



Tungsten TotalAgility Reporting Views

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Preface

This guide describes the sample views provided with Tungsten Reporting.

TotalAgility documentation

Access the full documentation set online, from the [Tungsten TotalAgility Documentation page](#).

You can also access the TotalAgility documentation in offline mode by downloading it from the [Tungsten Automation Fulfillment Site](#) for each language separately.

For a full documentation set, and how to access the documentation in offline mode, refer to the *Tungsten TotalAgility 8.1.0 Release Notes*.


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

The Tungsten Automation 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 click 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 click the View All Products button.

From the Knowledge Portal home page, you can:

- Access the Tungsten Automation Community (for all customers).
On the Resources menu, click the **Community** link.
- Access the Tungsten Automation Customer Portal (for eligible customers).
Go to the [Support Portal Information](#) page and click **Log in to the Customer Portal**.
- Access the Tungsten Automation Partner Portal (for eligible partners).
Go to the [Support Portal Information](#) page and click **Log in to the Partner Portal**.
- Access Tungsten Automation 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 Reporting provides sample views that can be used as the base for custom reports. For these views, the description holds the name of the existing report type.

Columns that are part of the “primary key” of a view are underlined.

For detailed information about each table, refer to *TotalAgility Reporting Tables* guide.

Report authors should be granted the `kfx_reader` or `kfx_advanced_reader` role for the database. Using either role, they can easily copy a query from the view, modify, and test it as a report query.

Chapter 2

Category audit: Runtime

This chapter describes Audit-Runtime views.

v_batch_audit (Tungsten Capture batch summary)

The information in this view can be used to replace the **Batch Summary** report from Tungsten Capture standard reports. It provides an overview of batch processing performance.

The view holds one record for each completed batch.

The report author is responsible for additional grouping and summarizing.

Column	Description
<u>batch_id</u>	Unique batch ID.
batch_name	Batch name.
create_date_time	Batch creation date and time (UTC) in seconds.
create_date_key	Foreign key to date_dim record matching create_date_time.
create_time_key	Foreign key to time_dim record matching create_date_time.
batch_class	Batch class name.
processing_time	Total processing time in seconds.
end_to_end_time	Total end-to-end batch processing duration in seconds.
docs	Number of documents.
pages	Number of pages.

v_doc_audit

The information in this view can be used to replace the **Document Summary** report from Tungsten Capture standard reports. It provides an overview of document processing performance.

The view holds one record for each completed document.

The report author is responsible for additional grouping and summarizing.

Column	Description
batch_name	Batch name.
doc_id	Unique document ID.
event_time	Event date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching event_time.
time_key	Foreign key to time_dim record matching event_time.
sequence_num	Sequential event number within a session.
action_name	Event description.
action_id	Event ID.
is_interactive	<ul style="list-style-type: none"> 0: Automatic event 1: Interactive event
user_logon_name	Username.
station_name	Station name.
mod_name	Module name.
machine_name	Machine name.
export_mod	Involved export connector (for export events).
reject_note	Rejection note (for document reject events).

You can optionally include the following event types in this view.

Event ID	Event Description
20001	Document created (TFS).
20002	Document moved.
20003	Document deleted.
20004	Document exported.
20005	Document created through a split.
20006	Document deleted through a merge.
20007	Document rejected.
20008	Document unrejected.
20009	Suggested class changed.
20010	Suggested class accepted.
20011	Confident class changed.
20012	Form type changed.
20013	Document copied.
20014	Document lost pages on split.
20015	Document gained pages on merge.

Event ID	Event Description
20016	Document created (Tungsten Capture).
20018	Document moved out of the batch.
20019	Document moved into the batch.
20020	Document name changed.
20021	Override document problem.
20022	Restore document problem.
20023	Document system classified.
20024	Page moved between documents.
20025	Capture completed.
20026	Document deleted by retention.

v_page_audit

The information in this view provides an overview of page processing performance. The view holds one record for each page in a completed document.

The report author is responsible for additional grouping and summarizing.

Column	Description
batch_name	Batch name.
page_id	Unique page ID.
event_time	Event date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching event_time.
time_key	Foreign key to time_dim record matching event_time.
sequence_num	Sequential event number within a session.
action_id	Event ID.
action_name	Event description.
is_interactive	<ul style="list-style-type: none"> 0: Automatic event 1: Interactive event
user_logon_name	Username.
site_name	Site name.
station_name	Station name or scanner name (for TFS page create events).
mod_name	Module name.
machine_name	Machine name.
reject_note	Rejection note (for page reject events).

You can optionally include the following event types in this view.

Event ID	Event Description
10001	Page scan (Tungsten Capture).
10002	Page move.
10003	Page delete.
10004	Page export.
10007	Page replace.
10008	Page copy.
10009	Page rotate.
10010	Page reject.
10011	Page unreject.
10012	Page redact (TFS).
10013	Page scan (TFS).
10014	Page annotate (TFS).
10015	Page moved out of the batch.
10016	Page moved into the batch.
10017	Delete annotation for page.
10019	Redact page.

v_page_audit_compare

This view shows the number of scanned, exported, and deleted pages per batch. The view contains one record per completed batch.

Column	Description
full_date	Batch export date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching full_date.
time_key	Foreign key to time_dim record matching full_date.
batch_key	Unique batch key, foreign key to batch_dim.
batch_id	Unique batch ID from Tungsten Capture.
batch_name	Batch name.
pages_scanned	Number of scanned pages.
pages_deleted	Number of deleted pages.
pages_exported	Number of exported pages.

v_batch_completion

This view shows the current status of every batch.

Column	Description
create_time	Batch creation date and time (UTC) in seconds.
create_date_key	Foreign key to date_dim record matching create_time.
create_time_key	Foreign key to time_dim record matching create_time.
batch_name	Batch name.
<u>batch_id</u>	Unique batch ID from Tungsten Capture.
is_deleted	<ul style="list-style-type: none"> 0: Not deleted 1: Deleted
numeric_state	Batch state: <ul style="list-style-type: none"> 2: Ready state 256: Deleted state
mod_name	Last module that processed the batch.
last_proc_time	Last processing time (UTC) in seconds.
last_proc_date_key	Foreign key to date_dim record matching last_proc_time.
last_proc_time_key	Foreign key to time_dim record matching last_proc_time.

v_op_audit

This view shows information about the start and end of interactive batch sessions. It contains one record for each interactive batch open or batch close event.

Column	Description
user_logon_name	Operator name.
batch_name	Batch name.
batch_id	Unique batch ID from Tungsten Capture.
action_id	Event ID.
action_name	Event description.
action_time	Event date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching action_time.
time_key	Foreign key to time_dim record matching action_time.
site_name	Site name.
station_name	Station name.

Column	Description
machine_name	Machine name.
mod_name	Module name.

You can optionally include the following event types in this view.

Event ID	Description
30003	Batch open (interactive).
30004	Batch close (interactive).

v_tsf_user_perf

This view exposes Capture edit user performance (number of documents processed, keystrokes, session duration).

It holds one record for each attended session on a document with index fields.

The report author is responsible for additional grouping and summarizing.

Column	Description
user_logon_name	Username.
user_key	Foreign key to user_dim record matching user_logon_name.
full_date	Session end date (UTC) in seconds.
date_key	Foreign key to date_dim record matching full_date.
time_key	Foreign key to time_dim record matching full_date.
key_strok	Number of keystrokes.
doc_key	Unique document key (foreign key to doc_dim).
doc_id	Unique document ID from TotalAgility.
batch_key	Unique batch key (foreign key to batch_dim).
batch_id	Unique batch ID from TotalAgility.
batch_name	Batch name.
field_num	Number of index fields in this document.
sec	Processing time in seconds.

v_tsf_user_perf_by_mod

This view exposes the time each user spent in each attended module. It holds one record per attended batch session. The report author is responsible for additional grouping and summarizing.

