.
- Websites:** Select the checkbox next to the website where you plan to install or upgrade the Event Listener. Select one website per Event Listener instance.
- Optional: Select **Select Application Pool**, and select from a list of application pools to associate with the selected website. Select **OK** to confirm the selection.

i **Select Application Pool** is not available until you select a website.

- User and Password:** Do one of the following to specify the credentials for authenticating the Workflow Agent. The credentials should be the same as the credentials that were set on the **Analytics** tab in the Tungsten Capture Administration module during the Workflow Agent [configuration](#).
 - Upgrade:** Select **Use existing** to continue with the same credentials as before, or clear the checkbox and enter new values.
 - New installation:** Set the credentials to authenticate the Workflow Agent when it connects to the Event Listener web service. If you install multiple instances of the Event Listener on different servers, be sure to specify the same credentials for each instance of the Listener.

If you install multiple instances of the Event Listener on different servers, be sure to specify the same credentials for each instance of the Listener.

If you install multiple instances of the Event Listener on the same server, select from the list of preconfigured IIS websites. Select one website per Event Listener instance.

5. Select **Next** to continue to the **Analytics Databases** tab.

The screenshot shows the 'Analytics Databases' tab in the Tungsten Analytics for Capture 2025.4 Administrator's Guide. The tab is selected, and the 'Staging Database' and 'Insight Data Database' sections are visible. Both sections show 'MS SQL Server' selected for the database type, 'sql authentication' for the authentication method, and 'localhost\SQL2024' for the server. The 'Staging Database' section has 'tafc_staging' for the Database / DSN / TNS, and the 'Insight Data Database' section has 'tafc_data'. Both sections have 'User: sa' and 'Password: *****'. 'Test', 'Copy', and 'Paste' buttons are present for each section.

6. On the **Analytics Databases** tab, the required entries may vary, depending on the database type (SQL Server or Oracle). If you plan to install multiple instances of the Event Listener on separate servers, use the same database connections for each instance.

With an upgrade, the existing values for the Staging and Insight Data databases are detected from your previous installation. If necessary, you can update the values as applicable.

On this tab, you can save time by using the Copy and Paste buttons to copy entries from one database group to another. After pasting the entries, review and adjust the values as necessary.

- a. In the **Staging Database** group, enter the authentication information required to connect to your Staging database.
 - Select **MS SQL Server** or **Oracle** as the database type.
 - If **MS SQL Server** is selected:
 - Select the authentication method: **SQL Authentication** or **Windows Authentication**.
 - If **SQL Authentication** is selected:
 - **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.
 - **Database / DNS / TNS:** Enter the database name or connect identifier. Assign a name such as tafc_staging.
 - Enter the user login and password required to connect to the database.
 - If **Windows Authentication** is selected:
 - Ensure that authentication information is specified in the **Connectivity** tab.

- **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.
- **Database / DNS / TNS:** Enter the database name or connect identifier. Assign a name such as taqc_staging.
- If **Oracle** is selected:
 - **Database / DNS / TNS:** Enter the connect identifier.
 - Enter the user login and password required to connect to the database.
- Select **Test** to verify the connection.

i With SQL Server, the connection test will fail if the specified database does not already exist.

- b. In the **Insight Data Database** group, enter the authentication information required to connect to the Data database, and select **Test** to verify the connection.

- c. Select **Next**.

The **Capture Databases** tab appears.

The screenshot shows the 'Capture Databases' tab in the Tungsten Analytics for Capture 2025.4 Administrator's Guide. The 'Capture Database' dropdown is set to 'Custom'. The 'System Database' section shows 'MS SQL Server' selected for the system database, 'sql authentication' for authentication, and 'Test', 'Copy', and 'Paste' buttons. The 'Server' field is 'localhost\SQL2024', 'Database / DSN / TNS' is 'taqc_staging', 'User' is 'sa', 'Password' is masked with dots, and 'Time Zone' is '(local)'. The 'Statistical Database Storage Options' section has 'Use System Database' selected.

7. On the **Capture Databases** tab, specify the settings required to connect to the Tungsten Capture database, and if applicable, the statistical database.
- a. **Capture Database** drop-down list: If you are using the standard database, select a preset that corresponds to your version of Tungsten Capture. Based on the preset selection, the appropriate values are applied in the **Tungsten Capture Database** group. If you are not using the standard database, select **Custom**. In a TCNS environment, specify the Tungsten Capture database for the primary central site.

- b. In the **System Database** group:
- If a Standard database preset is selected, localhost will be specified in Server field. Change localhost to the correct Tungsten Capture server name if necessary.
 - If Custom is selected, choose **MS SQL Server** or **Oracle** as the database type.
 - If **MS SQL Server** is selected, select the authentication method: **SQL Authentication** or **Windows Authentication**.
 - If **SQL Authentication** is selected:
 - **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.
 - **Database / DNS / TNS:** Enter the Tungsten Capture database name or connect identifier.
 - Enter the user login and password required to connect to the database.
 - If **Windows Authentication** is selected:
 - Ensure that Scheduler Service authentication information is specified in the **Connectivity** tab.
 - **Server:** Enter the server name for the default instance (MSSQLSERVER) or server \instance format for named instances.
 - **Database / DNS / TNS:** Enter the Tungsten Capture database name or connect identifier.
 - If **Oracle** is selected:
 - **Database / DNS / TNS:** Enter the connect identifier.
 - Enter the user login and password required to connect to the database.
 - Select **Test** to verify the connection.

c. In the **System Database** group, select the UTC time zone offset for the server where the Tungsten Capture database server resides. In a TCNS environment, use the time zone for the central site.

d. In the **Statistical Database Storage Options** group, select one of the following:

 - **Use System Database:** Select this option if Tungsten Capture is configured to use the Capture database for both system and statistical data.
 - **Use Separate Database:** Select this option if Tungsten Capture is configured to a separate database for statistical data. When selected, a Statistical Database group is added to the **Capture Databases** tab. Use the authentication information required to connect separately to the statistical database, and select **Test** to verify the connection. Use the same credentials that are specified for the statistical database in the Tungsten Capture Database Utility.

Statistical Database Storage Options

☐ Use System Database

☒ Use Separate Database

Statistical Database

MS SQL Server sql authentication

Server: Database / DSN / TNS:

User: Password:

- e. In a TCNS environment with alternate central sites, the Listener must be configured for the primary central site and all alternate central sites. In the **Tungsten Capture Database** group, select **Add** to provide the required information for additional Tungsten Capture databases at alternate central sites.

i Verify that the version is consistent for each Tungsten Capture database connection that you specify. The use of multiple Tungsten Capture versions within the same installation is not supported. Once data is sent to the Event Listener, you can verify Tungsten Capture versions for each central and remote site by checking the System information on the **Admin** tab in the Tungsten Analytics for Capture Viewer.

- f. Select **Next**.
The **License Servers** tab appears.
8. On the **License Servers** tab, list each Analytics for Capture license server for which statistics will be reported on the [Station Trending](#) and [Volume Trending](#) views.
- To add a license server to the list, enter the name and port number, and select **Add**.
 - To remove one or more license servers from the list, select the applicable rows and select **Remove**.

Directory Connectivity Analytics Databases Capture Databases License Servers

Server Name Port

Server Name	Port
-------------	------

9. Select **Update** or **Install** to proceed with the update or installation. When the completion message appears, select **OK** to close the installer.
10. Edit Web.config values to suit the needs of your organization. See [Event Listener Web Service configuration file](#).
11. Proceed to [Install the Workflow Agent](#).

Install the Event Listener silently

Use the procedures in this section to silently install the new Event Listener or to uninstall the existing Listener.

To use Windows Authentication for the database, be sure the user running the ASP.NET v4.0 application pool can access the database or configure the Analytics for Capture web application to use a different application pool.

Be sure the staging database already exists.

1. If you are currently running an earlier version of the Event Listener, do the following:
 - a. Back up existing Web.config or IIS settings, and make a note of any custom settings that may be overwritten when you install the new Event Listener. Web.config is typically located here:
 C:\Program Files\KFX Web Agent
 For details about Web.config settings, see [Event Listener Web Service configuration file](#).
 - b. Make a note of the current credentials required by the Event Listener to communicate with the Workflow Agent; do not change them prior to installing the new Listener.
 - c. Use the Programs and Features utility to uninstall the existing Event Listener, listed as **KFX Web Agent**.

2. Edit **KFXWebAgentSetup.exe.config** to configure all installation parameters. Valid parameters are listed in the file, and you can refer to the following list for a description of individual values.

- **1: Silent installation mode**

Set "true" as the value.

Example:

```
<add key="SilentInstall" value="true"/>
```

- **2: DB connection information**

Configure the connections for the Data, Event Listener Staging, and Tungsten Capture databases.

The following examples show connection strings for SQL Server and Oracle databases. Use these samples as a guide as you configure the connection string values for items 2-1 to 2-4.

Example - SQL Server using Windows authentication:

```
<add key="...DBConnectionString" value="Data Source=DBServerName; Initial
  Catalog=TAFC_Data; Integrated Security=SSPI;"/>
  <add key="...DBName" value="MS SQL Server" />
<add key="...DBProviderName" value="sql"/>
```

Example - SQL Server using SQL Server authentication:

```
<add key="...DBConnectionString" value="Data Source=DBServerName; Initial
  Catalog=TAFC_Data; User Id=sa; Password=mypassword;"/>
  <add key="...DataDBName" value="MS SQL Server" />
<add key="...DBProviderName" value="sql" />
```

Example - Oracle

```
<add key="...DBConnectionString" value="Data Source=orcl; User Id=TAFC_Data;
  Password=mypassword;"/>
  <add key="...DBName" value="Oracle"/>
<add key="...DBProviderName" value="odp"/> -->
```

- **2.1: Data DB connection information**

Configure the connection string for the Analytics for Capture Data database.

Example - SQL Server using SQL Server authentication:

```
<add key="InsightDataDBConnectionString" value="Data Source=.; Initial
  Catalog=TAFC_Data; User Id=sa; Password=sa;"/>
  <add key="InsightDataDBName" value="MS SQL Server" />
<add key="InsightDataDBProviderName" value="sql" />
```

- **2.2: Staging database connection information**

Configure the connection string used for the Staging database.

Example - SQL Server using SQL Server authentication:

```
<add key="MasterDBConnectionString" value="Data Source=.; Initial
  Catalog=TAFC_Staging; User Id=sa; Password=sa;"/>
<add key="MasterDBName" value="MS SQL Server"/>
<add key="MasterDBProviderName" value="sql"/>
```

- **2.3: Tungsten Capture database connection information**

Configure the connection string required to connect to your Tungsten Capture database.

Example - SQL Server using SQL Server authentication:

```
<add key="KCDBConnectionString" value="Data Source=.; Initial Catalog=CaptureDB;
  User Id=sa; Password=sa;"/>
<add key="KCDBName" value="MS SQL Server" />
<add key="KCDBProviderName" value="sql" />
```

To use the Tungsten Capture standard database installed on the current system, specify the connection string as one of the following values corresponding to the installed Tungsten Capture version: "Preset Capture 11.1" and "Preset Capture 11.2".

In this case, also specify an SQL Server machine name in the KCDBServer parameter:

```
<add key="KCDBConnectionString" value="Preset Capture 11.1" />
<add key="KCDBServer" value="KCDBServerName" />
```

- **2.4: Tungsten Capture Statistical database connection information.**

Configure the connection string for the Tungsten Capture statistical database, if it is configured as a separate database from the system database (a separate statistical database is supported only if you are using Tungsten Capture 11.0 or later).

If Tungsten Capture is configured to use the same database for statistical data and system data, use the same connection string specified in the preceding item for 2.3.

Example - SQL Server using SQL Server authentication:

```
<add key="StatsKCDBConnectionString" value="Data Source=.; Initial Catalog=kc;
User Id=sa; Password=sa;"/>
<add key="StatsKCDBName" value="MS SQL Server" />
<add key="StatsKCDBProviderName" value="sql" />
```

If "Preset Capture 11.1" or "Preset Capture 11.2" is selected in section 2.3 and you plan to use the same database for statistical data, you can input Preset Capture 11.x or you can also input the instance name, database name, and login credentials.

- **3: Time zone setting for the default Tungsten Capture database connection.**

This value represents the UTC offset (in minutes) for the time zone where the default Tungsten Capture database server resides, or in a TCNS environment, the time zone where the central site server resides.

Example:

```
<silent_kctimezone>420</silent_kctimezone>
```

- **4: DB Connection Settings for Tungsten Capture Disaster Recovery scenarios.**

For each central site, specify an additional Tungsten Capture connection with incremental zero-based index key prefixes.

Example:

```
<add key="KC0DBConnectionString" value="Data Source=.;Initial
Catalog=KC;Trusted_Connection=True;Persist Security Info=False;"/>
<add key="KC0DBName" value="MS SQL Server"/>
<add key="KC0DBProviderName" value="sql"/>
<add key="KC0DBTimeZone" value="-240"/>
<add key="StatsKC0DBConnectionString" value="Data Source=.;Initial
Catalog=KC;Trusted_Connection=True;Persist Security Info=False;"/>
<add key="StatsKC0DBName" value="MS SQL Server"/>
<add key="StatsKC0DBProviderName" value="sql"/>
```

- **5: Optional. Insight custom key for password encryption setting.**

Example:

```
<add key="Insight.KeyFile" value="c:\temp\secret.key"/>
```

- **6: Installation path.**

Example:

```
<add key="InstallDirectory" value="C:\Program Files\KFX Web Agent"/>
```

- **7: HTTPS Protocol Mode.**

Example:

```
<add key="HTTPS" value="false"/>
```

- **8: Websites for installing the Event Listener service.**

Example:

```
<add key="WebSites" value="Default Web Site;Second Web Site"/>
```

- **9: Application pools for installing the Event Listener service.**

Example:

```
<add key="AppPools" value="DefaultAppPool;ASP.NET v4.0"/>
```

- **10: Log file path for the installer.**

Example:

```
<add key="LogFilePath" value="C:\temp\KFXWebAgentInstall.log"/>
```

- **11: Authentication credentials required to communicate with the Workflow Agent.**

Example:

```
<add key="Login" value="Administrator"/>
```

```
<add key="Password" value="thepassword" />
```

- **12: Optional. Tungsten Capture license servers.**

Example:

```
<add key="LicenseServers" value="PrimaryServer:2424;BackupServer:2424"/>
```

3. Save **KFXWebAgentSetup.exe.config**.

4. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
KFXWebAgentSetup.exe
```

5. After the installation is finished successfully, delete KFXWebAgentSetup.exe.config.

Uninstall the Event Listener silently

1. Navigate to the Event Listener installation folder.
2. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
uninstall.bat
```

Install the Workflow Agent

The Workflow Agent (or Event Sender) is the mechanism used by central and remote site workstations to collect and send session and transactional data from your Tungsten Capture installation to the Event Listener through a web service call. Use the procedure in this section to install the Workflow Agent. As another option, you can [Install the Workflow Agent silently](#).

This custom Workflow Agent must be assigned to all batch classes that provide data to Analytics for Capture. The Workflow Agent must be installed on each workstation and server that processes batches used by Analytics for Capture. A Workflow Agent can send data to one or more Event Listeners using a load balancer.

The Workflow Agent supports the ability to selectively exclude field names sent by the Workflow Agent on a per batch class basis. For details, see [Configure the Workflow Agent](#).

To install the Workflow Agent and take advantage of current functionality, **you must** install the minimum required version of Tungsten Capture, and if applicable, Tungsten Transformation. If you attempt to install the Workflow Agent without meeting the minimum requirements listed here, the installation will fail. Also, be sure to note the minimum required versions for the Document Processing Time report. See [Document Processing Time](#).

Tungsten Capture - Minimum Requirements

- **Tungsten Capture 11.1 and 11.2:** Minimum required version if you intend to use views that track login and administrative audit statistics. Also supports views that use the Document Processing Time report and all other features.

Tungsten Transformation - Minimum Requirements

- **Tungsten Transformation 7.0 or higher:** Supports all features.

Upgrade Notes

When upgrading an installation that includes a large number of workstations, you may decide to perform the Workflow Agent upgrade in phases. For example, you might leave the previous version of the Workflow Agent in place temporarily on some workstations while you are upgrading the others.

You can use a version of the Workflow Agent prior to 2025.4 with the newer Event Listener. Only upgrades from 2.1.0 are supported and you must manually uninstall all previous versions of the Workflow Agent before installing the current version. For details, see the [Workflow Agent configuration file](#) appendix.

The [Document Processing Time](#) view is not supported if you use a Workflow Agent earlier than version 2.0.0.

1. Verify that you have Administrator rights and that the minimum required versions of Tungsten Capture and Tungsten Transformation are installed, as described earlier in this section.
2. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
3. From the root folder containing your product files, double-click **TungstenCaptureEventSender.msi**. (Optionally, you can use the [customization deployment service](#) to install the Workflow Agent.)

The Workflow Agent Installation wizard appears.

If the installer detects that the required versions of Tungsten Capture or Tungsten Transformation are not installed, a message appears. In this case, you cannot proceed with the installation until the requirements are met. For details, see the introduction to this procedure.

4. Select **Next** to start the installation.
The license agreement window appears.
5. Review the license agreement, accept the terms, and select **Next**.
6. Select **Install**.
The files are installed to your Tungsten Capture `Bin` folder. You cannot change the destination.
7. When the installation is complete, select **Finish** to close the wizard.
8. Restart any services that were stopped prior to the Workflow Agent installation.

9. Configure the Workflow Agent and specify the Tungsten Capture fields to be sent to the Event Listener. For details, see [Configure the Workflow Agent](#).

Install the Workflow Agent silently

Use the procedures in this section to silently install or uninstall the Workflow Agent on a Tungsten Capture workstation.

1. Review the requirements for the Workflow Agent in [Install the Workflow Agent](#).
2. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
msiexec.exe -i "TungstenCaptureEventSender.msi" /q /L*V "C:\Temp
\TungstenCaptureEventSenderInstall.log"
```

Uninstall the Workflow Agent silently

Open a Command Prompt with elevated administrator privileges and execute the following command:

```
msiexec.exe -x {DAF9CBDC-4984-428B-810B-0358AB0B6DC2} /q /L*V "C:\Temp
\TungstenCaptureEventSenderUninstall.log"
```

Customization Deployment

When the installer is run on a Tungsten Capture server installation, the following folder is created:

```
[ServerFiles]\Customization Deployment
\TungstenAnalyticsForCaptureWorkflowAgent
```

i If you are using the customization deployment service, the Workflow Agent is added to the deployment configuration and deployed according to the schedule.

Configure the Workflow Agent

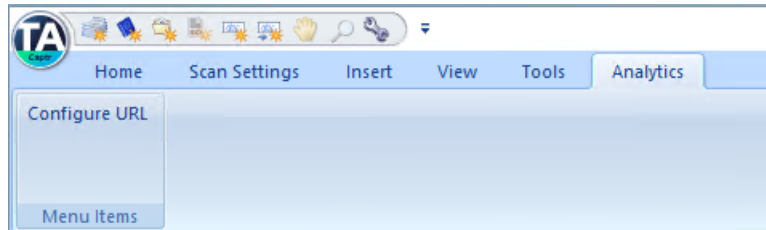
Once you successfully install the Workflow Agent, an Analytics tab is added to the Tungsten Capture Administration module. Use the Analytics tab to configure the Workflow Agent. Then add the Workflow Agent to the batch class workflow and specify which fields to send to the Event Listener.

1. Start the **Administration** module.
2. On the **Tools** tab, in **Users & Groups**, verify that **Tracking** is selected.



⚠ Do not continue unless the **Tracking** feature is enabled in Tungsten Capture. The Tracking feature is **required** by Analytics for Capture, which relies on user tracking session data from Tungsten Capture to populate the dashboard views. Also, select the **Profiles** feature if you intend to enforce the same level of user access to batch class data that is defined in Tungsten Capture. Otherwise, data for all batch classes is displayed on the dashboard.

3. Select the **Analytics** tab.



4. In the **Menu Items** group, select **Configure URL**.
The Analytics for Capture window appears.
5. In the **URL** field, enter the host name or IP address of the computer where the Event Listener is running. If you have multiple Event Listeners, enter the URL for the load balancer.
If you are using SSL, be sure to use the same URL specified in the SSL certificate.

i Be sure to replace the default URL (localhost) with the IP address or host name of the computer where the Event Listener is running. Also, include the port in the URL if the Event Listener port differs from the default for HTTP (80) or HTTPS (443).
Example: `https://JM33378.tungsten.com:<port>`

6. In the **Event Listener Credentials** group, enter the User ID and password for the Event Listener. These entries, which are required, are the same credentials entered on the Connectivity tab during the Event Listener installation.
7. Select **Test Connection** to verify that the user credentials are valid.
If necessary, update the credentials and retry the Test Connection.
8. In the **Error Handling** group, select your preference for handling errors that occur while sending session data to the Event Listener if Export is the next module in the batch processing workflow:
 - If you select **Send batch to Quality Control on error before Export**: If Export is the next module in the batch processing workflow, batches are routed to Quality Control after 10 failed attempts to send session data to the Event Listener.
 - If you do not select the checkbox: If Export is the next module in the batch processing workflow, after 10 failed attempts to send session data to the Event Listener, the batch is routed to the Export module and the cached session data is lost upon batch export. In this case, the batch processing workflow is not affected.

i To manage error handling, you can also use the configuration file located here:

[Tungsten Capture Server]\CaptureSV\Config\KA4CConfig.xml

For details, see [Workflow Agent configuration file](#).

In a High Availability environment, you can use the configuration file to manage failover if any instance of the Event Listener stops working. We recommend using <RetryAllModules> to configure retry attempts for any module in the batch processing workflow, in combination with <RetrySecondsWebService>. For a detailed explanation, see [Event Listener failover and high availability](#). Also see [Appendix E, High availability](#).

9. Select **OK**.

i The Analytics for Capture settings do not go into effect at remote sites until you perform RSA synchronization.

Add the Workflow Agent to a batch class

After configuring the Analytics for Capture Workflow Agent, use this procedure to add it to a batch class so that the applicable batch class data is included on the dashboard views.

1. On the **Batch Class Properties** window, on the **Workflow Agents** tab, add the Analytics for Capture Workflow Agent to your batch class, and select **OK**.

If you have multiple Workflow Agents, the Analytics for Capture Workflow Agent should be last on the list of Selected Workflow Agents, so that the data reflects any changes made by other Workflow Agents.

The Workflow Agent AEX file is configured so that "Skip if cannot load" is set to No. As a result, for any workstations where the Workflow Agent is not installed, batches are sent to Quality Control.

i If the Workflow Agent is not added to a published batch class, any applicable data is not included on the dashboard views in Analytics for Capture.

2. Configure the Tungsten Capture fields to send to the Event Listener. By default, all fields are sent. You can improve performance significantly by excluding fields that are not relevant.
 - a. In the Administration module, on the batch class tree view, right-click a batch class and select **Configure Analytics for Capture**.
The Analytics for Capture window appears.
 - b. On the left pane, expand the batch class and select a batch class, document class, or folder class.
The fields corresponding to the selection appear on the right.
 - c. Select all fields whose values should be sent to the Event Listener.

i You can save time by selecting **Select** or **Clear** while multiple rows are selected. To select or clear all fields on the list, select **Select All** or **Clear All**.

- d. Select **OK**.

The list of fields is refreshed if you rename or delete a field. If you add a field, it is selected by default.

- e. Publish the batch class.
3. If you are using Analytics for Capture with Tungsten Transformation, you **must** do the following to ensure that the statistical data appears in your dashboard views as expected: Use the Tungsten Transformation Synchronization Tool to synchronize the project with the Tungsten Capture document class that contains the **Classification Result** field, and any other Tungsten Transformation fields that you expect to see in Analytics for Capture views. For details, see the next section.

i By default, the Synchronization Tool sets the project to synchronize with each Tungsten Capture document class that contains the Classification Result field. If you change the default setting, Tungsten Transformation statistical data may not be included on the Analytics for Capture dashboard views.

Map index field to Transformation Classification Result Extraction field

Analytics for Capture requires a Tungsten Capture index field to be mapped and synchronized with the Tungsten Transformation "Classification Result" Extraction field.

1. In the Tungsten Capture Administration module, right-click a batch class and select **Synchronize Tungsten Transformation Project**.
The Synchronization Tool appears.
2. In the left pane, select the applicable document class and then select the **Fields** tab.
3. In the right pane, on the **Index Fields of Document Class "name"** list, in the **Extraction Field** column, map **Classification Result** to any Tungsten Capture index field listed in the **Index Field** column.

i If an Index Field value is set to *<none>*, the associated data cannot be collected and sent by the Workflow Agent to display on the Analytics for Capture dashboard views.

4. In the left pane, select the **Synchronize** tab, and then select the **Synchronize** button to synchronize Tungsten Transformation project classes and extraction fields with Tungsten Capture.
5. Publish the batch class.

Chapter 4

Upgrade Tungsten Analytics for Capture - SQL Server

If you use SQL Server databases, use the procedures in this chapter to upgrade to Tungsten Analytics for Capture 2025.4 from an earlier version. If you have Oracle databases, see [Upgrade Tungsten Analytics for Capture - Oracle](#).

i A direct upgrade is not supported from Analytics for Capture version 2.0 or earlier. To upgrade from an earlier version, you must first upgrade to Analytics for Capture version 2.1, then upgrade to version 2025.4.

The upgrade procedure can be time-consuming and requires careful planning to ensure successful results. Be sure to allocate sufficient time to complete the upgrade. We **strongly encourage** you to review and test the entire upgrade procedure in a pre-production environment before you transition to production. Be sure to monitor and record how much disk space and memory are used while testing, so you can make appropriate adjustments when you transition to production.

To complete the upgrade successfully, you need the authentication credentials for your Tungsten Capture database and Analytics for Capture databases. To perform the upgrade, you must be the DBO for the Analytics for Capture databases; otherwise, the upgrade process will fail. After the upgrade is finished, you can use a role that does not require DBO rights.

Product files

Your product is delivered as a compressed file, TungstenAnalyticsForCapture-2025.4.ZIP, which includes the files required to successfully upgrade your Analytics for Capture installation. See the following table for a full listing of files.

Analytics for Capture Component	Files
To upgrade Analytics for Capture components according to the instructions in this guide, use the folders and files listed here.	
Tungsten Insight	TAFC_Installer.exe <i>For silent installation:</i> InstallerConfig.xml
Event Listener	KFXWebAgentSetup.exe <i>For silent installation:</i> KFXWebAgentSetup.exe.config

Analytics for Capture Component	Files
Workflow Agent	TungstenCaptureEventSender.msi

Before the upgrade - SQL Server

Before starting the upgrade procedure, review this section carefully and verify that all preliminary tasks are completed successfully.

Perform preliminary tasks

When you perform an upgrade, the current settings for Tungsten Insight, the Event Listener, Workflow Agent may be overwritten. Follow the procedure in this section to ensure that any custom settings can be restored after the upgrade process is finished.

1. Temporarily disable your antivirus software.
2. Perform a full backup of your Analytics for Capture databases (Admin, Meta, and Data) and the Tungsten Capture database: shut down the system, take VM snapshots and perform a cold backup.
You will need to restore from the backup if you run out of space during the upgrade.
3. Back up the following folders in your current Insight installation folder: `HtmlInsight`, `Server`, and `WcfDataService`.
Default location: `c:\Program Files\Kofax\Insight 6.x.x`
4. Back up the entire Event Listener folder, KFX Web Agent, including the Event Listener Web Service configuration file, `Web.config`.
Default location: `c:\Program Files\KFX Web Agent\Web.config`
5. Back up the Workflow Agent configuration file, `KA4CConfig.xml`.
Default location: `[Tungsten Capture Server]\CaptureSV\Config\KA4CConfig.xml`
6. Make a note of your Insight Administration settings (users and roles, connection strings, alerts, and others). Some settings may need to be reapplied after you install the new version of Insight.
7. Make a note of the following for reference during the upgrade process:
 - Login credentials for the Admin, Data, Meta, and Tungsten Capture databases
 - Analytics for Capture version you are upgrading from
 - Event Listener credentials
 - Event Listener application pool, website and port: note whether the default settings are used
8. Verify that both of the following components are installed:
 - Microsoft Visual C++ 2015 SP1 Redistributable
 - .NET Framework 4.7.2 or later

For more information, refer to the [Tungsten Insight Technical Specifications](#).

Perform the upgrade - SQL Server

To upgrade your Analytics for Capture installation for use with a SQL Server database, you must follow the procedure in this section.

1. Verify that all steps in [Before the upgrade - SQL Server](#) are completed successfully.
2. Uninstall the existing instances of the Event Listener (KFX Web Agent).
3. Start **Insight Data Loader** and temporarily unschedule all execution plans, including custom plans, that are scheduled to run automatically. You can unschedule multiple plans at the same time.
4. Start **Insight Studio** and select the **Tools** tab to temporarily update the **Query timeout in seconds** value.
 - a. On the toolbar, select **Studio settings**.
 - b. On the **Studio settings** window, expand **Configuration settings > Configuration settings**.
 - c. Scroll to **Query timeout in seconds**, set the value to **1000000**, and select **OK**.
 - d. On the **Actions** toolbar, select **Save**.
5. Copy the compressed Analytics for Capture product file, **TungstenAnalyticsForCapture-2025.4.ZIP**, into a folder and extract the contents. Do not use a shared network folder.
6. In the Tungsten Insight folder, right-click **TAFC_Installer.exe** and select **Run as administrator**. The **Login** window appears.
7. In the Login window, enter your name and password to log into Tungsten Insight.
8. If the Insight login information is correct, a **Tungsten Analytics for Capture 2025.4 – Installer** window appears. The installer searches for an analytics project for Capture in the current environment:
 - If a support upgrade project is not found, the installer displays the following error message:
Support upgrade project not found.
 - If multiple Analytics projects are detected, the installer displays the following error message:
The product cannot be upgraded because the requirements are not met.
9. Proceed to the following sections to configure the upgrade:
 - a. [General tab](#)
 - b. [Insight Configuration tab](#)
 - c. [Analytics Databases tab](#)
 - d. [Capture Databases tab](#)

General tab

1. **Insight Setup File:** Specifies a path to where the Tungsten Insight Setup file is located or select **Browse** to navigate to another location for the Insight setup file. The Insight Setup File is not required if Tungsten Insight is installed on a machine that meets the minimum requirement of version 6.5.0.

2. **Insight Patch File:** Specifies a path to where the Tungsten Insight Patch setup file is located or select **Browse** to navigate to another location for the Insight patch setup file. The Insight Patch File is not required.
3. **Installation Path:** The path to your existing installation is listed.
If the installed version of Insight is version 6.5.0 or later, the path is not available. You can install a higher version of Insight than the current version by entering the path to the Insight Setup file or selecting **Browse** to select the file type *.MSI.
After selecting correctly, the Installation Path is available so you can enter or browse to select the location to install the new version of Insight.
4. **Project Name:** Displays current project name and information cannot be edited.
5. **License File:** The license is not required. However, the installer might throw errors if the license is not valid when the project is imported.
6. Select **Next** to advance to the **Insight Configuration** tab.

Insight Configuration tab

This tab contains the information for Insight at initialization. The information in the following fields is read-only and cannot be changed:

- **Protocol**
 - **Web Site Name**
 - **Port**
 - **Application Pool Name**
 - **Viewer Authentication Type**
 - **Administrator Password**
1. The Scheduler Service credentials are required only if Windows authentication is used for any database on the **Analytics Databases** or **Capture Databases** tabs.
 - **Scheduler Service User:** Enter the user ID for the Insight Scheduler Service user.
 - **Scheduler Service User's Password:** Enter the password for the Insight Scheduler Service user.
 2. Select **Next** to advance to the Analytics Databases tab.

Analytics Databases tab

On the Analytics Databases tab, configure the connections to the Insight Admin, Data, and Meta databases. The Data and Meta database information is automatically completed based on the current project. If the installer cannot detect the information from Insight, then you need to complete the configuration.

On this tab, you can save time by using the Copy and Paste buttons to copy entries from one database group to another. After pasting the entries, review and adjust the values as necessary.

1. **Admin Database:** In this group, specify details for connecting to the Admin database, which stores Insight administrative data related to users, roles, alerts, logs, and more.

i This step is only required if you install a new version of Insight in the **Insight Setup File** field in the **General** tab.

- a. Select **SQL Server** as the database type.
 - b. Enter the authentication method: **SQL** or **Windows**.
 - c. Enter the server name.
 - d. Enter the database name. Assign a name such as tafc_admin.
 - e. Enter the user login and password required to connect to the Admin database.
 - f. Select **Test** to verify the connection.
2. **Data Database:** In this group, specify details for connecting to the Data database, which stores the processed records and metrics. Note that the saved Insight values are added automatically when you log into Insight.
 - a. Select **SQL Server** as the database type.
 - b. Enter the authentication method: **SQL** or **Windows**.
 - c. Enter the server name.
 - d. Enter the database name. Assign a name such as tafc_data.
 - e. Enter the user login and password required to connect to the Data database.
 - f. Select **Test** to verify the connection.
3. **Meta Database:** In this group, specify details for connecting to the Data database, which stores configuration information such as metric definitions and calculation logic. Note that the saved Insight values are added automatically when you log into Insight.
 - a. Select **SQL Server** as the database type.
 - b. Enter the authentication method: **SQL** or **Windows**.
 - c. Enter the server name.
 - d. Enter the database name. Assign a name such as tafc_meta.
 - e. Enter the user login and password required to connect to the Meta database.
 - f. Select **Test** to verify the connection.
4. Select **Next** to advance to the Capture Databases tab.

Capture Databases tab

Use the Capture Databases tab to specify details for connecting to the Tungsten Capture database, and if applicable, the statistical database. The required entries may vary, depending on the database type (SQL Server or Oracle).

You can save time by using the Copy and Paste buttons to copy connection values from the [Analytics Databases](#) tab. After pasting the entries, review and adjust the values as applicable to the Tungsten Capture database.

1. Tungsten Capture Database drop-down list:

- If you are using the Standard database, select a preset value that corresponds to your version of Tungsten Capture. Based on the preset selection, the appropriate values are applied in the Tungsten Capture Database group.
- If you are not using the Standard database, select **Custom**.

2. Tungsten Capture Database group: In this group, specify details for connecting to the Tungsten Capture database. In a TCNS environment, specify the Tungsten Capture database for the primary central site.

- a. Select **SQL Server** as the database type.
- b. Enter the authentication method: **SQL** or **Windows**.
- c. Enter the server name.
- d. Enter the name for the Tungsten Capture database.
- e. Enter the user login and password required to connect to the Tungsten Capture database.
- f. Select the time zone offset for the server where the Tungsten Capture database server resides. In a TCNS environment, use the time zone for the central site.
- g. Select **Test** to verify the connection.

3. In the Statistical Database Storage Options group, select one of the following:

- **Use System Database:** Select this option if Tungsten Capture is configured to use the Capture database for both system and statistical data.
- **Use Separate Database:** Select this option if Tungsten Capture is configured to use the Capture database for system data and a separate database for statistical data. When selected, a **Statistical Database** group is added to the **Capture Databases** tab. Use the authentication information required to connect separately to the statistical database, and select **Test** to verify the connection. Use the same credentials and details that are specified for the statistical database in the Tungsten Capture Database Utility.

4. Verify that the required values are entered accurately on **all** installer configuration tabs.

5. Select Install to start the installation process.

As the entries are validated, you may be prompted to return to the applicable tab to make corrections. In this situation, make the correction and then select **Install** to restart the installation. Use the Status section to monitor the progress of the installation.

6. When the installer is finished, proceed to the next section to complete the installation.

Finish the upgrade - SQL Server

Complete these steps to finish the Analytics for Capture upgrade.

1. Restart or enable the following:

- Tungsten Capture and Tungsten Transformation modules and services, including custom modules and services
- Antivirus software

2. Start **Admin Console** and restore any settings that were overwritten during the upgrade. Check the Tungsten Capture connection, alerts, and other relevant settings.
3. Complete the upgrade for the Event Listener as described in [Install the Event Listener](#). Check the Event Listener Web Service configuration file, Web.config, and reapply any settings based on your backup. If necessary, see [Event Listener Web Service configuration file](#).
Default location: c:\Program Files\KFX Web Agent\Web.config
4. Complete the upgrade for the Workflow Agent as described in [Install the Workflow Agent](#). Check the Workflow Agent configuration file, KA4CConfig.xml, and reapply any settings based on your backup. If necessary, see [Workflow Agent configuration file](#).
Default location: [Tungsten Capture Server]\CaptureSV\Config\KA4CConfig.xml
5. After an upgrade, the credentials for IIS application pool identities and the Insight Scheduler service may be reset to their default values. Verify these values and update them if necessary.
6. Check any other configuration files and restore custom settings, as applicable.
7. Use Data Loader to schedule any plans to run automatically, including custom plans, if they were temporarily unscheduled prior to the upgrade.
8. Verify or update settings related to authentication, users and roles, and the Tungsten Capture database connection to ensure that your Analytics for Capture views produce the expected results. Proceed to [Tungsten Insight administration](#).

Upgrade Tungsten Insight silently - SQL Server

As an alternative to the standard upgrade process, you can silently install Tungsten Insight. During a silent upgrade, no manual entries are required.

Before starting a silent installation, review [System requirements](#) to ensure that your environment meets all of the prerequisites. Do not proceed until you carefully review [Before the upgrade - SQL Server](#).

1. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
2. Temporarily disable your antivirus software.
3. Uninstall the existing instances of the Event Listener (KFX Web Agent).
4. Start **Insight Data Loader** and temporarily unschedule all execution plans, including custom plans, that are scheduled to run automatically. You can unschedule multiple plans at the same time.
5. Start **Insight Studio** and select the **Tools** tab to temporarily update the **Query timeout in seconds** value.
 - a. On the toolbar, select **Studio settings**.
 - b. Expand **Configuration settings** > **Configuration settings**.
 - c. Scroll to **Query timeout in seconds**, set the value to **1000000**, and select **OK**.
 - d. On the **Actions** toolbar, select **Save**.
6. Copy the compressed Analytics for Capture product file, **TungstenAnalyticsForCapture-2025.4.ZIP**, into a folder and extract the contents. Do not use a shared network folder.

7. Update **InstallerConfig.xml** to configure the parameters for your upgrade. The required parameters are included in the file and the values are described in the following list.

- **01: Insight Administrator application credentials**

These parameters are required for the upgrade. Specify the credentials for the administrator.

Example:

```
<silent_insightlogin>Administrator</silent_insightlogin>
<silent_insightpassword>thepassword</silent_insightpassword>
```

- **02: Installation path**

Specify the path for the existing Tungsten Insight installation.

Example:

```
<silent_installpath>C:\Program Files\Tungsten\Insight 6.5.0</silent_installpath>
```

- **03: Project name**

The project contains the built-in views, records, and metrics for Analytics for Capture. Enter the name of the project (such as KAFC) for your existing version of Analytics for Capture.

 The project name is **case-sensitive**, and you must enter it **exactly** as it is spelled. Otherwise, your project cannot be upgraded successfully.

Example:

```
<silent_projectname>KAFC</silent_projectname>
```

- **04: Upgrade**

True = Upgrade from earlier version.

- Example:

```
<silent_upgrade>True</silent_upgrade>
```

- **05: Insight license file path**

License file is not required if it has been activated and is valid.

- **06: Insight setup file path**

Specifies a path to where the Tungsten Insight Setup file is located. This parameter is required if the current Insight version is less than 6.5.0. `<silent_insightsetupfile>C:\productfiles\TungstenInsightSetup_6.5.0.0.0.820_x64.msi</silent_insightsetupfile>`

- **07: Insight patch file path**

Specifies a path where the Tungsten Insight Patch file is located. You can leave the value blank.

