## Error Report: Actual Rate Greater Than Target Rate

**Primary Table:** iODS\_ActualRateGreaterThanTarget  
**ETL Procedure:** spUpdate\_iODS\_ActualRateGreaterThanTarget  
**API Procedures:**

* spGet\_iODS\_ActualRateGreaterThanTarget\_Summary
* spGet\_iODS\_ActualRateGreaterThanTarget\_Detail  
  **Report ID:** 6

### Error Definition

This error is logged when the value of actual\_rate in the table iODS\_Production\_Data exceeds the value of target\_rate by more than a threshold (default: 1.0).

The threshold is configurable per line, department, site, or business unit via dbo.ReportDataThresholds.

Rows are only evaluated when:

* iODS\_MD\_LineStatus.PROut = 0 for the corresponding line\_status
* iODS\_Production\_Data.end\_time is not NULL
* The combination of business\_line and pu\_id is not excluded via dbo.ReportDataExclusions

## API Access Details

These stored procedures allow API consumers to retrieve error data by business line, time range, and optional filters.

### Summary Procedure

**Stored Procedure:** spGet\_iODS\_ActualRateGreaterThanTarget\_Summary  
**Purpose:** Returns **summary of errors for a set of business lines and production day range. Serves as the primary input to initiate drill-down into the Detail procedure.**

#### Parameters

| Name | Type | Description |
| --- | --- | --- |
| @business\_lines | VarcharTable (TVP) | Required list of business lines to include |
| @startdate | DATE | Start of production day range |
| @enddate | DATE | End of production day range |

If @business\_lines is empty or NULL, no results will be returned.

#### Short-Circuit Logic (Why You May Get No Results)

This procedure includes two **explicit exit paths** that communicate *why* no results were returned:

##### 1. No Underlying Data

* **Condition:** No matching production records in iODS\_Production\_Data for the selected business lines and date range.
* **Behavior:**
  + Returns empty result set
  + Message: “No iODS data found for the selected lines and time range.”
  + TotalDetailRecords = 0
* **Interpretation:** There was **nothing to check** for errors — no transactions exist.

##### 2. All Data Excluded

* **Condition:** Matching data exists, but **all rows are excluded** by configuration in ReportDataExclusions.
* **Behavior:**
  + Returns empty result set
  + Message: “All available iODS data is being excluded for the selected lines and time range.”
  + TotalDetailRecords = 0
* **Interpretation:** Data **was available**, but **excluded** from error evaluation by business rules.

#### What If No Errors Are Found?

If both short-circuits are bypassed, the system proceeds with error evaluation. If no rows meet the error condition:

* Returns empty result set
* Message: “No outages detected for the selected lines and time range.”

**Interpretation:** The system **evaluated the data** and determined that no errors were present.

#### Output Columns

| Column | Description |
| --- | --- |
| bu | Business unit from iODS\_ActualRateGreaterThanTarget |
| central\_line\_id | Central line ID from iODS (unique by BU) |
| pl\_id / pu\_id | Line and production unit identifiers |
| site\_id | Foreign key reference to the site |
| site\_desc | Site name from iODS\_Site\_Line\_Xref |
| ADSuffix | AD group suffix (also called SAPCode) used in access control |
| dept\_desc | Department name or mapped alternate description |
| line\_desc | Line name from iODS\_Site\_Line\_Xref |
| pu\_desc | Production unit description from iODS\_Business\_Line\_PU |
| production\_day | Production day as defined in iODS\_Production\_Data |
| process\_order | Process order that was active during the interval |
| start\_time / end\_time | Start and end timestamps for the interval |
| actual\_rate / target\_rate | Actual and target rate values from iODS\_Production\_Data |
| total\_product | Total product count during the interval |
| scheduled\_time | Duration between start\_time and end\_time |
| business\_line | Composite: central\_line\_id + ' - ' + bu |
| Highlight | Boolean flag = 1 when actual\_rate > target\_rate |
| TotalFilteredCount | Total matching rows (constant per page) |

### Swagger API Mapping

**Base Route:** /api/v1/report/actual-rate-greater-than-target-rate

#### Endpoints:

* **GET /api/v1/report/actual-rate-greater-than-target-rate/summary**
  + Maps to: spGet\_iODS\_ActualRateGreaterThanTarget\_Summary
  + Parameters: business\_lines, startdate, enddate
  + Returns a daily summary of detected errors
  + Includes total row count (TotalFilteredCount) used for pagination
* **GET /api/v1/report/actual-rate-greater-than-target-rate/detail**
  + Maps to: spGet\_iODS\_ActualRateGreaterThanTarget\_Detail
  + Parameters: business\_lines, startdate, enddate, PageNumber, PageSize, SearchLine, SearchFilter
  + Returns record-level details filtered by the optional inputs
  + Paging parameters and filtering options allow for detailed investigation starting from the summary

**Security Enforcement Note:** - Although not visible in the Swagger definition, access is restricted at the database level using the ADSuffix (corresponding to SAPCode) in combination with Active Directory group membership.

### Detail Procedure

**Stored Procedure:** spGet\_iODS\_ActualRateGreaterThanTarget\_Detail  
**Purpose:** Returns **record-level production data** associated with the Actual Rate > Target Rate error condition. Supports drill-down views for detailed investigation.

#### Parameters

| Name | Type | Description |
| --- | --- | --- |
| @business\_lines | VarcharTable | Required list of business lines to include |
| @startdate | DATE | Start of production day range |
| @enddate | DATE | End of production day range |
| @PageNumber | INT (default: 1) | Page number for pagination |
| @PageSize | INT (default: 10) | Page size for pagination |
| @SearchLine | NVARCHAR(100) | Optional filter for line\_desc from summary |
| @SearchFilter | VARCHAR(50) | Optional filter for process\_order from summary |

#### Paging Support

This procedure supports SQL Server pagination using the OFFSET/FETCH pattern:

* Results are sorted by production\_day, business\_line, start\_time, and pu\_id
* @PageNumber and @PageSize control which subset of records is returned
* All returned rows include TotalFilteredCount, indicating how many records match the filter criteria in total (used to calculate total pages)

#### Output Columns

| Column | Description |
| --- | --- |
| bu | Business unit from iODS\_Production\_Data |
| site\_desc | Site name from iODS\_Site\_Line\_Xref |
| ADSuffix | AD group suffix (SAPCode) from PlantNameADSuffix |
| dept\_desc | Department or alternate department from iODS\_Alt\_Department |
| line\_desc | Line name from iODS\_Site\_Line\_Xref |
| production\_day | Production day from iODS\_Production\_Data |
| process\_order | Process order from iODS\_Production\_Data |
| prod\_code / prod\_desc | Product identifiers from iODS\_Production\_Data |
| actual\_rate / target\_rate | Measured and configured rates from iODS\_Production\_Data |
| line\_status | Line status code from iODS\_Production\_Data |
| start\_time / end\_time | Time interval from iODS\_Production\_Data |
| shift\_desc / team\_desc | Shift/team from iODS\_Production\_Data |
| pu\_desc | Production unit name from iODS\_Production\_Data |
| good\_product, total\_product, total\_scrap, total\_cases | Output metrics from iODS\_Production\_Data |
| scheduled\_time | Duration between start\_time and end\_time |
| business\_line | Composite: central\_line\_id + ' - ' + bu |
| Highlight | Boolean flag = 1 when actual\_rate > target\_rate |
| TotalFilteredCount | Total matching rows (constant per page) |