Column	Description
user_logon_name	Username.
user_key	Foreign key to user_dim record matching user_logon_name.
full_date	Session end date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching full_date.
time_key	Foreign key to time_dim record matching full_date.
mod_name	Module name.
mod_key	Foreign key to mod_dim record matching mod_name.
sec	Time spent (seconds).

Chapter 3

Category operational performance: General

This chapter describes the Operational Performance - General views that are the basis for several report types.

Report Type	Existing Report	Views
Module Productivity	Tungsten Capture Standard	v_batch_session
System Throughput by Module Summary	Tungsten Capture Advanced	v_batch_session, v_doc_session
System Throughput by Day Summary	Tungsten Capture Advanced	v_batch_session, v_doc_session
System Throughput by Day by Module Summary	Tungsten Capture Advanced	v_batch_session, v_doc_session
Operator Productivity Summary	Tungsten Capture Standard Tungsten Capture Advanced	v_batch_session, v_doc_session
Operator Productivity by Module Summary	Tungsten Capture Advanced	v_batch_session, v_doc_session
Tungsten Transformation Performance per Module		v_batch_session
Tungsten Transformation Server Performance		v_batch_session, v_doc_session

v_batch_session

The view holds one record for each completed batch session for various report types.

The report author is responsible for additional grouping and summarizing.

Column	Description
mod_name	Module name.
mod_key	Foreign key to mod_dim record matching mod_name.
end_date_and_time	Batch session end date and time (UTC) in seconds
end_date_key	Foreign key to date_dim record matching end_date_and_time.
end_time_key	Foreign key to time_dim record matching end_date_and_time.
batch_key	Unique batch key.

Column	Description
batch_id	Unique batch ID from Tungsten Capture.
batch_name	Batch name.
docs_compl_num	Number of documents completed.
key_strok_num	Number of keystrokes.
sess_duration_sec	Batch processing time in seconds.
pages_num	Number of pages.
docs_num	Number of documents.
ms_in_class_sep	Milliseconds spent on Tungsten Transformation classification and separation.
user_logon_name	Username.
user_key	Foreign key to user_dim record matching user_logon_name.
<u>batch_sess_snapshot_key</u>	Unique batch session key. It can be used for joining the view with v_doc_session, for example, to calculate the number of distinct documents.

v_doc_session (for various report types)

The view holds one record for each completed document session for various report types.

The report author is responsible for additional grouping and summarizing.

Column	Description
<u>doc_sess_snapshot_key</u>	Unique key of the document session.
batch_sess_snapshot_key	Unique key of the batch session.
full_date	Batch session end date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching full_date.
time_key	Foreign key to time_dim record matching full_date.
doc_key	Unique document key.
mod_key	Foreign key to mod_dim record matching mod_name.
mod_name	Module name.
ms_in_ocr	Milliseconds spent on OCR (Tungsten Transformation).
ms_in_extr	Milliseconds spent on extraction (Tungsten Transformation).
ms_in_class	Milliseconds spent on classification (Tungsten Transformation).
doc_sess_duration_ms	Milliseconds spent on this document session (Tungsten Transformation).

Chapter 4

Category operational performance: System performance

This chapter describes the views related to the Operational and System Performance group.

v_pages_scanned (TotalAgility pages scanned)

Use the information in this view to replace the **Pages Scanned** report from Tungsten Capture standard reports. It holds one record per batch session.

The report author is responsible for additional grouping and summarizing.

Column	Description
full_date	Scan date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching full_date.
time_key	Foreign key to time_dim record matching full_date.
site_name	Site name.
station_name	Scan station name.
pages_scanned_num	Number of pages scanned.

v_tsf_class_vs_review (US-CRA01)

Use the information in this view to replace the **Classification versus Review** report from **Tungsten Capture Advanced Reports**. Only completed batches are considered.

This view holds the details of the data (one record per page).

Column	Description
batch_key	Internal batch key (foreign key to batch_dim).
batch_name	Batch name.
op	Review operator name.
review_user_key	Foreign key to user_dim record matching op.
doc_key	Internal document key (foreign key to doc_dim).

Column	Description
initial_tsf_class	Tungsten Transformation class from classification session.
tsf_class	Tungsten Transformation class from document review session.
review_date	Document review date (UTC) in seconds.
reviewed_date_key	Foreign key to date_dim record matching review_date.
reviewed_time_key	Foreign key to time_dim record matching review_date.
classify_date	Classification date (UTC) in seconds.
classified_date_key	Foreign key to date_dim record matching classify_date.
classified_time_key	Foreign key to time_dim record matching classify_date.
page_id	Unique page ID.
is_confly_classified	<ul style="list-style-type: none"> 0: Not confidently classified 1: Confidently classified
class_confidence_perc	Classification confidence in percent.

v_field_acc (US-CRA04)

Use the information in this view to replace the **Tungsten Transformation Field Accuracy** report from **Tungsten Capture Advanced Reports**.

For every completed batch, the view provides one record per named field. It compares the result of automatic classification with the output of TotalAgility validation.

The number of single-character changes is calculated through a Leveshtein distance algorithm implemented in the fn_chars_changed function. As this calculation must be done for every field, the performance of this query may be slow.

Column	Description
<u>field_name</u>	Field name.
full_date	Batch export date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching full_date.
time_key	Foreign key to time_dim record matching full_date.
batch_key	Internal batch key (foreign key to batch_dim).
<u>batch_id</u>	Unique batch ID.
batch_name	Batch name.
doc_num	Number of documents.
field_num	Number of fields.
chars_recognized_num	Number of automatically recognized characters.
chars_validated_num	Number of validated characters.

Column	Description
chars_changed_num	Number of changed characters (calculated through fn_chars_changed).
chars_changed_perc	Percentage of changed characters (based on validated characters).

v_field_confidence (US-CRA05)


Use the information in this view to replace the **Tungsten Transformation Field Confidence** report from **Tungsten Capture Advanced Reports**.

The granularity of this view is a single index field (for tabular fields, several records may exist with the same field name).

Column	Description
field_name	Field name.
recognition_date	Recognition date and time (UTC) in seconds.
batch_class	Batch class.
doc_class	Document class.
chars_conf_perc	Percentage of confident characters.

v_tsf_statistics

Use this view to replace the **Tungsten Transformation Daily Statistics** report. It provides information about document and page traffic and field recognition accuracy. It holds one record per document.

 This view only works for completed documents.

The report author is responsible for additional grouping and summarizing.

Column	Description
last_proc_time	Last processing date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching last_proc_time.
time_key	Foreign key to time_dim record matching last_proc_time.
group_value	Tungsten Transformation group value.
doc_key	Unique document key, foreign key to doc_dim.
doc_id	Unique document ID from Tungsten Capture.
page_num	Number of pages.
field_valid_corr_num	Number of valid and correct fields.
field_valid_incorr_num	Number of valid and incorrect fields.


Column	Description
field_rejected_corr_num	Number of rejected and correct fields.
field_rejected_incorr_num	Number of rejected and incorrect fields.
field_num	Total number of fields.

v_recog_acc_by_batch

Use this view to replace the **Tungsten Transformation Recognition Accuracy by Batch** report.

The view is grouped by batch and field name. It provides the average recognition accuracy of a field within a batch.

The view is based on field detail data. Field details are only kept in the database for a limited time.


 This view only works for completed documents.

Column	Description
batch_name	Batch name.
batch_id	Unique batch ID (from Tungsten Capture).
batch_key	Unique batch key (foreign key to batch_dim).
field_name	Field name.
field_valid_corr_perc	Percentage of valid and correct fields.
field_valid_incorr_perc	Percentage of valid and incorrect fields.
field_rejected_corr_perc	Percentage of rejected and correct fields.
field_rejected_incorr_perc	Percentage of valid and incorrect fields.
field_total_num	Total number of fields.

v_recog_acc_grouped

Use this view to replace the **Tungsten Transformation Recognition Accuracy Grouped** report from **Actual Reports** group.