```
<silent_insightpatchfile>C:\productfiles
\TungstenInsight_6.5.0.1.0.837_x64.msp</silent_insightpatchfile>
```

- **08: Use SSL**

Indicate whether you are using a secure or non-secure connection for Tungsten Insight.

True = HTTPS

False = HTTP

Example:

```
<silent_usessl>True</silent_usessl>
```

If True, update the port number in parameter 10.

- **09: IIS website name**

Set to Default Web Site, or provide the name of a custom IIS website.

Example:

```
<silent_websitename>Default Web Site</silent_websitename>
```

 If you created an IIS website and used Custom Site Delegation to change the default delegation states, errors may occur during installation. To prevent errors, set the delegation state for **Modules** to **Read/Write** rather than Read Only.

- **10: IIS website port**

Specify the port number for your IIS website.

Default port numbers:

443 = HTTPS

80 = HTTP

Example:

```
<silent_port>443</silent_port>
```

- **11: IIS website application pool name**

Set the application pool name for Insight web applications. This installation does not configure the access rights for the account of the application pool to the database, so ensure that they are set up in advance.

Example:

```
<silent_poolname>ASP.NET v4.0</silent_poolname>
```

- **12: Viewer authentication type**

This parameter does not apply to an upgrade. Your existing authentication method is retained during an upgrade.

Example:

```
<silent_viewerauthenticationmode>Insight</silent_viewerauthenticationmode>
```

- **13: Insight Administrator password**

Set the password to be used by the Insight administrator. The password is required to access the Insight applications: Admin Console, Studio, Data Loader, and Themes and Formats.

Example:

```
<administrator_password>insightadminpassword</administrator_password>
```

- **14: Insight Scheduler Service login and password**

Enter the login and password for the Insight Scheduler Service user. These entries are required only if Windows authentication is used for any database specified in items 15-18.

Example:

```
<silent_insightserviceaccount>ABCname\ABCadmin</silent_insightserviceaccount>
```

```
<silent_insightservicepassword>insightservicepassword</silent_insightservicepassword>
```

- **15: Insight Admin database connection string**

Set the connection string for the Insight Administration database.

Example - Windows authentication:

```
<silent_admindbconnection>data source=ServerName;initial
  catalog=TAFC_Admin;trusted_connection=True;persist security info=False</
silent_admindbconnection>
```

Example - SQL Server authentication:

```
<silent_admindbconnection>data source=ServerName;initial catalog=TAFC_Admin;user
  id=user;password=thepassword</silent_admindbconnection>
```

- **16: Insight Data database connection string**

Set the connection string for the Tungsten Analytics for Capture Data database.

Example - Windows authentication:

```
<silent_datadbconnection>data source=ServerName;initial
  catalog=TAFC_Data;trusted_connection=True;persist security info=False</
silent_datadbconnection>
```

Example - SQL Server authentication:

```
<silent_datadbconnection>data source=ServerName;initial catalog=TAFC_Data;user
  id=user;password=thepassword</silent_datadbconnection>
```

- **17: Insight Meta database connection string**

Set the connection string for the Tungsten Analytics for Capture Meta database.

Example - Windows authentication:

```
<silent_metadbconnection>data source=ServerName;initial
  catalog=TAFC_Meta;trusted_connection=True;persist security info=False</
silent_metadbconnection>
```

Example - SQL Server authentication:

```
<silent_metadbconnection>data source=ServerName;initial catalog=TAFC_Meta;user
  id=user;password=thepassword</silent_metadbconnection>
```

- **18: Tungsten Capture database connection properties**

Set the connection string required to connect to your Tungsten Capture database. For more information about Tungsten Capture database connection strings, see [Update connections or set site filters](#).

Example - Windows authentication:

```
<silent_kcdbconnection>data source=ServerName;initial
  catalog=KC11;trusted_connection=True;persist security
  info=False</silent_kcdbconnection>
```

Example - SQL Server authentication:

```
<silent_kcdbconnection>data source=ServerName;initial catalog=KC11;user
  id=user;password=thepassword</silent_kcdbconnection>
```

Example - Standard database:

```
<silent_tcdbconnection>data source=[<server name>];initial catalog=[Preset
  Capture
  11.2]</silent_tcdbconnection>
```

 For more information about connection settings for your Tungsten Capture database, see [Connections](#).

- **19: Custom encryption key file**

Path to the custom key used for encrypting database connection strings. The length of the key should be 32 or 256.

Example:

```
<insight_keyfile>c:\temp\secret.key</insight_keyfile>
```

- **20: Tungsten Capture Stats Database mode**

Set to True if Tungsten Capture is configured to use the Capture database for both system and statistical data. If set to True, you do not need to enter parameter 21 for the Tungsten Capture Stats DB connection properties.

If set to False, statistical data and system data are stored in separate databases, and you must enter parameter 21. The use of separate databases is supported only with Tungsten Capture 11 or later.

Example:

```
<silent_kcstatsdb_systemmode>True</silent_kcstatsdb_systemmode>
```

- **21: Tungsten Capture Stats DB connection properties**

Set the connection string required to connect to your Tungsten Capture statistical database. This option is supported for use with Tungsten Capture 11 and later.

Example - Windows authentication:

```
<silent_kcstatsdbconnection>data source=ServerName;initial
catalog=KCStats;trusted_connection=True;persist security info=False</
silent_kcstatsdbconnection>
```

Example - SQL Server authentication:

```
<silent_kcstatsdbconnection>data source=ServerName;initial catalog=KCStats;user
id=user;password=thepassword</silent_kcstatsdbconnection>
```

- **22: Tungsten Capture Database timezone**

This value represents the UTC offset (in minutes) for the time zone where the default Tungsten Capture database server resides, or in a TCNS environment, the time zone where the central site server resides.

Example:

```
<silent_kctimezone>420</silent_kctimezone>
```

8. Verify that the required values are entered accurately, and then save InstallerConfig.xml.

9. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
cmd /c TAFC_Installer.exe /silent /config:InstallerConfig.xml
```

10. To complete the silent upgrade, you **must** do both of the following:

a. [Schedule and run execution plans.](#)

b. [Finish the upgrade.](#)

11. Delete InstallManager.log, which contains the administrator password.

Path: C:\Temp\Insight_6.5.0\InstallManager.log

Uninstall Tungsten Insight silently

Use this procedure to uninstall Tungsten Insight silently.

1. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
2. Temporarily disable your antivirus software.
3. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
msiexec.exe -x {449973DF-9044-4C07-B7A2-2E035EF60220} /q /L*V "C:\Temp\InsightUninstall.log"
```

4. Enable your antivirus software again.

Chapter 5

Upgrade Tungsten Analytics for Capture - Oracle

If you use Oracle databases, follow the procedures in this chapter to upgrade to Tungsten Analytics for Capture 2025.4 from an earlier version. If you have SQL Server Data databases, see [Upgrade Tungsten Analytics for Capture - SQL Server](#).

i A direct upgrade is not supported from Analytics for Capture version 2.0 or earlier. To upgrade from an earlier version, you must first upgrade to Analytics for Capture version 2.1, then upgrade to version 2025.4.

Product files

Your product is delivered as a compressed file, TungstenAnalyticsForCapture-2025.4.ZIP, which includes the files required to successfully upgrade your Analytics for Capture installation.

Analytics for Capture Component	Files
To upgrade Analytics for Capture components according to the instructions in this guide, use the folders and files listed here.	
Tungsten Insight	TAFC_Installer.exe <i>For silent installation:</i> InstallerConfig.xml
Event Listener	KFXWebAgentSetup.exe <i>For silent installation:</i> KFXWebAgentSetup.exe.config
Workflow Agent	TungstenCaptureEventSender.msi

Before the upgrade - Oracle

Before starting the upgrade procedure, review this section carefully and verify that all preliminary tasks are completed successfully.

i Analytics for Capture requires Oracle components to be present on the .NET Framework machine.config file. For details, see [Oracle machine_wide_config parameter](#).

Prepare the databases

Before starting an upgrade from Analytics for Capture version 2.1, use the following procedure to back up your databases.

i A direct upgrade from Analytics for Capture version 2.0 or earlier is not supported. To upgrade from an earlier version, you must first upgrade to version 2.1, and then upgrade to version 2025.4.

Perform a full backup of your Analytics for Capture databases (Admin, Meta, and Data) and the Tungsten Capture database: shut down the system, take VM snapshots and perform a cold backup. You will need to restore from the backup if you run out of space during the upgrade.

Perform preliminary tasks

When you perform an upgrade, the current settings for Tungsten Insight, the Event Listener, Workflow Agent may be overwritten. Follow the procedure in this section to ensure that any custom settings can be restored after the upgrade process is finished.

1. Temporarily disable your antivirus software.
2. Back up the following folders in your current Insight installation folder: `HtmlInsight`, `Server`, and `WcfDataService`.
Default location:
`C:\Program Files\Altosoft\Insight 6.x.x`
3. Back up the entire Event Listener folder, KFX Web Agent, including the Event Listener Web Service configuration file, `Web.config`.
Default location: `c:\Program Files\KFX Web Agent\Web.config`
4. Back up the Workflow Agent configuration file, `KA4CConfig.xml`.
Default location: `[Tungsten Capture Server]\CaptureSV\Config\KA4CConfig.xml`
5. Make a note of your Insight Administration settings (users and roles, connection strings, alerts, site filter queries, and others). Some settings may need to be reapplied after you install the new version of Insight.
6. Make a note of the following for reference during the upgrade process:
 - Login credentials for the Admin, Data, Meta, and Tungsten Capture databases
 - Analytics for Capture version you are upgrading from
 - Workflow Agent and Event Listener credentials
 - Event Listener application pool, website and port: note whether the default settings are used
7. Verify that the following components, required by Insight, are installed. If not, these components are available in the Prerequisites folder in your product installation files.
 - Microsoft Visual C++ 2015 Redistributable
 - Microsoft .NET Framework 4.7.2 or later

Perform the upgrade - Oracle

To upgrade your Analytics for Capture installation for use with Oracle databases, you must follow the procedure in this section.

1. Verify that all steps in [Before the upgrade - Oracle](#) are completed successfully.
2. Be sure your DBA is available to monitor the available disk space throughout the upgrade process.
3. Uninstall the existing instances of the Event Listener (KFX Web Agent).
4. Start **Insight Data Loader** and temporarily unschedule all execution plans, including custom plans, that are scheduled to run automatically. You can unschedule multiple plans at the same time.
5. Start **Insight Studio** and select the **Tools** tab to temporarily update the **Query timeout in seconds** value.
 - a. On the toolbar, select **Studio settings**.
 - b. Expand **Configuration settings** > **Configuration settings**.
 - c. Scroll to **Query timeout in seconds**, set the value to **1000000**, and select **OK**.
 - d. On the **Actions** toolbar, select **Save**.
6. Copy the compressed Analytics for Capture product file, **TungstenAnalyticsForCapture-2025.4.ZIP**, into a folder and extract the contents. Do not use a shared network folder.
7. In the Tungsten Insight folder, right-click **TAFC_Installer.exe** and select **Run as administrator**. The **Login** window appears.
8. In the Login window, enter your name and password to log into Tungsten Insight.
9. If the Insight login information is correct, a **Tungsten Analytics for Capture 2025.4 – Installer** window appears. The installer searches for an analytics project for Capture in the current environment:
 - If a support upgrade project is not found, the installer displays the following error message:
Support upgrade project not found.
 - If multiple Analytics projects are detected, the installer displays the following error message:
The product cannot be upgraded because the requirements are not met.
10. Proceed to the following sections to configure the installation:
 - a. [General tab](#)
 - b. [Insight Configuration tab](#)
 - c. [Analytics Databases tab](#)
 - d. [Capture Databases tab](#)

General tab

1. **Insight Setup File:** Specifies a path to where the Tungsten Insight Setup file is located or select **Browse** to navigate to another location for the Insight setup file. The Insight Setup File is not

required if Tungsten Insight is installed on a machine that meets the minimum requirement of version 6.5.0.

2. **Insight Patch File:** Specifies a path to where the Tungsten Insight Patch setup file is located or select **Browse** to navigate to another location for the Insight patch setup file. The Insight Patch File is not required.
3. **Installation Path:** The path to your existing installation is listed.
If the installed version of Insight is version 6.5.0 or later, the path is not available. You can install a higher version of Insight than the current version by entering the path to the Insight Setup file or selecting **Browse** to select the file type *.MSI.
After selecting correctly, the Installation Path is available so you can enter or browse to select the location to install the new version of Insight.
4. **Project Name:** Displays current project name and information cannot be edited.
5. **License File:** The license is not required. However, the installer might throw errors if the license is not valid when the project is imported.
6. Select **Next** to advance to the **Insight Configuration** tab.

Insight Configuration tab

This tab contains the information for Insight at initialization. The information in the following fields is read-only and cannot be changed:

- **Protocol**
- **Web Site Name**
- **Port**
- **Application Pool Name**
- **Viewer Authentication Type**
- **Administrator Password**

1. The Insight **Scheduler Service** credentials are not required for upgrades in an Oracle environment.
2. Select **Next** to advance to the Analytics Databases tab.

Analytics Databases tab

On the Analytics Databases tab, configure the connections to the Admin, Data, and Meta databases.

On this tab, you can save time by using the Copy and Paste buttons to copy entries from one database group to another. After pasting the entries, review and adjust the values as necessary.

1. **Admin Database:** In this group, specify details for connecting to the Admin database, which stores Insight administrative data related to users, roles, alerts, logs, and more.

 This step is only required if you install a new version of Insight in the **Insight Setup File** field in the **General** tab.

2. Select **Oracle Server** as the database type:
 - a. Select **Oracle** as the database type.
 - b. Enter the connect identifier for the Admin database, such as ta4c_admin.

- c. Enter the user login and password required to connect to the Admin database.
 - d. Select **Test** to verify the connection.
- 3. **Data Database:** In this group, specify details for connecting to the Data database, which stores the processed records and metrics.
 - a. Select **Oracle** as the database type.
 - b. Enter the connect identifier for the Data database. Assign a name such as taqc_data.
 - c. Enter the user login and password required to connect to the Data database.
 - d. Select **Test** to verify the connection.
- 4. **Meta Database:** In this group, specify details for connecting to the Data database, which stores configuration information such as metric definitions and calculation logic.
 - a. Select **Oracle** as the database type.
 - b. Enter the connect identifier for the Meta database. Assign a name such as taqc_meta.
 - c. Enter the user login and password required to connect to the Meta database.
 - d. Select **Test** to verify the connection.
- 5. Select **Next** to advance to the Capture Databases tab.

Capture Databases tab

Use the Capture Databases tab to specify details for connecting to the Tungsten Capture database, and if applicable, the statistical database. The required entries may vary, depending on the database type (SQL Server or Oracle).

You can save time by using the Copy and Paste buttons to copy connection values from the [Databases](#) tab. After pasting the entries, review and adjust the values as applicable to the Tungsten Capture database.

- 1. **Tungsten Capture Database** drop-down list: Select **Custom**.
- 2. **Tungsten Capture Database** group: In this group, specify details for connecting to the Tungsten Capture database. In a TCNS environment, specify the Tungsten Capture database for the primary central site.
 - a. Select **Oracle** as the database type.
 - b. Enter the connect identifier for the Tungsten Capture database.
 - c. Enter the user login and password required to connect to the Tungsten Capture database.
 - d. Select the time zone offset for the server where the Tungsten Capture database server resides. In a TCNS environment, use the time zone for the central site.
 - e. Select **Test** to verify the connection.
- 3. In the **Statistical Database Storage Options** group, select one of the following:
 - **Use System Database:** Select this option if Tungsten Capture is configured to use the Capture database for both system and statistical data.
 - **Use Separate Database:** Select this option if Tungsten Capture is configured to use the Capture database for system data and a separate database for statistical data. When selected, a **Statistical Database** group is added to the **Capture Databases** tab. Use the

authentication information required to connect separately to the statistical database, and select **Test** to verify the connection. Use the same credentials and details that are specified for the statistical database in the Tungsten Capture Database Utility.

4. Verify that the required values are entered accurately on **all** configuration tabs.
5. Select **Install** to start the upgrade.

As the entries are validated, you may be prompted to return to the applicable configuration tab to make corrections. In this situation, make the correction and then select **Install** to restart the upgrade. Use the Status section to monitor the progress of the upgrade.

Finish the upgrade - Oracle

Complete these steps to finish the Analytics for Capture upgrade.

1. Restart or enable the following:
 - Tungsten Capture and Tungsten Transformation modules and services, including custom modules and services
 - Antivirus software
2. Start **Admin Console** and restore any settings that were overwritten during the upgrade. Check the Tungsten Capture connection, alerts, and other relevant settings.
3. Complete the upgrade for the Event Listener as described in [Install the Event Listener](#). Check the Event Listener Web Service configuration file, Web.config, and reapply any settings based on your backup. If necessary, see [Event Listener Web Service configuration file](#).
Default location: c:\Program Files\KFX Web Agent\Web.config
4. Complete the upgrade for the Workflow Agent as described in [Install the Workflow Agent](#). Check the Workflow Agent configuration file, KA4CConfig.xml, and reapply any settings based on your backup. If necessary, see [Workflow Agent configuration file](#).
Default location: <Tungsten Capture Server>\CaptureSV\Config\KA4CConfig.xml
5. After an upgrade, the credentials for IIS application pool identities and the Insight Scheduler service may be reset to their default values. Verify these values and update them if necessary.
6. Check any other configuration files and restore custom settings, as applicable.
7. Use Data Loader to schedule any plans to run automatically, including custom plans, if they were temporarily unscheduled prior to the upgrade.
8. Verify or update settings related to authentication, users and roles, and the Tungsten Capture database connection to ensure that your Analytics for Capture views produce the expected results. Proceed to [Tungsten Insight administration](#).
9. Perform maintenance on a **weekly basis**, and compute statistics for the Analytics for Capture data schema:

```
exec dbms_stats.gather_schema_stats(sys_context( 'userenv', 'current_schema' ));
```

Upgrade Tungsten Insight silently - Oracle

As an alternative to the standard upgrade process, you can silently install Tungsten Insight. During a silent upgrade, no manual entries are required.

Before starting a silent installation, review [System requirements](#) to ensure that your environment meets all of the prerequisites. Also, do not proceed until you review [Before the upgrade - Oracle](#).

1. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
2. Temporarily disable your antivirus software.
3. Uninstall the existing instances of the Event Listener (KFX Web Agent).
4. Start **Insight Data Loader** and temporarily unschedule all execution plans, including custom plans, that are scheduled to run automatically. You can unschedule multiple plans at the same time.
5. Start **Insight Studio** and select the **Tools** tab to temporarily update the **Query timeout in seconds** value.
 - a. On the toolbar, select **Studio settings**.
 - b. Expand **Configuration settings** > **Configuration settings**.
 - c. Scroll to **Query timeout in seconds**, set the value to **1000000**, and select **OK**.
 - d. On the **Actions** toolbar, select **Save**.
6. Copy the compressed Analytics for Capture product file, **TungstenAnalyticsForCapture-2025.4.ZIP**, into a folder and extract the contents. Do not use a shared network folder.
7. Update **InstallerConfig.xml** to configure the parameters for your upgrade. The required parameters are included in the file and the values are described in the following list.
 - **01: Insight Administrator application credentials**

Enter login credentials (user and password) for your existing Insight Administration application. Specify the credentials for the administrator.

Example:

```
<silent_insightlogin>Administrator</silent_insightlogin>
<silent_insightpassword/>thepassword</silent_insightpassword/>
```
 - **02: Installation path**

Specify the path for the existing Tungsten Insight installation.

Example:

```
<silent_installpath>C:\Program Files\Tungsten\Insight
  6.5.0</silent_installpath>
```
 - **03: Project name**

The project contains the built-in views, records, and metrics for Analytics for Capture. Enter the name of the project (such as KAFC) for your existing version of Analytics for Capture.

 The project name is **case-sensitive**, and you must enter it **exactly** as it is spelled. Otherwise, your project cannot be upgraded successfully.

Example:

```
<silent_projectname>KAFC</silent_projectname>
```
 - **04: Upgrade**

True = Upgrade from earlier version.

 - Example:

```
<silent_upgrade>True</silent_upgrade>
```

- **05: Insight license file path** The path to the Analytics for Capture product license file is required only for a new installation.

- **06: Insight setup file path**

Specifies a path to where the Tungsten Insight Setup file is located. This parameter is required if the current Insight version is less than 6.5.0.

Example:

```
<silent_insightsetupfile>C:\productfiles  
\TungstenInsightSetup_6.5.0.0.0.820_x64.msi</silent_insightsetupfile>
```

- **07: Insight patch file path**

Specifies a path where the Tungsten Insight Patch file is located. You can leave the value blank.

Example:

```
<silent_insightpatchfile>C:\productfiles\TungstenInsight_6.5.0.1.0.837_x64.msp</  
silent_insightpatchfile>
```

- **08: Use SSL**

Indicate whether you are using a secure or non-secure connection for Tungsten Insight.

True = HTTPS

False = HTTP

Example:

```
<silent_usessl>True</silent_usessl>
```

If True, update the default port number in parameter 10.

- **09: IIS website name**

Set to Default Web Site, or provide the name of a custom IIS website.

Example:

```
<silent_websitename>Default Web  
Site</silent_websitename>
```

i If you created an IIS website and used Custom Site Delegation to change the default delegation states, errors may occur during installation. To prevent errors, set the delegation state for **Modules** to **Read/Write** rather than Read Only.

- **10: IIS website port**

Specify the port number for your IIS website.

Default port numbers:

443 = HTTPS

80 = HTTP

Example:

```
<silent_port>443</silent_port>
```

- **11: IIS website application pool name**

Set the application pool name for Insight web applications. This installation does not configure the access rights for the account of the application pool to the database, so ensure that they are set up in advance.

Example:

```
<silent_poolname>ASP.NET
v4.0</silent_poolname>
```

- **12: Viewer authentication type**

This parameter does not apply to an upgrade. Your existing authentication method is retained during the upgrade.

- **13: Insight Administrator password**

Set the password to be used by the Insight administrator. The password is required to access the Insight applications: Admin Console, Studio, Data Loader, and Themes and Formats.

Example:

```
<administrator_password>insightadminpassword</administrator_password>
```

- **14: Insight Scheduler Service login and password**

The Scheduler Service credentials are not required for upgrades in an Oracle environment.

- **15: Insight Admin database connection string**

Set the connection string for the Insight Administration database.

Example:

```
<silent_admindbconnection>data source=orcl;user
id=TAFC_Admin;password=thepassword</silent_admindbconnection>
```

- **16: Insight Data database connection string**

Set the connection string for the Analytics for Capture Data database.

Example:

```
<silent_datadbconnection>data source=orcl;user
id=TAFC_data;password=thepassword</silent_datadbconnection>
```

- **17: Insight Meta database connection string**

Set the connection string for the Analytics for Capture Meta database.

Example:

```
<silent_metadbconnection>data source=orcl;user
id=TAFC_meta;password=thepassword</silent_metadbconnection>
```

- **18: Tungsten Capture database connection properties**

Set the connection string required to connect to your Tungsten Capture database.

Example:

```
<silent_kcdbconnection>data source=orcl;user
id=CaptureDatabase;password=thepassword</silent_kcdbconnection>
```

- **19: Custom encryption key file**

Path to the custom key used for encrypting database connection strings. The length of the key should be 32 or 256.

Example:

```
<insight_keyfile>c:\temp\secret.key</insight_keyfile>
```

- **20: Tungsten Capture Stats Database mode**

Set to True if Tungsten Capture is configured to use the Capture database for both system and statistical data. If set to True, you do not need to enter parameter 21 for the Tungsten Capture Stats DB connection properties.

If set to False, statistical data and system data are stored in separate databases, and you must enter parameter 21. The use of separate databases is supported only with Tungsten Capture 11 or later.

Example:

```
<silent_kcstatsdb_systemmode>True</silent_kcstatsdb_systemmode>
```

- **21: Stats DB connection properties**

Set the connection string required to connect to your Tungsten Capture statistical database. This option is supported for use with Tungsten Capture 11 or later.

Example:

```
<silent_kcstatsdbconnection>data source=orcl;user  
id=KCStats;password=thepassword</silent_kcstatsdbconnection>
```

- **22: Tungsten Capture Database timezone**

This value represents the UTC offset (in minutes) for the time zone where the default Tungsten Capture database server resides, or in a TCNS environment, the time zone where the central site server resides.

Example:

```
<silent_kctimezone>420</silent_kctimezone>
```

8. Verify that the required values are entered accurately, and then save InstallerConfig.xml.

9. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
cmd /c TAFC_Installer.exe /silent /config:InstallerConfig.xml
```

10. When the silent upgrade is finished, delete InstallManager.log, which contains the Administrator password.

Path: C:\Temp\Insight_6.5.0\InstallManager.log

11. To complete the silent upgrade, **you must** [finish the upgrade](#).

Uninstall Tungsten Insight silently

Use this procedure to uninstall Tungsten Insight silently.

1. Close all modules and stop all services for Tungsten Capture and Tungsten Transformation, including custom modules and services.
2. Temporarily disable your antivirus software.
3. Open a Command Prompt with elevated administrator privileges and execute the following command:

```
msiexec.exe -x {449973DF-9044-4C07-B7A2-2E035EF60220} /q /L*V "C:\Temp  
\InsightUninstall.log"
```

4. Enable your antivirus software again.

Chapter 6

Tungsten Insight administration

This chapter gives you information about Insight Admin Console settings that affect your Analytics for Capture installation. Verify or update settings related to your license, authentication, users and roles, and the Tungsten Capture database connection to ensure that your Analytics for Capture views produce the expected results.

To access Insight Admin Console, do one of the following:

- Type this URL in the Address bar of your browser:
`http[s]://<server>:<port>/Insight/Admin`
where `<server>` is the name of your Insight server
and `<port>` is included in the URL if the port differs from the default for HTTP (80) or HTTPS (443)
- From the Start menu, navigate to **Insight 6.5.0 > Admin Console** .

If prompted, enter Insight Administrator credentials.

Before working with Analytics for Capture views, use Admin Console to do the following:

1. Set authentication preferences for each Insight application. The authentication method for the dashboard Viewer is determined during the installation or upgrade process. See [Set authentication method](#).
2. Configure users and roles. See [Manage users and roles](#).
3. Verify the connection to your Tungsten Capture database. See [Connections](#).
4. Optionally apply site filters (applies only to a TCNS environment).

Verify your license

Use the Insight License Manager to verify your Analytics for Capture license. If you plan to use the Audit views, the license components must include "Data source editor" permissions.

1. Start Insight **Admin Console**.
2. Select **Documents Tree > License Manager**.
The License Manager appears.
3. In the **Licenses** section, confirm that the **Validity Period** is current and that the **Availability** status is **valid**.
4. In the **Components** section, confirm that the **Data source editor** checkbox is selected, as shown here.

License Manager ✕

Licenses

VALIDITY PERIOD	SERIAL NUMBE...	LICENSE	AVAILABILITY	
02/27/2015 – 12/31/2...		36218...	valid	✕

+ Add New Data...

Components

☒ Insight

☒ Studio

☒ Data source editor

☒ Data source refresh

☒ Data editor

☒ View editor

5. On the **Actions** toolbar, click **Save**.

Set authentication method

Use this procedure to set the method for authenticating user login credentials for Insight applications. An authentication method for the dashboard Viewer is determined during the installation or upgrade process.

1. Start **Admin Console**.
2. On the **Documents Tree**, select **Application Settings**.

3. On the **Application** list, select the Insight application for which you are setting the authentication method. Keep in mind that authentication preferences are set separately for each Insight application.

- Admin Console
- Data Loader
- Studio
- Themes and Formats
- Viewer (affects user access to the Analytics for Capture dashboard Viewer; setting already applied during the installation or upgrade)

4. Set one of the following authentication methods.

- **No authentication**

When selected, all users have access to the application selected in the preceding step. Most organizations require an authentication method.

When selected for the Viewer, all users have access to the dashboard views, and Tungsten Capture batch class assignments are not enforced. In this situation, you can copy the "tafc role" settings to the [Default role](#). Be sure to apply the Tungsten Theme and set the default view for the role to Main.

- **User's logins and passwords are defined within Insight platform. Users are explicitly linked to roles.**

 When selected, each user's Insight application login ID must **exactly** match a corresponding user ID in Tungsten Capture. Otherwise, data does not display on the dashboard. To create Insight users and assign roles to them, see [Create Insight users](#) and [Assign a role to users](#).

- **User properties are obtained from the environment: Windows**

With Windows authentication, each user must be a linked user or belong to a linked group in Tungsten Capture. Therefore, you do not need to create an Insight user for each dashboard user.

The **HTTP Request** and **Login panel** options are not supported for use with Analytics for Capture.

5. If you select Windows authentication in the previous step, select **And then user roles and access rights are determined by comparing these values to: Fixed values**.

The **External database** option is not supported for use with Analytics for Capture.

 If you select Windows authentication, follow the procedures in [Configure Insight for Windows authentication](#) and [Map roles for Windows users](#). If you set Windows authentication for Admin Console without completing both of these procedures, you cannot log in to the Admin Console later. In this situation, see "Recover from a lockout" in the *Tungsten Insight Administrator's Guide*.

6. On the **Actions** toolbar, select **Save**.

7. Repeat the procedure for each Insight application on the Application list.

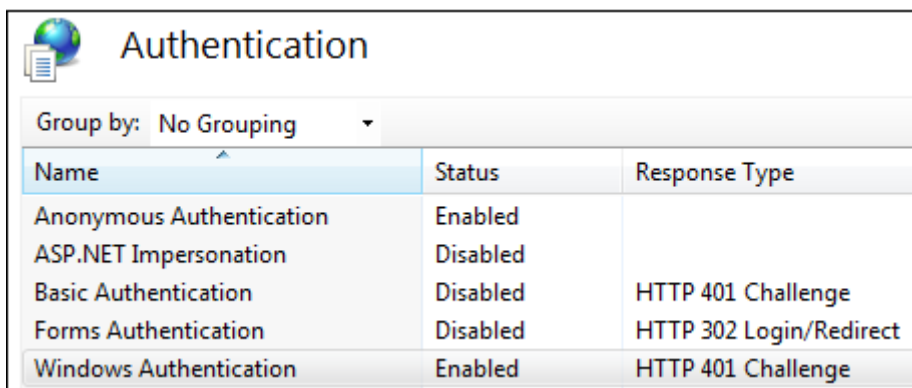
Windows authentication

With Windows authentication, each Insight user must be a linked user or belong to a linked group in Tungsten Capture.

Configure Insight for Windows authentication

Use the procedure in this section to configure Insight for Windows Authentication.

Before configuring Insight, select Windows authentication in IIS for the web application (default website).



Name	Status	Response Type
Anonymous Authentication	Enabled	
ASP.NET Impersonation	Disabled	
Basic Authentication	Disabled	HTTP 401 Challenge
Forms Authentication	Disabled	HTTP 302 Login/Redirect
Windows Authentication	Enabled	HTTP 401 Challenge

1. Navigate to **Insight 6.5.0 > Admin Console**.
2. Verify that Windows is set as the authentication method for the applicable Insight applications, as described in [Set authentication method](#).
3. User identifier: Specify a way to obtain the user's ID, which should be constant for a specific user's login. Usually, it is a session property (Identity) that looks to the Active Directory domain for the user ID.
 - a. In the **Documents Tree**, select **User Mapping**.
 - b. On the **User Identifier (UID)** tab, set the **Session property** to **Identity**.
4. With **User Mapping** still selected, set the session properties for **User Name** and **Email**.
 - a. Select the **User Name** tab, and set the **Session property** to the applicable property for the display name, such as **FullName**.
User Name is the display name of a user account. Usually, it is one of the Active Directory properties, such as *Identity*, *name*, *FullName*, *displayName* or another convenient property. Your domain administrator can provide all available Active Directory properties.
 - b. Select the **Email** tab, and set the **Session property** to **EmailAddress**.
 Email is the email address of the user account. It is used for self-subscriptions only. Usually, it is the Active Directory property *mail* or *EmailAddress*. Your domain administrator can provide the available Active Directory properties.
 - c. On the **Actions** toolbar, select **Save**.
5. Assign Insight roles to Windows users. See [Map roles for Windows users](#).

Manage users and roles

Analytics for Capture uses a combination of users and roles to manage access to projects and views.

- **Users:** When using Insight authentication, each Insight user's login ID must exactly match a corresponding user ID in Tungsten Capture (see [Create Insight users](#)). When using Windows authentication, you do not need to create an Insight user for each dashboard user. The Insight or Windows user accounts must also be authorized in Tungsten Capture with the proper batch class assignments, so that the expected data appears in the Viewer.
- **Roles:** Use roles to manage access rights to different metrics, records, and views. User access is limited to the set of views assigned within a project based on the assigned roles. For example, if multiple users have access to the same set of views containing labor and operator performance information, you can create a Labor Manager role to assign to users, as applicable. See [Assign a role to users](#).

Create Insight users

If Insight authentication is selected, use Admin Console to set up one or more Insight users and then [assign roles](#) to them. With Insight authentication, each Insight user's login ID must exactly match a corresponding user ID in Tungsten Capture.

By default, the Administrator user is assigned a password as specified during installation. The Administrator user is assigned to the Administrator role, which allows access to the Insight applications: Admin Console, Studio, Data Loader, and Themes and Formats. If necessary, the Administrator user password settings can be updated after installation.

After installation, the Administrator can add other users.

When using Windows authentication, you do not need to create an Insight user for each dashboard user. Regardless of the authentication method, the Insight or Windows user accounts must also be authorized in Tungsten Capture with the proper batch class assignments, so that the expected data appears in the Viewer.

1. Start **Admin Console**.
2. On the **Documents Tree**, select **Users**.
3. Right-click and then select **New User**.
The **New User** dialog box appears.
4. Enter a name for the user such as **Labor Manager**, and then select **OK**.
5. Enter a user login, user display name, email address, and password. Also, select the checkbox if the user should be able to update the password without assistance from the administrator.

 The Login entry should exactly match a Tungsten Capture user ID.

6. Select one or more roles to associate with the user.

i You can assign a user to multiple roles. If you assign a user to multiple roles that have varying access rights, the user is granted combined rights for the assigned roles. The user's default view is based on the default view for the first of the multiple roles, based on the order of the **Roles** list in **Admin Console**. You can right-click a role to move its position on the list.

7. On the **Actions** toolbar, select **Save**.

Assign a role to users

When Insight authentication is enabled, use the following procedure to assign a role to one or more users. If Windows authentication is enabled, see [Map roles for Windows users](#).

The following predefined roles are provided with the Analytics for Capture product:

- **Administrator**: Grants access to Insight applications: Admin Console, Studio, Data Loader, and Themes and Formats. Also has access to the Viewer. This built-in Insight role is associated with the Administrator user specified during the installation. This role is not intended to be assigned to Analytics for Capture dashboard users.
 - **TAFC Administrator**: Grants full access to the Analytics for Capture dashboard, including the Admin tab. By default, has limited access to Insight Studio and Data Loader.
 - **TAFC Designer**: Grants read-only access to the Analytics for Capture dashboard except for the **Admin** tab. By default, grants limited rights to Studio for the purpose of adding custom views, records, or metrics. This role grants read-only rights to the built-in views, records, and metrics delivered with the product and does not allow modifications to them.
 - **TAFC Viewer**: Grants read-only access to the Analytics for Capture dashboard except for the Admin tab, the Workflow and Swimlane views, and the Document Processing Time view. By default, does not have access to Insight applications.
1. Start **Admin Console**.
 2. In the **Documents Tree**, select and expand **Users**.
 3. Select a user's name.
 4. In the **Roles** section of the user's record, select each role to associate with the selected user. Refer to the preceding description of the roles provided with the product, or [create a new role](#).
 5. On the **Actions** toolbar, select **Save**.

Assign multiple users to a role

Use the following procedure to assign multiple users to a role.

1. Start **Admin Console**.
2. In the **Documents Tree**, select and expand **Roles**.
3. Select the role to be assigned to users. Refer to the preceding description of the roles provided with the product, or [create a new role](#).
4. In the middle pane, to the right of the "Fixed values mapping" tab, select the **Insight Users** tab.
5. On the **Insight Users** tab, select the checkbox for each user to be assigned to the role.
6. On the **Actions** toolbar, select **Save**.