The view is grouped by Tungsten Transformation group value and field name. It provides field recognition accuracy per group and field name.

 This view only works for completed documents.

Column	Description
group_value	Tungsten Transformation group value.

Column	Description
<u>field_name</u>	Field name.
field_valid_corr_num	Number of valid and correct fields.
field_valid_incorr_num	Number of valid and incorrect fields.
field_rejected_corr_num	Number of rejected and correct fields.
field_rejected_incorr_num	Number of rejected and incorrect fields.
field_num	Total number of fields.

v_recog_timing_by_batch

Use this view to replace the **Tungsten Transformation Recognition Timing by Batch** report from **Actual Reports** group.

It holds one record for each completed batch.

Column	Description
batch_key	Internal batch key (foreign key to batch_dim).
<u>batch_id</u>	Unique batch ID (from Tungsten Capture).
batch_name	Batch name.
last_proc_time	Last processing date and time (UTC, granularity: seconds).
date_key	Foreign key to date_dim record matching last_proc_time.
time_key	Foreign key to time_dim record matching last_proc_time.
doc_num	Number of documents.
page_num	Number of pages.
sec_in_ocr	Total seconds spent in OCR.
sec_in_extr	Total seconds spent in extraction.

v_doc_volume_by_batch

Use **v_recog_timing_by_batch** or **v_doc_volume_by_batch** to design the **Tungsten Transformation Document Volume by Batch** report from **Actual Reports** group.

The **v_doc_volume_by_batch** view holds one record for each completed document.


Column	Description
batch_key	Internal batch key (foreign key to batch_dim).
<u>batch_id</u>	Unique batch ID (from Tungsten Capture).
batch_name	Batch name.

Column	Description
last_proc_time	Last processing date and time (UTC, granularity: seconds).
date_key	Foreign key to date_dim record matching last_proc_time.
time_key	Foreign key to time_dim record matching last_proc_time.
doc_num	Number of documents.
page_num	Number of pages.

v_doc_volume_grouped

Use this view to design the **Tungsten Transformation Document Volume Grouped** report from **Actual Reports** group.

For each batch, the report shows the document volume grouped by group value.

 This view works for completed documents.

Column	Description
<u>group_value</u>	Tungsten Transformation group value.
batch_name	Batch name.
<u>batch_id</u>	Unique batch ID (from Tungsten Capture).
batch_key	Internal batch key (foreign key to batch_dim).
last_proc_time	Last processing date and time (UTC, granularity: seconds).
date_key	Foreign key to date_dim record matching last_proc_time.
time_key	Foreign key to time_dim record matching last_proc_time.
doc_num	Number of documents.
page_num	Number of pages.

v_recog_acc_by_field

Use this view to design the **Tungsten Transformation Recognition Accuracy by Field** historical report.

It is built from aggregated data and grouped by batch class and field name.

Column	Description
<u>batch_class</u>	Batch class name.
<u>field_name</u>	Field name.
field_valid_corr_perc	Percentage of valid and correct fields.

Column	Description
field_valid_incorr_perc	Percentage of valid and incorrect fields.
field_invalid_corr_perc	Percentage of invalid and correct fields.
field_invalid_incorr_perc	Percentage of invalid and incorrect fields.
field_total_num	Total field number.

v_recog_timing_grouped

Use this view to design the **Tungsten Transformation Document Recognition Timing Grouped** and **Tungsten Transformation Document Recognition Timing per Day** historical report types.

It holds one record per completed document.

The report author is responsible for additional grouping and summarizing.


Column	Description
batch_class	Batch class name.
group_value	Tungsten Transformation group value.
last_proc_date_time	Last processing date and time (UTC, granularity: seconds).
date_key	Foreign key to date_dim record matching export_date_key.
time_key	Foreign key to time_dim record matching last_proc_time.
doc_key	Unique document key (foreign key to doc_dim).
page_num	Number of pages.
sec_in_ocr	Total OCR time in seconds.
sec_in_extr	Total extraction time in seconds.

v_recog_acc_by_batch_grouped

Use this view to design the **Tungsten Transformation Recognition Accuracy Grouped** and **Tungsten Transformation Recognition Accuracy per Day** historical report types.

It holds one record for each combination of a batch ID and group value.

The report author is responsible for additional grouping and summarizing.

 This view works for completed documents.

Column	Description
batch_class	Batch class name.
batch_name	Batch name.


Column	Description
<u>batch_id</u>	Unique batch ID.
batch_key	Unique batch key (foreign key to batch_dim).
<u>group_value</u>	Tungsten Transformation group value.
last_proc_date_time	Last processing date and time (UTC, granularity: seconds).
<u>date_key</u>	Foreign key to date_dim record matching export_date_time.
<u>time_key</u>	Foreign key to time_dim record matching export_date_time.
valid_corr	Number of valid and correct fields.
valid_incorr	Number of valid and incorrect fields.
invalid_corr	Number of invalid and correct fields.
invalid_incorr	Number of invalid and incorrect fields.
field_num	Number of fields.
doc_num	Number of documents.
page_num	Number of pages.

v_field_recog_acc_grouped

Use this view to design the **Tungsten Transformation Field Recognition Accuracy Grouped** and **Tungsten Transformation Field Recognition Accuracy per Day** historical report types.

It is grouped by batch ID, group value, and field name.

The report author is responsible for additional grouping and summarizing.

 This view works for completed documents.

Column	Description
<u>batch_id</u>	Unique batch ID from Tungsten Capture.
batch_name	Batch name.
batch_key	Unique batch key (foreign key to batch_dim).
batch_class	Batch class name.
<u>group_value</u>	Tungsten Transformation group value.
<u>field_name</u>	Field name.
last_proc_time	Last processing date and time (UTC, granularity: seconds).
date_key	Foreign key to date_dim record matching export_date_time.
time_key	Foreign key to time_dim record matching export_date_time.
valid_corr	Number of valid and correct fields.

Column	Description
valid_incorr	Number of valid and incorrect fields.
invalid_corr	Number of invalid and correct fields.
invalid_incorr	Number of invalid and incorrect fields.
field_num	Number of fields.

v_tsf_class_acc

This view displays the Tungsten Transformation document classification accuracy. It covers only documents that were marked as completed. It holds one record per completed document.

The report author is responsible for additional grouping and summarizing.

Column	Description
batch_class	Batch class name.
group_value	Tungsten Transformation group value.
class_date_time	Classification date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching export_date_time.
time_key	Foreign key to time_dim record matching export_date_time.
doc_key	Unique document key (foreign key to doc_dim).
corr_and_conf	1 if the document is correct and confidently classified.
corr_and_unconf	1 if the document is correct and unconfidently classified.
incorr_and_conf	1 if the document is incorrect and confidently classified.
incorr_and_unconf	1 if the document is incorrect and unconfidently classified.

v_tsf_sep_acc_by_batch_class

This view displays the Tungsten Transformation batch separation accuracy.

It holds one record per completed batch.

The report author is responsible for additional grouping and summarizing.

Column	Description
batch_class	Batch class
create_date_time	Batch creation date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching export_date_time.
time_key	Foreign key to time_dim record matching export_date_time.
batch_key	Unique batch key (foreign key to batch_dim).

Column	Description
<u>batch_id</u>	Unique batch ID from Tungsten Capture.
batch_name	Batch name.
corr_splits	Number of correct split points.
wrong_splits	Number of wrong split points.
missed_splits	Number of missed split points.
is_corrly_split	0 if the batch has wrong split points or missed split points, else 1.

v_tsf_extr_acc_grouped

This view displays the Tungsten Transformation field extraction accuracy grouped by batch, group value, and field name.

The report author is responsible for additional grouping and summarizing.

 This view works for completed documents.

Column	Description
batch_class	Batch class.
<u>batch_id</u>	Unique batch ID.
<u>group_value</u>	Tungsten Transformation group value.
<u>field_name</u>	Field name.
batch_name	Batch name.
batch_key	Unique batch key (foreign key to batch_dim).
last_proc_date_time	Last processing date and time (UTC, granularity: seconds).
last_proc_date_key	Foreign key to date_dim record matching export_date_time.
last_proc_time_key	Foreign key to time_dim record matching export_date_time.
fields	Number of fields.
characters	Number of characters.
valid_corr_fields	Number of valid and correct fields.
valid_incorr_fields	Number of valid and incorrect fields.
invalid_corr_fields	Number of invalid and correct fields.
invalid_incorr_fields	Number of invalid and incorrect fields.

v_sla_monitoring

This view displays the total processing time (from inception till completion / or from inception till last batch event, if the batch was not completed yet), batch completion status, number of documents, number of pages, batch class, station, and operator from batch creation. It holds one record per batch.

Column	Description
batch_class	Batch class.
<u>batch_id</u>	Unique batch ID
batch_name	Batch name.
time_created	Creation time of oldest document (UTC) in seconds.
create_date_key	Foreign key to date_dim record matching time_created.
create_time_key	Foreign key to time_dim record matching time_created.
is_exported	<ul style="list-style-type: none"> 0: Not exported 1: Exported
batch_state	Numeric batch status: <ul style="list-style-type: none"> 2: Ready 256: Deleted
scan_user	Scan user.
create_user_key	Foreign key to user_dim record matching scan_user.
scan_site	Scan site.
scan_station	Scan station.
create_station_key	Foreign key to station_dim record matching scan_station.
end_to_end_sec_num	Total processing time of this batch (so far).
docs_num	Number of documents.
pages_num	Number of pages.

v_sla_monitoring_bf

For each batch, it shows the value of this batch field, the total processing time (from inception till completion / or from inception till last batch event, if the batch was not completed yet), batch completion status, number of documents, number of pages, batch class, station, and operator from batch creation and field value.

Column	Description
batch_class	Batch class.
<u>batch_id</u>	Unique batch ID

Column	Description
batch_name	Batch name.
time_created	Creation time of oldest document (UTC) in seconds.
create_date_key	Foreign key to date_dim record matching time_created.
create_time_key	Foreign key to time_dim record matching time_created.
field_value	Batch field value.
is_exported	<ul style="list-style-type: none">• 0: Not exported• 1: Exported
batch_state	Numeric batch status.
scan_user	Scan user.
create_user_key	Foreign key to user_dim record matching scan_user.
scan_site	Scan site.
scan_station	Scan station.
create_station_key	Foreign key to station_dim record matching scan_station.
end_to_end_sec_num	Total processing time of this batch (so far).
docs_num	Number of documents.
pages_num	Number of pages.

Chapter 5

Category operational performance: Operator

This chapter describes the Operational Performance - views that are the basis for several report types.

v_op_prod_by_mod_details (US-WrkMgt03, US-WrkMgt05)

Use this view to replace the **Operator Productivity Details** and **Operator Productivity by Batch Detail** report types in **Tungsten Capture Advanced Reports**.

Each record holds performance details about a single batch session.

Column	Description
op	Operator name.
batch_key	Unique batch ID (foreign key to batch_dim).
batch_id	Unique batch ID.
batch_name	Batch name.
mod_name	Module name.
start_time	Batch session start date and time (UTC) in seconds.
start_date_key	Foreign key to date_dim record matching start_time.
start_time_key	Foreign key to time_dim record matching start_time.
end_time	Batch session end date and time (UTC) in seconds.
end_date_key	Foreign key to date_dim record matching end_time.
end_time_key	Foreign key to time_dim record matching end_time.
distinct_docs	Number of documents at session end.
processing_time	Batch session duration in seconds.
avg_time_per_dist_doc	Average time per document in seconds.

v_op_prod_by_batch_summary (US-WrkMgt04)

Use this view to replace the **Operator Productivity By Batch Summary** report in **Tungsten Capture Advanced Reports**.

It shows how a single operator contributed to the performance of a single batch. The view is grouped by batch and operator.

Column	Description
<u>user_logon_name</u>	Operator name.
batch_key	Internal batch key (foreign key to batch_dim).
<u>batch_id</u>	Unique batch ID (from Tungsten Capture).
batch_name	Batch name.
sesss	Number of batch sessions.
mo ds	Number of used modules.
sum_docs	Number of completed documents.
distinct_docs	A distinct number of documents.
processing_time	Batch processing time in seconds.
avg_sess_time	Average batch session duration in seconds.
avg_mod_time	Average time spent per module in seconds.
distinct_doc_time	Average time spent per document in seconds.
batch_create_time	Batch creation date and time (UTC) in seconds.
date_key	Foreign key to date_dim record matching batch_create_time.
time_key	Foreign key to time_dim record matching batch_create_time.

Chapter 6

Sample report queries

This chapter describes sample queries for some report types that are grouped by date. The database holds all timestamps in UTC. It is up to the report author to calculate local date and time values as needed and to do the grouping.

The following examples show how to achieve the calculations of date and time values, and grouping using the predefined set of views. All examples are in TSQL syntax (for MS SQL Server 2008 R2).

All sample queries use the following algorithm to determine the local date value *date_local* from the UTC-based date and time value *date_time_utc*:

```
CAST( SWITCHOFFSET(TODATETIMEOFFSET (date_time_utc, '+00:00'),  
DATENAME(TZoffset, SYSDATETIMEOFFSET()) ) as date) as date_local
```

For conversion to another time zone, use an explicit date and time offset value as the second parameter of the SWITCHOFFSET function.

Example (switching to UTC + 8):

```
CAST( SWITCHOFFSET(TODATETIMEOFFSET (date_time_utc, '+00:00'), '+08:00' ) as date) as  
date_local
```

Helper views

Some views are for internal use and their backward compatibility is not guaranteed. The following table provides a list of such views.

View	Description
v_batch_duration_hlp	Batch duration helper view. Shows batch summary for batches that contains some scanned pages.
v_dist_docs	Helper view. Shows distinct documents in all document sessions.
v_field_chars_changed	Operational performance helper view. Shows changed chars per field.
v_last_batch_event	Shows the latest batch action.
v_object_audit_hlp	Helper view intended for internal usage for other audit views.
v_open_batch_sess	Show batch sessions that are currently open. This view is currently not supported, because data is reported only when the session is completed.
v_batch_completed_hlp	Shows batches that contain documents that were marked as Capture completed.

Filtering by the local date

All views holding date and time values also hold foreign keys to the dimension tables *date_dim* and *time_dim*. As these keys are indexed, they should be used when filtering by day or time is needed.

Business Intelligence (BI) applications, such as Tungsten Analytics, can convert date and time values to UTC and then build date and time keys from UTC.

The `date_key` in `date_dim` is an integer value that can be calculated as `day + month * 100 + year * 10000`. For example, the date 2012-10-31 corresponds to `date_key` 20121031.

The `time_key` in `time_dim` is an integer value that can be calculated as `second + minute*100 + hour * 10000`. Thus, the minimum `time_key` is 0 (00:00:00) and the maximum `time_key` is 235959 (23:59:59).