Map roles for Windows users

When Windows authentication is enabled, you need to describe mapping rules for each role. Usually, the Active Directory property *memberOf* is used. In the sample illustration, the Insight Administrator user is assigning the "TAFC Administrator" to all Windows users who belong to the Windows group called *managersADGroup*. Your domain administrator can provide you with all available Active Directory properties.

Each row in the mapping grid uses the **AND** operand. If multiple roles on the Roles list match conditions for a user account, the access rights are merged from all matching roles, while other settings (such as the theme or date format) are assigned by the top matching role on the list.

Managers

Name: Theme: Tablet theme:

Application rights Studio rights View rights Themes Special rights **Fixed values mapping**

PROPERTY	OPERATOR	VALUE
memberOf	Include	managersADGroup

[+ Click here to add new data](#)

1. Start **Admin Console**.
2. In the **Documents Tree**, select and expand **Roles**.
3. Select a role such as Managers to map to Windows users.
4. In the middle pane, select the **Fixed values mapping** tab.
5. Select **Click Here To Add New Data**.
A row is added to the mapping grid.
6. Set an Active Directory property such as *memberOf*.
7. Set an operator such as Include.
8. Set a value such as the Windows group called *managersADGroup*.
9. Add additional rows as applicable.
10. On the **Actions** toolbar, select **Save**.

Create roles

Use roles to define and manage different levels of access to the Analytics for Capture dashboard and to Insight applications. In addition to the [predefined roles](#) that come with the product, you can set up one or more roles to assign to a user or group of users.

Roles provide access to different views, metrics, and records. You can assign a user to multiple roles. If you assign a user to multiple roles that have varying access rights, the user is granted combined rights for the assigned roles. The user's default view is based on the default view for the first of the

multiple roles, based on the order of the Roles list in Admin Console. You can right-click a role to move its position on the list.

1. Start **Admin Console**.
2. On the **Documents Tree**, select **Roles**.
3. Right-click, and then select **New user role**.
The **New Role** dialog box appears.
4. Enter a name for the role such as **Manager**, and then select **OK**.
5. In the **Name** field, enter the name for the role.
6. Select a theme from the list to define the visual style and appearance of the dashboard to apply while the role is active.

 We recommend that you select the Tungsten Automation Theme for Analytics for Capture roles.

7. Select the rights that are available while the role is active. Be sure assign [view rights](#) to users who require access to the dashboard Viewer.
8. On the **Actions** toolbar, select **Save**.

Define view rights for a role

Use this procedure to define view rights that determine which dashboard views are available to each role.

1. Start **Admin Console**.
2. In the **Documents Tree**, select and expand **Roles**.
3. On the list of roles associated with your Analytics for Capture project (such as the **TAFC** project), select the role for which you are defining view rights.
4. In the right pane, select the **View rights** tab.
The **View rights** tab is available only for the roles associated with the current Analytics for Capture project, such as taqc admin role, taqc designer role, and taqc role.
5. Do the following:
 - a. Select and expand **TAFC** (or other project name) to display a list of components.
 - b. Select and expand **Views** to display the list of views.
 - c. As applicable, select and expand individual views associated with submenu items.
6. Select the checkbox next to each view that should be available to the selected role.
7. Verify that **Main** is set as the default view for the role.
 - If Main is set as the default view for the role, the PC monitor icon appears next to the view name.
 - If Main is not set as the default view for the role, select **PC default** at the bottom of the screen.

The monitor icon appears next to the Main view.

 If the "PC default" button is not available when you select it, you may need to collapse and expand the list of views to enable the button.

8. On the **Actions** toolbar, select **Save**.

Update connections or set site filters

Analytics for Capture dashboard views enforce the same level of user access that is applied to batch class data in Tungsten Capture. Access to batch class data is based on the [authentication method](#) and Tungsten Capture [connection](#) settings specified during installation, along with user and group profile assignments in Tungsten Capture.

In a TCNS environment, you can optionally apply [site filters](#) to specify which users can view data for certain sites.

i Users who are direct members of a linked group in Tungsten Capture can access the Analytics for Capture dashboard views even if they have not previously logged in to Tungsten Capture. Users who belong to a nested group need to log in to Tungsten Capture at least once before they can see data in the dashboard views.

Connections

The Connection settings for your Tungsten Capture database are applied during the installation or upgrade process. Use the procedure in this section only if you need to update the Connection settings later.

i The connection to the Tungsten Capture database must be the same as the one specified on the Databases tab during the [Event Listener installation](#).

1. Navigate to **Insight 6.5.0 > Admin Console**.
2. On the **Documents Tree**, select and expand **Connections**.
3. Verify that **Capture DB** is selected.
4. In the **Connection Option** group, complete the entries as applicable to your Tungsten Capture database type (MS SQL Server or Oracle).

i If you installed Tungsten Capture with the Standard database, use the values specified here:

- Tungsten Capture 11.1 and 11.2: <machinename>\TUNGSTENCAP2014
- Database name: ACSysstem
- User Name: TPSG
- Password: <password>

The specified user has read-only access to all Tungsten Capture database tables.

5. Select **Connect** to test the connection.
If the connection fails, check for invalid entries and try again.
6. On the **Actions** toolbar, select **Save**.

Set site filter queries

In a TCNS environment, you can use a site filter query to specify which users can view data from certain sites.

For very simple cases, you might be able to use one of the following basic samples with minor modifications. More likely, you will need to create a table of users and the sites they have access to, and then specify a query to select from that table.

The query should return rows containing the name of each site that the user has access to. The user ID is replaced in the query with the text <Login> for Insight users, or the text <Identity> for Windows users.

In the samples, a user named *SampleRestricted* does not have access to the central site (the central site name is selected from the DatabaseVars table), and only has access to remote sites with names that start with *Restricted Site* (remote site names are selected from the AcisCSite table). All other users have access to both the central site and all remote sites.

The sample site queries work for both SQL Server or Oracle.

Sample Site query for Insight users:

```
SELECT SiteName
FROM DatabaseVars
WHERE PublishedBatchDefID=0
  AND '<Login>' <> 'SampleRestricted'
UNION
SELECT SiteName
FROM AcisCSite
WHERE '<Login>' <> 'SampleRestricted'
  OR ('<Login>' = 'SampleRestricted'
    AND SiteName LIKE 'Restricted Site%')
```

Sample Site query for Windows users:

```
SELECT SiteName
FROM DatabaseVars
WHERE PublishedBatchDefID=0
  AND '<Identity>' <> 'SampleRestricted'
UNION
SELECT SiteName
FROM AcisCSite
WHERE '<Identity>' <> 'SampleRestricted'
  OR ('<Identity>' = 'SampleRestricted'
    AND SiteName LIKE 'Restricted Site%')
```

1. Navigate to **Insight 6.5.0 > Admin Console** .
The Admin Console is started.
2. On the **Documents Tree**, select and expand **User Filters**.
3. Select **Site**.
4. Verify that **Capture DB** (or the connection to your table of users and sites) is the **Source** selection.
5. From the **Database** list, select your database type, such as MS SQL Server.

6. From the **Authentication** list, select the type you are using (such as **Insight users** or **Windows**).
7. Select in the filter query window and enter a site query for Insight or Windows users, as applicable. Refer to the preceding sample queries as a guide.
8. On the **Actions** toolbar, select **Save**.

Import and export a project

An Insight project is saved in two databases: the project meta database and the project data database. By convention, they are named as <project_name>_meta and <project_name>_data, such as *tafc_meta* and *tafc_data*. The meta database contains the project definitions such as the data source, records, metric, views (dashboard) and all other Insight documents (objects). The data database stores the data in the project.

Use the Import/Export utility to back up (export) or restore (import) a database. This is useful when you want to move a project across different databases. Although you can use a third-party DBA backup and restore tool for this purpose, this Import/Export utility tool gives you the ability to move the Insight database from one version of SQL to another, or from one DBMS to another.

Export a project

1. In **Import/Export** tool, select **Export**.
2. Select a folder to export (back up) the database to, or select the ellipsis (...) to navigate to a folder. Select an empty folder on the server/computer, such as:

```
C:\Data\TAFC_Project_Meta\
```

3. Provide the connection parameters to the meta database, such as *tafc_meta*.

4. Select **Connect**.

5. Select **Export**.

The meta database tables are exported to the specified folder.

6. Repeat the same procedure for the data database, such as *tafc_data*. Be sure to select a different empty folder, such as:

```
C:\Data\TAFC_Project_Data\
```

Import a project

Use this procedure to import a project.

i To import successfully, you must be a user with database ownership (DBO) rights for the Meta and Data databases.

1. In the **Import/Export** tool, select **Import**.
2. Select the folder to import (restore) the meta database from, or select the ellipsis (...) to navigate to the folder. The folder should contain a previously exported project meta database, such as:

```
C:\Data\TAFC_Project_Meta\
```

3. Provide the connection parameters to the database to import the data into, such as `new_tafc_meta`.
4. Select **Test connection**.
5. Select **Import**.
The meta database tables are imported to the specified database.
6. Repeat the same procedure for the data database, and be sure to select the folder for the exported data database, such as:
`C:\Data\TAFC_Project_Data\`

Configure Insight to use new project database location

If you import the project database to a different location, you need to configure Insight to use the updated location. The process involves changing the data source connection strings to the new location.

1. Select **Insight 6.5.0 > Admin Console**.
2. In the **Documents Tree** under **Projects**, select the TAFC project and select **Change**.
3. Enter the new connection strings for the project data database and meta database.
4. Select **OK**.

Chapter 7

Use Tungsten Analytics for Capture

With Tungsten Analytics for Capture, you can generate data analytics and then display the data in an interactive dashboard through the [Viewer](#).

The Analytics for Capture dashboard consists of several sets of views. Each view has graphical elements and other components to retrieve, analyze, and report on data from Tungsten Capture and Tungsten Transformation. Predefined views configured to analyze your Tungsten Capture and Tungsten Transformation data are included in your installation.

The [Dashboard Designer](#) within Insight Studio is a browser-based design tool used to customize the appearance of the views.

Viewer

Use the Viewer to display the dashboard views included in your Analytics for Capture installation. These views include a variety of visual and analytical representations of data using charts, grids, pivot tables, and reports. System administrators, business process managers, and other stakeholders use this interface to gain visibility into analytical information.

You can display data in standard or custom views generated from data stored within the Analytics for Capture database. You can also extract information from the Tungsten Capture User Tracking tables based on your Tungsten Capture installation or external databases.

You can create new views in the Dashboard Designer. You can also customize a view by copying a view supplied with your Analytics for Capture installation and saving it with a new name. See [Dashboard Designer](#) for more information.

i The views provided with Analytics for Capture are based on values that come from predefined Tungsten Automation [records and metrics](#). When adding custom views, do not modify the predefined views, records, or metrics that come with the product. Instead, [copy](#) a predefined view, save it with a different name, and then modify the components as necessary. For details, see the *Tungsten Analytics Project Customizations Application Note* on the Tungsten Automation Knowledge Portal at <https://knowledge.tungstenautomation.com>.

Open the Viewer

To open the Viewer (or dashboard), follow the procedure in this section.

By default, the Viewer displays in the language selected in the Region and Language settings for your operating system. To select another language, see [Select a language](#).

 The recommended monitor resolution is 1920x1200.

1. Do one of the following to open the Viewer:

- Navigate to **Insight 6.5.0 > Viewer**.

- Open a web browser and enter the following URL:

`http[s]://<server>:<port>/Insight/View/`

where `<server>` is the name of your Insight server

and `<port>` is included in the URL if the port differs from the default for HTTP (80) or HTTPS (443)

Be sure to verify that the website's binding host name is set to blank or localhost in your IIS settings. Otherwise, a login error may occur.

A login window may appear (it does not appear if an authentication method is not currently enabled, or if Windows authentication is enabled and the user is already authenticated).

2. Enter valid login credentials and select **Login**.

To ensure proper viewing, verify the appropriate Authentication Method setting for the Viewer in Admin Console. The "No authentication" setting does not enforce Tungsten Capture batch class assignments.

Also, if Main is not selected as the default view for the role associated with the user who is logging in, the following error may appear:

You can specify view name parameter in Admin Tool

Resolve the issue by setting Main as the default view, as described in [Define view rights for a role](#).

Select a language

When you install Analytics for Capture, the dashboard views display in the language specified in the browser settings (including the format for delimiters, decimal points, and names of the days of the week and the months). You can use the language selector in the Viewer to switch to any of the supported languages:

- Brazilian Portuguese
- Czech
- English
- French
- German
- Italian
- Japanese
- Polish
- Russian
- Simplified Chinese
- Spanish
- Swedish

1. In the Viewer, select the **Language** button.

A list of languages appears.

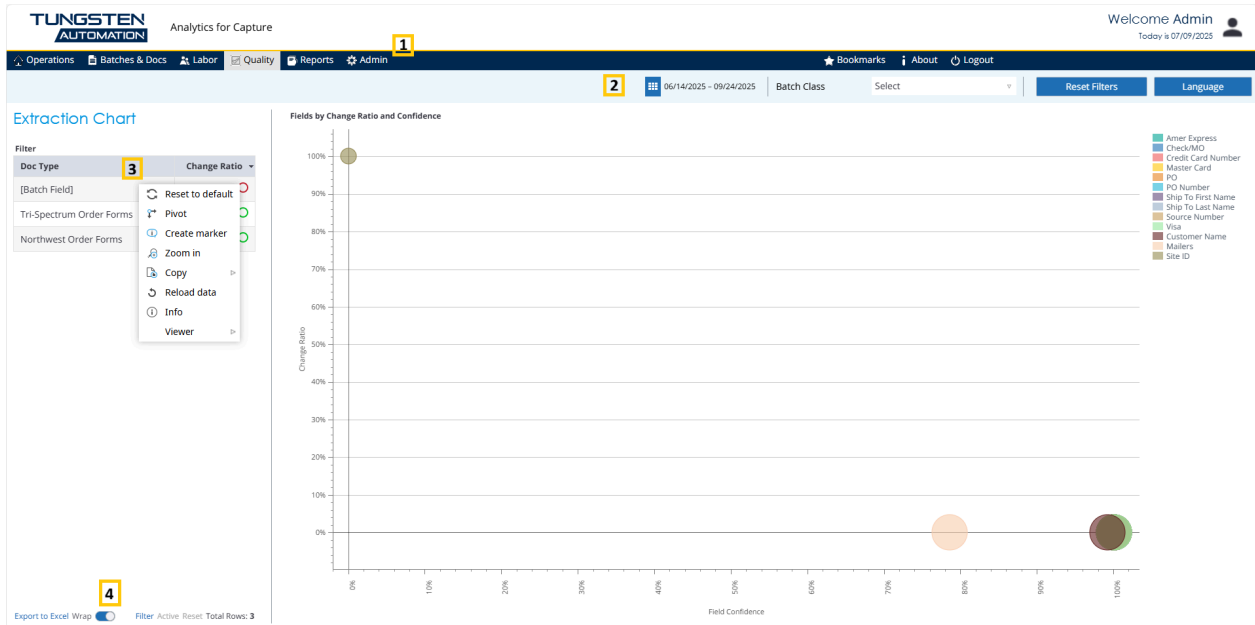
2. On the list, select the language in which to display the dashboard views.
The dashboard is refreshed, and the **Operations - Overview** appears in the selected language.

Update the date and time format

When dates and times are displayed, the dashboard views use the format associated with the selected language. To apply another date and time format, use the Insight Themes and Formats application (do not use the Region and Language settings for the operating system).

1. In the **Documents Tree**, select **Date formats**.
 - a. Select the name and locale associated with the selected language.
 - b. Select the first day of the week for the **Weeks start on** field.
 - c. In the **Named Formats** section, select the arrow to expand the list of date and time formats.
 - d. Select a format; if necessary, right-click and select **Edit** to update any format.
 - e. Optionally select the arrow in the **Breakdown** section to view sample formats in more detail. You can right-click and select **Edit** to update any format.
2. On the toolbar, select **Save**.

Viewer screen layout and navigation



Viewer

1	Toolbar Menu Use the menu to access views and administrator features, including Operations, Batches & Docs, Labor, Quality, Reports, and Admin. Use additional user-level items to bookmark frequently used views, view version information, or log out.
2	Filters and Language Use the Date Range and Batch Class filters to manage the data that displays on the dashboard, or select Reset Filters to return the data selection to the default settings. Use Language to display the dashboard in another language.
3	Context Menus and Chart Options Right-click a chart or grid to access more options such as Reset to default, Pivot, Zoom in, and View format. The options vary, based on the chart type or area where you right-click. Double-click a chart to change the breakdown. For example, change the data view of a pie chart from Batch Class to Days of the Week or Module Name. Options vary, based on the chart type.
4	Chart and Grid Footers Additional features are available in the footer on some charts and grids. Features may include Export to Excel, text wrap settings, filters and reset. Footers may also include chart- or grid-specific summary data such as total number of rows.

Use the Viewer

While working with the Viewer, you can do the following:

- Select any batch to drill down to batch activity details.
- Double-click a table line to zoom on a table detail.
- Manipulate and interact with any component on the dashboard.
- Hover over a chart element such as a bar in a bar chart, or a segment in a pie chart to view details such as session time, quantity, modified date, and percentages.

Adjust the Refresh Interval

Some components in the Viewer are visually refreshed automatically at regular intervals. When the refresh occurs, any expandable components are automatically collapsed.

You can use Insight Studio to turn off auto refresh, or to reduce the auto refresh frequency by increasing the interval for a given component. By default, a 60-second minimum Refresh Interval is applied to charts. For record grids, the Refresh Interval is disabled by default.

1. Start Insight Studio.
2. On the **Documents Tree**, select and expand **Views**.
3. On the **Views** list, select a view that contains an expandable component.
The grid for the selected view appears.
4. Select the expandable component.
5. On the **Property** pane, in the **Other** section, select the ellipsis next to the **Refresh Interval** property.
The **Edit Date Time Interval** window appears.
6. Do one of the following:
 - To turn off auto refresh for the selected component, verify that the **Interval** value is set to 00:00:00, and select **OK**.
 - To reduce the auto refresh interval for the selected component, set the **Interval** to a value higher than 60 seconds, and select **OK**. The format is hh:mm:ss.
7. Select **Save**.

Export to Excel

On any grid with Export to Excel functionality, you can select preferences that affect the content and format when the grid is exported to Microsoft Excel.

1. On a grid with **Export to Excel** enabled, select **Export to Excel**.
The **Export to Excel** window appears.
2. Select an **Export content** option:
 - **Export current state**
 - **Current page and top drill down**
 - **All pages of a grid, top drill down level. Could take some time.**
 - **All pages of a grid, all drill down levels. Could take much longer.**

3. Select an **Export format** option:
 - **Unformatted XML file, readable by Excel**
 - **Formatted Excel file**
 - **Unformatted CSV file**
 - **Unformatted TSV file**
4. Optionally select **Enabled** to use a flat export, which retains granular details for drill down or expandable data.
5. Select **OK** and when prompted, save or open the .xml file.

Tungsten Analytics for Capture dashboard views

This section gives information about working with the following views on the Analytics for Capture dashboard.

- [Operations](#)
- [Batches & Docs](#)
- [Labor](#)
- [Quality](#)
- [Reports](#)
- [Admin](#)

Operations views show data in real time, while other views show near real-time or historical data stored in your database. The primary data source and date refresh frequency are listed for each view.

Global filters

Unless stated otherwise in other sections, the data displayed in the Viewer is affected by the following filters:

- Site filter, if applicable. See [Set site filter queries](#).
- [Date range](#) and [batch class](#) display filters at the top of the Viewer.

Date Range filter

Use the "Select time interval" or calendar button at the top of the Viewer to open a calendar to specify a date range for filtering data. You can select "No filter" on the calendar to remove date range filtering. When "No filter" is active, data for the past three months from the current date is displayed by default.

Batch Class filter

Use the Batch Class list at the top of the Viewer to filter data based on batch class. Select individual batch classes from the list, or use the All/Clear button to select or clear the entire list.

A search capability is available for the Batch Class filter and other filters. After selecting the filter, select the magnifying glass icon to display an entry field where you type the search text. For

example, if you have a lengthy list of batch classes, type T to display the filters that start with the letter T.

Automatic, unattended modules

Views such as No Touch Processing, Classification Benchmark, Extraction Benchmark, and others provide information about the number of manual changes made by an operator. Keep in mind that operator statistics are not gathered for the following unattended modules, where batches are processed automatically without operator intervention:

- OCR Full Text
- PDF Generator
- Recognition Server
- KTM Server
- KTM Server 2
- CMSplit custom module
- Any custom module that implements the Form Identification or Automatic Index function

Sessions

Several Analytics for Capture views include calculated statistics based on session data. A "session" is created each time a batch is closed in a Tungsten Capture module or Tungsten Transformation application, or after batch properties are updated in Batch Manager. Sessions are not created when batches are deleted or exported, or when they time out.

Total Rows display

The behavior of the Total Rows display may vary from one view to another. For example, if you are viewing a Batch Overview that consists of rows that span many pages, the Total Rows value may display before all pages are loaded into the dashboard. For other views, the Total Rows value may not display until every page is loaded.

You can change the behavior of the Total Rows display by using Insight Studio to select the Total Rows item for a particular view. Then, in the Property Panel, select or clear "Disable total amount calculation" according to your preference. When selected, the Total Rows value does not display until all pages are loaded into the dashboard. Note that any change that you make may be overwritten during a subsequent product upgrade.

 When "total amount calculation" is enabled, it may adversely affect performance as you load a view.

Operations

Use the Operations views to analyze current and historic batch processing trends. The Operations views include the following:

- [Overview](#)
- [Breakdowns](#)
- [Process Latency](#)

- [Remaining Labor](#)
- [Capacity Planning](#)

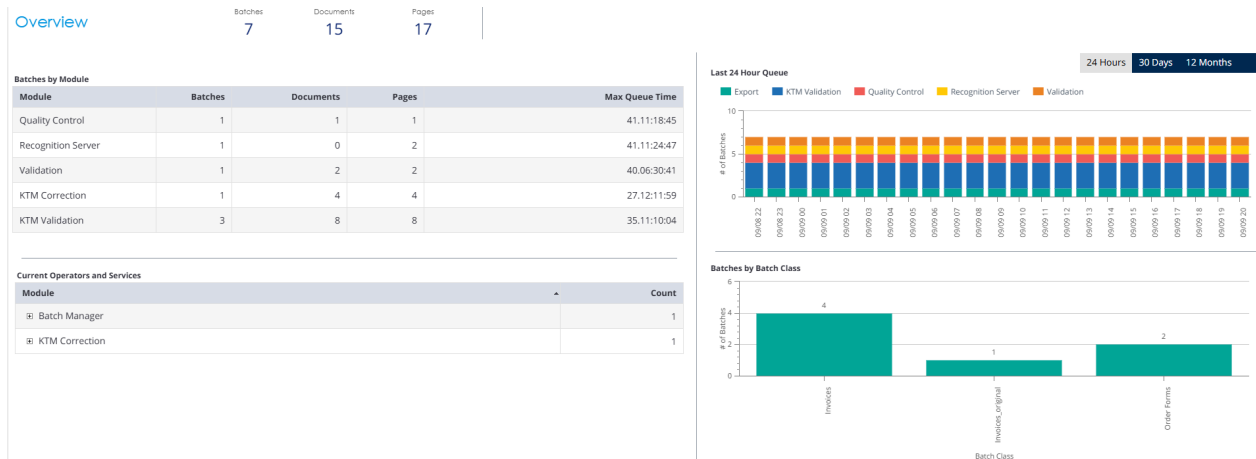
Overview

The Overview data is based on live batches that are currently being processed through the Tungsten Capture workflow. Use the Overview to analyze near real-time data by Module or by Operators. You can also view, per processing queue, the number of batches in the system for the selected time period (24 Hours, 30 Days, or 12 Months). By selecting an item in the Batches by Module list, you can drill down to view the list of batches for a particular module, and the batch history for any batch on the list. The Overview does not include data for exported, timed out, or deleted batches.

At the top of the view, a count is given for the current number of batches, documents, and pages across all queues. The count reflects the batch classes to which the current user has rights.

In a Tungsten Capture Network Server environment, the Current Operators and Services data reflects the module state at the time of the most recent synchronization.

To display the Overview, select **Operations > Overview**.



View / Chart / Filter	Description	Updates
Current number of batches, documents, and pages in the system.	Because the Overview relates to batches currently in the system, the numbers for batches, documents, and pages are not affected if you adjust the date filters. You can filter the Overview by adjusting the Batch Class filter.	Data refresh in real time and visual refresh every 60 seconds.

View / Chart / Filter	Description	Updates
Batches by Module	Displays the number of batches currently in the system and the maximum queue time (total time spent by a batch in the queue, including wait time and actual processing time). Displays the Current Queue and Waiting Time in Queue metrics by module name, which is contained in the NextQueue dimension of the most recent session for the batch. Current Queue is a batch count. Waiting Time in Queue displays a maximum time that passed for any batch currently in that module since the last session for that batch was processed.	Data refresh in real time.
Batches by Module Drill Down: Details for Module: Batch Detail	When you select a module on the Batches by Module grid, a list of batches currently in the system for that module is opened in a separate window. The list is grouped into two sections: Batch Detail and Current Batch History. When you select a batch on the Batch Detail grid, the batch history with all of its sessions appears in the Current Batch History grid.	Data refresh in real time.
Batches by Module Drill Down - Details for Module: Current Batch History	When you select a module on the Batches by Module grid in the previous drilldown, the batch history with all of its sessions appears in the Current Batch History grid. The Current Batch History is updated each time you select a batch in the Batch Detail drilldown.	Data refresh in real time and visual refresh disabled.
Current Operators and Services	Displays a list of logged-in operators and the Tungsten Automation modules they are using. Displays records from the STATSMODULELAUNCH table, where ENDTIME is null and ORPHANED is 0. Offers ability to drill down into Site, Station and Operator. To display the data successfully, you must enable the User Tracking feature in Tungsten Capture.	Data refresh in real time. In a Tungsten Capture Network Server environment, data refresh may vary, depending on remote site synchronization frequency.

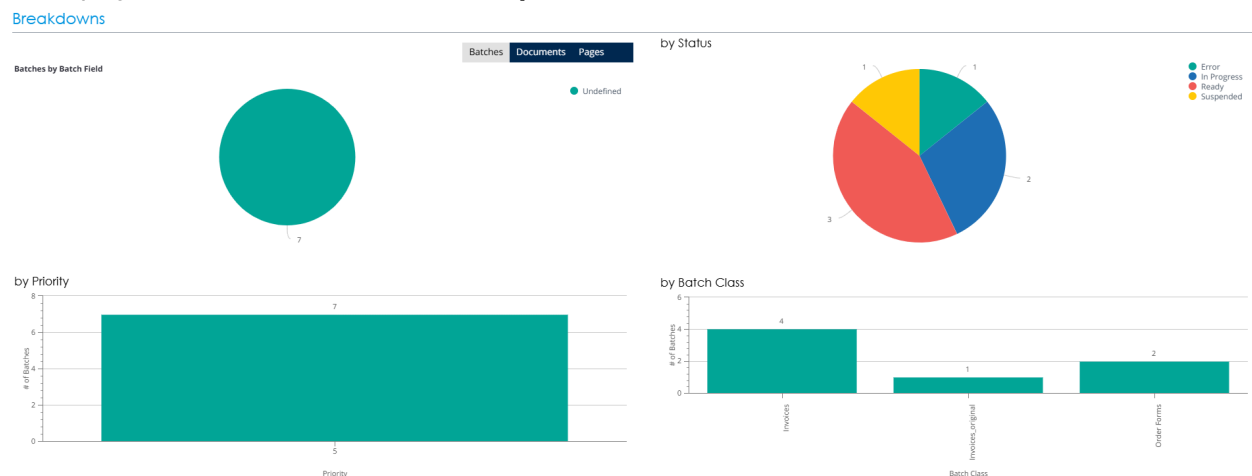
View / Chart / Filter	Description	Updates
Historic Queue (Last 24 Hours, 30 Days, or 12 Months)	24 Hours: By default, displays the history of the current batch queue size, hour by hour, over the past 24 hours. Includes the queue processing length in seconds, gives data over time about the number of batches processed by each module, and presents queue trends. 30 Days: Displays the history of the current batch queue size, day by day, over the past 30 days. 12 Months: Displays the history of the current batch queue size, month by month, over the past 12 months.	Hourly
Batches by Batch Class	Displays the number of batches currently in the system sorted by batch class.	Data refresh in real time and visual refresh every 60 seconds.

Breakdowns

Use the Breakdowns view to perform in-depth analysis of the data in the [Overview](#) based on a range of criteria. The data on the Breakdowns view applies to batches that are currently in the system and excludes exported data.

Each chart on the Breakdowns view displays the Current Queue metric as a batch count split by corresponding dimensions: Batch Field, Priority, Status, and Batch Class. For the Batch Field dimension, a count is also available for documents or pages.

To display the Breakdowns view, select **Operations > Breakdowns**.



View / Chart / Filter	Description	Updates
Batches / Documents / Pages By Batch Field	Use the tabs at the top of the view to select Batches, Documents, or Pages. Based on the tab selection, the chart displays the number of current batches, documents, or pages grouped by a specific batch field defined by the administrator. The batch field defined by the administrator is reflected in the chart on a go-forward basis. Current data that existed prior to the batch field selection is not reflected in the By Batch Field chart.	Data refresh in real time and visual refresh every 60 seconds
By Priority	Displays the number of current batches, documents, or pages grouped by priority.	Data refresh in real time and visual refresh every 60 seconds
By Status	Displays the number of current batches, documents, or pages grouped by state.	Data refresh in real time and visual refresh every 60 seconds
By Batch Class	Displays the number of current batches, documents, or pages grouped by batch class.	Data refresh in real time and visual refresh every 60 seconds

Process Latency

Use the Process Latency view to examine overall system efficiency to identify inactivity or delays as batches are processed through the Tungsten Capture workflow. The Latency grid displays the minimum, maximum, and mean (average) queue time for each module. A higher average queue time may indicate increased wait times for batch processing.

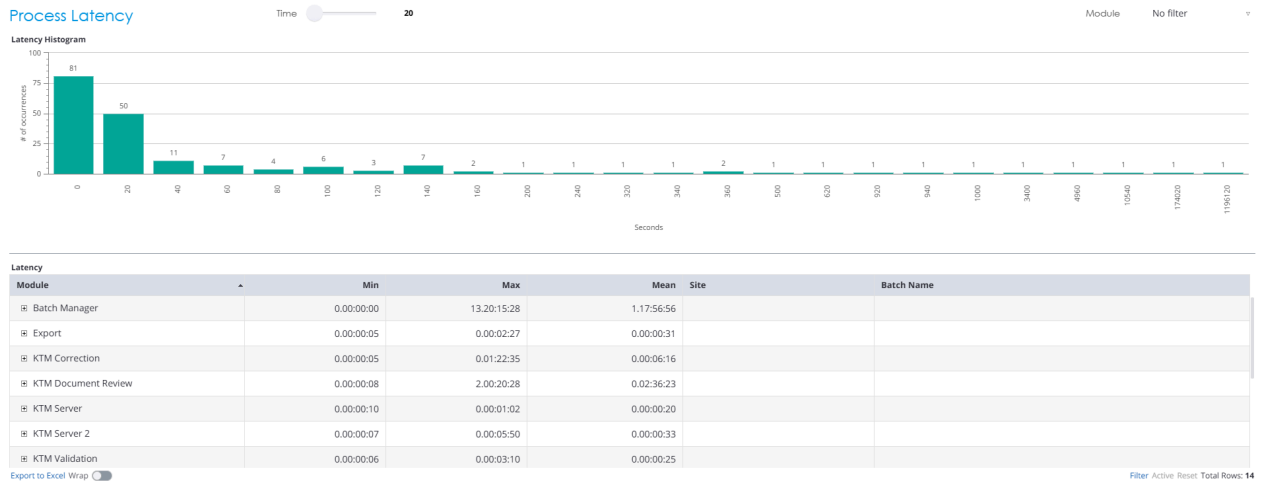
 By default, the Process Latency view includes information from all processing modules, including Batch Manager. You can filter the modules represented on the view by selecting from the Module list.

For example, you can use the Process Latency view to detect a batch that becomes idle (stalled while awaiting processing) at a certain queue. The view lists the number of pages and documents in a batch during each step in the workflow.

You can use Process Latency information to determine if improvements are necessary to address process slowdowns that prevent batch completion within quoted service levels.

The view has two components: a Latency Histogram bar chart that displays a metric with the same name and a Latency grid that shows a record with the same name. The view has an additional Module filter that affects both of the preceding components.

To display the Process Latency view, select **Operations > Process Latency**.



View / Chart / Filter	Description	Updates
-----------------------	-------------	---------

View / Chart / Filter	Description	Updates
Latency Details	Expand a module name on the Latency record grid to display queue times for specific batches. You can display details for the selected record by site or batch names. You can also select an individual batch to display the Batch Overview and batch history.	Data refresh in real time and visual refresh every 60 seconds
Time	Updates the number of seconds per interval. The number under each bar is a wait time expressed in seconds. The wait time is a multiple of the value in the Time slider.	Data refresh in real time and visual refresh every 60 seconds
Module	Filters information by module. Select each module to include in the view, or select "All" to include all modules. Select "Clear" to remove all module selections.	Data refresh in real time and visual refresh every 60 seconds

Remaining Labor

Use the Remaining Labor view to determine the appropriate staffing levels required to process documents that are currently in the system.

The Remaining Labor view displays the estimated remaining work (in person hours) to complete processing in attended modules for documents currently pending in the system. Based on historical data, this view lists the number of remaining labor hours broken down by module and document type. You can filter the view by document type.

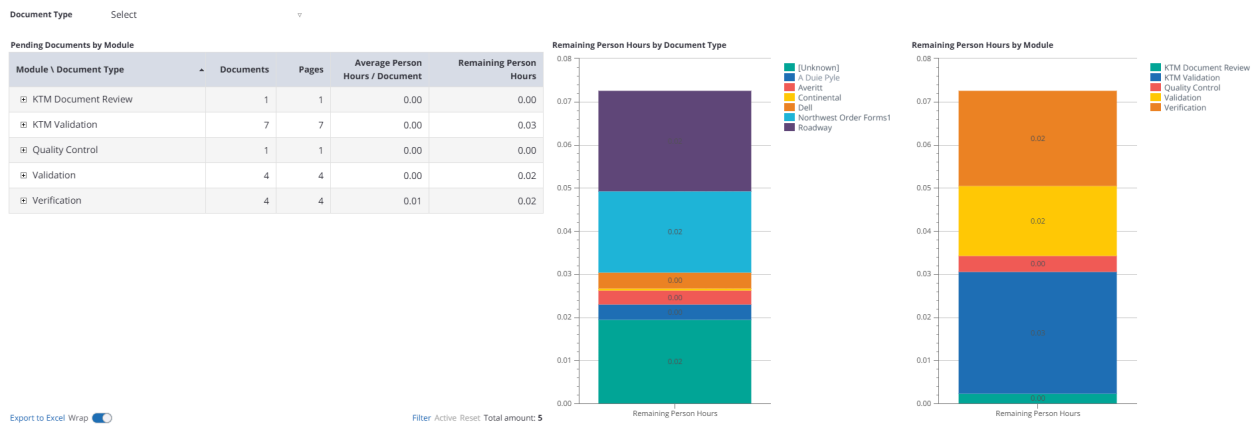
The accuracy of the data in the Remaining Labor view is dependent on the calculation of the Average Document Processing Time, based on the [Average Processing Time](#) defined by the Administrator.

The Remaining Labor view is supported for use with Tungsten Capture 11.1 or 11.2.

 To ensure the accuracy of the Remaining Labor view following an upgrade to Tungsten Analytics for Capture 2025.4, you must republish your batch classes.

To display the Remaining Labor view, select **Operations > Remaining Labor**.

Remaining Labor



View / Chart / Filter	Description	Updates
Document Type	Select the document types to include in the estimate of remaining work.	Data refresh in real time and visual refresh every 60 seconds.
Pending Documents by Module	Lists the documents remaining in the system to be processed in attended modules. The list of documents is grouped by module.	Data refresh in real time.
Remaining Person Hours by Document Type	The chart displays the estimated number of person hours remaining per document type to process documents currently in the system.	Data refresh in real time.
Remaining Person Hours by Module	The chart displays the estimated number of person hours that will be required per module to process the documents. The estimate is based on the number of documents specified for the selected document types, and on the Average Document Processing Time.	Data refresh in real time. In a Tungsten Capture Network Server environment, data refresh may vary, depending on remote site synchronization frequency.

Capacity Planning

Use the Capacity Planning view to estimate the labor costs for processing documents to be received in the future.

The Capacity Planning view displays the estimated person hours required to process documents, which are broken down by document type and by module. When you enter the number of documents, the system calculates the estimated person hours based on historical data, which includes both deleted and exported batches.

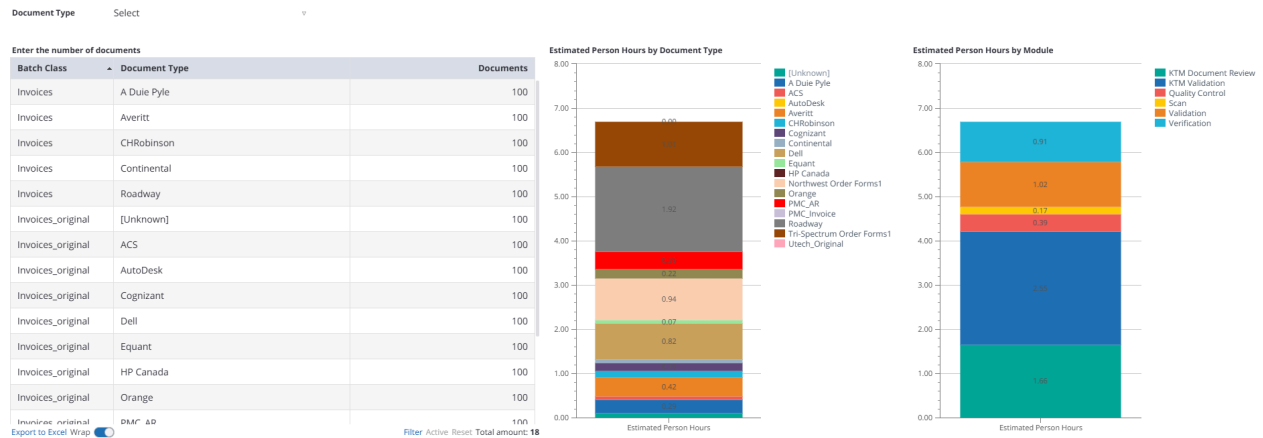
The data in the Capacity Planning view is dependent on the calculation of the [Average Processing Time](#), which is configured per batch class by the Administrator. Document types appear on this view only if the applicable Average Document Processing Times are configured.