Batch audit

Use this query to replace the **Batch Summary** report from Tungsten Capture standard reports. It provides an overview of batch processing performance, grouped by batch class and day.

```
SELECT ld.batch_class,ld.create_day,COUNT (ld.batch_id) as batches,
SUM (ld.processing_time) as processing_time,SUM (ld.end_to_end_time) as
end_to_end_time,
SUM (ld.docs) as docs,SUM(ld.pages) as pages,
SUM (ld.docs) * 1.0 / COUNT (ld.batch_id) as avg_docs_per_batch,
SUM(ld.pages) * 1.0 / COUNT (ld.batch_id) as avg_pages_per_batch,
SUM (ld.processing_time) * 1.0 / nullif (SUM(ld.docs),0) as
avg_processing_time_per_doc,
SUM (ld.processing_time) * 1.0 / count (ld.batch_id) as avg_processing_time_per_batch,
SUM (ld.end_to_end_time) * 1.0 / COUNT (ld.batch_id) as avg_end_to_end_time
FROM (select batch_id, batch_name,CAST( SWITCHOFFSET(TODATETIMEOFFSET
(create_date_time,'+00:00'),
DATENAME(TZoffset, SYSDATETIMEOFFSET())) ) as date) as create_day,
batch_class,processing_time,end_to_end_time,docs,pages
FROM v_batch_audit ) ld group by ld.batch_class, ld.create_day
```

TotalAgility user performance

This query provides information about the performance of TotalAgility operators (number and frequency of keystrokes, processed documents), grouped by operator name and day.

```
;with locData (user_logon_name, localDate, doc_key, batch_key, key_strok, field_num,
sec)as
(SELECT user_logon_name,CAST( SWITCHOFFSET(TODATETIMEOFFSET (full_date,'+00:00'),
DATENAME(TZoffset, SYSDATETIMEOFFSET())) ) as date) as
localDate,doc_key,batch_key,key_strok,field_num,
sec from v_tsf_user_perf)
SELECT d.user_logon_name, d.localDate as full_date, y.key_strok,
y.doc_sssss,y.distinct_docs,
y.distinct_batches ,y.field_sssss, d.dist_fields, y.sec,
y.key_strok * 1.0/ y.field_sssss as key_strok_per_field_sess,
y.key_strok * 1.0/ d.dist_fields as key_strok_per_dist_field,
y.key_strok * 1.0/ y.doc_sssss as key_strok_per_doc_sess,
y.key_strok * 1.0/ y.distinct_docs as key_strok_per_dist_doc,
y.key_strok * 1.0/ y.distinct_batches as key_strok_per_batch,
y.key_strok * 60.0/ nullif (y.sec,0) as key_strok_min_user,
y.key_strok * 60.0/ nullif (y.sec * y.field_sssss, 0) as key_strok_min_field_sess,
y.key_strok * 60.0/ nullif (y.sec * d.dist_fields, 0) as key_strok_min_dist_field,
y.key_strok * 60.0/ nullif (y.sec * y.doc_sssss, 0) as key_strok_min_doc_sess,
y.key_strok * 60.0/ nullif (y.sec * y.distinct_docs, 0) as key_strok_min_dist_doc,
y.key_strok * 60.0/ nullif (y.sec * y.distinct_batches, 0) as key_strok_min_dist_batch
```



```
FROM(SELECT x.user_logon_name, x.localDate, SUM(x.dist_fields) as dist_fields from
(SELECT user_logon_name,localDate,doc_key,MAX(field_num) as dist_fields
FROM locData group by user_logon_name, localDate, doc_key) x group by
x.user_logon_name, x.localDate)
d inner join
(SELECT user_logon_name, localDate,SUM (key_strok) as key_strok,COUNT (doc_key) as
doc_sessss,
COUNT (distinct doc_key) as distinct_docs,COUNT (distinct batch_key) as
distinct_batches,
SUM (field_num) as field_sessss,SUM (sec) as sec
FROM locData group by user_logon_name, localDate) y
on (d.user_logon_name = y.user_logon_name and d.localDate = y.localDate )
```

TotalAgility user performance per module

This query shows the number and duration of interactive batch sessions, grouped by user, date, and module.

```
;with locData (user_logon_name,localDate, mod_name, sec) as
(SELECT user_logon_name, CAST
(SWITCHOFFSET(TODATETIMEOFFSET (full_date,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as localDate,mod_name,sec
FROM v_tsf_user_perf_by_mod )
SELECT user_logon_name, localDate as full_date, mod_name, SUM (sec) as total_sec,
AVG (sec * 1.0) as average_sec,COUNT (sec) as sessss
FROM locData group by user_logon_name, localDate, mod_name
```

Module productivity

Like the **v_mod_prod** original view, use this query when porting the **Tungsten Capture Module Productivity** standard report to the Tungsten Reporting Platform. The resulting data set is grouped by module and date.

```
;with locData (mod_name, localDate, batch_key, docs_compl_num,
key_strok_num,sess_duration_sec) as
(SELECT mod_name, CAST
(SWITCHOFFSET(TODATETIMEOFFSET (end_date_and_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as localDate, batch_key,docs_compl_num, key_strok_num, sess_duration_sec
FROM v_batch_session)
SELECT mod_name,localDate as full_date,COUNT (batch_key) as sess_num,
COUNT (distinct batch_key) as batch_num,SUM (docs_compl_num) as docs_compl_num,
SUM (key_strok_num) as key_strok_num,
SUM (docs_compl_num) * 1.0 / COUNT (distinct batch_key) as
avg_compl_docs_per_batch_num,
SUM (key_strok_num) * 1.0 / nullif (sum (docs_compl_num),0) as
avg_key_strok_per_compl_doc,
SUM (sess_duration_sec) as total_processing_time_sec,
SUM (sess_duration_sec) * 1.0 / COUNT (distinct batch_key) as avg_sec_per_batch,
SUM (sess_duration_sec) * 1.0 / nullif (sum (docs_compl_num),0) as
avg_sec_per_compl_doc
FROM locData group by mod_name, localDate
```

System throughput

Like the **v_sys_through_by_day_by_mod** original view, use this query when porting the following **Tungsten Capture Advanced Reports** to the Tungsten Reporting Platform:

- **System Throughput by Module Summary**
- **System Throughput by Day Summary**
- **System Throughput by Day by Module Summary**

The query measures system throughput (sessions, batches, documents, pages, duration) grouped by module and day.

```
;with locData (mod_name, localDate, batch_key, docs_compl_num,
key_strok_num, sess_duration_sec,
pages_num, batch_sess_snapshot_key) as
(SELECT mod_name, CAST (SWITCHOFFSET(TODATETIMEOFFSET (end_date_and_time, '+00:00'),
DATENAME(TZoffset, SYSDATETIMEOFFSET())) as date) as
localDate, batch_key, docs_compl_num, key_strok_num,
sess_duration_sec, pages_num, batch_sess_snapshot_key FROM v_batch_session)
SELECT mod_name, full_date, sess_num, batch_num, distinct_doc_num, page_num,
total_processing_time_sec,
total_processing_time_sec * 1.0 / sess_num as avg_time_per_sess_sec,
total_processing_time_sec * 1.0 / batch_num as avg_time_per_batch_sec,
total_processing_time_sec * 1.0 / nullif(distinct_doc_num, 0) as
avg_time_per_dist_doc_sess,
total_processing_time_sec * 1.0 / nullif (page_num, 0) as avg_time_per_page_sess
FROM (SELECT bdata.*, (SELECT COUNT (distinct doc_key) FROM v_doc_session where
batch_sess_snapshot_key in (select batch_sess_snapshot_key from locData where
mod_name = bdata.mod_name and localDate = bdata.full_date)) as distinct_doc_num
FROM (SELECT mod_name, localDate as full_date, COUNT (batch_key) as sess_num, COUNT
(distinct batch_key) as batch_num,
SUM (pages_num) as page_num, SUM (sess_duration_sec) as total_processing_time_sec
FROM locData group by mod_name, localDate ) bdata ) x
```

Operator productivity summary

Like the **v_op_prod_summary** original view, this query can be used as an equivalent of the **Tungsten Capture Operator Productivity Summary** report and **Tungsten Capture US-WrkMgt01** Advanced Report.