The Capacity Planning view is supported for use with Tungsten Capture 11.1 or 11.2.

i To ensure the accuracy of the Capacity Planning view following an upgrade to Tungsten Analytics for Capture 2025.4, you must republish your batch classes.

To display the Capacity Planning view, select **Operations > Capacity Planning**.

Capacity Planning



View / Chart / Filter	Description	Updates
Document Type	Select the document types to include in the labor cost estimate.	Data refresh in real time and visual refresh every 60 seconds.
Enter the number of documents	For each document type listed, select in the Documents column to set the number of documents to consider in the labor cost estimate.	Data refresh in real time.
Estimated Person Hours by Document Type	The chart displays the estimated number of person hours that will be required per document type to process the documents. The estimate is based on the number of documents specified for the selected document types, and on the Average Document Processing Time.	Data refresh in real time.
Estimated Person Hours by Module	The chart displays the estimated number of person hours that will be required per module to process the documents. The estimate is based on the number of documents specified for the selected document types, and on the Average Document Processing Time.	Data refresh in real time. In a Tungsten Capture Network Server environment, data refresh may vary, depending on remote site synchronization frequency.

Batches & Docs

Use Batches & Docs views to search for information related to processed batches based on batch properties, or to analyze the batch or document processing workflow.

- [Batch Search](#)
- [Search by Field](#)
- [Deleted Batches and Pages](#)
- [Error Batches](#)
- [Rejections](#)
- [Swimlane - Batches](#)
- [Swimlane - Documents](#)
- [Workflow - Batches](#)
- [Workflow - Documents](#)
- [Trending and Stats - Batches](#)
- [Trending and Stats - Documents](#)
- [Trending and Stats - Group by Batch Field](#)

Batch Search

Use the Batch Search to look for information about processed batches, including details for documents and pages. You can provide batch properties in the search criteria and select the results to view details. If you select a batch on the Search Results list, a Batch Overview appears in a separate window.

To display the Batch Search view, select **Batches & Docs > Batch Search**.

Batch Search
Search by Batch Properties:

Batch Class	Includes ▾		Created at	Range ▾	M/d/yyyy		M/d/yyyy	
Batch Name	Includes ▾		Error Message	Includes ▾				
Last Module	Includes ▾		Last Operator	Includes ▾				
Last Site	Includes ▾		Status	Includes ▾				

No filter Set Clear

Batch Class	Created	Batch Name	Documents	Pages	Error Message	Priority	Site
Invoices	07/30/2025 06:53 AM	7/30/2025 6:52:53 AM_admin_IV1	2	3		5	VN01QAKAFC05
Invoices_original	07/30/2025 06:53 AM	7/30/2025 6:53:14 AM_admin_IV0_1	2	2		5	VN01QAKAFC05
Order Forms	07/30/2025 07:27 AM	7/30/2025 7:27:16 AM_TC1_OD1	2	2		5	VN01QAKAFC05
Invoices	07/30/2025 07:35 AM	7/30/2025 7:35:20 AM_TC2_IV	1	1		5	VN01QAKAFC05
Order Forms	07/30/2025 07:42 AM	7/30/2025 7:42:22 AM_TC3_OD	1	1		5	VN01QAKAFC05
Order Forms	07/30/2025 07:56 AM	7/30/2025 7:56:17 AM_TC4_OD	1	1		5	VN01QAKAFC05
Invoices	07/30/2025 08:00 AM	7/30/2025 8:00:18 AM_thoct_IV	1	1		5	VN01QAKAFC05
Order Forms	07/30/2025 08:32 AM	7/30/2025 8:31:57 AM_thuthi.duong	2	2		5	VN01QAKAFC05
			72	105			

Export to Excel

Filter Active Reset Total Rows: 29

View / Chart / Filter	Description	Updates
Search by Batch Properties	Search batches based on properties; includes historical data for all processed batches.	Data refresh in real time and visual refresh every 60 seconds

View / Chart / Filter	Description	Updates
Search Results	Lists search results; includes historical data for all processed batches. Select any item on the list of results to view a Batch Overview in a separate window.	Data refresh in real time and visual refresh every 60 seconds

Batch Overview

When selecting an individual batch on the Trending and Stats and several other views, you can display a Batch Overview summary that offers an expanded set of details for the batch, including batch events. The following table lists the batch events that may appear on the Batch Overview.

Batch Events

Event Name	Event Name	Event Name
Batch Field Changed	Batch priority is changed	Document is rejected
Batch has timed out *	Document Fields Changed	Document is unrejected
Batch is created	Document form type is changed	Document split
Batch is deleted	Document is classified	Page is deleted
Batch is rejected	Document is deleted	Page is moved
Batch is released	Document is exported	Page is rejected
Batch is split	Document is merged	Page is unrejected
Batch is unrejected	Document is reclassified	

*Timeout event: A Timeout event occurs if a batch remains in the queue for more than 30 days.

If you perform a Batch Search and select a timed-out batch on the Search Results list, the Status and Last Operator are listed as [TIMEOUT]. On the Batch Events list, in the Event column, a Timeout event (rather than a deletion) is reported.

You can configure the threshold for Timeout events by updating the value (in seconds) for `UnfinishedBatchTimeLimit` in `Web.config`, which is typically located here:

```
c:\Program Files\KFX Web Agent\Web.config
```

Batch Overview



Total Batch Time:	0.00:11:57
Total Session Time:	0.00:04:32

History

Documents

Id	Type	Field Changes
1	Roadway	5
2	CHRobinson	
3	CHRobinson	

Last State of Batch

Class Name	Invoices	Creation	07/30/2025 06:53 AM
Batch Name	7/30/2025 6:52:53 AM_admin_IV1	Documents	2
Error		Last Machine	VN01QAKAFC05
Last Module	Export	Last Operator	Administrator
Pages	3	Priority	5
Session Start	07/30/2025 07:05 AM	Session End	07/30/2025 07:05 AM
Site	VN01QAKAFC05	Status	Released

 Export to Excel Wrap ☒ Filter Active Reset Total Rows

Batch Events

Date	Event	Name	Old Value	New Value	Site	Operator	Module	Station
07/30/2025 06:53 AM	Batch is created	7/30/2025 6:52:53 AM_admin...			VN01QAK...	Administrator	Batch Manager	VN01QAKAFC05:S... 6
07/30/2025 06:55 AM	Docum... is classified	1		Averitt	VN01QAK...	Administrator	KTM Server	VN01QAKAFC05:S... 6
	Docum...							

 Export to Excel Wrap ☒

Filter Active Reset Total Rows: 13

View / Chart / Filter	Description	Updates
Total Batch Time	For batches still in the Tungsten Capture workflow, the total time elapsed from batch creation until now. For exported or deleted batches, the time of the export or deletion.	Data refresh in real time and visual refresh every 60 seconds
Total Session Time	Sum of the time from start to finish for each session in all the batch sessions.	Data refresh in real time and visual refresh every 60 seconds
History	In a separate window, opens a list of queues where the selected batch has been processed. The History also includes error message text, if applicable.	
Documents / Field Changes	List of all documents in the batch. The Field Changes value is a sum of the number of fields manually changed by an operator. You can select any item in the list to view a Document Overview with additional details. List is grouped by ID and Type, which correspond to Label and Document Type, respectively.	Data refresh in real time and visual refresh every 60 seconds

View / Chart / Filter	Description	Updates
Last State of Batch	List of details associated with the most recent batch state.	Data refresh in real time and visual refresh every 60 seconds
Batch Events	List of events related to the batch, including documents, pages, and fields.	Data refresh in real time and visual refresh every 60 seconds
Batch Events - Name	Name of the batch, document label, or page ID, respectively.	Data refresh in real time and visual refresh every 60 seconds
Batch Events - Old Value	Lists the name of the parent batch (if current batch was created as a result of a batch split), previous document type if the document was reclassified, previous field value if the field was changed; also lists the previous document label or lists "loose" if the page was never assigned to a document and an index of the page in the document or in the batch is not currently assigned to the document.	Data refresh in real time and visual refresh every 60 seconds
Batch Events - New Value	Lists the name of the child batch (if a batch split event exists for the parent batch), new document type if the document was classified or reclassified, current field value if a field was changed; also lists the previous document label or lists "loose" if the page was never assigned to a document and an index of the page in the document or in the batch is not currently assigned to the document.	Data refresh in real time and visual refresh every 60 seconds

History

From the Batch Overview, select the History button to view the batch history details in a separate window. The History includes a list of queues where the selected batch has been processed, along with error message text, if applicable. The error text only displays when you select a session row in the top section of the History record grid.

History

☐ ✕

Start Date & Time	End Date & Time	Queue	Status	Operator	Errors	Station ID
07/30/2025 07:05 AM	07/30/2025 07:05 AM	Export	Released	Administrator		VN01QAKAFC05:Session 6
07/30/2025 07:02 AM	07/30/2025 07:02 AM	PDF Generator	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 07:01 AM	07/30/2025 07:02 AM	KTM Verification	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:59 AM	07/30/2025 07:00 AM	KTM Validation	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:58 AM	07/30/2025 06:59 AM	KTM Correction	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:57 AM	07/30/2025 06:57 AM	KTM Server 2	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:55 AM	07/30/2025 06:57 AM	KTM Document Review	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:55 AM	07/30/2025 06:55 AM	KTM Server	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:54 AM	07/30/2025 06:54 AM	Scan	Completed	Administrator		VN01QAKAFC05:Session 6
07/30/2025 06:53 AM	07/30/2025 06:53 AM	Batch Manager	Ready	Administrator		VN01QAKAFC05:Session 6

Export to Excel Wrap ☐

Filter Active Reset Total Rows: 10

Error Text

Search by Field

Use Search by Field to find information about processed batches or documents. You can search by batch or document field names and values and see the Search Results by selecting Set. If you select an item on the Search Results list, the associated Batch Overview displays in a separate window.

When searching by field values, you can filter the Search Results based on folder, batch, or document fields. By default, the Search Results include all field types.

i If the Search Results contain an extensive list of records, the Total Rows count does not appear until the entire list is retrieved.

To display the Search by Field view, select **Batches & Docs > Search by Field**.

Search by Field

Search by Batch or Document Field Values

Field Name Select Value Includes

Field Type:

Search Results

Batch Class	Document	Field Name	Value	Date	Site	Table
-------------	----------	------------	-------	------	------	-------

View / Chart / Filter	Description	Updates
Search by Batch or Document Field Values	Search batches or documents based on field values; includes historical data for all processed items. You can specify a field name, a field value, or a field name and value pair. For example, you could set the Field Name = "Vendor" and Value=R2337 to restrict the results to display fields for which the vendor ID is R2337.	Hourly

View / Chart / Filter	Description	Updates
Field Name list	Select: Select to view the list of available field names, which are listed in alphabetical order. Select the checkbox for each field to include in the search. You can select multiple fields. All / Clear: Select All to select all fields in the drop-down list. If you select all fields, it could affect the response time. Select Clear to clear all selections in the list. Search: Select the Search icon to open a text box where you can type one or more characters to locate a field without scrolling. For example, if you enter "total," the list would jump to the Total field, if applicable. Also, you can type characters that appear anywhere in the field name. For example, if you type bank, the list would display any field names that contain "bank," such as BankIndicator or VendorBankCode. OK: Select to confirm the current field selections.	Hourly
Value	Specify a value to search for, or a value associated with a specified field name. Includes: Select to view a list of operators and expressions to define a value. For example, to produce results that include XYZ as the value, select = (equals) as the operator, type XYZ in the Value field, and select Set.	
No filter / Set / Clear	No filter: Select to clear the current entry in the Value field and to clear the Search Results. Set: Select to perform the search. Results do not appear until you select Set. Clear: Select to clear the current entry in the Value field.	
Search Results	Lists search results; includes data for all exported batches and documents. Search results do not appear until you select search criteria and select Set.	Hourly
Field Type	Use this filter to restrict the Search Results based on folder, batch, or document fields. Or, select All to include all field types in the Search Results list.	

Deleted Batches and Pages

Use this view to see all batches and pages that have been deleted from the system. You can also view detail about deleted pages related to a selected batch.

To display the Deleted Batches and Pages view, select **Batches & Docs > Deleted Batches and Pages**.

Deleted Batches and Pages

Deleted Batches						
Date	Operator	Module	Batch Class	Batch Name	Machine	
08/05/2025 08:38 AM	Click to view this	Batch Manager	Invoices_original	separations_25 doc type	VN01QAKAFC05	
08/01/2025 09:12 AM	Administrator	Batch Manager	Order Forms	test OD+KTM doc	VN01QAKAFC05	
07/30/2025 08:55 AM	TC user5	Batch Manager	Invoices	7/30/2025 8:54:50 AM	VN01QAKAFC05	

Export to Excel Wrap 

Filter Active Reset Total Rows: 3

Deleted Pages								
Date	Operator	Module	Batch Class	Batch Name	Doc Type	Form Type	Machine	Pages
08/01/2025 09:10 AM	Administrator	Quality Control	Order Forms	test OD+KTM doc	Tri-Spectrum Order Forms1	Tri-Spectrum Order Forms1	VN01QAKAFC05	1
07/30/2025 07:20 AM	Administrator	Quality Control	Invoices_original	7/30/2025 6:53:14 AM_admin_IV0_1	Cognizant	FT_Cognizant1	VN01QAKAFC05	1

Export to Excel Wrap 

Filter Active Reset Total Rows: 2

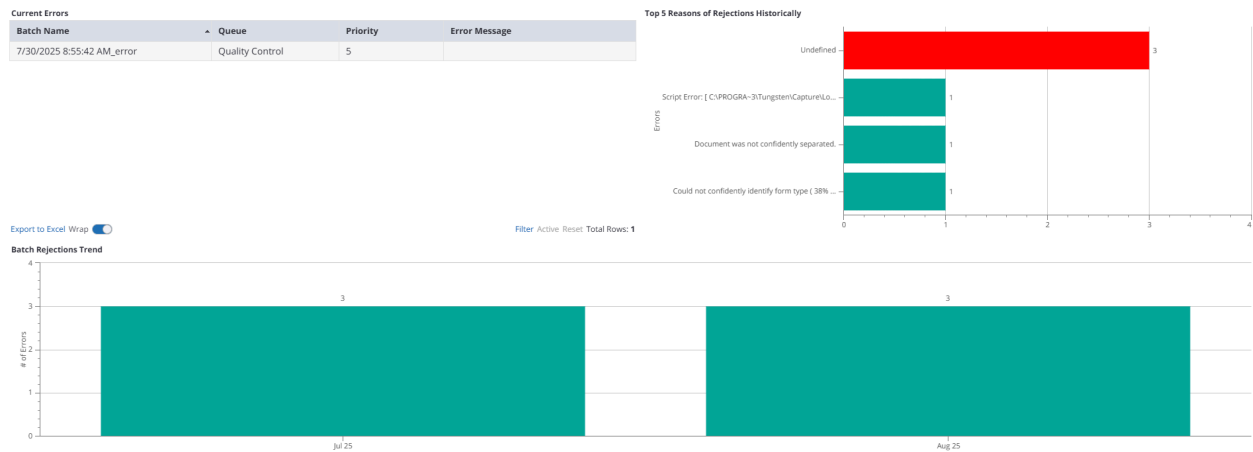
View / Chart / Filter	Description	Updates
Deleted Batches	Displays batches that were deleted.	Data refresh in real time and visual refresh every 60 seconds
Deleted Page	Displays pages that were deleted.	Data refresh in real time and visual refresh every 60 seconds

Error Batches

Use this view to display information about current batches in the system in an error state, along with trending information for batches that were routed to Quality Control over time.

To display the Error Batches view, select **Batches & Docs > Error Batches**.

Error Batches

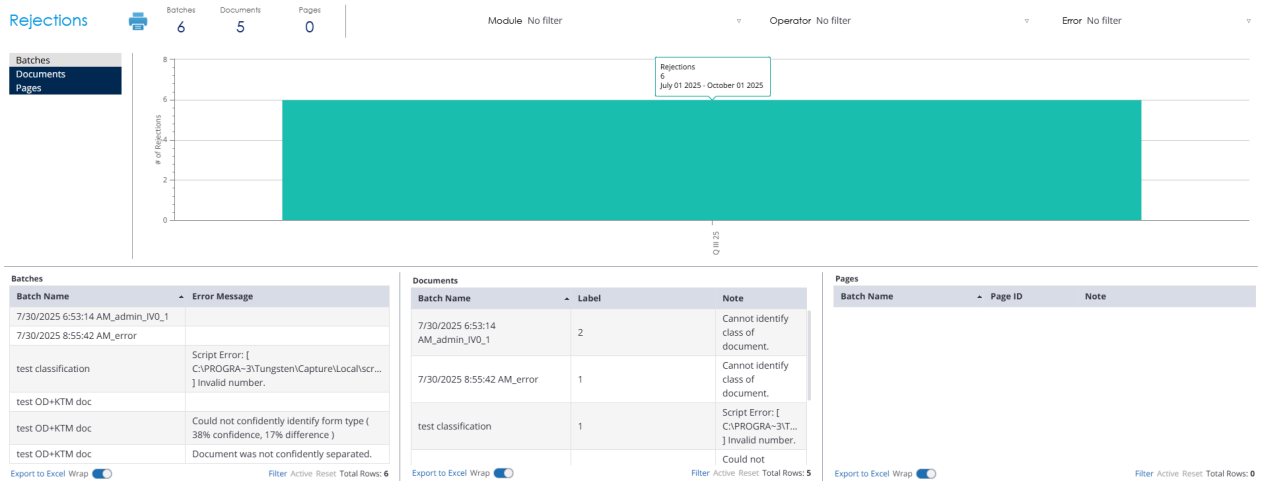


View / Chart / Filter	Description	Updates
Current Errors	Displays error batches that are currently in the Quality Control module.	Data refresh in real time and visual refresh every 60 seconds
Top 5 Reasons for Rejections Historically	Displays the number of batch errors over time, grouped by reason.	Hourly
Batch Rejections Trend	Displays the number of batch errors over time. If you change the global date range, the data on the chart is refreshed accordingly.	Hourly

Rejections

Use the Rejections view to get details related to batches, documents, or pages that are rejected during processing. This view shows which items are rejected, along with other details such as the date and time, the operator, the queue, and the reason for rejection. The data is refreshed as batches become unrejected.

To display the Rejections view, select **Batches & Docs > Rejections**.



View / Chart / Filter	Description	Updates
Rejections	Displays a count of the number of rejections grouped by batches, documents, and pages.	Hourly
Rejections chart	Displays chart showing rejections breakdown per day.	Hourly
Module filter	Filters information on the view by module. Select each module to include in the view, or select "All" to include all modules. Select "Clear" to remove all module selections.	
Batches	Displays the rejected batches, including error message.	Data refresh in real time and visual refresh every 60 seconds.
Documents	Displays rejected documents, including the document number and error message.	Data refresh in real time and visual refresh every 60 seconds.
Pages	Displays rejected pages, including the page ID and error message.	Data refresh in real time and visual refresh every 60 seconds.

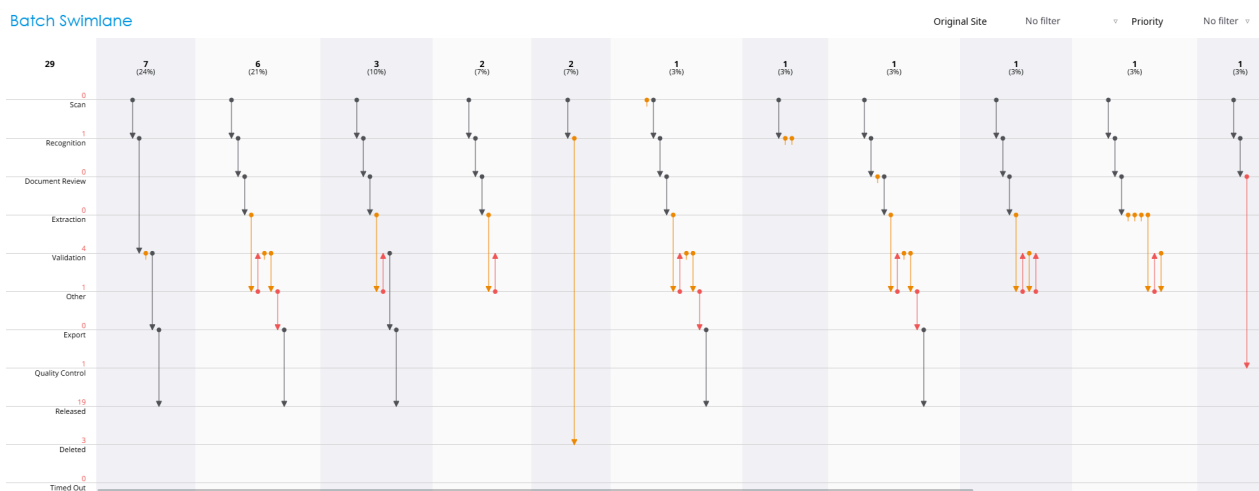
Batch Swimlane

Use the Batch Swimlane to display a visual representation of the batch processing workflow based on the order of queues. The Swimlane shows how many batches follow the same processing workflow. You can determine how many batches are processed through the standard workflow as expected, and how many are routed through an alternate workflow due to exceptions or reprocessing. By default, the Batch Swimlane is available to users who are assigned to the "tafc admin" role.

i The default Batch Swimlane view, which is provided for demonstration purposes, is based on a typical batch workflow. To customize the Batch Swimlane or other process chart views to reflect the batch workflow for your organization, a license that supports full access to Insight Studio is required. To use Insight Studio to update these views for your organization, see [Add a module to a process](#).

Also, the Batch Swimlane reflects batch processing that occurs after your product installation or upgrade.

To display the Batch Swimlane view, select **Batches & Docs > Swimlane > Batches**.



View / Chart / Filter	Description	Updates
Batch Swimlane	Displays a high-level summary of the batch processing workflow, including the number of batches currently waiting to be processed per queue.	Hourly
Queue	Lists the name of each queue in the batch processing workflow. For each queue, the value corresponds to the number of batches waiting to be processed. Note that Released, Deleted, and Timed Out batches are described separately below.	Hourly
Released	Displays the number of batches that were exported after successful processing in the Export queue.	Hourly
Deleted	Displays the number of batches that were deleted after they entered the batch processing workflow.	Hourly

View / Chart / Filter	Description	Updates
Timed Out	Displays the number of batches that timed out before processing was complete. By default, batches time out after 30 days if they are not processed. You can change the timeout interval by editing the value for <code>UnfinishedBatchTimeLimit</code> in the Event Listener Web Service configuration file , <code>Web.config</code> .	Hourly
Swimlane columns	Each swimlane column represents a set of batches that follow the same processing workflow. The value at the top of the column is the number of batches that travel through the workflow. Green arrows indicate processing through the predefined workflow, while orange arrows indicate batches that are routed through an alternate workflow due to exceptions or reprocessing.	Hourly
Filters	You can filter the Batch Swimlane based on the Original Site name or Priority, as defined in Tungsten Capture. If you apply a filter, the batch counts are refreshed accordingly.	
Drilldown options	Select any numeric value on the view to drill down to batch details, the batch overview, or batch history.	Hourly

Document Swimlane

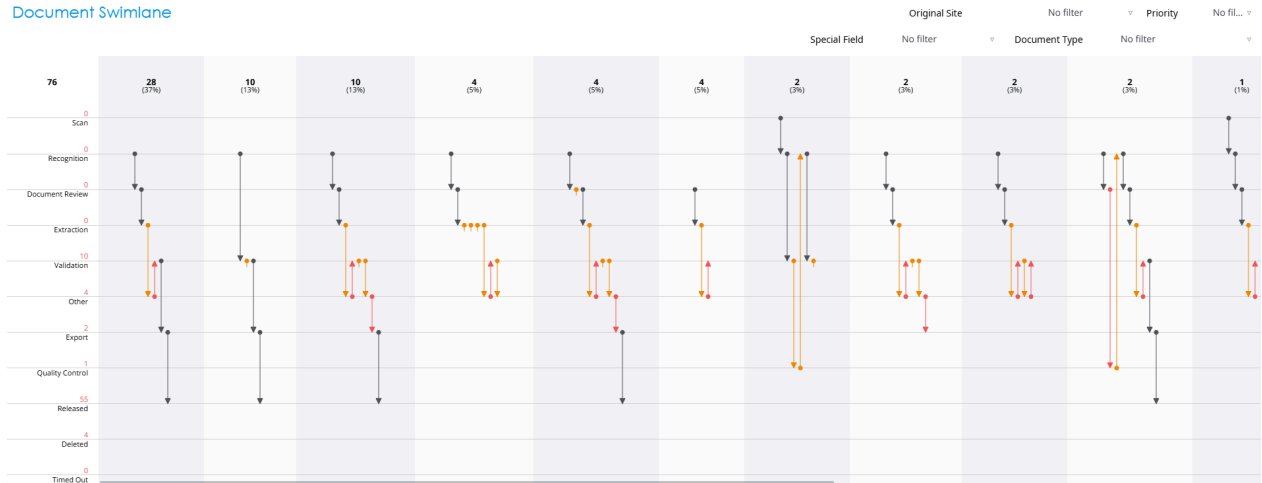
Use the Document Swimlane to display a visual representation of the document processing workflow based on the order of queues. The Swimlane shows how many documents follow the same processing workflow. You can determine how many documents are processed through the standard workflow as expected, and how many are routed through an alternate workflow due to exceptions or reprocessing. By default, the Document Swimlane is available to users who are assigned to the "tafc admin" role.

 The default Document Swimlane view, which is provided for demonstration purposes, is based on a typical document workflow. To customize the Document Swimlane or other process chart views to reflect the batch workflow for your organization, a license that supports full access to Insight Studio is required. To use Insight Studio to update these views for your organization, see [Add a module to a process](#).

Also, the Document Swimlane reflects batch processing that occurs after your product installation or upgrade.

To display the Document Swimlane view, select **Batches & Docs > Swimlane > Documents**.

Document Swimlane



View / Chart / Filter	Description	Updates
Document Swimlane	Displays a high-level summary of the document processing workflow, including the number of documents currently waiting to be processed per queue.	Hourly
Queue	Lists the name of each queue in the document processing workflow. For each queue, the value corresponds to the number of documents waiting to be processed. Note that Released, Deleted, and Timed Out batches are described separately below.	Hourly
Released	Displays the number of documents that were exported after successful processing in the Export queue.	Hourly
Deleted	Displays the number of documents that were deleted after they entered the document processing workflow.	Hourly
Timed Out	Displays the number of documents that timed out before processing was complete. By default, documents time out after 30 days if they are not processed. You can change the timeout interval by editing the value for <code>UnfinishedBatchTimeLimit</code> in the Event Listener Web Service configuration file , <code>Web.config</code> .	Hourly

View / Chart / Filter	Description	Updates
Swimlane columns	Each swimlane column represents a set of documents that follow the same processing workflow. The value at the top of the column is the number of documents that travel through the workflow. Green arrows indicate processing through the predefined workflow, while orange arrows indicate documents that are routed through an alternate workflow due to exceptions or reprocessing.	Hourly
Filters	You can filter the Document Swimlane based on the Original Site name or Priority, as defined in Tungsten Capture. If you apply a filter, the document counts are refreshed accordingly.	
Drilldown options	Select any numeric value on the view to drill down to document details, the batch overview, or batch history.	Hourly

Batch Workflow

Use the Batch Workflow to display a visual representation of the batch processing workflow, including the number of batches that enter the Tungsten Automation system, and how many are waiting to be processed in each queue. By default, the Batch Workflow is available to users who are assigned to the "tafc admin" role.

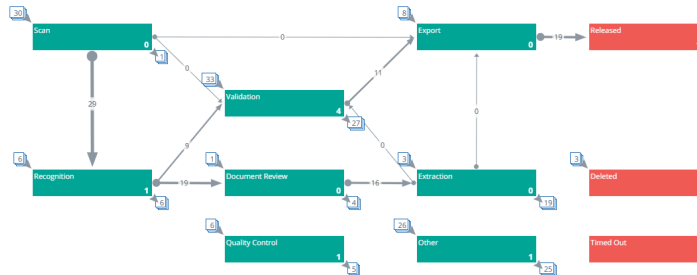
 The default Batch Workflow view, which is provided for demonstration purposes, is based on a typical batch workflow. To customize the Batch Workflow or other process views to reflect the batch workflow for your organization, a license that supports full access to Insight Studio is required. To use Insight Studio to update these views for your organization, see [Add a module to a process](#).

Also, the Batch Workflow reflects batch processing that occurs after your product installation or upgrade.

To display the Batch Workflow, select **Batches & Docs > Workflow > Batches**.

Batch Workflow

Original Site No filter Priority No filter



By default, the Batch Workflow consists of a block diagram to represent the most common processing steps for Tungsten Capture and Tungsten Transformation. Each block corresponds to a queue process, and the "Other" block indicates processing in a custom or other queue outside the predefined workflow. Some queue blocks refer to multiple processes:

- Recognition includes both Recognition Server and KTM Server
- Validation includes both Tungsten Capture Validation and all of the Tungsten Transformation Validation modules.
- Extraction includes KTM Server 2.

With the proper Insight Studio licensing, you can update the Batch Workflow to add other queue processes (as blocks) to existing process definitions.

You can manage the Batch Workflow display based on batch class or date range filters.

Consider the Scan queue process block in the preceding sample screen:

- Lower right corner within Scan block: Currently no batches (0) waiting to be processed in the queue.
- Arrow from upper left outside Scan block: 89 batches entered Scan, the first queue in the standard processing workflow.
- Arrow from lower right outside the Scan block: 9 batches exited Scan queue due to a non-standard workflow (which may include an error).
- Directional line from Scan to Recognition: 80 batches were routed to Recognition after successful processing in the Scan queue.

i A batch count appears *within* each queue block. Batch transition counts are listed *outside* the queue blocks and on directional arrows. Counts for batches often differ from the counts for transitions, which occur each time a batch is acted upon. For example, a batch suspension, change in batch properties in Batch Manager, or other action is counted as a transition. As a result, multiple transitions may occur for a single batch.

View / Chart / Filter	Description	Updates
Batch Workflow	Displays the batch processing workflow, including the number of batches currently in progress for each queue. Also gives the number of batches that enter a queue within the predefined workflow or outside the expected path, along with the number of batches that exit the queue due to exceptions.	Hourly
Queue block	Lists the name of a queue in the batch processing workflow. For each queue, the value inside the block is the number of batches waiting being processed. The value in the upper left corner is the number of batches that enter the queue outside the standard workflow. For Scan, which is always the first processing queue, the value in the upper left corner is the number of batches that enter the workflow. The value in the lower right corner is the number of batches that leave a queue due to an exception. The number of batches routed from one queue to another appears on the directional line between the two queues. The line thickness is proportional to the number of batches routed between queues. As mentioned earlier, a batch count appears <i>within</i> each queue block. Batch transition counts are listed <i>outside</i> the queue blocks and on directional arrows. Counts for batches often differ from the counts for transitions, which occur each time a batch is acted upon. For example, a batch suspension, change in batch properties in Batch Manager, or other action is counted as a transition. As a result, multiple transitions may occur for a single batch.	Hourly
Filters	You can filter the Batch Workflow based on the Original Site name or Priority as defined in Tungsten Capture. If you apply a filter, the batch counts are refreshed accordingly.	

View / Chart / Filter	Description	Updates
Drilldown options	Select any numeric value on a queue block or arrow in the workflow to drill down to batch details, the batch overview, or batch history. Select any queue block to drill down to a diagram showing the relationship of a queue to the queues that precede or follow it in the batch processing workflow.	Hourly
Released	Displays the number of batches that were exported after successful processing in the Export queue.	Hourly
Deleted	Displays the number of batches that were deleted after they entered the batch processing workflow.	Hourly
Timed Out	Displays the number of batches that timed out before processing was complete. By default, batches time out after 30 days if they are not processed. You can change the timeout interval by editing the value for <code>UnfinishedBatchTimeLimit</code> in the Event Listener Web Service configuration file, <code>Web.config</code>.	Hourly

Document Workflow

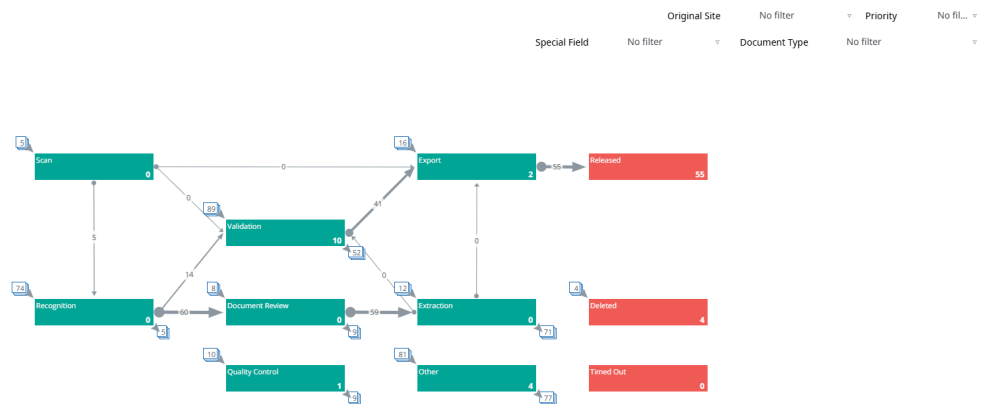
Use the Document Workflow to display a visual representation of the document processing workflow, including the number of documents that enter the Tungsten Automation system, and how many are processed in each queue. By default, the Document Workflow is available to users who are assigned to the "tafc admin" role.

i The default Document Workflow view, which is provided for demonstration purposes, is based on a typical batch workflow. To customize the Document Workflow or other process chart views to reflect the batch workflow for your organization, a license that supports full access to Insight Studio is required. To use Insight Studio to update these views for your organization, see [Add a module to a process](#).

Also, the Document Workflow reflects batch processing that occurs after your product installation or upgrade.

To display the Workflow view for documents, select **Batches & Docs > Workflow > Documents**.

Document Workflow



By default, the Document Workflow consists of a block diagram to represent the most common processing queues for Tungsten Capture and Tungsten Transformation. Each block corresponds to a queue process, and the "Other" block indicates processing in a custom or other queue outside the predefined workflow.

Some queue blocks refer to multiple processes:

- Recognition includes both Recognition Server and KTM Server
- Validation includes both Tungsten Capture Validation and all of the Tungsten Transformation Validation modules.
- Extraction includes KTM Server 2.

With the proper Insight licensing, you can update the Document Workflow to add other queues (as blocks) to existing process definitions.

You can manage the Document Workflow display based on batch class, special field value, document type, or date range filters.

Consider the Validation block in the preceding sample screen:

- Lower right corner within Validation block: Currently 247 documents are waiting in the queue.
- Upper left outside Validation block: 732 documents entered the Validation queue outside the standard processing workflow.
- Lower right outside the Validation block: 706 documents exited the Validation queue due to a non-standard workflow (which may include an error).
- Directional line from Recognition to Validation: 45 documents were routed to Validation after successful processing in the Recognition queue.
- Directional line from Validation to Export: 233 documents were routed from Validation to the Export queue.

i A document count appears *within* each queue block. Document transition counts are listed *outside* the queue blocks and on directional arrows. Counts for documents often differ from the counts for transitions, which occur each time a document is acted upon. For example, a batch suspension, change in batch properties in Batch Manager, or other action is counted as a transition. As a result, multiple transitions may occur for a single document.

View / Chart / Filter	Description	Updates
Document Workflow	Displays the document processing workflow, including the number of documents currently in progress for each queue. Also gives the number of documents that enter a queue within the predefined workflow or outside the expected path, along with the number of documents that exit the queue due to exceptions.	Hourly
Queue block	Lists the name of a queue in the document processing workflow. For each queue, the value inside the block is the number of documents waiting to be processed. The value in the upper left corner is the number of documents that enter the queue outside the standard workflow. For Scan, which is always the first processing queue, the value in the upper left corner is the number of documents that enter the workflow. The value in the lower right corner is the number of documents that leave a queue due to an exception. The number of documents routed from one queue to another appears on the directional line between the two queues. The line thickness is proportional to the number of documents routed between queues. As mentioned earlier, a document count appears <i>within</i> each queue block. Document transition counts are listed <i>outside</i> the queue blocks and on directional arrows. Counts for documents often differ from the counts for transitions, which occur each time a document is acted upon. For example, a batch suspension, change in batch properties in Batch Manager, or other action is counted as a transition. As a result, multiple transitions may occur for a single document.	Hourly
Filters	You can filter the Document Workflow based on the Original Site name, Priority, Special Field or Document Type. If you apply a filter, the document counts are refreshed accordingly.	

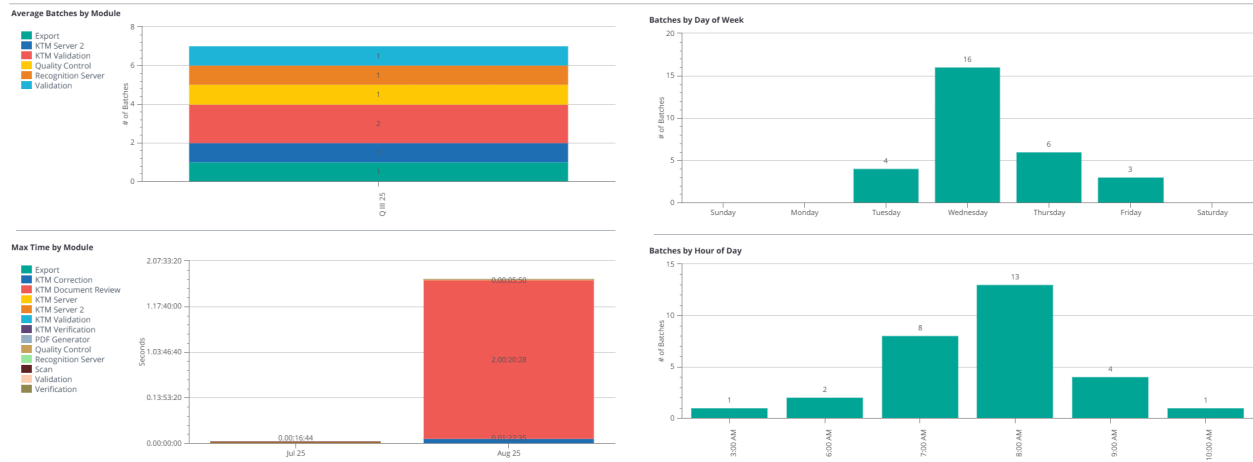
View / Chart / Filter	Description	Updates
Drilldown options	Select any numeric value on a queue block or arrow in the workflow to drill down to document details, the batch overview, or batch history. Select any queue block to drill down to a diagram showing the relationship of a module to the queues that precede or follow it in the document processing workflow.	Hourly
Released	Displays the number of documents that were exported after successful processing in the Export queue.	Hourly
Deleted	Displays the number of documents that belonged to batches that were deleted after they entered the batch processing workflow.	Hourly
Timed Out	Displays the number of documents that timed out before processing was complete. By default, batches time out after 30 days if they are not processed. You can change the timeout interval by editing the value for <code>UnfinishedBatchTimeLimit</code> in the Event Listener Web Service configuration file, <code>Web.config</code>.	Hourly

Trending and Stats - Batches

Use the Batch Trending and Stats view to review batch trends by day of the week, or hourly for a specific day of the week. You can see hourly queue size trends, the maximum batch processing time and the number of batches by day of the week, or by hour of the day. From the Max Time by Module chart, you can drill down to a [Batch Overview](#) screen with batch or historical detail for the batch that took the longest time to process.

To display Trending and Stats for batches, select **Batches & Docs > Trending and Stats > Batches**.

Batch Trending and Stats



View / Chart / Filter	Description	Updates
Average Batches by Module	Displays the average hourly queue size as a count of batches per module. The global date range determines whether the chart is broken down by year, month, day or hour.	Hourly
Max Time by Module	Displays the maximum waiting time by module, in seconds. You can select an item on the chart to view the Batch Overview for the batch with the maximum waiting time. The Max Time by Module chart provides maximum waiting times only for batches that have completed processing; batches still waiting to be processed in a queue are not included in the chart. i This chart does not reflect wait times associated with batch actions taken from Batch Manager, such as opening and closing properties or changing the batch status, queue, or priority. The maximum waiting time is based on the Waiting Time in Queue Historic metric, which uses the same WaitingSeconds session property as the Latency record/metric, and displays its maximum historic value by module.	Data refresh in real time and visual refresh every 60 seconds

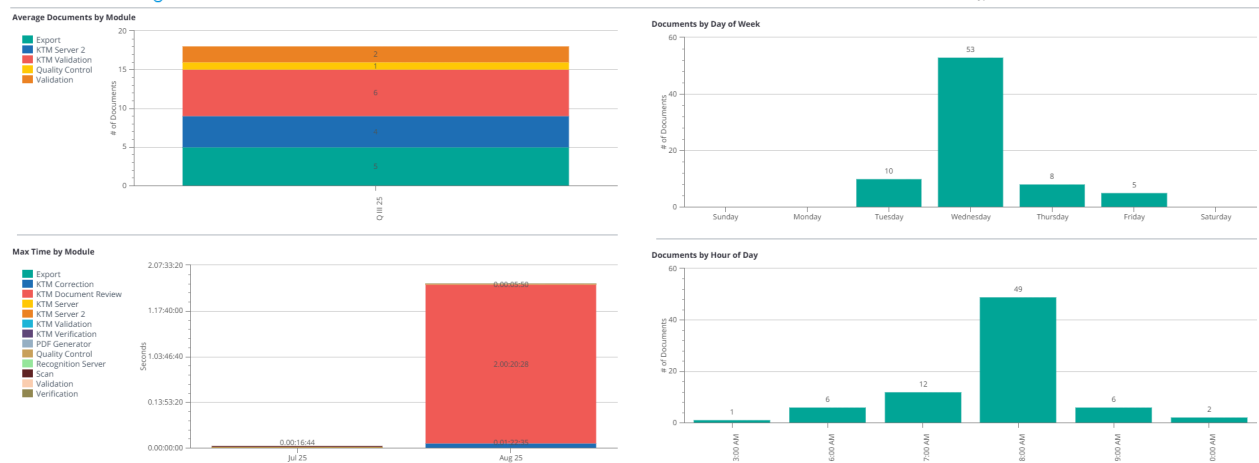
View / Chart / Filter	Description	Updates
Batches by Day of Week	Displays a count of processed batches grouped by the day of the week they were created during the selected date range. For example, a count for Monday is not only the most recent Monday, but all Mondays during the selected date range.	On demand
Batches by Hour of Day	Displays a count of processed batches grouped by the hour of the day they were created during the selected date range. For example, a count for 2 PM applies not only to the most recent day, but also to 2 PM on any day during the selected date range.	On demand

Trending and Stats - Documents

Use the Document Trending and Stats view to document trends by day of the week, or hourly for a specific day of the week. You can see hourly queue size trends, the maximum document processing time and the number of documents created by day of the week, or by hour of the day. From the Max Time by Module chart, you can drill down to a [Batch Overview](#) screen with batch or historical detail for the documents that took the longest time to process. You can filter the view by document type.

To display Trending and Stats for documents, select **Batches & Docs > Trending and Stats > Documents**.

Document Trending and Stats



View / Chart / Filter	Description	Updates
Doc Type	In alphabetical order, lists the document types by which you can filter the view. Select each document type to include in the view, or select "All" to include all document types. Select "Clear" to remove all document type selections.	
Average Documents by Module	Displays the average hourly queue size as a count of documents per module. The global date range determines whether the chart is broken down by year, month, day, or hour.	Hourly
Max Time by Module	Displays the maximum waiting time by module, in seconds. You can select an item on the chart to view the Batch Overview for the batch that contains the document associated with the maximum waiting time. The Max Time by Module chart provides maximum waiting times only for documents that have completed processing; documents still waiting to be processed in a queue are not included in the chart.  This chart does not reflect wait times associated with batch actions taken from Batch Manager, such as opening and closing properties or changing the batch status, queue, or priority. The maximum waiting time is based on the Waiting Time in Queue Historic metric, which uses the same WaitingSeconds session property as the Latency record/metric, and displays its maximum historic value by module.	Data refresh in real time and visual refresh every 60 seconds
Documents by Day of Week	Displays a count of processed documents grouped by the day of the week they were created during the selected date range. For example, a count for Monday is not only the most recent Monday, but all Mondays during the selected date range.	On demand

View / Chart / Filter	Description	Updates
Documents by Hour of Day	Displays a count of processed documents grouped by the hour of the day they were created during the selected date range. For example, a count for 3 PM applies not only to the most recent day, but also to 3 PM on any day during the selected date range.	On demand

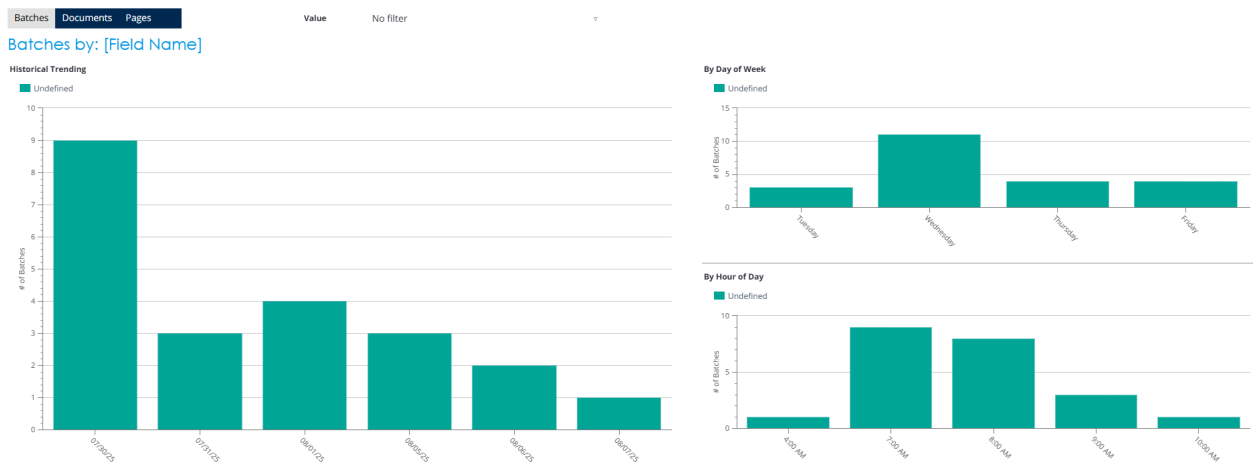
Trending and Stats - Group by Batch Field

Use the Group by Batch Field view to examine historical trends for exported and deleted batches, documents or pages based on values for a [specific batch field](#) defined by the administrator. Based on the information in this view, you can get a count of exported and deleted batches, documents, or pages and identify historical trends related to peak operating periods. This information is useful for planning purposes, so that system updates can be scheduled at times that have minimal impact on daily operations.

i A batch with the status of Completed does not appear on the Group by Batch Field view unless it is deleted.

The batch field defined by the administrator is reflected on the Group by Batch Field view on a go-forward basis. Historical data that existed prior to the batch field selection is not reflected on the view.

To display the Group by Batch Field view, select **Batches & Docs > Trending and Stats > Group by Batch Field**.



View / Chart / Filter	Description	Updates
Batches Documents Pages	Use the tabs at the top of the view to select Batches, Documents, or Pages. Based on the tab selection, the charts display trends for exported and deleted batches, documents, or pages.	
View title	The main title of the view may vary, depending on the selected tab and batch field. For example, if you select the Documents tab at the top of the view, and the administrator has defined the batch field as <i>City</i> , the main title is Documents by: City .	
Value / Filter	You can filter all charts on this view based on one or more values for the batch field. Use the Filter field to select or clear all values, or to selectively include certain values. If a value is not defined for the batch field, it is represented on the view as <i>Undefined</i>. For example, if the batch field name is <i>City</i>, you can set the filter to Chicago. As a result, the charts would display trends for batches that contain Chicago as a value for the City batch field. If values for the City field also include New York City, Boston, Dallas and other cities, select the checkbox next to each city name to include on the view.	
Historical Trending	Displays the count of exported and deleted batches, documents, or pages processed during the selected date range, sorted by the selected batch field values. To refine the data displayed for the Historical Trending chart, select the color-coded labels to show or hide specific values.	Data refresh in real time and visual refresh every 60 seconds

View / Chart / Filter	Description	Updates
By Day of Week	Displays a count of batches, documents, or pages grouped by the day of the week they were exported or deleted during the selected date range. For example, a count for Monday is not only the most recent Monday, but all Mondays during the selected date range. To refine the data displayed for the By Day of Week chart, select the color-coded labels to show or hide specific values.	On demand
By Hour of Day	Displays a count of batches, documents, or pages grouped by the hour of the day they were exported and deleted during the selected date range. For example, a count for 9 PM applies not only to the most recent day, but also to 9 PM on any day during the selected date range. To refine the data displayed for the By Hour of Day chart, select the color-coded labels to show or hide specific values.	On demand

Labor

Use Labor views to analyze how labor and cost impact your operation. The Labor views include the following:

- [Operator Time](#)
- [Labor Costs](#)
- [Session Time](#)
- [Sessions Over Time](#)
- [Operator Performance](#)
- [Operator Benchmark](#)

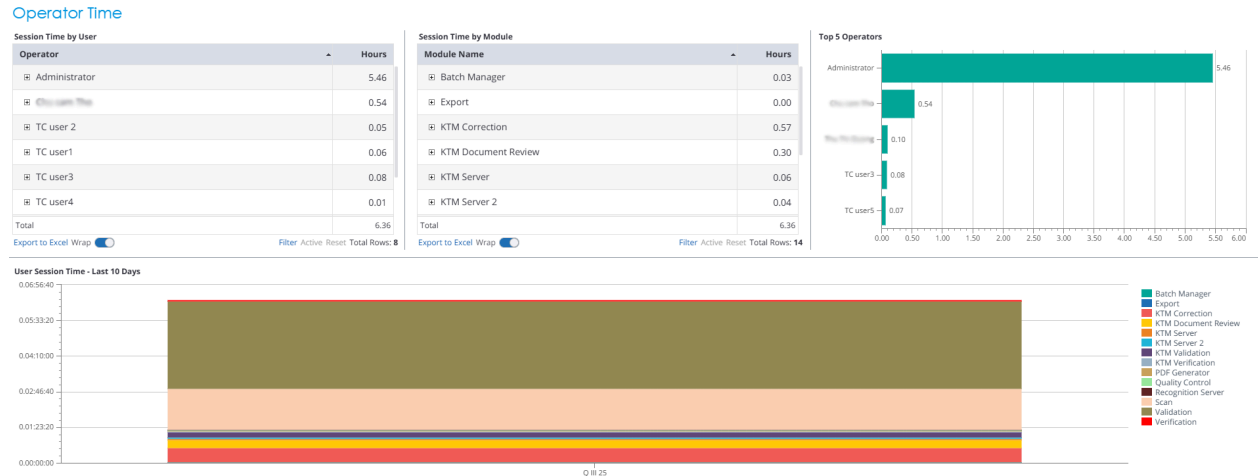
i In a Tungsten Capture Network Server environment, consider the following as you view session start and end times. When a batch is downloaded from the central site to the remote site, the actual session start time and user data are not available; therefore, the end time of the previous session is used as the start time, and the user data is blank.

Operator Time

Use this view to analyze how labor and cost impact your operation. You can see where operators spend their time and what they are working on. Look at a breakdown of operator time and look at the different work types performed. You can also see how operator time breaks down by module.

You have a variety of ways to look at the amount of time a particular user spends within a particular session.

To display the Operator Time view, select **Labor > Operator Time**.



View / Chart / Filter	Description	Updates
Session Time by User	Displays the number of hours each operator spends working on each batch class, grouped by operator	Data refresh in real time and visual refresh every 60 seconds
Session Time by Module	Displays the number of hours each operator spends working on each batch class, grouped by module	Data refresh in real time and visual refresh every 60 seconds
Top 5 Operators	Displays the 5 operators who spend the most time processing batches, with the number of hours spent in sessions	Data refresh in real time and visual refresh every 60 seconds
User Session Time - last 10 days	Displays the total number of hours per day during the last 10 days operators spent working on batches in the system, grouped by module	Data refresh in real time and visual refresh every 60 seconds

Labor Costs

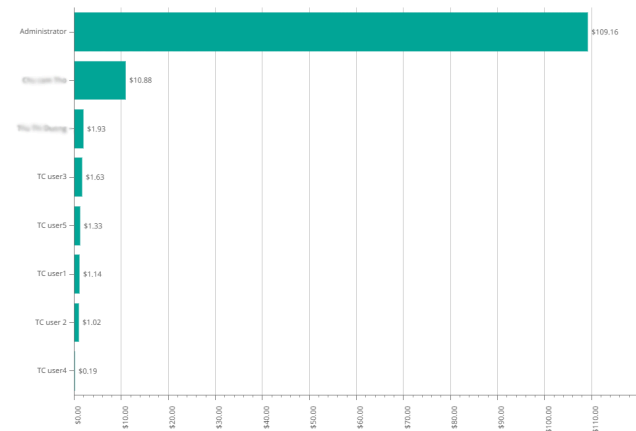
Use this view to analyze overall operational labor costs grouped by module and operator. You can also view labor cost comparisons of your top five operators.

The overall labor costs are based on average hourly values defined by the administrator using **Admin > Labor Cost Configuration**. See [Labor Costs Configuration](#).

To display the Labor Costs view, select **Labor > Labor Costs**.

Labor Costs

Costs by Operator



Total Operational Cost \$127

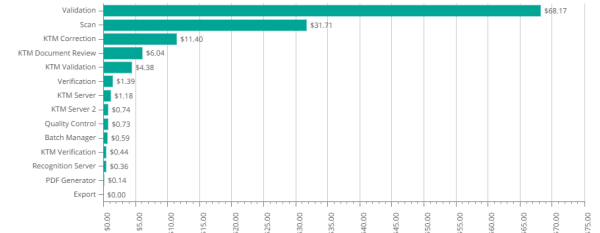
Costs by Operator

Operator	Costs
Administrator	\$109.16
TC user 2	\$10.88
TC user 2	\$1.02
TC user 1	\$1.14
TC user 3	\$1.63
Total	\$127.27

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Filter Active Reset Total Rows: 8

Costs by Module



View / Chart / Filter	Description	Updates
Costs by Operator - Overall	Displays all operators with associated labor costs	Data refresh in real time and visual refresh every 60 seconds
Costs by Operator	Displays the top 5 operators sorted by cost, and you can drill down to see the cost breakdown by module.	Data refresh in real time and visual refresh every 60 seconds
Costs by Module	Displays costs per module relative to all other modules	Data refresh in real time and visual refresh every 60 seconds

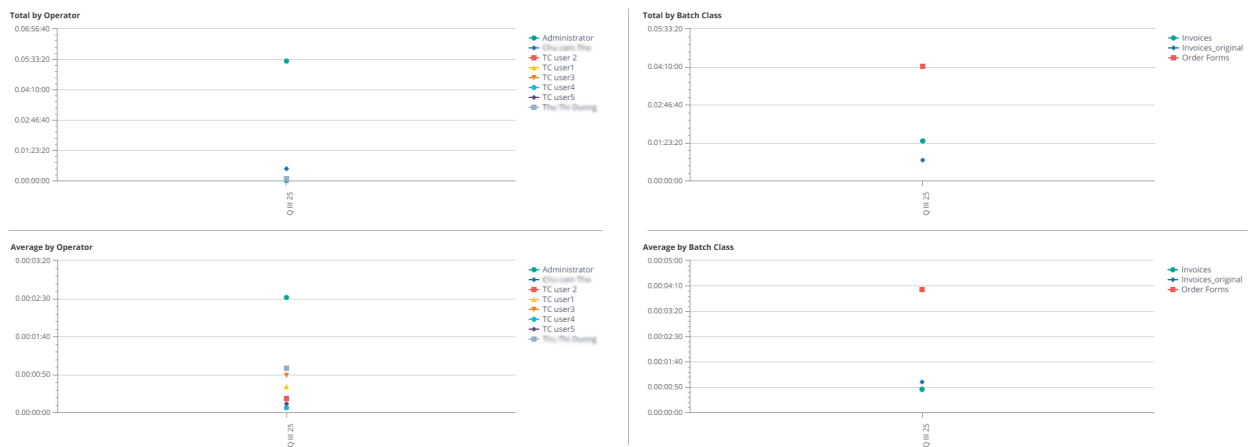
Session Time

Use this view to analyze the total and average amount of time used per session for overall processing. The view includes charts that break down total and average session times by operator and batch class.

To display the Session Time view, select **Labor > Session Time**.

Session Time

Module: No filter



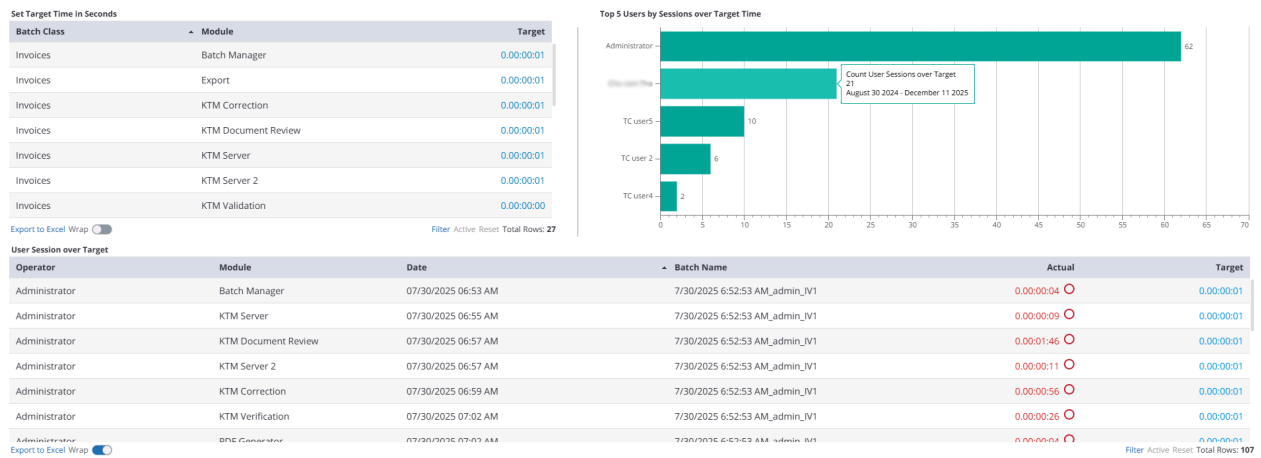
View / Chart / Filter	Description	Updates
Total by Operator	Total time used per session per Operator; includes data for all processed documents	Data refresh in real time and visual refresh every 60 seconds
Average by Operator	Average time used per session per Operator; includes data for all processed documents	Hourly
Total by Batch Class	Total time used per session per batch class; includes data for all processed documents	Data refresh in real time and visual refresh every 60 seconds
Average by Batch Class	Average time used per session per batch class; includes data for all processed documents	Hourly

Sessions Over Time

Use the Sessions Over Time view to analyze the amount of time operations take per batch class and per module on a historic basis. Enter the target time you expect a module to take for each batch class, and then compare it to the actual time. You can identify which modules take longer than expected to process, and analyze overall operator efficiency.

To display the Sessions Over Time view, select **Labor > Sessions Over Time**.

Sessions over Time



View / Chart / Filter	Description	Updates
Set Target Time in Seconds	Sets target times per batch class and per module. In the Target column, select a row and type the time you expect a module to take to process the batch class listed in that row.	
Top 5 Users by Sessions over Target Time	Displays the 5 users who most often exceeded the target processing time.	Hourly
User Session over Target	Displays details about the actual vs. target processing time.	Hourly

Operator Performance

Use this view to analyze operator performance such as Batch Review Time and Page Review Time, representing the time spent in Tungsten Transformation Document Review. The change ratio time is calculated as a ratio of the number of fields changed by the operator, and the average number of changes by all operators. If the value is greater than 1, the operator performs better than average. If the value is less than 1, the operator performance is below average.

To display the Operator Performance view, select **Labor > Operator Performance**.

Operator Performance

Metric "Change ratio to average" is calculated as a ratio of the number of field extractions, changed by the operator, to the average number of extractions by all operators. So if the value is greater than 100%, the operator performs better than the average and vice versa.

Operator Performance				
Operator	Batch Time	Page Time	Change Ratio to Average	
Administrator	0.00:02:31	0.00:00:46	110% ○	
TC user 2	0.00:00:57	0.00:00:14	0% ○	
TC user 1	0.00:00:18	0.00:00:20	0% ○	
TC user 3	0.00:00:34	0.00:00:20	121% ○	
TC user 4	0.00:00:49	0.00:00:58	0% ○	
TC user 5	0.00:00:05	0.00:00:06	0% ○	
TC user 6	0.00:00:10	0.00:00:05	0% ○	
TC user 7	0.00:00:57	0.00:00:34	0% ○	

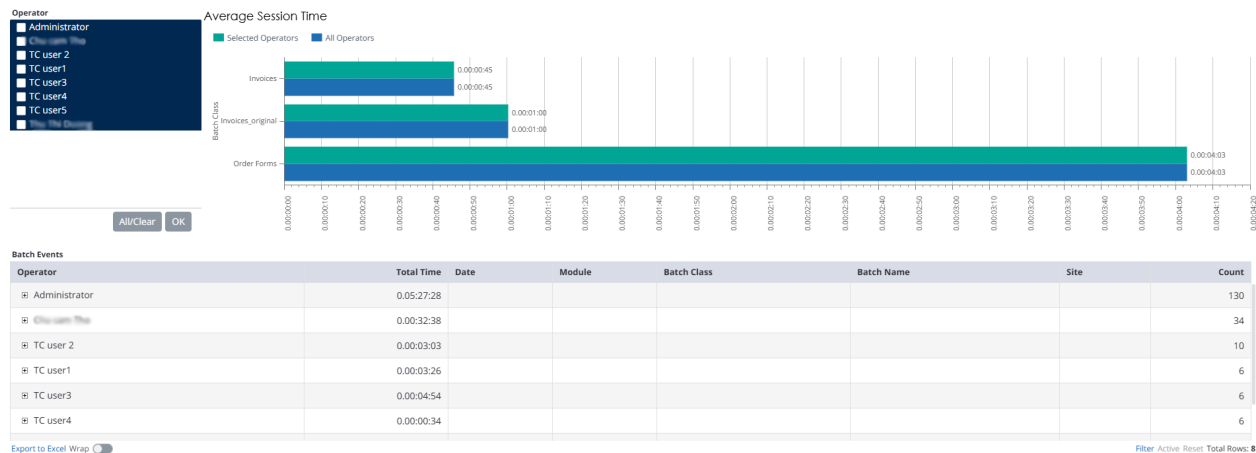
View / Chart / Filter	Description	Updates
Operator Performance	Displays batch time and page time plus change ratio to average. Compares the number of fields the operator had to change to the average number of changed fields. Helps to identify operators whose results differ from the average; as a result, you can evaluate whether a valid issue is causing the discrepancy.	Hourly

Operator Benchmark

Use this view to compare the average session time for a selected operator to the average session time for all operators.

To display the Operator Benchmark view, select **Labor > Operator Benchmark**.

Operator Benchmark



View / Chart / Filter	Description	Updates
Operator	Displays the list of operators that you can select.	Hourly
Average Session Time	Compares the average session time for the selected operators to the average for all operators.	Hourly
Batch Events	Lists the total time for each operator. Expand to see the sessions for an operator, and then select to display the Batch Overview.	Data refresh in real time and visual refresh every 60 seconds

Quality

Use the Quality views to analyze the quality of automatic classification and extraction based on how frequently operator changes were required. The Quality views consist of the following:

- [Classification](#)

[Classification Chart](#)

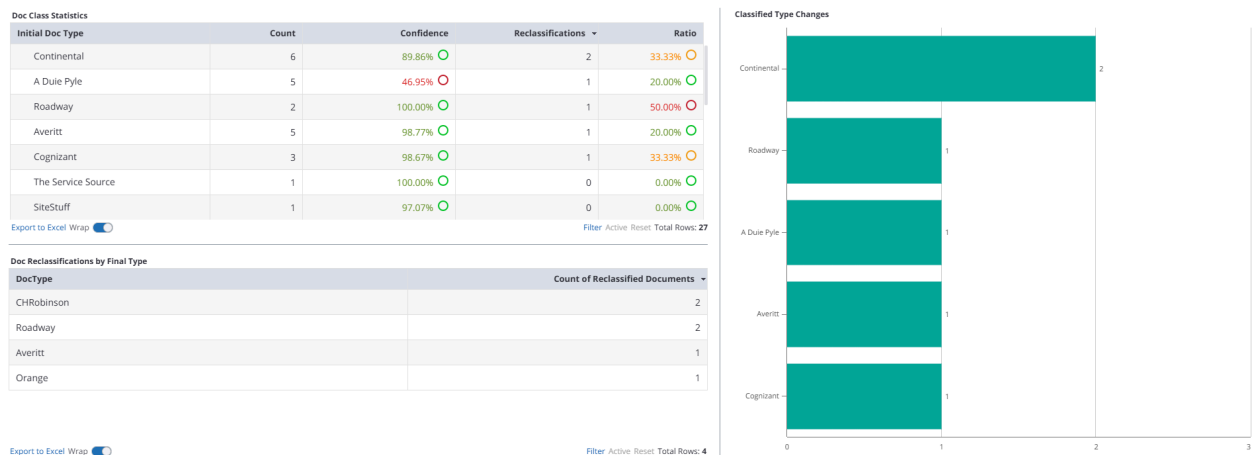
- [Extraction](#)
- [Extraction Chart](#)
- [Separations](#)
- [No Touch Processing](#)
- [Benchmark - Classification](#)
- [Benchmark - Extraction](#)

Classification

Use the Classification view to review different document types, processing confidence, and manually reclassified documents. This view gives the ratio of reclassified documents to all documents. The Classification view displays data only for exported documents; data related to deleted, timed out, or in-progress documents is excluded.

To display the Classification view, select **Quality > Classification**.

Classification



View / Chart / Filter	Description	Updates
Doc Class Statistics	Displays the change ratio for documents, including the count, confidence and the number of reclassifications. Select any document type to view Doc Class Statistics - Doc Details in a separate window.	Hourly and visual refresh every 60 seconds

View / Chart / Filter	Description	Updates
Doc Class Statistics - Doc Details	When you select an item in the Doc Class Statistics list, the Doc Class Statistics - Doc Details window lists the following information in a separate window: Batch Name, Date, and Count. If you select a batch name, the corresponding classification details are listed: Date, document count, Initial Type, Final type, Confidence, Outcome, Separations, and Operator. On the Doc Details screen, you can use the buttons at the top of the screen to list only Classified or Reclassified documents; or to list only Merge or Split documents.  The same batch may be listed twice on the Doc Details screen; once for the initial classification and another for reclassification. Also, if a document is created as the result of a split or merge, the new document may not appear on the Doc Details list; this occurs if the document type for the new document is the same as it was before the document was split or merged.	Hourly and visual refresh every 60 seconds
Classified Type Changes	Displays the number of classification changes. Offers drill-down to get additional detail. You can determine if reclassifications typically occur on a certain day or a certain operator. Includes data for all exported documents.	Hourly and visual refresh every 60 seconds
Doc Reclassifications by Final Type	Lists the number of reclassifications sorted by the final document type. For each document type listed, you can select to view the initial document type.	Hourly and visual refresh every 60 seconds

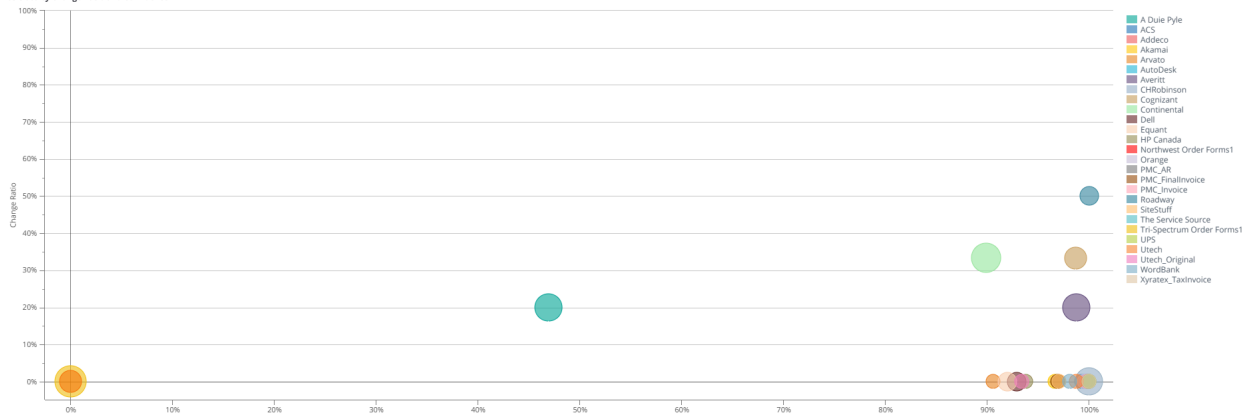
Classification Chart

Use the Classification chart to analyze the change ratio and confidence for a document type. The Classification Chart displays data only for exported documents; data related to deleted, timed out, or in-progress documents is excluded.

To display the Classification Chart view, select **Quality > Classification Chart**.

Classification Chart

Doc Class by Change Ratio and Confidence



View / Chart / Filter	Description	Updates
Doc class by Change Ratio and Confidence	Displays the confidence and change ratio for a document type; the X axis lists the confidence and the Y axis list the change ratio.	Hourly and visual refresh every 60 seconds

Extraction

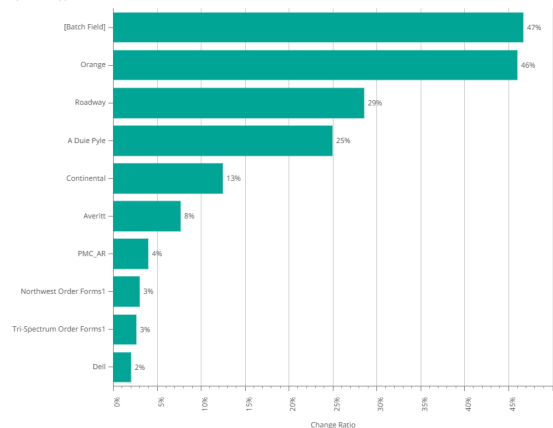
Use the Extraction view to review field level information for the 10 document types that are most frequently changed. This view includes field level details for both Tungsten Transformation extraction and Tungsten Capture recognition. This view shows data for batches that are exported; data related to deleted, timed out, or in-progress documents is excluded.

i The same field name (such as FirstName or SSN) may be used by different document types. Be sure to filter the results by document type to ensure that the results are accurate.

To display the Extraction view, select **Quality > Extraction**.

Extraction

by Doc Type



Fields changed: 69

Documents changed: 0

Field Statistics

Field Name	Total Fields	Confidence	Changed	Change Ratio
01 Amount	10	100.00%	0	0.00%
01 Description	10	100.00%	0	0.00%
01 Item Number	10	100.00%	0	0.00%
01 Quantity	10	100.00%	0	0.00%
01 Unit Price	10	100.00%	0	0.00%
Amer Express	10	0.00%	0	0.00%
Check/MO	10	0.00%	0	0.00%
Credit Card Number	10	50.00%	0	0.00%
Currency	31	89.03%	1	3.23%
Customer Name	10	99.40%	6	60.00%
CustomerID	45	74.56%	7	15.56%
Discount	31	87.10%	1	3.23%
InvoiceDate	45	68.78%	9	20.00%
InvoiceNumber	31	87.10%	1	3.23%
InvoiceType	31	90.94%	1	3.23%
Mallers	10	35.00%	0	0.00%

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View / Chart / Filter	Description	Updates
Extraction - by Doc Type	Lists the field level change ratio for the 10 document types that are most frequently changed. When you select the Doc Type bar, displays field statistics, including the change ratio, for field level data associated with the selected document type.	Hourly
Fields Changed - Field Statistics	Displays a list of all fields for the selected document type. You can select the Field Name to view details for individual fields. Select any line to drill down to Field Change Details, which opens in a separate window and lists the document, extraction confidence, original value and new, validated value. You can also drill down on a document number to display details for all fields.	Hourly
Field Statistics - Total Fields Column	Count of all fields with the given name in all exported documents, based on the currently selected filters, including date, batch class, site, and doc type.	Hourly
Field Statistics - Confidence Column	Average field extraction confidence value in all exported documents, based on the currently selected filters, including date, batch class, site, and doc type.	Hourly
Field Statistics - Changed Column	Count of all the fields with the given name that have been changed manually in all exported documents, based on the currently selected filters, including date, batch class, site, and doc type.	Hourly
Field Statistics - Change Ratio Column	Ratio of the Changed Column to the Total Fields column.	Hourly

Extraction Chart

Use the Extraction Chart to examine fields by document type, field confidence, and change ratio. A well-tuned installation would reflect a high extraction confidence percentage with minimal changes (bubbles that appear in the lower right corner of the chart).

The Extraction Chart shows data only for batches that are exported; data related to deleted, timed out, or in-progress documents is excluded.

The x-axis corresponds to field confidence (or OCR confidence), and the y-axis is the change ratio.

To display the Extraction Chart view, select **Quality > Extraction Chart**.

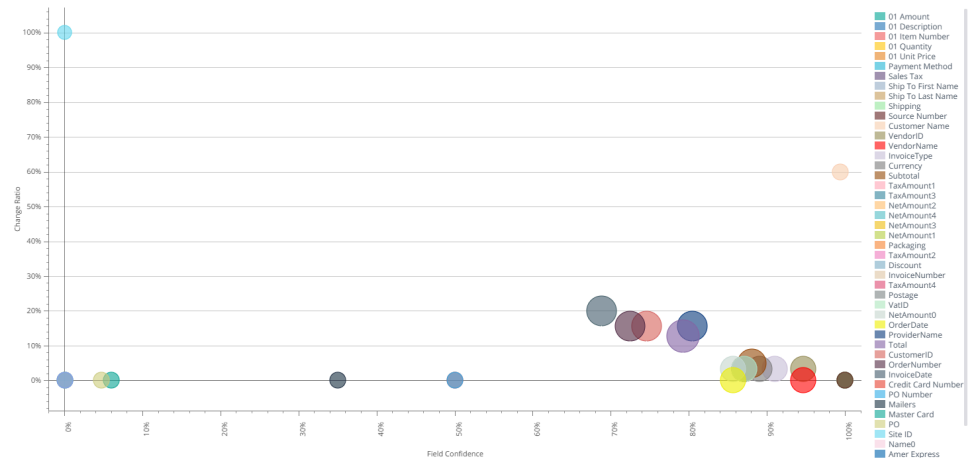
Extraction Chart

Filter

Doc Type	Change Ratio
[Batch Field]	46.67%
Orange	46.00%
Roadway	28.57%
A Dule Pyle	25.00%
Continental	12.50%
Averitt	7.69%
PMC_AR	4.00%
Northwest Order Forms1	3.03%
Tri-Spectrum Order Forms1	2.60%
Equant	2.00%
Dell	2.00%
SiteStuff	0.00%
PMC_Invoice	0.00%
PMC_FinalInvoice	0.00%
HP Canada	0.00%
Cosnizant	0.00%

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Fields by Change Ratio and Confidence



Separations

Use the Separations view to get a quick snapshot of manual separation corrections that occur in an attended module such as KTM Document Review. This view displays any separation-related corrections, such as splitting or merging a document from an attended module. Also, the view displays data only for exported documents; data related to deleted, timed out, or in-progress documents is excluded.