This query shows the productivity of a single operator by day.

```
;with locData (user_logon_name, mod_name, localDate, batch_key, docs_compl_num,
key_strok_num, sess_duration_sec, pages_num, batch_sess_snapshot_key) as
(SELECT user_logon_name, mod_name, CAST
(SWITCHOFFSET(TODATETIMEOFFSET (end_date_and_time, '+00:00'), DATENAME(TZoffset,
SYSDATETIMEOFFSET()))
as date) as
localDate, batch_key, docs_compl_num, key_strok_num, sess_duration_sec, pages_num,
batch_sess_snapshot_key from v_batch_session)
SELECT user_logon_name, full_date, sess_num as sesss, batch_num as batches, mods, sum_docs,
distinct_doc_num as distinct_docs,
total_processing_time_sec as processing_time,
total_processing_time_sec * 1.0 / nullif (sess_num, 0) as avg_sess_time,
total_processing_time_sec * 1.0 / nullif (mods, 0) as avg_mod_time,
total_processing_time_sec * 1.0 / nullif(distinct_doc_num, 0) as distinct_doc_time,
```

```

sum_keystrok,sum_docs * 1.0 / nullif (batch_num,0) as avg_compl_docs_per_batch,
sum_keystrok * 1.0 / nullif (sum_docs, 0) as avg_keystrok_per_doc,
total_processing_time_sec * 1.0 / batch_num as distinct_batch_time,
sum_docs * 3600.0 / nullif (total_processing_time_sec,0) as docs_per_hour,
sum_keystrok * 3600.0 / nullif (total_processing_time_sec,0) as keystrok_per_hour
FROM (SELECT bdata.*,
(SELECT COUNT (distinct doc_key) from v_doc_session where
batch_sess_snapshot_key in (select batch_sess_snapshot_key from locData where
user_logon_name = bdata.user_logon_name and localDate = bdata.full_date)) as
distinct_doc_num
FROM (SELECT user_logon_name,localDate as full_date,
COUNT (batch_key) as sess_num,
COUNT (distinct batch_key) as batch_num,
COUNT (distinct mod_name) as mods,
SUM (docs_compl_num) as sum_docs,
SUM (key_strok_num) as sum_keystrok,
SUM (sess_duration_sec) as total_processing_time_sec
FROM locData group by user_logon_name, localDate) bdata) x

```

TotalAgility module performance

Like the **v_tsf_perf_per_mod** original view, this query shows batch and document processing statistics, grouped by module and day.

```

;with locData (user_logon_name, mod_name, localDate, batch_key, docs_num,
docs_compl_num,
key_strok_num,sess_duration_sec, pages_num, batch_sess_snapshot_key) as
(SELECT user_logon_name, mod_name,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (end_date_and_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET()))
as date) as localDate,batch_key,docs_num, docs_compl_num,
key_strok_num,sess_duration_sec,pages_num,
batch_sess_snapshot_key from v_batch_session)
SELECT mod_name, localDate as full_date,SUM(sess_duration_sec) as total_sec,
COUNT (batch_key) as batch_sssss,SUM (docs_num) as doc_sssss,
AVG (sess_duration_sec * 1.0) as sec_per_batch,
SUM (sess_duration_sec) * 1.0 / nullif (sum (docs_num), 0) as sec_per_doc
FROM locData group by mod_name, localDate

```

TotalAgility server performance

Like the **v_tsf_server_perf** original view, this query shows the performance of the Tungsten Transformation Server processes on a per-day basis.

```

;with locData (mod_name, localDate, ms_in_class_sep, batch_sess_snapshot_key) as
(SELECT mod_name,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (end_date_and_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET()))
as date) as localDate,ms_in_class_sep,batch_sess_snapshot_key from v_batch_session),
locDocData (mod_name,batch_sess_snapshot_key,doc_sess_snapshot_key,doc_key,ms_in_ocr,
ms_in_extr, ms_in_class,
doc_sess_duration_ms,localDate ) as
(SELECT mod_name,batch_sess_snapshot_key,doc_sess_snapshot_key,
doc_key,ms_in_ocr,ms_in_extr,ms_in_class,
doc_sess_duration_ms,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (full_date,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET()))

```

```

as date) as localDate from v_doc_session)
SELECT localDate as full_date,SUM (locDocData.ms_in_ocr) as total_ms_in_ocr,
SUM (locDocData.ms_in_extr) as total_ms_in_extr,SUM (locDocData.ms_in_class) as
total_ms_in_class,
SUM (locDocData.doc_sess_duration_ms) as total_ms,
(SELECT SUM (ms_in_class_sep * 1.0) FROM locData d where
d.localDate = locDocData.localDate) as total_ms_in_class_sep,COUNT
(locDocData.doc_sess_snapshot_key ) as doc_sesss,
AVG (locDocData.ms_in_ocr * 1.0) as avg_ms_in_ocr,AVG (locDocData.ms_in_extr * 1.0) as
avg_ms_in_extr,
AVG (locDocData.ms_in_class * 1.0) as avg_ms_in_class,AVG
(locDocData.doc_sess_duration_ms * 1.0) as avg_ms
FROM locDocData where mod_name like 'TT Server%' group by localDate

```

Pages scanned

Use this query to replace the **Tungsten Capture Pages Scanned** standard report. It shows scan statistics grouped by day, scan station, and site.

```

;with locData (localDate, station_name, site_name, pages_scanned_num) as
(SELECT CAST
(SWITCHOFFSET(TODATETIMEOFFSET (full_date,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as localDate, station_name, site_name, pages_scanned_num from v_pages_scanned)
SELECT localDate,YEAR(localDate) as calendar_year,MONTH (localDate) as month_of_year,
site_name,station_name,SUM (pages_scanned_num) as pages_scanned_num
FROM locData group by localDate,station_name,site_name

```

TotalAgility daily statistics

Like the **v_daily_statistics** original view, use this query for porting the **Tungsten Transformation Daily Statistics** report.

The query shows throughput and field recognition accuracy per day and group value.

```

;with locData (localDate,group_value,doc_key,doc_id,page_num,field_valid_corr_num,
field_valid_incorr_num,field_rejected_corr_num,field_rejected_incorr_num,field_num) as
(SELECT CAST
(SWITCHOFFSET(TODATETIMEOFFSET (last_proc_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as localDate,[group_value],[doc_key],[doc_id],[page_num],
[field_valid_corr_num],
[field_valid_incorr_num],[field_rejected_corr_num],[field_rejected_incorr_num],
[field_num]
FROM v_tsf_statistics)
SELECT localDate, group_value,COUNT (doc_key) as doc_num,SUM (page_num) as page_num,
SUM (field_valid_corr_num) as field_valid_corr_num,
SUM (field_valid_incorr_num) as field_valid_incorr_num,
SUM (field_rejected_corr_num) as field_rejected_corr_num,
SUM (field_rejected_incorr_num) as field_rejected_incorr_num,
SUM (field_num) as field_num
FROM locData group by localDate,group_value

```

TotalAgility recognition timing by month

This query shows TotalAgility recognition timing grouped by batch class, group value, and month. Use this query to replace the **Tungsten Transformation Document Recognition Timing Grouped** historical report.

```
;with locData
  (batch_class,group_value,localDate,doc_key,page_num,sec_in_ocr,sec_in_extr) as
  (SELECT batch_class,group_value,CAST
  (SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
  SYSDATETIMEOFFSET())))
  as date) as localDate,doc_key,page_num,sec_in_ocr,sec_in_extr
FROM v_recog_timing_grouped)
SELECT batch_class, group_value,
CAST (YEAR(localDate) as nvarchar(4)) + RIGHT('0'+
  CONVERT(VARCHAR,MONTH(localDate)),2) as last_proc_time,
COUNT (doc_key) as doc_num,SUM (page_num) as page_num,SUM (sec_in_ocr) as sec_in_ocr,
SUM (sec_in_extr) as sec_in_extr
FROM locData group by locData.batch_class,locData.group_value,
CAST (YEAR(localDate) as nvarchar(4)) + RIGHT('0'+
  CONVERT(VARCHAR,MONTH(localDate)),2)
```