For each separation correction, this view lists the batch class, batch name, date and time, classified and reviewed document types, and the relative page order (order of the page in the document).

The Classified Type Changes bar chart gives the number of document separation classification corrections by reviewed document type. If you select an element in the bar chart, the Page Separation grid is refreshed to reflect the associated details for your selection. You can expand any item on the grid to view additional page details.

i The Page Separation grid is updated to reflect data immediately after processing for a module is complete. If you access the Page Separation grid while processing is still underway for a module, the data may not yet be reflected in the Page Separation grid. Data related to deleted batches is not included.

To display the Separations view, select **Quality > Separations**.

Separations



View / Chart / Filter	Description	Updates
Classified Type Changes - Color bar chart	Displays the page separation classification corrections by reviewed document type.	Data refresh in real time and visual refresh every 60 seconds
Page Separation - Grid	Displays itemized instances of page separation. Arranged by batch class, batch name, date and time, classified and reviewed document types, and count. If you select a document type in the bar chart, the Page Separation grid is refreshed to reflect the data associated with your selection. Data related to deleted batches is excluded. Expand any item on the grid to view additional event details.	Data refresh in real time (processing for a module must be complete) and visual refresh every 60 seconds

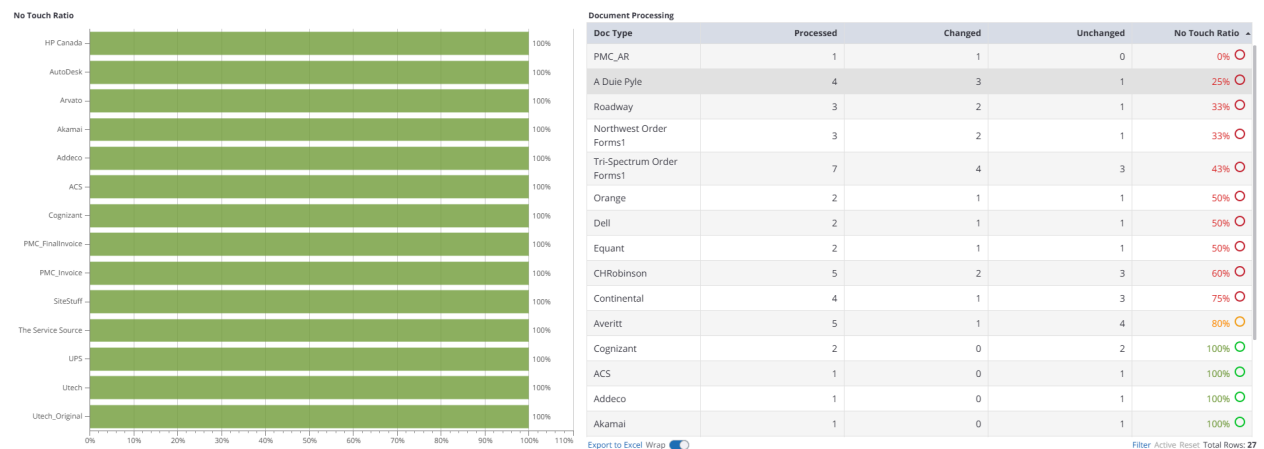
No Touch Processing

Use the No Touch Processing view to examine the ratio of items processed without manual corrections relative to the total number of documents processed. Use this information to analyze the efficiencies of Tungsten Capture processing within your organization.

The No Touch Processing view displays data only for exported documents; data related to deleted, timed out, or in-progress documents is excluded.

To display the No Touch Processing view, select **Quality > No Touch Processing**.

No Touch Processing



View / Chart / Filter	Description	Updates
No Touch Ratio	Displays the no touch ratio per document type	Data refresh in real time and visual refresh every 60 seconds

View / Chart / Filter	Description	Updates
Document Processing	Displays the No Touch Processing details for all changes, per document type	Data refresh in real time and visual refresh every 60 seconds

Classification Benchmark

Use the Classification Benchmark view to examine overall classification accuracy based on document types. Classification is considered "confident" if the system determined the document type in the Scan or Quality Control module, or in any other automatic module with a condition based on the KtmClassificationIsConfident flag.

The Classification Benchmark view displays data only for exported documents; data related to deleted, timed out, or in-progress documents is excluded.

Based on this view, you can determine how many document types were accurately classified by the system, along with the number of document types that required a change by the operator.

i If you upgrade from an earlier product version that did not include the Classification Benchmark view, classification data collected prior to the upgrade is not reflected in the new view. The view does include any classification data collected on the day of the upgrade or thereafter.

You can filter this view by document type and by values for the specific field (such as Customer Name, Total, or other) defined by the administrator. For example, you may want to display only data for documents that contain specific field values (such as a vendor or region).

To apply a filter, select **Select** next to Document Class or Filter Field to view the possible values. Then select which values to use for filtering the Classification Benchmark view, and select **OK**. If you have a lengthy list of Filter Field values, select the search button under the list of values and type the value you are looking for. Select **All/Clear** to select or clear all values on the Filter Field list.

If you select a field in the grid, the pie chart is refreshed to correspond to your selection.

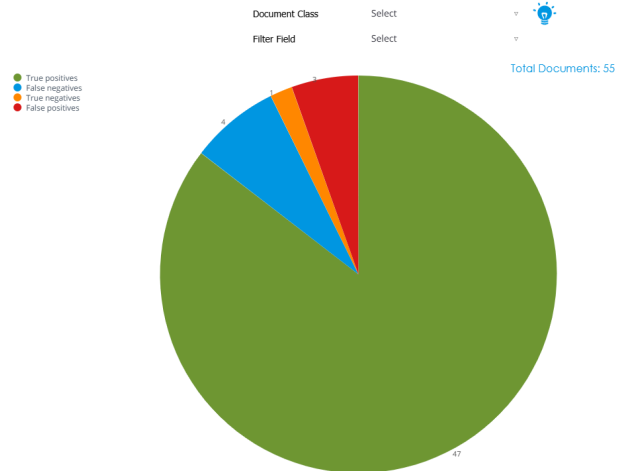
To display the Classification Benchmark view, select **Quality > Classification Benchmark**.

Classification Benchmark

Document Type	Correct and Confident	Correct but Unconfident	Incorrect and Unconfident	Incorrect but Confident
A Dule Pyle	25%	75%		
ACS	100%			
Addeco	100%			
Akamai	100%			
Arvato	100%			
AutoDesk	100%			
Averitt	80%			20%
CHRobinson	100%			
Cognizant	100%			
Continental	75%	25%		
Dell	100%			
Equant	100%			
HP Canada	100%			
Northwest Order Forms1	100%			
Orange	50%			50%

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Filter Active Reset Total Rows: 27



View / Chart / Filter	Description	Updates
Classification Benchmark - Grid	Displays classification accuracy broken down by document type and expressed as a percentage.	On-demand
Classification Benchmark - Color pie chart	Displays classification accuracy expressed as a document count.	On-demand
Total Documents counter	Displays the total number of documents represented in the view.	On-demand
Correct and Confident	Document type is correct and confidently detected by the system, and requires no adjustments by validation operator during processing (no touch).	On-demand
Correct but Unconfident	Document type is correct yet detected as invalid by the system. Operator must press Enter to confirm the validity of the document type.	On-demand
Incorrect and Unconfident	Document type is incorrect and detected as invalid by the system. Operator is prompted to perform data entry or make corrections that occur as a result of OCR, or untrained documents.	On-demand
Incorrect but Confident	Document type is incorrect yet confidently detected as valid by the system. If the operator does not make corrections, inaccurate data remains in the system.	On-demand

Extraction Benchmark

Use the Extraction Benchmark view to examine overall user productivity in the context of field validation. The view includes key metrics for operator activity related to field validation.

The Extraction Benchmark view displays data only for exported documents; data related to deleted, timed out, or in-progress documents is excluded.

Based on this view, you can determine how many fields were accurately detected by the system, along with the number of fields that required a change by the validation operator. Tungsten Capture determines field validity based on thresholds for OCR confidence. Tungsten Transformation determines field validity based on validation rules or locator confidence values that execute in KTM Server.

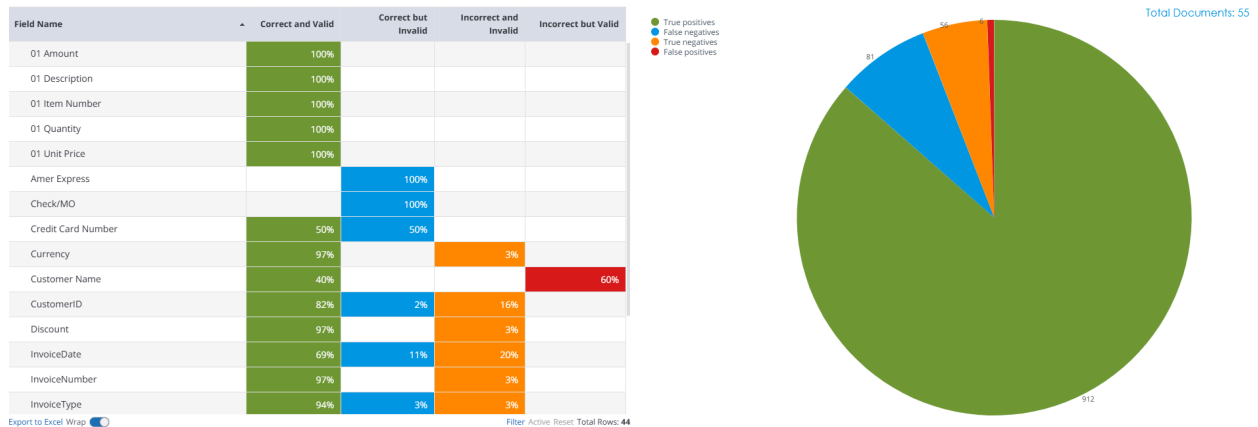
You can filter this view by document type and by values for the specific field (such as Customer Name, Total, or other) defined by the administrator. For example, you may want to display only data for documents that contain specific field values (such as a vendor or region).

To apply a filter, select **Select** next to Document Class or Filter Field to view the possible values. Then select which values to use for filtering the Extraction Benchmark view, and select **OK**. If you have a lengthy list of Filter Field values, select the search button under the list of values and type the value you are looking for. Select **All/Clear** to select or clear all values on the Filter Field list.

If you select a field in the grid, the pie chart is refreshed to correspond to your selection.

To display the Extraction Benchmark view, select **Quality > Extraction Benchmark**.

Extraction Benchmark



View / Chart / Filter	Description	Updates
Extraction Benchmark - Grid	Displays field validation accuracy expressed as a percentage, on a per-field basis.	Hourly
Extraction Benchmark - Color pie chart	Displays field validation accuracy expressed as a field count.	Hourly
Total Documents counter	Displays the total number of documents represented in the view.	Hourly
Correct and Valid	Field is correct and confidently detected as valid by the system. Field requires no adjustments by validation operator during processing (no touch).	Hourly
Correct but Invalid	Field is correct yet detected as invalid by the system. Operator must press Enter to confirm the validity of the field.	Hourly

View / Chart / Filter	Description	Updates
Incorrect and Invalid	Field is incorrect and detected as invalid by the system. Operator is prompted to perform data entry or make corrections that occur as a result of OCR or database errors, or untrained documents.	Hourly
Incorrect but Valid	Field is incorrect yet confidently detected as valid by the system. If the operator does not make corrections, inaccurate data remains in the system.	Hourly

Reports

The Analytics for Capture dashboard includes report-style views related to Classification and Recognition, Workflow Management, and Audit.

Classification and Recognition report views

This section describes the Classification and Recognition report views.

- [Classification versus Review](#)
- [Reclassified Document Types](#)
- [Field Accuracy](#)
- [Field Confidence](#)

Classification vs. Review

This report provides visibility to the classified document type assigned to each page in Tungsten Transformation, versus the document type assigned after review. Each page in the batch includes the system-assigned classification confidence score and the top classification threshold setting for the corresponding document type. You can filter the report by date or batch class.

Select any batch on the report to drill down to the Batch Overview or History.

To display the Classification vs. Review report, select **Reports > Classification and Recognition > Classification vs. Review**.

Classification vs. Review

Batch Name	Image ID	Classification Document Type	Document Confidence	Document Confident?	Review Document Type	Correct Confident	Correct Unconfident	Incorrect Confident	Incorrect Unconfident
7/30/2025 6:52:53 AM_admin_IV1			99.94%			1		2	
7/30/2025 6:53:14 AM_admin_IV0_1			92.42%			2			
7/30/2025 7:35:20 AM_TC2_IV			100.00%			1			
7/30/2025 8:00:18 AM_thoct_IV			94.58%			1			
7/30/2025 8:43:12 AM_TC5_IV			36.93%				3		1
test classification_IV original			98.67%					1	
test extraction chart_thoct			100.00%			1			
Test IV_processing time			95.12%			1		1	
test no touch view2			98.00%			27			
test no touch view_IV			98.67%			3			
test OD+KTM doc			0.00%				1		
test separation			99.94%			2		1	
test_special field			36.21%				1		
			89.88%			39	5	5	1

Export to Excel 

Filter Active Reset Total Rows: 13

Reclassified Document Types

This report provides visibility to the most common document types requiring reviewer reclassification in Tungsten Transformation. The report also shows the incorrect document types assigned by the system for each reclassified document type in descending rank order. The report helps identify document types that may need a sample image set change. You can filter the report by date, batch class, or final document type.

To display the Reclassified Document Types report, select **Reports > Classification and Recognition > Reclassified Document Types**.

Select any batch on the report to drill down to the Batch Overview or History.

Reclassified Document Types

		Final Doc Type		No filter	
Batch Class	Batch Name	Date	Final Doc Type	Initial Doc Type	Count
Invoices	7/30/2025 6:52:53 AM_admin_IV1	07/30/2025 07:05 AM			2
Invoices	7/30/2025 8:43:12 AM_TC5_IV	08/01/2025 09:23 AM			1
Invoices_original	8/5/2025 8:39:45 AM_25 doc type	08/05/2025 09:08 AM			4
Order Forms	test classification	07/31/2025 01:47 PM			1
Invoices_original	test classification_IV original	08/01/2025 10:14 AM			1
Invoices	Test IV_processing time	07/31/2025 08:55 AM			1
Invoices	test separation	08/05/2025 08:35 AM			1

Field Accuracy

This report provides a summary of field level and character level accuracy per batch during a given date/time period. The field or character level recognition accuracy is measured by comparing the number of fields or characters that are confidently recognized to the total number of fields or characters recognized. The field or character level validation (or completion) accuracy is measured by comparing the number of fields or characters changed during validation (or completion) to the total numbers of fields or characters recognized and validated (or completed). The report assumes that any manual changes to the recognized fields are correct. You can filter the report by date, batch class, or document type.

i This report considers the number of changed fields, rather than the number of times a particular field is changed. For example, if the same field is changed in two separate modules, it is reported as one changed field. Also, the number of changed characters for a field is reported only for the module where the most recent changes occurred; the number of changed characters is not cumulative for all modules.

To display the Classification vs. Review report, select **Reports > Classification and Recognition > Field Accuracy**.

Field Accuracy

Doc Type No filter

Field Name	Fields Recognized	Fields Validated	Fields Changed	Changed Characters	Changed Field Characters
01 Amount	10	10	0	0	0
01 Description	10	10	0	0	0
01 Item Number	10	10	0	0	0
01 Quantity	10	10	0	0	0
01 Unit Price	10	10	0	0	0
Amer Express	10	10	0	0	0
Check/MO	10	10	0	0	0
Credit Card Number	10	10	0	0	0
Currency	30	31	1	1	1
Customer Name	10	10	6	75	6
CustomerID	39	45	7	7	7
Discount	30	31	1	1	1
InvoiceDate	39	45	9	9	9
InvoiceNumber	30	31	1	1	1
InvoiceType	30	31	1	1	1
Mallers	10	10	0	0	0

Export to Excel Wrap

Filter Active Reset Total Rows: 45

Field Confidence

This report provides a summary of field level confidence, based on the results of the Recognition module. The results are summarized per batch class, document type and overall for a particular index field. Expand any batch class to view the associated document types. You can filter the report by date, batch class, or document type.

To display the Classification vs. Review report, select **Reports > Classification and Recognition > Field Confidence**.

Field Confidence

Doc Type No filter

Batch Class	Doc Type	Confidence
⊟ Invoices		
	A Duie Pyle	47%
	Averitt	0%
	CHRobinson	64%
	Continental	96%
	Roadway	61%
		0%
⊟ Invoices_original		
	A Duie Pyle	88%
	ACS	92%
	Addeco	86%
	Akamai	92%
	Arvato	91%
	AutoDesk	90%
	Averitt	88%
	CHRobinson	92%
	Cognizant	92%
		91%

Export to Excel Wrap

Filter Active Reset Total Rows: --

Workflow Management report views

This section describes the Workflow Management report views.

- [Document Processing Time](#)
- [Operator Productivity Summary](#)

Document Processing Time

This report shows the total and average processing time, separations, reclassifications and fields changed to indicate the amount of work done for exported documents touched by an operator. The report is sorted by final document types. You can filter the report to determine which operators and modules are included in the processing time calculation for exported documents. You can also filter the report by date and batch class.

By default, this report is available only to users who are assigned to the taqc admin role. Also, this report is supported only if the following minimum required versions are installed for Tungsten Capture or Tungsten Transformation.

Tungsten Capture - Minimum Requirements

- Tungsten Capture 11.1
- Tungsten Capture 11.2

Tungsten Transformation - Minimum Requirements

- Tungsten Transformation 7.0
- Tungsten Transformation 7.1
- Tungsten Transformation 2025.1

If you use this report after upgrading from a previous version of Analytics for Capture, it reflects data on a go-forward basis (historical data is excluded).

To display the Classification vs. Review report, select **Reports > Workflow Management > Document Processing Time**.

Document Processing Time

Final Doc Type	Total	Average	Processed Docs	Avg Time / Processed Doc	Pages in Processed Docs	Separations	Reclassifications	Fields Changed
[Unknown]	0.00:00:04	0.00:00:04	1	0.00:00:04	27	0	0	0
A Dule Pyle	0.00:01:03	0.00:00:59	6	0.00:00:10	6	0	0	15
ACS	0.00:00:03	0.00:00:03	1	0.00:00:03	1	0	0	0
AutoDesk	0.00:00:00	0.00:00:00	1	0.00:00:00	1	0	0	0
Averitt	0.00:00:45	0.00:00:45	3	0.00:00:15	3	0	1	5
CHRobinson	0.00:00:11	0.00:00:11	2	0.00:00:05	4	2	0	0
Cognizant	0.00:00:21	0.00:00:21	3	0.00:00:07	7	0	0	0
Continental	0.00:00:05	0.00:00:05	2	0.00:00:02	2	0	0	5
Dell	0.00:01:58	0.00:01:58	4	0.00:00:29	4	0	0	1
Equant	0.00:00:05	0.00:00:05	2	0.00:00:02	2	0	0	1
HP Canada	0.00:00:00	0.00:00:00	1	0.00:00:00	1	0	0	0
Northwest Order Forms1	0.00:03:23	0.00:03:23	6	0.00:00:33	6	0	0	2
Orange	0.00:00:16	0.00:00:16	2	0.00:00:08	2	0	1	23
PMC_AR	0.00:00:14	0.00:00:14	1	0.00:00:14	1	0	0	1
PMC_Invoice	0.00:00:00	0.00:00:00	1	0.00:00:00	1	0	0	0
Roadway	0.00:04:37	0.00:04:37	4	0.00:01:09	4	0	2	10
Total	0.00:22:47		57		89	2	4	67

Export to Excel Wrap

Filter Active Reset Total Rows: 18

Each row represents a document type. Expand any row to view operator names. Select a document type or operator name to drill down to Document Processing Details, and then drill further to the Batch Overview as needed.

Document Processing Details for Northwest Order Forms1



Document Processing Details

Session End Time	Session Time	Batch	Mod...	Pro... Docs	Avg Time / Processed Doc	Pages in Pro... Docs	Separations	Reclassifications	Fields	Fields Changed	Operator
07/31/2025 08:33 AM	0.00:00:10	test	Verif...	1	0.00:00:07	1	0	0	22	1	Administr...
07/31/2025 08:32 AM	0.00:00:06	test	Valid...	1	0.00:00:02	1	0	0	22	0	Administr...
07/30/2025 07:53 AM	0.00:00:50	7/3... 7:42... AM_...	Verif...	1	0.00:00:46	1	0	0	22	0	TC user3
07/30/2025 07:50 AM	0.00:00:09	7/3... 7:42... AM_...	Valid...	1	0.00:00:03	1	0	0	22	0	TC user3
07/30/2025 07:33 AM	0.00:02:11	7/3... 7:27... AM_...	Verif...	1	0.00:02:03	1	0	0	44	1	TC user1
07/30/2025 07:29 AM	0.00:00:29	7/3... 7:27... AM_...	Valid...	1	0.00:00:22	1	0	0	44	0	TC user1
	0.00:03:55			6		6	0	0		2	

Operator Productivity Summary

This report provides an overview of the number of batches and documents an operator processes in a given date/time period, and the time the operator spends processing batches and documents in the same period. You can see the number of separations, validation changes and other activity performed by an operator. The report reflects processing for in-progress batches and documents, as well as exported, deleted, or timed out batches and documents.

Use the filtering options to restrict the report by certain operators or modules.

To display the Classification vs. Review report, select **Reports > Workflow Management > Operator Productivity Summary**.

Operator Productivity Summary

Operator	Session Time	Processed Docs	Avg Time / Processed Doc	Separations	Reclassificati...	Fields Changed	Docs in All Sessions	Pages in All Sessions	Sessions	Avg Time / Session	Batches	Avg Time / Batch	Modules	Avg Time / Module
Administrator	0.05:21:28	56	0.00:05:44	5	9	66	177	238	65	0.00:04:56	15	0.00:18:54	7	0.00:40:11
Chu cam Tho	0.00:31:22	3	0.00:10:27	1	0	0	17	52	17	0.00:01:50	2	0.00:07:50	2	0.00:06:16
TC user 2	0.00:02:42	0		0	0	0	4	5	5	0.00:00:32	0	0.00:02:42	0	0.00:00:32
TC user1	0.00:03:19	4	0.00:00:49	0	0	2	4	6	3	0.00:01:06	1	0.00:03:19	2	0.00:01:06
TC user3	0.00:04:46	2	0.00:02:23	0	0	0	2	3	3	0.00:01:35	1	0.00:04:46	2	0.00:01:35
TC user4	0.00:00:29	2	0.00:00:14	0	0	0	2	3	3	0.00:00:09	1	0.00:00:29	2	0.00:00:09
TC user5	0.00:03:00	1	0.00:03:00	0	0	0	5	17	7	0.00:00:25	1	0.00:00:36	1	0.00:01:30
Thu Thi Duong	0.00:05:40	4	0.00:01:25	0	0	0	4	6	3	0.00:01:53	1	0.00:05:40	2	0.00:01:53
Total	0.06:12:46	72	0.00:05:10	6	9	68	215	330	106	0.00:03:31	22	0.00:12:51	7	0.00:46:35

Select a name in any row to view productivity details for the selected operator. From the productivity details, you can drill down further to view the Batch Overview and History for each batch listed.

Productivity Details for Administrator



Operator Productivity Details

Session End Time	Session Time	Batch	Mod...	Processed Docs	Avg Time / Processed Doc	Separati...	Reclassificati...	Fields Changed	Pages
08/13/2025 09:40 AM	0.00:00:00	8/13/2025 9:37:29 AM	KTM Corre...	1	0.00:00:22	0	0	0	1
08/13/2025 09:38 AM	0.00:00:07	8/13/2025 9:37:29 AM	KTM Docu... Review	2	0.00:00:07	0	0	0	2
08/07/2025 07:16 AM	0.00:00:09	test_special field	KTM Valid...	1	0.00:00:13	0	0	5	1
08/07/2025 07:13 AM	0.00:00:47	test_special field	KTM Docu... Review	1	0.00:00:51	0	0	0	1
08/06/2025 08:06 AM	0.00:00:24	test no tocuh view2	KTM Valid...	8	0.00:00:04	0	0	1	8
08/06/2025 07:56 AM	0.00:00:14	test no touch view_IV	KTM Docu... Review	1	0.00:00:34	0	0	0	3
08/06/2025 07:54 AM	0.00:00:06	test no touch view_IV	Scan	1	0.00:01:52	0	0	0	3
08/05/2025 08:45 AM	0.00:02:39	8/5/2025 8:39:45 AM_25 doc type	KTM Docu... Review	5	0.00:00:42	4	4	0	5
				56	0.00:04:07	5	9	66	65

Licenses

Use the following report views to determine if sufficient station and volume licenses are in place, and to track license usage trends over time.

- [Station License Trending](#)
- [Volume License Trending](#)

All station and volume licenses managed by license servers (specified during the Event Listener installation) are included in these views.

Station License Trending

The Station License Trending report displays usage trends for station licenses for each license server. The report is color-coded to display the number of used licenses compared to the number of available station licenses.

The license servers tracked on this report are based on the list of license servers specified during the Event Listener installation. This report does not reflect usage trends for license servers on remote site stations.

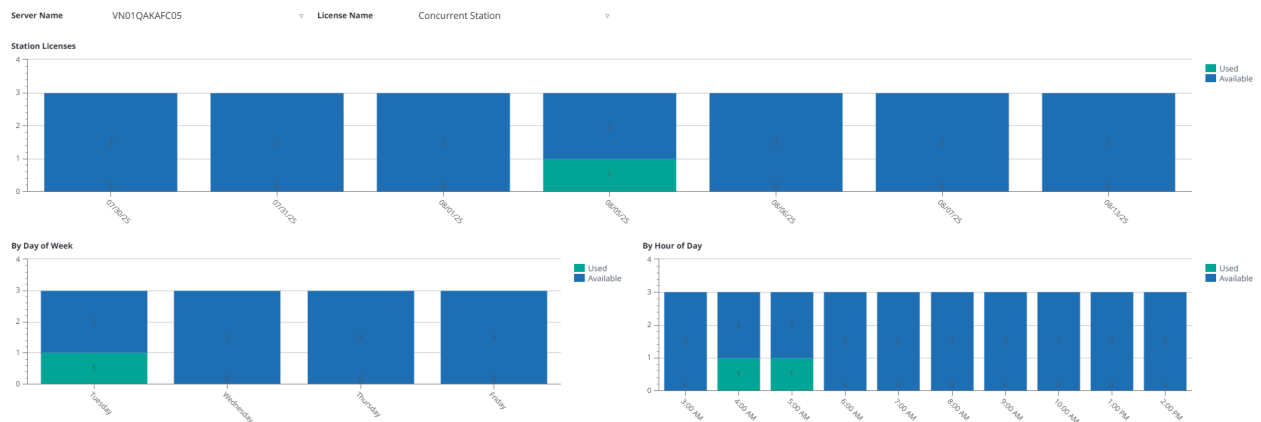
The Station License Trending report is based on the station license data collected by the Event Listener. By default, the data for this report is updated every 300 seconds, or every 5 minutes. You can use the following key in the Event Listener Web Service configuration file, Web.config, to change the frequency:

```
<add key="StationPollingIntervalSeconds" value="300"/>
```

i Updates to the Station License Trending report occur according to the value set for StationPollingIntervalSeconds, and not when the Hourly Plan is run.

To display the Station License Trending report, select **Reports > Licenses > Station Trending**.

Station License Trending



View / Chart / Filter	Description	Updates
Station License Trending	Lists statistics related to station licenses for the selected server.	Data refresh frequency based on the StationPollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 300 seconds, or 5 minutes.

View / Chart / Filter	Description	Updates
Server Name	Select the names of license servers that should be displayed on the report.	Data refresh frequency based on the StationPollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 300 seconds, or 5 minutes.
License Name	Select the names of the station licenses that should be included on the report.	Data refresh frequency based on the StationPollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 300 seconds, or 5 minutes.
Station Licenses	Displays the number of used and available station licenses for the selected license server.	Data refresh frequency based on the StationPollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 300 seconds, or 5 minutes.
By Day of Week	Displays the number of used and available station licenses based on days of the week.	Data refresh frequency based on the StationPollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 300 seconds, or 5 minutes.
By Hour of Day	Displays the number of used and available station licenses based on the hour of the day.	Data refresh frequency based on the StationPollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 300 seconds, or 5 minutes.

Volume License Trending

The Volume License Trending report displays statistics related to remaining volume licenses for the selected server.

The license servers tracked on this report are based on the list of license servers specified during the Event Listener installation. This report does not reflect usage trends for license servers on remote site stations.

By default, the report displays three months of projected usage statistics, starting with the current date.

Projected volume license usage is calculated for 12 months from the current date. The administrator can [adjust the start date](#) used to calculate the projected volume license usage, which is based on historic usage trends. If usage is expected to exceed the remaining license threshold, a negative number appears on the report.

Using the global date filter, you can configure the report to display predictive data for up to 12 months from the current date.

The Volume License Trending report is based on the volume license data collected by the Event Listener. By default, the volume license data is updated every 3600 seconds, or hourly. You can use the following key in the Event Listener Web Service configuration file, Web.config, to change the frequency:

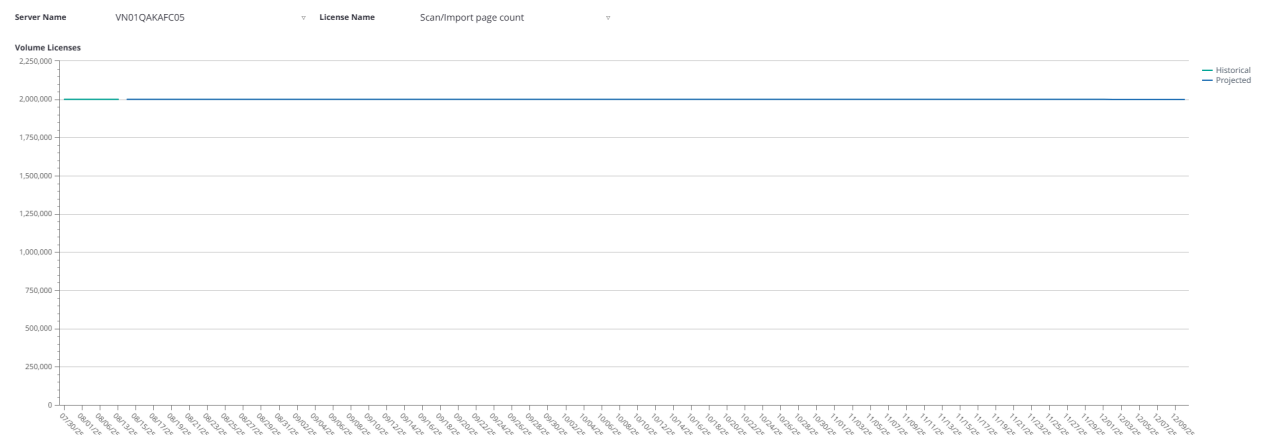
```
<add key="VolumePollingIntervalSeconds" value="3600"/>
```

i Updates to the Volume License Trending report occur according to the value set for VolumePollingIntervalSeconds, and not when the Hourly Plan is run.

Your Tungsten Analytics for Capture project includes a sample Insufficient Volume License Alert, which can be issued if all available volume licenses are in use with none remaining, or if their availability falls below a certain threshold. Using the sample, you can configure an email alert based on the remaining volume for a specific license server or license type. To configure preferences for the email alert, see [Define alert conditions and recipients](#).

To display the Volume License Trending report, select **Reports > Licenses > Volume Trending**.

Volume License Trending



View / Chart / Filter	Description	Updates
Volume License Trending	Lists statistics related to remaining volume licenses for the selected server.	Data refresh frequency based on the VolumePollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 3600 seconds, or 1 hour.
Server Name	Select the server for which volume licenses should be displayed on the report.	Data refresh frequency based on the VolumePollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 3600 seconds, or 1 hour.

View / Chart / Filter	Description	Updates
License Name	Select the names of the licenses for which usage should be included on the report.	Data refresh frequency based on the VolumePollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 3600 seconds, or 1 hour.
Volume Licenses	Displays historical and projected volume license trends.	Data refresh frequency based on the VolumePollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 3600 seconds, or 1 hour.
Period	Use the global date filter to set the end date for the time interval that starts with the current date. You can select the report to display up to 12 months of predictive data.	Data refresh frequency based on the VolumePollingIntervalSeconds value set in the Event Listener Web.config file. By default, the value is 3600 seconds, or 1 hour.

Admin

Administrators can use the Admin tab on the Analytics for Capture dashboard to process data plans, configure alerts, manage field data, review the status of each workstation in your installation, configure labor costs or change passwords. Access to the Admin tab is based on the role the user is assigned to in Insight [Admin Console](#).

The Admin tab includes the following capabilities:

- [Data Processing](#)
- [Alerts](#)
- [Special Fields](#)
- [System](#)
- [Labor Costs Configuration](#)
- [Change Password](#)
- [Projection Settings](#)
- [Audit](#)

Data Processing

In a typical installation, updates to the dashboard run automatically at regular intervals. If special circumstances arise, you can use the Data Processing settings to manually execute a Quality Metrics plan that accelerates updates to the dashboard without waiting for the regularly scheduled process to run.

You can also use the Data Processing settings to remove data from the Insight data database.

Update Quality Metrics manually

In general, Quality Metrics are updated hourly (see [Tungsten Analytics for Capture dashboard views](#) for update information for individual views). Use the Data Processing settings to manually update Quality Metrics outside the regularly scheduled intervals. Once you complete a manual update, the next update occurs during the next regularly scheduled interval.

To ensure accuracy, you should wait at least 1 minute after closing a batch to manually update the metrics. For example, if you run the Quality Metrics plan immediately after closing a batch, the views may not be refreshed as expected. For best results, wait up to 1 minute after closing a batch to update the metrics.

1. On the Viewer, select **Admin > Data Processing** .
The **Data Processing** screen appears.
2. Select **Load Quality Metric Data Now**. This update is similar to Hourly plan, which is available from Insight Data Loader. If the Hourly plan is not enabled when you select Load Quality Metric Data Now, the update is run for a period that covers the last two hours.
3. When prompted to proceed with the manual update process, select **OK**.

Remove data

Use this procedure to remove data from the Insight Data database. You can remove data for a specific date range, remove all data, or remove data that is older than a certain date.

1. In the Viewer, select **Admin > Data Processing** .
The **Data Processing** screen appears.
2. Do one of the following:
 - To delete data for a certain time frame, select the calendar control next to **Delete Data for**, and use the controls to set the starting and ending date and time. Select **OK** to close the calendar controls, and then select **Delete Data for** to start the deletion.
 - To delete all data, select **Delete All Data**.
3. When prompted to proceed with the data deletion process, select **OK**.

Delete field data

Field data for the HistoryOfFields table is retained indefinitely unless it is deleted. In a high-volume processing environment, the number of field data records may increase significantly over a period of time and potentially become unmanageable. To avoid this issue, we recommend a two-step approach to ensure that unnecessary data is deleted, and essential data is retained:

1. In the Viewer, select **Admin > Data Processing** to perform a manual operation that removes non-essential field data based on preferences you specify. See [Delete field data manually](#).
2. Use Insight Data Loader to schedule the **Delete Old Fields** plan to run on a recurring basis.

Delete field data manually

Use this procedure to manually run the **Delete Old Fields** plan, which selectively deletes and retains field data based on preferences that you specify. If the number of field data records to delete is significantly high, you can run the plan manually multiple times, until a manageable number of records is achieved.

From that point forward, you can use Data Loader to schedule automatic, recurring data deletion. See [Delete field data on a recurring basis](#).

i After data deletion, some details related to field data and batch events may be unavailable when you drill down to the Batch Overview, Batch History, Extraction statistics or other screens that use HistoryOfField data.

1. On the Viewer, select **Admin > Data Processing** .
The **Data Processing** screen appears.
2. Under **Delete Field Data**, enter the number of days to indicate which field data records to retain, starting with the most recent day, when the **Delete Old Fields** plan is run.
Using the default value of 30 days, the most recent field data records are retained if they are 1-30 days old. The calculation is based on the date a record is received by the Event Listener.
The minimum number of days to retain is 7. If you enter fewer than 7 days, the value is ignored and no records are deleted.
3. Enter the number of days to indicate how many of the oldest field data records to remove when the plan is run.
Using the default value of 1,000 days, 1000 days of field data records are deleted, starting with the oldest day.
If fewer than 1,000 days of data exist, all records are removed except for the recent data that is retained, based on the entry in the previous step.
4. Select **Delete Old Fields Now**. When prompted to proceed with the field data deletion process, select **OK**.
A progress indicator appears on the screen while the plan is running.
5. Verify that the manual plan ran without errors:
 - a. Start Insight Data Loader and select the **Load Console** tab.
 - b. On the list of plans, review the row for the **Delete Old Fields** plan and confirm that **Success** is listed in the **Status** column.
Select the link in the **Status** column to view data load details in a separate window.

Delete field data on a recurring basis

Use this procedure to schedule the **Delete Old Fields** plan to remove data automatically on a recurring basis.

1. Use the **Data Processing** screen in the Viewer to specify which data to retain and remove when the **Delete Old Fields** plan is run, as described in [Delete field data manually](#).
2. Start Insight Data Loader.
3. Select the **Execution Plans** tab.
4. On the list of plans, in the row for **Delete Old Fields**, select the ellipsis next to **Manual**.
The "**Scheduling options**" window appears.
5. Set preferences to indicate how often to run the plan and which data to remove, and select **OK**.

Alerts

On the Admin tab, you can set up and manage email notifications to be sent automatically if certain conditions occur. For example, if Service Level Agreements are not met because processing takes longer than expected, you can set up a notification alert to send to a list of email recipients.

You specify which records or metrics to monitor, such as the following:

- **Volume License Stat History:** Indicates whether available volume licenses are in use with none remaining.
- **User Session Over Target:** Indicates whether a finished session exceeded the defined targets
- **Waiting Time in Queue:** Number of seconds a batch has been waiting to be processed by the next module.
- **Total Batch Time:** Amount of time the batch has been in the system. If limited to batches that have not been finalized, the value can be used for SLAs.
- **LastVersionOfBatch filtered for IsFinished and not IsReleased:** Indicates batches that were deleted.

Setting up alerts is a two-part process:

- [Setting up the email server](#)
- [Defining the alert conditions and recipients](#)

Set up the email server

Use Tungsten Insight to configure the email server for sending notification alerts via email.

1. Start Insight Admin Console.
2. On the **Documents Tree**, select **Options**, and go to the **E-mail Settings** section.
3. Select the **Enable SSL** checkbox if security is enabled with an SSL certificate.
4. Select the **Use authentication** checkbox if your email server requires authentication for sending email messages.
5. Select the **Send email at alert** checkbox to send an email when the alert conditions are met.
6. Enter the server name and port used for outgoing email, along with the user name and password for the sender.
7. In **Administrator email**, enter the email address that should be used for the sender. If alert recipients reply to an email message, replies will be sent to the Administrator email address.
8. In **License notification email**, optionally enter the email address for the person who should be notified if the number of Insight users exceeds the number specified in the product license.
9. In **Viewer URL**, type the web address for the viewer.
10. Select **Send test** to verify that the email settings are valid.
The **Send test email** window appears.
11. In the **Email** field, type an email address where the test message should be sent, and select **Send**.
If the test is successful, the intended recipient receives the test message.
12. On the toolbar, select **Save**.
13. On the **Documents Tree**, select **Distribution**.

14. On the **Alerts distribution options** tab, select the **TAFC** checkbox to ensure that alerts are active for the current Analytics for Capture project.
15. If prompted to do so, restart IIS.
16. Select **Save**.

Define alert conditions and recipients

Use the Admin tab in the Analytics for Capture Viewer to set up or edit record and metric alerts.

Your Analytics for Capture project includes a sample record alert that can be used to issue an email in the event that all available volume licenses are in use with none remaining. The sample alert is named Insufficient Volume License Alert. You can edit the sample to specify conditions under which the alert is issued, and the names of those to be informed of the alert by email.

i If a filter is in place at the time you define an alert, the alert does not reflect any subsequent changes made to the filter. For example, if you are restricted from a certain batch class such as Invoices, any alerts you create will exclude batches for Invoices. If you are later given access to the Invoices batch class, any subsequent alerts you create do not reflect the change (batches based on the Invoices batch class continue to be excluded).

1. On the Analytics for Capture dashboard, select the **Admin** tab.
2. In the **Alert Settings** group, do one of the following:
 - Select the sample **Insufficient Volume License Alert**, and then select the **Edit** button on the toolbar to update the alert with your preferences.
 - Select **New metric alert** or **New record alert** to create a new metric or record alert.

The alert window appears.

i If necessary, see [Records and metrics](#) to determine if you need a metric alert or a record alert.

3. In the alert window, select the **Alert Properties** tab.
 - a. **Title:** Type the title to use as the subject of the email notification, such as Batch Export is Late.
 - b. **Severity:** Use the list to assign a severity level to indicate how serious the issue is.
 - c. **Description:** Enter an optional description.
 - d. **Check for alerts every:** Enter settings to indicate how often and when the existence of the conditions should be checked.

i To ensure that the alert is sent successfully, we recommend that you set "Check for alerts every" to 1 hour, starting from a 30-minute interval such as 12:30 AM; and then select the "Check backward" checkbox and set it to at least 2 hours.

4. Select the **Condition** tab.

For Record Alerts:

- a. Use the **Record** list to select the record to monitor.

The **Parameter** list is refreshed.

- b. Select **Send record data by e-mail** to include the information in the notification message.
- c. Select a parameter, select in the **Condition** column, and select an operator such as **WaitingSeconds** and **=**.
- d. Select a value to monitor, such as **360**.

For Metric Alerts:

- a. Use the **Metric** list to select the metric to monitor, such as **Waiting Time in Queue**.
 - b. On the **Interval** list, select the interval to compare to, including a previous interval.
 - c. On the **Broken by** list, you can select a dimension to break down or refine the data further.
 - d. Select an operator and margin, such as more than 80 percent.
 - e. In the **Comparison** section, indicate whether the metric should be compared to a fixed value, another metric, or the same metric from a different time period.
5. Select the **"Do not send"** tab.

Use the settings on this tab to define situations in which the alert is not sent, even though the requirements for the alert are met. For example, you may decide not to issue an alert in the following situations:

- The same alert was previously issued within a recent time period that you specify.
- The same alert was previously issued and is still unresolved.
- The same alert was previously issued.

 The meaning of "same" is important. For a Metric alert, the "same" alert is defined against the same metrics and the same value in the "Broken by" field. For a Record alert, the "same" alert is based on the same record with the same Parameters selected.

6. Select the **Delivery** tab.
- a. In the **Deliver alert message to** section, list the roles and email addresses for the intended recipients.
 - b. In the **Alert message escalation** section, list the roles and email addresses for recipients to notify if the situation is not resolved within a certain time frame, which you define.
7. Select **OK**.

The new alert is added to the **Alerts** list on the **Admin** tab.

Special Fields

Use the Special Fields screen to do the following:

- Select a field used to filter data on the [Extraction Benchmark](#) or [Classification Benchmark](#) views.
- Define a Tungsten Capture batch field to be represented on the "by Batch Field" chart in the [Breakdowns](#) view and on the [Group by Batch Field](#) view.
- Ensure the security of data that appears on the dashboard. You can apply security to field values that contain confidential information such as bank account numbers or personal data. The Secure Fields list includes fields for all documents. If you apply security to any field on the list, the value

is masked with asterisks when it appears in a view (the field label appears in the view as usual) and in the database. The Secure Fields list is updated nightly.

When you update the selections on the Special Fields screen, they go into effect the next time that Tungsten Capture session data is processed by the Event Listener. Any previously processed session data is unaffected.

1. In the Viewer, select **Admin > Special Fields**.
2. Use the **Filter Field** to specify a Tungsten Capture field to use for restricting data that appears on the **Extraction Benchmark** view or the **Classification Benchmark** view. For example, if you select **Vendor** as the Filter Field, you can restrict data on either view based on Vendor name values.

Your **Filter Field** selection is reflected on the **Extraction Benchmark** or **Classification Benchmark** view as soon as the next Tungsten Capture session is processed by the Event Listener. The Filter Field is not applied to previous sessions.

When typing the Filter Field, be sure to enter the field name exactly as it is defined in Tungsten Capture.

3. Set the **Group by Batch Field** value to specify a Tungsten Capture batch field (not a document field) to be represented on the "by Batch Field" chart in the [Breakdowns](#) view and on the [Group by Batch Field](#) view. For example, if you specify "City" as the batch field, the **Group by Batch Field** view displays historical trends for exported or deleted batches, documents or pages based on values such as London, Los Angeles, Tokyo, or other cities.

When typing the batch field name, be sure to enter the field name exactly as it is defined in Tungsten Capture.

When you select or update the **Group by Batch Field** value, it is reflected on the **Breakdowns** and **Group by Batch Field** views on a go-forward basis. Data that existed prior to the batch field selection is not reflected in either of these views.

4. Specify which fields to secure. Values for secure fields are masked with asterisks when they display on the dashboard. Examples of secure fields may include bank account numbers, social security numbers, passwords, and others for which the values must be kept private.
 - a. On the **Secure Fields** list, in the **Field Name** column, locate a field (such as **Birth Date**) for which values should be excluded from the dashboard.
 - b. For the selected field, in the **Make Secure** column, select the checkbox to change the value to **True**.

Fields set to **True** are restricted, and their values are masked with asterisks on the dashboard. Values are not masked for fields set to **False**.
 - c. Repeat the process for each field value to be masked on the dashboard.

System

You can view a listing of all Workflow Agent workstations in your installation (central and remote sites) that have sent session data to the Event Listener. For each workstation, the list gives the Workflow Agent version, site ID, machine name, IP address, and version numbers for Tungsten Capture and Tungsten Transformation.

On the **Listeners** tab, you can view a list of all Event Listener instances in your installation.

Based on the information listed, you can easily identify Workflow Agents or Listeners that may require updates to support the current Analytics for Capture features.

1. On the Viewer, select **Admin** > **Systems** .
2. Use the **Workflow Agents** tab to review the details for each Workflow Agent instance in your installation:
 - **Workflow Agent Version**: Lists the currently installed version of the Workflow Agent.
 - **Site**: Lists the site ID for the workstation location.
 - **Machine**: Lists the machine name for the workstation.
 - **IP Address**: Lists the IP Address for the workstation.
 - **TC**: Lists the currently installed version of Tungsten Capture.
 - **TT**: Lists the currently installed version of Tungsten Transformation.
3. Use the **Listeners** tab to review the details for all Event Listener instances in your installation and identify any Listener that may require an update to support the current Analytics for Capture features.
 - **Listener version**: Currently installed version of the Event Listener.
 - **Machine**: Machine name associated with the Event Listener instance.
 - **URL**: Host name or IP address of the computer where the Event Listener is running.
 - **Status**: Status of the Event Listener based on the most recent session that was processed.
 - **Last run**: Most recent time that the Event Listener reported any activity.
 - **Turf**: Subset of batch hash keys (0 to 99) that the Event Listener will process.
4. Optionally, select **Clear** to remove the current information on the **Systems** list. Once session data is sent again to the Event Listener, the **Systems** list is refreshed. This option may be useful following an upgrade from an earlier version of Analytics for Capture.

Labor Costs Configuration

Use the Labor Cost Configuration screen to define an average hourly labor cost associated with each module in the Tungsten Automation batch processing workflow. The hourly amounts are used to perform real-time calculations to derive an overall labor cost for an entire operation, as reflected on the [Labor Costs](#) view.

1. In the Viewer, select **Admin** > **Labor Cost Configuration** .
The **Labor Cost Configuration** screen displays each module in the batch processing workflow and the default value for the average hourly labor cost for that module.
2. On the **Module** list, select the processing module for which you are configuring hourly labor costs.
3. In the **Costs** column for the selected module, select the amount and update the hourly cost.
4. As applicable to each module on the list, repeat the procedure to update the **Costs** value.

Change Password

Use this procedure to update the password to access the Analytics for Capture Viewer.

i If Insight user authentication is in place, a user configured with the ability to change passwords cannot access this option unless the user is also assigned to a role that grants access to the Admin tab and the "Change password" item in the Analytics for Capture Viewer.

1. In the Viewer, select **Admin > Change Password**.
The **Insight Viewer** password dialog box appears.
2. **Login:** This field displays the login name for the user whose password you are updating.
3. **Password:** Enter the current password for the user specified in the preceding step.
4. **New password:** Type a new password for the user.
5. **Confirm:** Retype the new password.
6. Select **OK** to apply the new password.

Projection Settings

Use the **Projection Settings** screen to configure values that affect calculations related to average document processing times and volume license usage.

- **Average Processing Time:** Define the start date for calculating average document processing times used in labor projections in the [Remaining Labor](#) and [Capacity Planning](#) views. Document processing times recorded before the start date are excluded from both views. You can set the start date on a per batch class basis.
Any historical data from the start date through the current date is included in the calculation for average document processing times. For example, if you set the start date to 01-01-2015 for a batch class, historical data from January 1, 2015, through the current date is included in the calculation; historical data that precedes January 1, 2015, is excluded.
 - **Volume License Trending:**
Define the start date to calculate the projected volume license usage for the [Volume License Trending](#) report. Volume used prior to the start date (which cannot be earlier than 6 months ago), is excluded from the calculation.
1. In the Viewer, select **Admin > Projection Settings**.
 2. In the **Average Processing Time** section, in the row for the batch class to update, do the following:
 - a. Select in the **Start Date** column.
 - b. Select the calendar control to open the calendar settings.
 - c. On the calendar, set the month, day and year corresponding to the start date for computing the average document processing time.
 3. As applicable to each batch class on the list, repeat the procedure to update the **Start Date** value.
 4. In the **Volume License Trending** section:
 - a. Select the calendar control to open the calendar settings.
 - b. On the calendar, set the month, day and year corresponding to the start date for computing volume license usage.

Audit

This section describes the Audit views that display statistical information related to Tungsten Capture login attempts, along with details pertaining to user activity and batch class changes made in the Administration module.

- [Login History](#)
- [Administration](#)
- [Batch Class](#)

The Audit views are available if all of the following requirements are met:

- You are working with Tungsten Capture 11.0 or later.
- You have a current Analytics for Capture product license. See [Verify your license](#).
- View rights for the Audit views are assigned to your role. See [Define view rights for a role](#).

Login History

Use the Login History audit view to look for information about successful and failed Tungsten Capture login events. The view includes details related to the events, such as the name and ID of the user who was logged in when the event occurred; along with the date, time, module, workstation and site name.

You can set login properties in the search criteria to filter the results by Login State, User ID, User Name, or Module.

To display the Login History audit view, select **Admin > Audit > Login History**.

 Login events from remote sites only appear after synchronization to the Central site.

Login History

Login State	Failure, Success	▼	User ID	No filter	▼	
User Name	No filter	▼	Module	Administration, Batch Manager, Export, ...	▼	

Search Results						
Date	Login State	User Name	User ID	Module	Site Name	Station ID
08/13/2025 09:40 AM	Success	Administrator	Admin	KTM Correction	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 09:39 AM	Success	Administrator	Admin	KTM Correction	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 09:39 AM	Success	Administrator	Admin	KTM Server 2	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 09:38 AM	Success	Administrator	Admin	KTM Document Review	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 09:38 AM	Success	Administrator	Admin	KTM Server	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 09:38 AM	Success	Administrator	Admin	KTM Server	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 09:37 AM	Success	Administrator	Admin	Scan	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 08:06 AM	Success	Administrator	Admin	KTM Correction	VN01QAKAFC05	VN01QAKAFC05: Sess 4
08/13/2025 08:06 AM	Success	Administrator	Admin	Batch Manager	VN01QAKAFC05	VN01QAKAFC05: Sess 4
08/13/2025 07:40 AM	Success	Administrator	Admin	Administration	VN01QAKAFC05	VN01QAKAFC05: Sess 2
08/13/2025 05:20 AM	Success	Administrator	Admin	Administration	VN01QAKAFC05	VN01QAKAFC05: Sess 4
08/13/2025 05:09 AM	Success	Administrator	Admin	KTM Correction	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 05:09 AM	Success	Administrator	Admin	KTM Server 2	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 05:08 AM	Success	Administrator	Admin	Batch Manager	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/13/2025 05:06 AM	Success	Administrator	Admin	Administration	VN01QAKAFC05	VN01QAKAFC05: Sess 3
08/07/2025 09:10 AM	Success	Administrator	Admin	KTM Correction	VN01QAKAFC05	VN01QAKAFC05: Sess 1
08/07/2025 09:10 AM	Success	Administrator	Admin	KTM Server 2	VN01QAKAFC05	VN01QAKAFC05: Sess 1

Export to Excel  

Filter Active Reset Total Rows: 214

Select any row in the Search Results list to open a Login History Overview in a separate window that lists additional details for the selected login event.

Login History Overview □ ✕

Login History Overview

Login History Properties

Date	08/13/2025 09:37 AM	Login State	Success
Machine	VN01QAKAFC05	Module	Scan
Site Name	VN01QAKAFC05	Station ID	VN01QAKAFC05:Sess 3
User ID	Admin	User Name	Administrator
Windows User ID	Administrator@tungsten	Windows User Name	Administrator@tungsten

Administration

Use the Administration audit view to review actions taken from the Tungsten Capture Administration module, along the date, time, and user who performed each action. In the event that a problem occurs in a production environment, the information in this view can help to pinpoint the source of the issue.

Based on the Tungsten Capture database, the audit information gives an Administrator the ability to identify and resolve issues resulting from Administration module changes related to any of the following:

- User profile
- Batch class
- Document class
- Folder class
- Form type
- Sample page
- Field type
- Recognition profile
- Separation and identification profile
- Image cleanup profile
- Export connector
- Custom module
- Workflow agent

You can set action properties in the search criteria to filter the results by Action, User ID, User Name, and other values.

To display the Administration audit view, select **Admin > Audit > Administration**.

Administration

Action batch class: add queue, batch class: add ... Value 1 (Everyone), (None), Admin, Catalog Orde...
User ID Admin Value 2 \\localhost\CaptureSV\Tutorial\LESSON_...

Search Results						
Date	Action	User ID	Name 1	Value 1	Name 2	Value 2
08/13/2025 09:42 AM	user: export	Admin	User ID	TC4	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	user: export	Admin	User ID	TC5	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	user: export	Admin	User ID	TC2	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	user: export	Admin	User ID	TC3	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	user: export	Admin	User ID	thoct	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	user: export	Admin	User ID	TC1	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	group: export	Admin	Group ID	(Everyone)	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	group: export	Admin	Group ID	(None)	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:42 AM	batch class: export	Admin	Batch Class Name	Invoices	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/13/2025 09:36 AM	batch class: publish	Admin	Batch Class Name	Invoices		
08/13/2025 08:33 AM	custom mod: add	Admin	Custom Module ID	LCI.Validation	Custom Module Name	KTM Validation
08/13/2025 05:22 AM	batch class: change property	Admin	Batch Class Name	Invoices1		
08/13/2025 05:21 AM	batch class: import	Admin	Batch Class Name	Invoices1	CAB File	C:\Users\ngaththanh.nguyen\Desktop\Invoice...
08/01/2025 09:07 AM	batch class: publish	Admin	Batch Class Name	Order Forms		
08/01/2025 09:07 AM	batch class: add queue	Admin	Batch Class Name	Order Forms	Queue Name	KTM Document Review
08/01/2025 09:07 AM	batch class: change property	Admin	Batch Class Name	Order Forms		
08/01/2025 08:15 AM	batch class: import	Admin	Batch Class Name	Order Forms1	CAB File	\\localhost\CaptureSV\Tutorial\LESSON_1.cab

Export to Excel Wrap Filter Active Reset Total Rows: 65

Select any row in the Search Results list to open an Administration Overview in a separate window that lists additional details for the selected administration action.

Administration Overview



Administration Overview

Administration Properties

Date	07/30/2025 04:34 AM	Action	doc class: change property
User ID	Admin	User Name	Administrator
Windows User ID	ngaththanh.nguyen	Windows User Name	ngaththanh.nguyen
Machine Address	172.26.3.147	Last Machine	VN01QAKAFC05
Last Module	Administration	Module Unique ID	Admin.exe
Name 1	Document Class Name	Value 1	Catalog Orders1
Name 2		Value 2	
Name 3		Value 3	
Name 4		Value 4	
Site Name	VN01QAKAFC05	Station ID	VN01QAKAFC05:Session 6

Batch Class

Use the Batch Class audit view to review actions related to Tungsten Capture batch classes, document classes, form types and fields. For example, actions may include creating, updating or publishing a batch class, renaming a document class, adding a form type or sample page, or other. The view lists details related to each action, such as the date, action type, and user who performed the action.

You can provide batch class properties in the search criteria to filter the results.

To display the Batch Class audit view, select **Admin > Audit > Batch Class**.

Batch Class

Actionbatch class: add queue, batch class: add ... ▾Value 1No filter▾

User IDNo filter ▾Value 2No filter ▾

Search Results						
Date	Action	User ID	Name 1	Value 1	Name 2	Value 2
08/13/2025 09:42 AM	batch class: export	Admin	Batch Class Name	Invoices	CAB File	C:\Users\Virginia\OneDrive\Documents\InvoiceCorrectio...
08/13/2025 09:36 AM	batch class: publish	Admin	Batch Class Name	Invoices		
08/01/2025 09:07 AM	batch class: publish	Admin	Batch Class Name	Order Forms		
08/01/2025 09:07 AM	batch class: add queue	Admin	Batch Class Name	Order Forms	Queue Name	KTM Document Review
08/01/2025 09:07 AM	batch class: change property	Admin	Batch Class Name	Order Forms		
07/30/2025 04:34 AM	batch class: publish	Admin	Batch Class Name	Order Forms		
07/30/2025 04:34 AM	doc class: change property	Admin	Document Class Name	Catalog Orders1		
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	thoct	Batch Class Name	Order Forms
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	TC5	Batch Class Name	Order Forms
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	TC4	Batch Class Name	Order Forms
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	TC3	Batch Class Name	Order Forms
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	TC2	Batch Class Name	Order Forms
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	TC1	Batch Class Name	Order Forms
07/30/2025 04:33 AM	user: add assigned class	Admin	User ID	Admin	Batch Class Name	Order Forms
07/30/2025 04:32 AM	batch class: add workflow agent	Admin	Batch Class Name	Order Forms	Workflow Agent Version	Tungsten Analytics for Capture
07/30/2025 04:32 AM	batch class: add queue	Admin	Batch Class Name	Order Forms	Queue Name	Verification
07/30/2025 04:32 AM	batch class: change property	Admin	Batch Class Name	Order Forms		

Export to Excel Wrap

Filter Active Reset Total Rows: 19

Select any row in the Search Results list to open a Batch Class Overview in a separate window that lists additional details for the selected batch class action.

Batch Class Overview

✕

Batch Class Overview

Batch Class Properties

Date	08/13/2025 09:36 AM	Action	batch class: publish
User ID	Admin	User Name	Administrator
Last Machine	VN01QAKAFC05	Last Module	Administration
Name 1	Batch Class Name	Value 1	Invoices
Name 2		Value 2	
Name 3		Value 3	
Name 4		Value 4	
Site Name	VN01QAKAFC05	Station ID	VN01QAKAFC05:Sess 3

Appendix A

Dashboard Designer

The Dashboard Designer, a browser-based design canvas tool within Insight Studio, is used to create custom views. This tool offers components to help you build an effective, comprehensive set of dashboard views for Analytics for Capture. Use the Dashboard Designer to:

- Reuse and combine dashboard components to display content in multiple views.
- Filter, aggregate or animate charts and grids to respond to data displayed in other charts.
- Customize templates to create specific user interactions and reports.

i The views provided with Tungsten Analytics for Capture are based on values that come from predefined Tungsten Automation [records and metrics](#). When designing custom views, do not modify the predefined views, records, or metrics that come with the product. Instead, [copy](#) a predefined view, save it with a different name, and then modify the components as necessary. For details, see the *Tungsten Analytics Project Customizations Application Note* on the Tungsten Automation Knowledge Portal at <https://knowledge.tungstenautomation.com>.

Assign the "tafc designer" role to users who need to work with the Dashboard Designer (do not use the Administrator role). The tafc designer role grants limited rights to Studio for the purpose of adding custom views, records, or metrics. This role grants read-only rights to the built-in views, records, and metrics delivered with the product and does not allow modifications to them. If you need full access to Insight Studio, an additional license is required.

For detailed information about the Dashboard Designer features, see the Insight Studio online help.

Access the Dashboard Designer

You access the Dashboard Designer by starting Insight Studio.

i The Dashboard Designer is not explicitly labeled within Insight Studio; navigate to the Views area to design a dashboard (see [Add a new view](#)).

1. To access the Dashboard Designer, do one of the following:

- Navigate to **Insight 6.5.0 > Studio**.
- In a browser, enter the following URL:

`http[s]://<server>:<port>/Insight/Studio/`

where `<server>` is the name of your Insight server

and `<port>` is included in the URL if the port differs from the default for HTTP (80) or HTTPS (443)

Be sure to verify that the website's binding host name is set to blank or localhost in your IIS settings. Otherwise, a login error may occur.

2. Enter the login credentials for Insight Studio. Use the credentials for a user who is assigned to the "tafc designer" role.

Add a new view

Use this procedure to create a new, empty view for your dashboard.

1. In Studio, in the **Documents Tree**, select and expand **Views > Custom Views**, and select **New View**.
The **New View** window appears.
2. Assign a name to the new view and select **OK**.
The new view appears on the canvas.
3. Use the Dashboard Designer to design the view based on the applicable Tungsten Automation [records and metrics](#).
For detailed information about working with Dashboard Designer functions, see the Insight Studio online help.

Copy an existing view

Use this procedure to add a view based on a view that already exists. This procedure is useful for creating views based on the predefined, built-in Analytics for Capture views, which cannot be edited. Save the copy in the Custom Views folder.

1. In Studio, in the **Documents Tree**, select and expand **Views**.
2. Expand the applicable view folder, right-click the name of the view to copy, and then select **Copy**.
3. In the **Documents Tree** on the **Views** list, select the **Custom Views** folder, right-click and select **Paste**.
The **New View Window** appears.
4. Assign a name to the new view and select **OK**.
The new view appears on the canvas.
5. Use the Dashboard Designer functions to update the newly created view.
For detailed information about working with Dashboard Designer functions, see the Insight Studio online help.

Add a module to a process

The default Swimlane or Workflow process views on the [Batches & Docs](#) tab are based on typical batch and document processing workflows in Tungsten Capture. To customize these views to reflect the batch or document processes for your organization, you most likely need to use the Dashboard Designer to add one or more modules to a process. A license that supports full access to Insight Studio is required to make these adjustments.

Before proceeding with customizations, review the *Tungsten Analytics Project Customizations Application Note* on the Tungsten Automation Knowledge Portal at <https://knowledge.tungstenautomation.com>.

1. Start **Insight Studio**.
2. Select **Documents Tree > Translation Tables > ProcessStep**.
 - a. If it doesn't exist, add the name of the process step that corresponds to the blocks you are adding to the translation table ProcessStep. Under the ProcessStep translation table, select **Add New Data**.
A row is added to the ProcessStep translation table.
 - b. Add the name for the new block in both the **Item ID** and **Name** columns, and select **Save** on the toolbar.
When prompted to confirm the change, select **Apply**.
3. Select **Documents Tree > Translation Tables > ProcessModule**.
 - a. Add mapping of the module name to process the step name in the ProcessModule translation table. Under the ProcessModule translation table, select **Add New Data**.
A row is added to the ProcessModule translation table.
 - b. Add the Tungsten Capture module name in the **Item ID** column. Verify that you spell the name as it appears in the Queues list on the Batch Class Properties window.
 - c. Add the name that was added in the ProcessStep table in the **Name** column, and select **Save** on the toolbar.
When prompted to confirm the change, select **Apply**.
4. Select **Documents Tree > Processes**.
5. Add the blocks you need to both the Batch and Document processes. Each block needs to define a mapping of the underlying BatchSession or DocumentSession record fields to the fields of the process. Also, the appropriate checkboxes need to be selected for each mapped field. Use existing blocks as a guide.
 - a. In Processes, edit both the Batch Process and the DocumentProcess in a similar manner.
 - b. On the design canvas, right-click where you want to add the block, and select **Add Step**.
The **Define process step** window appears.
 - c. At **Name**, enter the name you added earlier to the ProcessStep table.
 - d. Select the **Starts the process** checkbox.
 - e. For **Sequence number in swimlane**, enter a number that is the same or smaller than the block that will go under the new block. Nothing prevents this from being the same as another block, but you might not get the results you want, so you might have to renumber other blocks to be sure they move down.
 - f. On the **Mapping** tab, under **Record**, select the **ellipsis** to open the **Documents tree** window.
 - g. Expand the **Process** folder, and select **BatchSession** or **DocumentSession**, as applicable, and select **OK**.
 - h. On the **Mapping** tab, under **Field**, select **Module**.
 - i. In the **Time field**, select **ReceivedTime**.

- j. In **Value**, select the name of the step that you added in the ProcessStep table.
- k. Map the following record fields to the corresponding process properties and select **New record updates the attribute of a process**:
 - For BatchProcess:
 - Batch Class
 - Module
 - Original Site
 - Priority
 - Map the BatchGuid to ProcessID and select both of the following:
 - "New record updates the attribute of a process"
 - "New record is linked to a process by that field"
 - For DocumentProcess:
 - Batch Class
 - Doc Type
 - Original Site to SiteName
 - Priority
 - Special Field to Vendor
 - Map the DocumentGuid to ProcessID and select both of the following:
 - "New record updates the attribute of a process"
 - "New record is linked to a process by that field"
- 6. Define process transitions from and to the blocks you added, if necessary.

Draw lines between blocks to define valid transitions. To draw lines, select the starting block, and then select in the circle on one of the sides and drag to a circle on the destination block. Select **OK**.

Appendix B

Workflow Agent configuration file

This appendix gives information about the elements in the Tungsten Analytics for Capture Workflow Agent configuration file, KA4CConfig.xml, which is located here:

c:\ProgramData\Tungsten\CaptureSV\Config\KA4CConfig.xml

Changes to settings in KA4CConfig.xml go into effect immediately. In a TCNS environment, the Workflow Agent sends the updated configuration file to remote sites.

For information about using KA4CConfig.xml to configure the Event Listener in a high availability environment, see [Event Listener failover and high availability](#).

KA4CConfig.xml

Element	Description
AlwaysSendBatchToQConError	true = On false = Off (Default) When On, batches with errors are always routed to Quality Control, regardless of which module is next in the batch processing workflow. This setting is unavailable if SendBatchToQConError = false. The value is case-sensitive and must be lowercase.
BasicAuthentication	Not in use; tag existed in versions earlier than 1.2.1.
BasicAuthenticationPassword	Not in use.
BasicAuthenticationUser	Not in use.
DebugLogging	true = On false = Off (Default) When On, logs debugging information to the Workflow Agent log file, which is typically available here: c:\ProgramData\Tungsten\CaptureSV\logs\Tungsten Analytics\machinename_yymm.txt The log file size is not limited. If you update the DebugLogging value, it takes effect immediately. The value is case-sensitive and must be lowercase.

Element	Description
DisableSendingFromRemoteSite	true = On false = Off (Default) When Off, sends data directly from the remote site to the Event Listener. This setting is useful if you expect to split batches at remote sites. When On, sends event data only at the central site. The data is sent to the Event Listener again if the next module is the Export module. If you have an occasionally connected or low bandwidth environment, this setting prevents additional connections from remote sites. This setting is also appropriate if you intend to run Tungsten Capture Network Server in offline mode. The value is case-sensitive and must be lowercase.  This setting does not affect the Audit Login History View data.
DisableWFA	true = On false = Off (Default) In the unlikely event that all Event Listeners are shut down, Tungsten Capture caches session data each time a module is closed, which could lead to Tungsten Capture performance issues. This situation can be prevented by globally turning off the Workflow Agent without having to update and republish the batch classes individually.  Session data is not sent or recorded in Analytics for Capture while the Workflow Agent is disabled.

Element	Description
ExcludedFieldName	 The ExcludedFieldName element is deprecated. You can selectively exclude field names sent by the Workflow Agent on a per batch class basis (instead of globally) using the Configure Analytics for Capture function in Tungsten Capture. See Configure the Workflow Agent. Defines a list of field names to exclude when the Workflow Agent sends data to the Event Listener. As a result, the size of the Data database is kept to a minimum. Otherwise, the Data database size could increase excessively, due to large numbers of internal fields or system fields that are not needed for metrics. In the following example, any field named "Site ID" is excluded across all batch classes, document classes, or folder classes. <pre><ExcludedFieldNames> <ExcludedFieldName>Site ID</ExcludedFieldName> </ExcludedFieldNames></pre>  You must place the list of field exclusions directly under the DisableSendingFromRemoteSite element in KA4CConfig.xml. Also, if you implement this list along with the list of values to ignore (as described for the IgnoreFieldValue element in this table), the list of field exclusions must precede the list of values to ignore in KA4CConfig.xml. The specified values are case-sensitive and must not contain the following characters: & < > " ' The list of field exclusions goes into effect after you republish each batch class in which the specified field name is used.

Element	Description
IgnoreFieldValue	Creates a list of field values that are ignored by the Workflow Agent. As a result, the values are not sent to the Event Listener or reflected in the dashboard views and charts. This approach may be useful if you have special- purpose values intentionally assigned to fields that are empty after processing in the Validation queue. In the following example, any field with a value of "MY_BLANK" or "MY_BLANK2" is ignored. <pre><IgnoreFieldValues> <IgnoreFieldValue>MY_BLANK</IgnoreFieldValue> <IgnoreFieldValue>MY_BLANK2</IgnoreFieldValue> </IgnoreFieldValues></pre> i You must place the list of values to ignore directly under the DisableSendingFromRemoteSite element in KA4CConfig.xml. Also, if you implement this list along with the list of field exclusions (as described for the ExcludedFieldName element in this table), the list of field exclusions must precede the list of values to ignore in KA4CConfig.xml. The specified values are case-sensitive and must not contain the following characters: & < > " ' The list of values to ignore goes into effect after you republish each batch class in which the specified values are used.
KeepAliveEnabled	true = On (Default) false = Off When On, a Connection HTTP header indicates the client's preference for making a persistent connection to the service endpoint.
MaxLogFileSizeMB	100 = Default Lists the maximum size of the log file in megabytes. <pre><MaxLogFileSizeMB>100</MaxLogFileSizeMB></pre> If the maximum size is exceeded, the existing log file is renamed with the date appended to the file name.
MaxRetriesFileContention	10 = Default Maximum number of retries made to create the log file. Once the maximum is reached and the number of retry seconds has elapsed without success, an exception occurs and the batch is sent to Quality Control.

Element	Description
MaxRetriesWebService	10 = Default General description: Maximum number of retries made by the Workflow Agent to send session data to the Event Listener <i>when Export is the next module in the batch processing workflow</i>. Once the maximum is reached and the number of retry seconds has elapsed without success, the exception handling is determined by the <SendBatchToQConError> element, which is the same as the setting configured on the Analytics tab in the Tungsten Capture Administration module. For details, see Configure the Workflow Agent. If Export is not the next module in the batch processing workflow, only one attempt is made to send the session data; after one failed attempt, the data is stored in the batch custom storage string and sent later to the Event Listener. When <RetryAllModules> is set to true (or On), this description applies: Maximum number of retries made by the Workflow Agent to send session data to the Event Listener for any module in the batch processing workflow. Once the maximum is reached and the number of retry seconds has elapsed without success, the data is cached internally in custom storage strings. If Export is the next module in the batch processing workflow, the <SendBatchToQConError> value is used to determine if the batch is routed to Quality Control.
Password	Encrypted password for user who is accessing the Event Listener. Uses the standard Triple Data Encryption Algorithm.
RequestTimeoutSeconds	10 = Default 1 = Minimum Maximum time interval (expressed in seconds) that a connection can remain inactive without being dropped if no data is received from the application; or, the maximum time interval for a write operation to complete without raising an exception.
Reserved	Used to generate the password used to derive the key used to encrypt or decrypt the Username and Password elements. The Reserved element is generated by Analytics for Capture. Uses the standard Triple Data Encryption Algorithm.
RetryAllModules	true = On false = Off (Default): Attempts to send session data to the Event Listener are retried only for the module that precedes Export in the batch processing workflow. When On, failed attempts to send session data to the Event Listener are retried for any module in the batch processing workflow. In a high availability environment, this value should be set to "true" (or On). The value is case-sensitive and must be lowercase.

Element	Description
RetrySecondsFileSystem	0 = Default (no retries occur) Expressed in seconds, this value is the total amount of time spent in attempting to write to the log file. If contention is high, such as in a busy system with <DebugLogging> enabled, it may be useful to set a non-zero value. If both <MaxRetriesFileContention> and <RetrySecondsFileSystem> are set to non-zero values, retries continue until the maximum number of retries is attempted and the number of retry seconds has elapsed.
RetrySecondsWebService	0 = Default (no retries occur) In a high availability environment, this value (expressed in seconds) should exceed the expected length of time for failover to occur. If both <MaxRetriesWebService> and <RetrySecondsWebService> are set, retries continue until the maximum number of retries is attempted and the number of retry seconds has elapsed.
Salt	Reserved.
SecureFieldNames	The Workflow Agent sends this list of secure fields to the Event Listener. Values for secure fields are masked when they appear in the Analytics for Capture dashboard.
SendBatchToQConError	true = On false = Off (Default) When On, if Export is the next module in the batch processing workflow, batches are routed to Quality Control after all retries fail to send session data to the Event Listener, as determined by the values for <MaxRetriesWebService> and <RetrySecondsWebService>. When Off, if Export is the next module in the batch processing workflow, after all retries fail to send session data to the Event Listener, the batch is routed to the Export module and the cached session data is lost upon batch export. In this case, the batch processing workflow is not affected. The number of retries is determined by the values for <MaxRetriesWebService> and <RetrySecondsWebService>. The default setting (false) is the same as not selecting the "Send batch to Quality Control on error before Export" checkbox on the Analytics tab in the Tungsten Capture Administration module. The value is case-sensitive and must be lowercase.

Element	Description
SendingInProgressSessions	true = On false = Off (Default) When On, this element enables the Workflow Agent to send an open batch session for each batch to show In Progress batches in the views.  Consider using this feature only when needed as it will double the listener backlog and might decrease the listener performance significantly.
ServicePath	Web application path for the Event Listener.
Url	URL for the server hosting the Event Listener web application.
Username	Username for accessing the Event Listener. Uses the standard Triple Data Encryption Algorithm.

Event Listener failover and high availability

When an installation includes multiple instances of the Event Listener and one instance stops working, the other active instances are available to take over the work from the failed Listener. In this situation, a short delay occurs before the other active instances take over.