TotalAgility recognition timing by day

This query shows TotalAgility recognition timing grouped by batch class, group value, and day. Use the query to replace the **Tungsten Transformation Document Recognition Timing per Day** historical report.

```
;with locData
  (batch_class,group_value,localDate,doc_key,page_num,sec_in_ocr,sec_in_extr) as
  (SELECT batch_class,group_value,CAST
  (SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
  SYSDATETIMEOFFSET())))
  as date) as localDate,doc_key,page_num,sec_in_ocr,sec_in_extr
FROM v_recog_timing_grouped)
SELECT batch_class, localDate,COUNT (doc_key) as doc_num,SUM (page_num) as page_num,
SUM (sec_in_ocr) as sec_in_ocr,SUM (sec_in_extr) as sec_in_extr
FROM locData group by locData.batch_class,locData.localDate
```

TotalAgility recognition accuracy by month

This query shows TotalAgility recognition accuracy grouped by timing grouped by batch class, group value, and month. Use this query to replace the **Tungsten Transformation Recognition Accuracy Grouped** historical report.

```
;with locData (batch_id,batch_name,batch_class,group_value,localDate,batch_key,
group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,field_num,doc_num,page_num) as
  (SELECT batch_id,batch_name,batch_class,group_value,CAST
  (SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
  SYSDATETIMEOFFSET())))
  as date) as localDate,batch_key,group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,field_num,doc_num,page_num
```

```

FROM v_recog_acc_by_batch_grouped)
SELECT batch_class,group_value,CONVERT(nvarchar(4), YEAR(localDate)) + RIGHT ('0'+
CONVERT (nvarchar(2),
MONTH(localDate)), 2) as ym,SUM (valid_corr) * 100.0 / SUM (field_num) as
valid_corr_perc,
SUM (valid_incorr) * 100.0 / SUM (field_num) as valid_incorr_perc,
SUM (invalid_corr) * 100.0 / SUM (field_num) as invalid_corr_perc,
SUM (invalid_incorr) * 100.0 / SUM (field_num) as invalid_incorr_perc,
SUM (field_num) as field_num,SUM (doc_num) as doc_num,SUM (page_num) as page_num
FROM locData group by batch_class,group_value, CONVERT(nvarchar(4),
YEAR(localDate)) + RIGHT ('0'+ CONVERT (nvarchar(2), MONTH(localDate)),2

```

TotalAgility recognition accuracy by day

This query shows TotalAgility recognition accuracy grouped by timing grouped by batch class and day. Use this query to replace the **Tungsten Transformation Recognition Accuracy per Day** historical report.

```

;with locData ( batch_id,batch_name,batch_class,group_value,localDate,batch_key,
group_value_key,valid_corr,valid_incorr,
invalid_corr,invalid_incorr,field_num,doc_num,page_num)as
(SELECT batch_id,batch_name,batch_class,group_value,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET()))
as date) as localDate,batch_key,group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,
field_num,doc_num,page_num
FROM v_recog_acc_by_batch_grouped)
SELECT batch_class, localDate as full_date,SUM (valid_corr) * 100.0 / SUM (field_num)
as valid_corr_perc,
SUM (valid_incorr) * 100.0 / SUM (field_num) as valid_incorr_perc,
SUM (invalid_corr) * 100.0 / SUM (field_num) as invalid_corr_perc,
SUM (invalid_incorr) * 100.0 / SUM (field_num) as invalid_incorr_perc,
SUM (field_num) as field_num,SUM (doc_num) as doc_num,SUM (page_num) as page_num
FROM locData group by batch_class,localDate

```

TotalAgility field recognition accuracy by month

Like the **v_field_recog_acc_grouped** original query, use this query for porting the **Tungsten Transformation Field Recognition Accuracy Grouped** report. It provides field recognition statistics grouped by batch class, group value, field, and month.

```

;with locData
(batch_id,batch_name,batch_class,group_value,field_name,localDate,field_key,
batch_key,group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,field_num) as
(SELECT batch_id,batch_name,batch_class,group_value,field_name,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET()))
as date) as
localDate,field_key,batch_key,group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,field_num
FROM v_field_recog_acc_grouped)
SELECT batch_class, group_value,field_name,CONVERT (nvarchar(4),
YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2), MONTH(localDate)),2) as ym,
SUM (valid_corr) * 100.0 / SUM (field_num) as field_valid_corr_perc,
SUM (valid_incorr) * 100.0 / SUM (field_num) as field_valid_incorr_perc,

```

```
SUM (invalid_corr) * 100.0 / SUM (field_num) as field_invalid_corr_perc,
SUM (invalid_incorr) * 100.0 / SUM (field_num) as field_invalid_incorr_perc,
SUM (field_num) as field_num
FROM locData group by batch_class, group_value, field_name,
CONVERT (nvarchar(4),YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2),
MONTH(localDate)),2)
```

TotalAgility field recognition accuracy by day

Like the **v_field_recog_acc_per_day** original query, use this query for porting the **Tungsten Transformation Field Recognition Accuracy per Day** report. It provides field recognition statistics grouped by batch class, field, and day.

```
;with locData
(batch_id,batch_name,batch_class,group_value,field_name,localDate,field_key,
batch_key,group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,field_num) as
(SELECT batch_id,batch_name,batch_class,group_value,field_name,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as
localDate,field_key,batch_key,group_value_key,valid_corr,valid_incorr,invalid_corr,
invalid_incorr,field_num
FROM v_field_recog_acc_grouped)
SELECT batch_class, field_name,localDate as full_date,
SUM (valid_corr) * 100.0 / SUM (field_num) as field_valid_corr_perc,
SUM (valid_incorr) * 100.0 / SUM (field_num) as field_valid_incorr_perc,
SUM (invalid_corr) * 100.0 / SUM (field_num) as field_invalid_corr_perc,
SUM (invalid_incorr) * 100.0 / SUM (field_num) as field_invalid_incorr_perc,
SUM (field_num) as field_num
FROM locData group by batch_class, field_name, localDate
```

TotalAgility document classification accuracy by month

Like the **v_tsf_class_acc_grouped** original query, this query shows TotalAgility document classification accuracy, grouped by batch class, group value, and month.

```
;with locData (batch_class,group_value,localDate,doc_key,corr_and_conf,incorr_and_conf,
corr_and_unconf,incorr_and_unconf) as
(SELECT batch_class,group_value,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (class_date_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as
localDate,doc_key,corr_and_conf,incorr_and_conf,corr_and_unconf,incorr_and_unconf
FROM v_tsf_class_acc)
SELECT batch_class,group_value,
CONVERT (nvarchar(4),YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2),
MONTH(localDate)),2) as month_classified,COUNT (doc_key) as docs,
SUM (corr_and_conf)as corr_conf_docs,SUM (corr_and_unconf) as corr_unconf_docs,
SUM (incorr_and_conf) as incorr_conf_docs,SUM (incorr_and_unconf) as
incorr_unconf_docs,
SUM (corr_and_conf) * 100.0 / count (doc_key) as perc_corr_conf_docs,
SUM (corr_and_unconf) * 100.0 / count (doc_key) as perc_corr_unconf_docs,
SUM (incorr_and_conf) * 100.0 / count (doc_key) as perc_incorr_conf_docs,
SUM (incorr_and_unconf) * 100.0 / count (doc_key) as perc_incorr_unconf_docs
FROM locData group by batch_class,group_value,CONVERT (nvarchar(4),
YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2), MONTH(localDate)),2)
```