During the delay, the Workflow Agents attempt to send session data as each batch is routed to the next queue. Once all retries fail, the session data is cached internally in custom storage strings. As a result, many custom storage strings can potentially be created. To avoid this situation, you can configure retries that apply to any module in the batch processing workflow, along with the amount of time to elapse for all retries. (By default, retries are attempted only for the module that precedes Export in the batch processing workflow.)

The amount of time spent on retries should exceed the time required for the active instances of the Event Listener to take over when one instance stops working. You can use the following elements to configure the retries:

- RetryAllModules
- RetrySecondsWebService
- RetrySecondsFileSystem

See the table in the preceding section for a description of these and other elements in KA4CConfig.xml.

For more information about Analytics for Capture and high availability, see [Appendix E](#).

Appendix C

Event Listener Web Service configuration file

This appendix gives information about the elements in the Event Listener Web Service configuration file, Web.config, which is available here:

c:\Program Files\KFX Web Agent\Web.config

Changes to Web.config settings cause the Event Listener Web Service to reset automatically, and the updated values are applied as soon as the Web Service is restarted.

Web.config

Element	Description
WriteDBInterval	5= Default The Event Listener attempts to process data at regular intervals, which are determined by the number of seconds specified here. If the default value is used, the Event Listener attempts to process data every 5 seconds.
EnableDBCleanUp	false = Off (Default) true = On If Off, Databases remain without any cleanup. When the item is null or missed in the Web.config file, this value is also false as default. The databases that are cleaned up are Insight Staging database and Data database. Tables that are updated include InstantQueue (TAFC Data database) and tblQueue (Staging database).
CleanDBInterval	86400 = Default (24 hours) This value defines the interval to clean up databases. The default value is 86400 that is equivalent to 24 hours. If the item is null in Web.config, the interval time for database cleanup is 7 seconds, which is the minimum value. This value is used when EnableDBCleanUp is On.
CleanDbExpiredDays	7 = Default (7 days) This value means the expiration days after which the databases are cleaned up. The default value is 7 days. If the item is null in Web.config, the expiration days is 0, which means the database cleanup occurs immediately. This value is used when EnableDBCleanUp is On.

Element	Description
KCDBReadInterval	30= Default The ratio of this value to the WriteDBInterval value defines how often (once per the number of processing cycles) the Event Listener attempts to read the Tungsten Capture database. Using the default values for WriteDBInterval and KCDBReadInterval, 5 and 30 respectively, the Event Listener would attempt to read the Tungsten Capture database once every 6 processing cycles.
KCDBReadAdminInterval	Default = 3600 (1 hour) The number of seconds that indicate how often the Event Listener collects module description data from the Tungsten Capture database.
KCFinalizationHourlyCheckTime	Default = 0 The Event Listener uses an hourly interval to poll for finalized session data, and this value determines the exact time that polling occurs. Set the value to the number of minutes past the hour (from 0 to 59) when polling should occur. Use the default value of "0" to perform polling at the top of every hour.
SessionQueueProcessingChunk	1000 = Default The Event Listener attempts to read no more than the specified number of sessions from a queue in a single processing cycle.
IgnoreUserChangedFlag	false = Off (Default) true = On When Off, all field changes that occur in an attended module are based on the value for the UserChanged property. This property indicates whether a field change is made by a user or by the system as the result of a validation script or other automated process. When On, field changes that occur in an attended module are treated as manual user changes, and the value for the UserChanged property is ignored.
SaveBatchFieldChangesInAutomaticModules	false = Off (Default) true = On When Off, only changes to batch field values that occurred in attended modules are recorded and saved, and the UserChanged property is analyzed or ignored according to the value for IgnoreUserChangedFlag. When On, all batch field value changes that occur in any module (attended or unattended) are recorded and saved, and the value for the UserChanged property is ignored.

Element	Description
MaxBatchCacheSize	3000 = Default This value is the maximum number of live batches that can be stored in-memory by the internal Listener. Any additional live batches are uploaded on-demand from the Staging database.
MaxTempTableValues	1000 = Default The maximum number of ID values explicitly looked up in a single query when the Tungsten Capture database is queried.
FinishedBatchFreshInterval	900 = Default The number of seconds that elapse before finished batches are removed from the Staging database.
UnfinishedBatchTimeLimit	2592000 = Default The number of seconds that elapse before batches without reported activity are considered to be "timed out." If a timeout occurs, an imitation "delete" event is processed to remove them from the live batch queue. The default value represents 720 hours, or 30 days.
ProxyMode	False = Off (Default) True = On If On, the Event Listener does no processing, and it stores incoming sessions in the Staging database to be processed by other Listeners.
SkipWritingWhenEPIsRunning	0 = Default Set value to 1 to prevent data from being written to the Data database while the Hourly Plan is running. Example: <pre><add key="SkipWritingWhenEPIsRunning" value="1" /></pre>
LicenseServers	Name and port number for one or more Tungsten Capture license servers for which statistics are reported on the Station License Trending and Volume License Trending reports. Example: <pre><add key="LicenseServers" value="LicServer01:2424;LicServer02:2424"/></pre>
StationPollingIntervalSeconds	300 = Default (5 minutes) The number of seconds that indicate how often the Event Listener collects station license usage data from the license server. The data is used on the Station License Trending report.

Element	Description
VolumePollingIntervalSeconds	3600 = Default (1 hour) The number of seconds that indicate how often the Event Listener collects volume license usage data from the license server. The data is used on the Volume License Trending report.
HandlingMultipleListenerRestartIssue	false = On (Default) This key removes duplicated finalize sessions that were created when multiple Listeners restart at the same time while processing a large volume of backlog.
DisablePollingKCDBforDeletedBatches	false = On (Default) true = Off If On, this key disables the old polling mechanism. This mechanism causes timing issues when polling Tungsten Capture Database for deleted batches.
FastInsertRowCountLimit	0 = Default (0 row) The default value is 0. Listener uses SQL Server fast insert mechanism if buffer row count is greater than this value.
KCDBTimeZone	Optional time zone definition for the default Tungsten Capture database connection. See the comments in Web.config for details.
KCDBTimeZoneDSTAdjustmentRules	Optional time zone adjustment rules for the default Tungsten Capture database connection. See the comments in Web.config for details.

Appendix D

Records and metrics

The predefined views provided with Tungsten Analytics for Capture are based on values that come from Tungsten Automation records and metrics described in this appendix. You can use the same records and metrics to create custom views.

i When adding custom views, do not modify the predefined views, records, or metrics that come with the product. Instead, copy a predefined view, save it under a different name in the Custom Views folder, and then modify the components as necessary. For details, see [Copy an existing view](#) and also the *Tungsten Analytics Project Customizations Application Note* on the Tungsten Automation Knowledge Portal at <https://knowledge.tungstenautomation.com>.

Metrics are aggregations of records usually in the form of a count, sum, or average.

The following table lists the records and metrics used in Analytics for Capture 2025.4.

Main Data Records

Record	Description
This list of records in the Data database can be accessed directly if needed. Direct access to records for other tables in the Data database is not supported.	
HistoryOfBatch	Contains one record per session.
HistoryOfBatchTimeout	Same as HistoryOfBatch, but for batches that time out. Batches time out if they have not been accessed for 30 days.
LastVersionOfBatch	Contains limited information for each batch from the most recent HistoryOfBatch record.
InstantQueue	Contains limited information for batches that currently exist in Tungsten Capture.
HistoryOfDocument	Contains one record for each document and each session, including the final session, during which the document was changed, exported, or deleted.
HistoryOfDocumentTimeout	Same as HistoryOfBatch, but for documents that belong to batches that have timed out.
LastVersionOfDocument	Contains limited information for each document from the most recent HistoryOfDocument record.
HistoryOfPage	Contains one record for each page and each session, including the final session, during which the page was changed, exported, or deleted.

Record	Description
HistoryOfPageTimeout	Same as HistoryOfBatch, but for pages that belong to batches that have timed out.
SeparatedPage	Lists each page that was moved from one document to another.
HistoryOfField	Contains one record for each field and each session, including the final session, during which the field was changed, exported, or deleted.
HistoryOfFieldTimeout	Same as HistoryOfField, but for fields that belong to batches that have timed out.
Document Field	Contains detail associated with the HistoryOfField record.

HistoryOfBatch Records

Record	Description
All time values for HistoryOfBatch records are converted to the time zone for the Data database.	
BatchClassName	Batch class name from Tungsten Capture.
BatchCreated	If 1, indicates that the batch was created in this session.
BatchCreationDateTime	Time that batch was created. In every session of the same batch, this field is set to the same initial value.  The Tungsten Capture Standard database cannot store this time in milliseconds because batch records are stored in *.MDB files.
BatchGuid	GUID for the batch from Tungsten Capture.
BatchName	Name of the batch from Tungsten Capture.
DayOfWeek	The day of the week on which the session was completed.
DocumentCount	Count of documents present when the session was completed.
ErrorMessage	Tungsten Capture error message.
FieldCount	Count of all fields from all documents present in the batch when the current session was completed.
Fields Changed	Count of all fields changed during the current session that exist for all documents present in the batch when the current was completed.
HasBeenRejected	Set to 1 if the batch status is Error.
HasBeenUnrejected	Set to 1 if the batch status is no longer Rejected.
HourOfDay	Hour (0-23) that the session completed in the time zone for the Insight database server.

Record	Description
IsFinished	Batch was exported or deleted.
IsManualModule	Applies to a Tungsten Capture or Tungsten Transformation module that is unattended by an operator: Scan, Quality Control, Batch Manager, Validation, Verification, KTM Document Review, KTM Correction, or KTM Validation. Manual modules also include any custom module that does not specify either of the following functions: Automatic Index or Form Identification. Automatic modules, which are unattended by an operator, include KTM Server, KTM Server 2, OCR Full Text, PDF Generator, Recognition Server, or Split.
IsReleased	Batch was exported.
IsSplitChild	Set to 1 for the first session in which a child batch was created.
IsValidateModule	Set to 1 for Validation or KTM Validation. Also includes any custom module that specifies the Validation function.
MachineName	Tungsten Capture machine name.
ModuleName	Tungsten Capture module name.
NextQueue	Next module that will process the batch (reflected as <i>Queue</i> in Batch Manager).
NextState	Batch status as reflected in Batch Manager.
Operator	Tungsten Capture operator.
PageCount	Count of all pages present in the batch when this session was completed.
Parent BatchGuid	For a split child batch, this is the GUID of the parent.
Priority	Tungsten Capture priority level assigned to the batch. Priority values range from 1 to 10, with 1 being the highest priority. The priority determines the order in which the batch is processed at each module.
Priority Previous	Previous Tungsten Capture batch priority.
PriorityHasBeenChanged	Set to 1 if the Tungsten Capture batch priority in the current session is different than it was in the previous session.
ProcessingSeconds	Duration in seconds between the start and end of this session. This value is stored only if this session has the Operator field populated.
ReceivedTime	The time when this session was received by the Listener service.
SessionEndTime	The time when the session was completed.

Record	Description
SessionID	Unique session identifier generated by the Listener service. This can be used to join same session data from different tables.
SessionNumber	Number indicating the order in which the sessions occurred in Tungsten Capture.
SessionStartTime	The time when the session was started.  The Tungsten Capture Standard database cannot store this time in milliseconds because batch records are stored in *.MDB files.
SiteId	Identifier for the ID for the Tungsten Capture site where the batch was processed.
SiteName	Identifies the name of the Tungsten Capture site where the batch was processed.
StationId	Identifies the Tungsten Capture station where the batch was processed.
TrackedFromCreated	When a batch is created in a session, this value is set to 1 for any subsequent session for the same batch. Set to 0 if the batch creation session was not received, which may occur under certain error conditions.
WaitingSeconds	Duration in seconds between the end of the previous session and the start of this one. This value is stored only if this session has the Operator field populated.

LastVersionOfBatch Records

Record	Description
All time values for LastVersionOfBatch records are converted to the time zone for the Data database.	
BatchClassName	Batch class name from Tungsten Capture.
BatchCreationDateTime	Time that batch was created. In every session of the same batch, this field is set to the same initial value.  The Tungsten Capture Standard database cannot store this time in milliseconds because batch records are stored in *.MDB files.
BatchGuid	GUID for the batch from Tungsten Capture.
BatchName	Name of the batch from Tungsten Capture.
DocumentCount	Count of documents present when the session was completed.
ErrorMessage	Tungsten Capture error message.

Record	Description
IsFinished	Batch was exported or deleted.
IsReleased	Batch was exported.
MachineName	Tungsten Capture machine name.
ModuleName	Tungsten Capture module name.
Operator	Tungsten Capture operator.
PageCount	Count of all pages present in the batch when this session was completed.
Priority	Tungsten Capture priority level assigned to the batch. Priority values range from 1 to 10, with 1 being the highest priority. The priority determines the order in which the batch is processed at each module.
ReceivedTime	The time when this session was received by the Listener service.
SessionEndTime	The time when the session was completed.
SessionStartTime	The time when the session was started.  The Tungsten Capture Standard database cannot store this time in milliseconds because batch records are stored in *.MDB files.
SiteId	Identifier for the ID for the Tungsten Capture site where the batch was processed.
SiteName	Identifies the name of the Tungsten Capture site where the batch was processed.
BatchReferenceID	Value assigned to parent and child batch in case of a split.
State	For batches in progress, same as NextState. For exported batches, value is Released; for timed out batches, value is Timeout; for deleted batches, value is Deleted.

HistoryOfDocument Records

Record	Description
All time values for HistoryOfDocument records are converted to the time zone for the Data database.	
BatchClassName	Batch class name from Tungsten Capture.
BatchGuid	GUID for the batch from Tungsten Capture.
BatchName	Name of the batch from Tungsten Capture.
Class	Same value as DocType.

Record	Description
Class Previous	If HasBeenClassified or HasBeenReclassified, then a Class value from a previous session; otherwise null.
Classification Outcome	Deprecated; to be removed in a future product version.
DocClass	Document class in Tungsten Capture.
DocNumber	Order of the document in Tungsten Capture.
DocType	If specified, it is KtmDocumentType; else if specified it is KtmBestSuggestedClass; else if specified it is FormType. If still empty and current module is KTM Server and the session NextState = Ready or Completed then the special [unclassified] value is stored, meaning that the system did try classification, but failed.
DocType Before Reclass	Deprecated; to be removed in a future product version. Use DocType Previous instead.
DocType Previous	Contains the previous DocType value in all the records after a reclassification. Before reclassification, contains the current DocType value.
DocumentGuid	GUID for the document in Tungsten Capture.
EndTime	Time when the session was completed.
Fields Confidence	Average confidence of all document fields.
FormType	Form type in Tungsten Capture.
FormType Previous	Contains the previous FormType value for the records where FormTypeHasBeenChanged is set to 1.
FormTypeHasBeenChanged	Form type has been changed (previously had a non-null, but maybe blank, value that changed).
HasBeen(Re)classified	HasBeenClassified = 1 or HasBeenReclassified = 1.
HasBeenClassified	Set to 1 in the first record where document has any class assigned, including [unclassified].
HasBeenDeleted	Set to 1 if the container batch or this individual document gets deleted.
HasBeenExported	Set when the document is exported.
HasBeenFinished	Batch containing the document was exported or deleted.
HasBeenKtmClassified	Set to 1 if the module is KTM Server.

Record	Description
HasBeenProcessed	Set when the document ProcessingTime is not null and > 0. Also set when IsManualModule = 1 and includes any of the following conditions: - Any field changed - HasBeenReclassified = 1 - Batch GUID changed - Any page was moved to or from the document
HasBeenReclassified	Set when DocType was previously specified and then changed in this session.
HasBeenRejected	Set when the document is rejected for the first time.
HasBeenReviewed	Set when the document is reviewed or changed in KTM Document Review the first time.
HasBeenUnrejected	Set when document was rejected in previous session but is not rejected now.
IsReviewModule	Set to 1 for the Tungsten Transformation Document Review module session.
IsTouched	Set when the document HasBeenTouched or ProcessingTime is not null and > 0. Also set when IsManualModule = 1 and includes any of the following conditions: - Any field changed - HasBeenReclassified = 1 - Batch GUID changed - Any page was moved to or from the document
KtmBestSuggestedClass	Tungsten Transformation best suggested class.
KtmBestSuggestedClass Previous	Deprecated; to be removed in a future product version.
KtmClassificationConfidence	Tungsten Transformation classification confidence.
KtmClassificationIsConfident	Tungsten Transformation classification is confident. For Tungsten Capture batches, set to 1 if registration confidence >= the page registration confidence configured on the form type in Tungsten Capture.
KtmConfidence	Tungsten Transformation confidence.
KtmDocumentType	Tungsten Transformation document type.
KtmDocumentType Previous	Deprecated; to be removed in a future product version.
KtmReviewOutcome	Tungsten Transformation review outcome.
KtmReviewOutcome Previous	Contains a previous KtmReviewOutcome value in the records with HasBeenReviewed set to 1.

Record	Description
Label	For documents that are not in folders, indicates their position within the batch. For documents in folders, "F# D#" may have multiple F# bits if subfolders exist.
MergedDocumentGuid	The GUID of the document this one was merged into.
ModuleName	Tungsten Capture module name.
Note	Tungsten Capture document notes.
Note Previous	Contains a previous Document.Note value, if any, for the records where NoteHasBeenChanged is set to 1.
NoteHasBeenChanged	Set when Document.Note was specified for the first time or changed.
Operator	Tungsten Capture operator.
OrderNumber	Tungsten Capture document order number.
PageCount	Count of pages assigned in this document.
PageCount Previous	Deprecated; to be removed in a future product version.
ReceivedTime	The time when this session was received by the Listener service; may occur after SessionEndTime in error cases.
SessionID	Unique session identifier generated by the Listener service. This can be used to join same session data from different tables.
SiteId	Identifier for the Tungsten Capture site where the document was processed.
SiteName	Identifies the name of the Tungsten Capture site where the document was processed.
StationId	Identifies the Tungsten Capture station where the document was processed.
Vendor	If the document contains a field name matching the name specified in the Special Fields table, this field is populated with the value of that field.
ProcessingTime	Time (in milliseconds) the operator spent processing this particular document in the current session. Only populated when used with certain Tungsten Capture of Tungsten Transformation versions.
Fields Changed	Count of all fields in this document that changed during the current session.

LastVersionOfDocument Records

Record	Description
All time values for LastVersionOfDocument records are converted to the time zone for the Data database.	
BatchClassName	Batch class name from Tungsten Capture.

Record	Description
BatchGuid	GUID for the batch from Tungsten Capture.
Class	Same value as DocType.
DocClass	Document class in Tungsten Capture.
DocNumber	Order of the document in Tungsten Capture.
DocType	If specified, it is KtmDocumentType; else if specified it is KtmBestSuggestedClass; else if specified it is FormType. If still empty and current module is KTM Server and the session NextState = Ready or Completed then the special [unclassified] value is stored, meaning that the system did try classification, but failed.
DocumentGuid	GUID for the document in Tungsten Capture.
FormType	Form type in Tungsten Capture.
HasBeenDeleted	Set to 1 if the container batch or this individual document gets deleted.
IsTouched	Set when the document HasBeenTouched or ProcessingTime is not null and > 0. Also set when IsManualModule = 1 and includes any of the following conditions: - Any field changed - HasBeenReclassified = 1 - Batch GUID changed - Any page was moved to or from the document
KtmBestSuggestedClass	Tungsten Transformation best suggested class.
KtmClassificationConfidence	Tungsten Transformation classification confidence.
KtmClassificationIsConfident	Tungsten Transformation classification is confident. For Tungsten Capture batches, set to 1 if registration confidence >= the page registration confidence configured on the form type in Tungsten Capture.
KtmDocumentType	Tungsten Transformation document type.
KtmReviewOutcome	Tungsten Transformation review outcome.
Label	For documents that are not in folders, indicates their position within the batch. For documents in folders, "F# D#" may have multiple F# bits if subfolders exist.
MergedDocumentGuid	The GUID of the document this one was merged into.
Note	Tungsten Capture document notes.
OrderNumber	Tungsten Capture document order number.
PageCount	Count of pages assigned in this document.
ReceivedTime	The time when this session was received by the Listener service; may occur after SessionEndTime in error cases.

Record	Description
SiteId	Identifier for the Tungsten Capture site where the document was processed.
SiteName	Identifies the name of the Tungsten Capture site where the document was processed.
Vendor	If the document contains a field name matching the name specified in the Special Fields table, this field is populated with the value of that field.
Exported	True if Document.Exported is set or the batch is exported
Rejected	True if Document.Rejected is set.
ClassificationIsValid	Set if document ever had KtmClassificationIsConfident value applied in an automatic module (or in its first session in Scan or Quality Control) and if it afterward was routed to a manual module.
ClassificationIsChanged	Set if a reclassification occurred after a ClassificationIsValid value was applied.

HistoryOfPage Records

Record	Description
All time values for HistoryOfPage records are converted to the time zone for the Data database.	
BatchClassName	Batch class name from Tungsten Capture.
BatchGuid	GUID for the batch from Tungsten Capture.
BatchName	Name of the batch from Tungsten Capture.
DocType	The classification of the document. If specified, it is KtmDocumentType; else if specified it is KtmBestSuggestedClass; else if specified it is FormType. If still empty and current module is KTM Server and the session NextState = Ready or Completed, then the special [unclassified] value is stored, meaning that system did try classification, but failed.
DocType Previous	DocType assigned to the document in the previous session, if any.
DocumentGuid	GUID for document if this page is assigned to a document; otherwise, null for loose pages.
DocumentGuid Previous	Contains a DocumentGuid from the previous session, if it was different, for any record where HasBeenSeparated is set to 1.
FormType	Tungsten Capture form type.
HasBeenDeleted	Page was deleted, or the entire batch was deleted.
HasBeenFinished	Page was exported or deleted.

Record	Description
HasBeenMoved	Deprecated; to be removed in a future product version.
HasBeenRejected	Rejected property for page was set in previous session but not set in current session.
HasBeenSeparated	Set to 1 if the page was assigned to a different document in the previous session.
HasBeenUnrejected	Page was rejected in the previous session, but not in the current session.
ImageFile	Path to the original image file. Only valid while the batch is still in Tungsten Capture.
IsManualModule	Applies to a Tungsten Capture or Tungsten Transformation module that is unattended by an operator: Scan, Quality Control, Batch Manager, Validation, Verification, KTM Document Review, KTM Correction, or KTM Validation. Manual modules also include any custom module that do not specify either of the following functions: Automatic Index or Form Identification. Automatic modules, which are unattended by an operator, include KTM Server, KTM Server 2, OCR Full Text, PDF Generator, Recognition Server, or Split.
MachineName	Tungsten Capture machine name.
ModuleName	Tungsten Capture module name.
Note	Tungsten Capture page note.
Note Previous	Previous note value for all the records where NoteHasBeenChanged is set to 1.
NoteHasBeenChanged	Note was specified for the first time or changed.
Operator	Tungsten Capture operator.
PageId	Tungsten Capture page or image ID.
PageIndex	A numeric order of the page within a document (or within a batch if it is a loose page).
PageIndexPrevious	A previous numeric order of the page within a document (or within a batch if it is a loose page).
ReceivedTime	The time when this session was received by the Listener service.
SessionEndTime	Time when the session was completed.
SessionID	Unique session identifier generated by the Listener service. This value can be used to join same session data from different tables.
SiteId	Identifier for the Tungsten Capture site where the page was processed.

Record	Description
SiteName	Identifies the name of the Tungsten Capture site where the page was processed.
StationId	Identifies the Tungsten Capture station where the page was processed.

HistoryOfField Records

Record	Description
All time values for HistoryOfField records are converted to the time zone for the Data database.	
ChangedCharacterCount	Once HasBeenChanged = 1, this field is assigned the Wagner-Fisher edit distance between Value and Value Previous, and it is carried over to subsequent records. If multiple changes occur, the new changed character count is applied and carried forward.
Confidence	Field confidence in Tungsten Capture or Tungsten Transformation.
DocumentGuid	GUID for the document in Tungsten Capture.
FieldName	Field name in Tungsten Capture.
FieldType	Field type (Batch, Document, or Folder) in Tungsten Capture.
FolderClass	Folder class in Tungsten Capture.
HasBeenChanged	This field is changed within a manual module, or it is populated for the first time within a manual module (except for Scan).
HasBeenDeleted	Set to 1 if the container batch or document is deleted.
HasBeenFinished	Set to 1 if the final record is logged when batch is deleted or exported.
HasBeenRecognized	Set to 1 if this is an automatic module and field has a value populated or changed in this module.
IsChanged	Set only in the final record, if HasBeenChanged was ever set to 1.
IsRecognized	Set only in the final record, if the field was first seen and is not null in an automatic module. An empty field will count.
IsValid	For Tungsten Transformation: Set only in the final record if the field has been reported as valid from the automatic module. For Tungsten Capture Recognition Server: Set only if the confidence is > the form type Automatic Index field recognition threshold.
IsValidated	Set to 1 only in the final record, but set for all fields that existed when the Validation module was run, which is defined as the session where IsValidateModule = 1.

Record	Description
ReceivedTime	The time when this session was received by the Listener service.
RowNumber	Tungsten Capture field row number (for table field).
SessionID	Unique session identifier generated by the Listener service. This can be used to join same session data from different tables.
TableName	Tungsten Capture field table name (for table field).
TotalChangedCharacterCount	When HasBeenChanged is set to 1, this field is set to the total number of characters in the new value. This value is carried over to the final record.
Value	Tungsten Capture field value.
Value Previous	The previous value of the field, set in records where HasBeenChanged was set to 1.
ValuePreviousManual	The previous value of the field if it came from a manual module. Otherwise, it is null.

Additional Records

Records	Description
Batch Classification Change, Document Classification Change	Batch and document level information used in Classification Document Details pop-up, which is available from the Classification view in the Doc Class Statistics table.
Batch Document	Contains document properties; used in Batch Overview.
Batch History	Contains session information; used in Batch Overview.
BatchInfo, DocumentInfo	Contains batch and document level information. Used in detail windows for Swimlane and Workflow views.
Changed Field Batch, Document Field	Batch and field information for finished (exported or deleted) batches contain changed fields. Used in Field Details pop-up window, which is available from the Extraction view in the Field Statistics table.
Deleted Page 2	Contains one record for each deleted page; used in Deleted Batches & Pages view.
Doc Last Reclassification Time 2	Indicates the last time a document from a finished batch (exported or deleted) was reclassified. Used in Finished Document Last Review record.
Doc Passed KTM	All documents for finished (exported or deleted) batches that passed Tungsten Transformation Document Review module. Used in Finished Document Last Review record.
Document Field Change Count	Count of field changes per document.

Records	Description
Document Field Event History	Contains field used in Batch Overview.
Document Search Field	Contains field information; used in Search by Field view.
DPDetails	Record behind the Document Processing Details pop-up window, available from the Document Processing Time report.
Finished Document Last Review	Record behind the Classification vs Review view. Contains page level reclassification information for documents of finished (exported or deleted) batches that passed Tungsten Transformation Document Review.
Historic Queue Length, Historic Document Queue Length	Used in Hourly Queue and Hourly Document Queue metrics.
Instant History, Instant Queue with Queue Time	Session information for batches that are currently in Tungsten Capture. Used in the Module Details pop-up window, which is available from the Overview view in the Batches by Module table.
Latency	Contains session information, including wait time between sessions; used in Process Latency view.
OPDetails	Record behind the Operator Productivity Details pop-up window, which is available from the Operator Productivity Summary report.
Overview	Contains all major events related to a batch (including documents, fields, and pages); used in Batch Overview.
Page Last Separation Time	Indicates the last time a page was separated in the KTM Document Review module. Used in Finished Document Last Review record.
ReclassifiedDocumentType	Record behind the Reclassified Document Types report.
Separated Page	Contains page separation info; used in Separations view.
Session over Target	Contains information about sessions that exceeded the target time for the given module; used in Sessions over Time view.
Station License	Contains the station license information for all license servers.
Volume License	Contains the volume license information for all license servers.
Volume License Stat History	Contains the historical volume license usage for all license servers.
Volume License Stat Predictive	Contains the volume license projection for all license servers.

Metrics

Metric	Description
Classification and Classification Chart	
Count of Classified Documents	Number of documents that were classified at least once in finished (exported or deleted) batches.
Count of Reclassified Documents	Number of documents that were reclassified at least once in finished (exported or deleted) batches.
Doc Classification Ratio	Ratio of Count of Reclassified Documents divided by Count of Classified Documents.
Count of Finished Documents	Number of documents in finished (exported or deleted) batches.
No Touch Processing	
Count of Touched Documents	Number of documents that were modified or reclassified in any way by an operator in finished (exported or deleted) batches. See also: Description of the record "IsTouched" in the preceding HistoryOfDocument table.
Docs Untouched Ratio	Ratio of Count of Touched Documents divided by Count of Finished Documents.
Avg Doc Confidence	Average document classification confidence for documents in batches that were finished (exported or deleted).
Classification Benchmark	
Classification (In)valid	Number of classified documents from batches that were finished (exported or deleted) and that had a valid or invalid classification occur in an automatic module. (unknown = null values are excluded).
Classification Invalid Changed	Number of documents from batches that were finished (exported or deleted) that had an invalid classification occur in an automatic module, and the classification was manually changed later.
Classification Invalid Changed Ratio	Ratio of Classification Invalid Changed divided by Classification (In)valid.
Classification Invalid Unchanged	Number of documents from batches that were finished (exported or deleted) and that had an invalid classification occur in an automatic module without any change later.
Classification Invalid Unchanged Ratio	Ratio of Classification Invalid Unchanged divided by Classification (In)valid.
Classification Valid Changed	Number of documents from batches that were finished (exported or deleted) that had a valid classification occur in an automatic module and the classification was manually changed later.

Metric	Description
Classification Valid Changed Ratio	Ratio of Classification Valid Changed divided by Classification (In)valid.
Classification Valid Unchanged	Number of documents from batches that were finished (exported or deleted) and that had a valid classification occur in an automatic module without any change later.
Classification Valid Unchanged Ratio	Ratio of Classification Valid Unchanged divided by Classification (In)valid.
Document Processing All data is based on sessions for finished (exported or deleted) batches that occur in manual modules, except Export and Batch Manager.	
DP Avg Time	Average session time.
DP Fields Changed	Count of changed fields.
DP Pages	Count of pages in all sessions.
DP Reclassifications	Count of reclassifications.
DP Separations	Count of separations.
DP Total Time	Total session time.
Extraction Benchmark Data is based on fields and documents in finished (exported or deleted) batches.	
Fields Finished (In)valid	Count of fields, whether valid or not (unknown = null values are excluded).
Fields Finished Invalid Changed	Count of fields that were considered invalid and were changed later.
Fields Finished Invalid Changed Ratio	Ratio of Fields Finished Invalid Changed divided by Fields Finished (In)valid.
Fields Finished Invalid Unchanged	Count of fields that were considered invalid and were not changed later.
Fields Finished Invalid Unchanged Ratio	Ratio of Fields Finished Invalid Unchanged divided by Fields Finished (In)valid.
Fields Finished Valid Changed	Count of fields that were considered valid and were changed later.
Fields Finished Valid Changed Ratio	Ratio of Fields Finished Valid Changed divided by Fields Finished (In)valid.
Fields Finished Valid Unchanged	Count of fields that were considered valid and were not changed later.
Fields Finished Valid Unchanged Ratio	Ratio of Fields Finished Valid Unchanged divided by Fields Finished (In)valid.
Finished Docs by Field	Number of distinct documents in which the specified field is present.

Metric	Description
Finished Docs by Field?	Number of distinct documents in which the specified field is present. If a filter is applied to the metric, the metric value is null and no value is displayed on the dashboard.
Finished Docs Total	Number of distinct documents containing (in)valid fields.
Finished Docs Total?	Number of distinct documents containing (in)valid fields. Set to null if filtered for a single field. If a filter is applied to the metric, the metric value is null and no value is displayed on the dashboard.
Extraction and Extraction Chart Based on fields for finished (exported or deleted) batches.	
Avg Field Confidence	Average recognition confidence.
Fields Finished Confidence	Average field confidence. Submetric of Fields Finished.
Fields Finished	Number of fields.
Fields Finished Changed	Number of changed fields.
Finished Field Change Ratio	Ratio of Fields Finished Changed divided by Fields Finished.
Fields Finished ChChars	Number of changed characters.
Fields Finished ChFldChars	Total number of characters in the changed fields.
Fields Finished Recognized	Average confidence for fields that were recognized (field value was changed by an automatic module). Submetric of Fields Finished.
Fields Finished Validated	Count of fields that were validated in a Validation module. Submetric of Fields Finished.
Operator Performance Data is based on all sessions for manual modules in Tungsten Capture.	
Count of Field Changes	Field change count based on the final value at the end of each session. A field that changed 3 times in 3 different sessions has a count of 3. A field that changed 3 times in the same session has a count of 1, if no additional changes occurred in other sessions.
Count of Fields	Total field count based on all sessions (each field is counted once per session).
Field Change Ratio	Ratio of Count of Field Changes divided by Count of Fields.
Change Fields Ratio for Operator	Field Change Ratio for this operator divided by Field Change Ratio for all operators.
Avg Session Time	Average session time based on all sessions.
Min Session Time	Minimum session time based on all sessions.
Max Session Time	Maximum session time based on all sessions.

Metric	Description
Avg Time per Page	Session duration divided by the number of pages in that session, based on all sessions.
Batches and Documents	
Count of Batch Rejections	Number of batch rejections.
Count of Document Rejections	Number of document rejections.
Count of Page Rejections	Number of page rejections.
Total Batch Time 2	Total batch time from creation to export or deletion, including batches that did not finish processing.
Labor and Operations	
Count of Sessions Over Target	Number of user sessions in which the Processing Time exceeds the target processing time for a module (if defined).
Module Operator Count	Not currently defined.
Latency Histogram	In seconds, the time elapsed between the start of a session and the end of a previous session.
Module Total Costs	Cost of module processing, calculated by multiplication of hours of total processing of batches in a given module by the standard hourly cost for the module specified by user (default value is 20).
Separated Page Count	Count of records for page separations.
Session Time	Total time for all sessions.
Session Time In Hours	Value of the Session Time (in seconds) divided by 3600.
Batches Created	Count of batches created.
Documents Created	Count of documents created.
Operator Productivity Summary	
Data is based on sessions in all manual modules, except Export and Batch Manager.	
OP Documents	Total count of documents in all sessions.
OP Pages	Total count of pages in all sessions.
OP Session Time	Total duration of all sessions.
OP Sessions	Total count of all sessions.
OP Distinct Documents	Total count of distinct documents.
OP Avg Document Time	Ratio of OP Session Time divided by OP Distinct Documents.
OP Distinct Batches	Total count of distinct batches.
OP Distinct Modules	Total count of distinct modules.
OP Fields Changed	Total count of field changes in all sessions.
OP Reclassifications	Total count of all reclassifications in all sessions.

Metric	Description
OP Separations	Total count of all separations in all sessions.
OP Avg Time per Batch	Ratio of OP Session Time divided by OP Distinct Batches.
OP Avg Time per Module	Ratio of OP Session Time divided by OP Distinct Modules.
OP Avg Time per Session	Ratio of OP Session Time divided by distinct sessions.
Queue	
Current Queue Batch Count	Number of batches currently in the queue.
Current Queue Doc Count	Number of documents currently in the queue.
Current Queue Batch Count Z	Same as Current Queue Batch Count, except it displays 0 instead of empty.
Current Queue Doc Count Z	Same as Current Queue Doc Count, except it displays 0 instead of empty.
Current Queue Page Count Z	Same as Current Queue Page Count, except it displays 0 instead of empty.
Historic Queue	Hourly count of batches in the queue.
Hourly Queue	Number of batches in the queue per module at the end of each hour.
Hourly Document Queue	Same as Hourly Queue, except it counts documents instead of batches.
Waiting Time in Queue	Waiting time for batches currently in the queue.
Waiting Time in Queue Historic	Maximum time a batch spent waiting to be processed in a queue. Applies to batches currently in the queue and to exported (but not deleted) batches. Excludes Batch Manager.

Appendix E

High availability

Use the guidelines in this appendix to ensure that your Insight 6.5.0 environment for Analytics for Capture is configured to support high availability.

The general procedure for performing a new Insight installation to support high availability is outlined here.

1. Review the section on high availability in the [Tungsten Insight Installation Guide](#).
2. Configure an IIS web farm with an Application Request Routing (ARR) entry point and IIS nodes according to your preferences for high availability behavior.
3. Configure a shared folder called *InsightData* that is accessible to all IIS nodes with read/write access.
4. Ensure that the Tungsten Capture database and the databases created for Insight and Analytics for Capture are accessible to all IIS nodes.
5. Run the Analytics for Capture installer on one of the IIS nodes to initialize the databases.
6. Uninstall Insight to remove it from the IIS node.
7. In the Analytics for Capture product files, in the Tungsten Insight\Bin folder, locate the Tungsten InsightSetup installer and copy it to each IIS node in your web farm.
 - a. On each IIS node, run the Tungsten InsightSetup installer and select a custom installation.
 - b. In this procedure, all custom components are installed together on the same system as an Insight node. Although the Scheduler Service component is selected by default on the custom installer setup screen, it is not required to be installed on the same system as the other components. At least one Scheduler Service is required on a server that can connect to the ARR entry point, but multiple services can be installed for high availability.
 - c. When configuring all Scheduler Services in your environment, use the Host and Port for the ARR entry point instead of the localhost.
 - d. For the Insight Data folder, use the shared folder configured earlier.
 - e. Use the existing Insight Admin database that was initialized earlier.
 - f. Finish the installation on all nodes.

Analytics for Capture and Insight can now be accessed through the ARR entry point. In the preceding example, the Event Listeners are installed with Insight in the same ARR environment. When configuring multiple Event Listeners for high availability, you can also use a separate ARR environment.

Configure the Workflow Agents to use the ARR entry point for the Event Listeners. For details about configuring Workflow Agent retries to prevent issues if any Event Listener stops working, see [Event Listener failover and high availability](#).