TotalAgility document separation accuracy

This query shows TotalAgility document separation accuracy, grouped by batch class, and date.

```
;with locData(batch_class,localDate,batch_key,batch_id,batch_name,corr_splits,
wrong_splits,missed_splits,is_corrly_split) as
(SELECT batch_class,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (create_date_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as
localDate,batch_key,batch_id,batch_name,corr_splits,wrong_splits,missed_splits,
is_corrly_split
FROM v_tsf_sep_acc_by_batch_class)
SELECT batch_class,CONVERT(nvarchar(4),
YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2), MONTH(localDate)),2) as
month_created,
COUNT (batch_key) as batches,SUM (corr_splits) as corr_splits,SUM (wrong_splits) as
wrong_splits,
SUM (missed_splits) as missed_splits,SUM (corr_splits) * 1.0 / count (batch_key) as
corr_splits_per_batch,
SUM (wrong_splits) * 1.0 / count (batch_key) as wrong_splits_per_batch,
SUM (missed_splits) * 1.0 / count (batch_key) as missed_splits_per_batch,
SUM (is_corrly_split) * 100.0 / COUNT (batch_key) as perc_corrly_split_batches
FROM locData group by batch_class,
CONVERT (nvarchar(4),YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2),
MONTH(localDate)),2)
```

TotalAgility extraction accuracy and confidence by month

This query shows TotalAgility extraction statistics, grouped by batch class, group value, field, and month.

```
;with locData
(batch_id,batch_name,batch_class,group_value,field_name,localDate,field_key,
batch_key,group_value_key,fields,characters,valid_corr_fields,valid_incorr_fields,
invalid_corr_fields,invalid_incorr_fields, as
(SELECT batch_id,batch_name,batch_class,group_value,field_name,CAST
(SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
SYSDATETIMEOFFSET())))
as date) as localDate,field_key,batch_key,group_value_key,fields,characters,
valid_corr_fields,valid_incorr_fields,invalid_corr_fields,invalid_incorr_fields,
FROM v_tsf_extr_acc_grouped)
SELECT batch_class,group_value,field_name,
CONVERT (nvarchar(4),YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2),
MONTH(localDate)),2) as month_exported,SUM (fields) as fields,SUM (characters) as
characters,
SUM (valid_corr_fields) as valid_corr_fields,SUM (valid_incorr_fields)
as valid_incorr_fields,
SUM (invalid_corr_fields) as invalid_corr_fields,SUM (invalid_incorr_fields)
as invalid_incorr_fields,
SUM (valid_corr_fields) * 100.0 /sum (fields) as perc_valid_corr,
SUM (valid_incorr_fields) * 100.0 /sum (fields) as perc_valid_incorr,
SUM (invalid_corr_fields) * 100.0 /sum (fields) as perc_invalid_corr,
SUM (invalid_incorr_fields) * 100.0 /sum (fields) as perc_invalid_incorr,
FROM locData group by batch_class,group_value,field_name,
CONVERT (nvarchar(4),YEAR(localDate)) + RIGHT ('0' + CONVERT(nvarchar(2),
MONTH(localDate)),2)
```


TotalAgility extraction accuracy and confidence by day

Like the **v_tsf_extr_acc_by_day** original view, this query shows TotalAgility extraction statistics, grouped by batch class, field, and day.

```
;with locData
  (batch_id,batch_name,batch_class,group_value,field_name,localDate,field_key,
  batch_key,group_value_key,fields,characters,valid_corr_fields,valid_incorr_fields,
  invalid_corr_fields,
  invalid_incorr_fields, as
  (SELECT batch_id,batch_name,batch_class,group_value,field_name,CAST
  (SWITCHOFFSET(TODATETIMEOFFSET (export_date_time,'+00:00'),DATENAME(TZoffset,
  SYSDATETIMEOFFSET()))
  as date) as
  localDate,field_key,batch_key,group_value_key,fields,characters,valid_corr_fields,
  valid_incorr_fields,invalid_corr_fields,invalid_incorr_fields,
  FROM v_tsf_extr_acc_grouped)
SELECT batch_class,localDate as export_date,field_name,SUM (fields) as fields,
SUM (characters) as characters,SUM (valid_corr_fields) as valid_corr_fields,
SUM (valid_incorr_fields) as valid_incorr_fields,SUM (invalid_corr_fields) as
  invalid_corr_fields,
SUM (invalid_incorr_fields) as invalid_incorr_fields,SUM (valid_corr_fields) * 100.0 /
sum (fields)
  as perc_valid_corr,
SUM (valid_incorr_fields) * 100.0 /sum (fields) as perc_valid_incorr,
SUM (invalid_corr_fields) * 100.0 /sum (fields) as perc_invalid_corr,
SUM (invalid_incorr_fields) * 100.0 /sum (fields) as perc_invalid_incorr,
FROM locData group by batch_class,localDate,field_name
```

Operator productivity per module summary

Like the **v_op_prod_by_mod_summary** original view , this query shows operator productivity grouped by operator and module. Use this query to replace the Operator Productivity Summary Report in Tungsten Capture Advanced Reports.

```
SELECT user_logon_name,mod_name,batch_num as batches,sess_num as sesss,mods,sum_docs,
distinct_doc_num as distinct_docs,total_processing_time_sec as processing_time,
total_processing_time_sec * 1.0 / nullif (sess_num,0) as avg_sess_time,
total_processing_time_sec * 1.0 / nullif (batch_num,0) as avg_batch_time,
total_processing_time_sec * 1.0 / nullif(distinct_doc_num,0) as distinct_doc_time
FROM (SELECT bdata.*, (SELECT COUNT (distinct doc_key) FROM v_doc_session where
batch_sess_snapshot_key in (SELECT batch_sess_snapshot_key FROM v_batch_session where
user_logon_name = bdata.user_logon_name and mod_name = bdata.mod_name)) as
  distinct_doc_num FROM
  (SELECT user_logon_name,mod_name,COUNT (batch_key) as sess_num,COUNT (distinct
  batch_key) as batch_num,
  COUNT (distinct mod_name) as mods,SUM (docs_compl_num) as sum_docs,SUM (key_strok_num)
  as sum_keystrok,
  SUM (sess_duration_sec) as total_processing_time_sec
  FROM v_batch_session group by user_logon_name, mod_name) bdata) x
```

TotalAgility misclassified document types

This sample query uses the **v_tsf_class_vs_review** view to create statistics about misclassified TotalAgility documents. You can use the resultset to build the equivalents for the **Tungsten Capture Advanced Reports: Misclassified Document Types** and **Reclassified Document Types (US-CRA02, US-CRA03)**.

```
;with lData
  (batch_key,batch_name,review_user_key,op,doc_key,initial_tsf_class,tsf_class,
  loc_review_date,
  loc_classify_date,page_id,is_confly_classified,class_confidence_perc) as
  (SELECT
    batch_key,batch_name,review_user_key,op,doc_key,initial_tsf_class,tsf_class,case
    reviewed_date_key
  when -1 then NULL else CAST(SWITCHOFFSET(TODATETIMEOFFSET
    (review_date,'+00:00'),DATENAME(TZoffset, SYSDATETIMEOFFSET())) as date) end,
  case classified_date_key when -1 then NULL else CAST (SWITCHOFFSET(TODATETIMEOFFSET
    (classify_date,'+00:00'),DATENAME(TZoffset, SYSDATETIMEOFFSET())) as date) end,
  page_id,is_confly_classified,class_confidence_perc FROM v_tsf_class_vs_review where
  initial_tsf_class != tsf_class)
SELECT batch_key, batch_name,op,initial_tsf_class,tsf_class,loc_review_date as
  review_date,loc_classify_date as classify_date,COUNT (page_id) as page_num,COUNT
  (distinct doc_key) as doc_num FROM lData group by batch_key, batch_name, op,
  initial_tsf_class,tsf_class,loc_review_date,loc_classify_date
```