



QPR

QPR ProcessAnalyzer 2025.2 – New features

AI Agent powered presets showing findings and recommendations

- There are following new presets available based on the AI Agent analysis engine:
 - Process lead time
 - Process variations
- They present insightful findings and offer improvement recommendations by analyzing the process from the specified viewpoint
- Findings and recommendations are derived from the facts only because the presets analyze the process model by extracting quantitative and precise measurements
- Presets perform the analysis for any process mining model without additional configuration

AI Agent

Presets General Layout Filter

Advanced

Blank Chart

- > General Analyses
- > Durations and Time Trends
- > Process Flow
- > Advanced and AI Analyses
 - Root Causes for Attributes
 - Root Causes for Attributes (table)
 - Root Causes for Attributes (weighted)
 - Root Causes for Attributes (detailed ...)
 - Clustering Cases
 - AI Agent: Process Lead Time**
 - AI Agent: Process Variations
- > Automation
- > Operational Excellence
- > Compliance

Cases Events Event Types Case Attribute Event Attribute Case Duration Event Duration

Process Lead Time Analysis

Reminder: Apply filters to the data to focus on specific time periods, case types, or other relevant criteria to gain more insights.

Findings:

1. **Average Case Lead Time:** The average case lead time is 101 days, with a median of 83.2 days. This indicates a relatively long lead time, with a significant variance (standard deviation of 73.4 days).
2. **Lead Time Trend:** The case lead time trend shows a significant decrease in lead time from June 2022 to January 2023, with an average lead time of around 80-90 days. However, there is a slight increase in lead time from February 2023 onwards.
3. **Case Lead Time Distribution:** The distribution of end-to-end case lead times shows that 80% of cases take less than 130.5 days, while 20% of cases take longer than 130.5 days.
4. **Event Repetition Impact:** Cases with repeated events have longer lead times, with an average lead time of 123.8 days for cases with 3 repeated events.
5. **Event Type Count Impact:** Cases with 7 event types have the shortest average lead time (57.1 days), while cases with 4 event types have the longest average lead time (148.1 days).

Recommendations:

1. **Optimize Process Steps:** Analyze the process steps to identify bottlenecks and opportunities for optimization, focusing on reducing the average lead time.
2. **Standardize Process:** Implement standardization measures to reduce variance in lead times, aiming for a more consistent process performance.
3. **Monitor Event Repetition:** Investigate the causes of repeated events and implement measures to minimize repetition, which can lead to longer lead times.
4. **Streamline Event Types:** Review the event types and simplify the process by reducing the number of event types, aiming for a more efficient process.
5. **Continuous Monitoring:** Regularly monitor the lead time trend and distribution to ensure that process improvements are effective and sustained over time.

Customizable AI Agent helping with process analysis

- **AI Agent** is an LLM-powered dashboard component that based on given instructions and input data, performs analysis and provides textual response
- AI Agent settings
 - **System prompt** (optional): Define task context and expected behavior
 - **User prompt**: Give task or question to AI Agent
 - **Input data** (optional): Provide data for AI Agent
 - **LLM name**: Define LLM to use (empty for OpenAI)
 - **LLM parameters** (optional): Adjust LLM behavior
- Input data is array of chart configurations
 - Chart queries are run and result used as prompt
 - Filter settings in AI Agent are applied for the input data
- It's possible to restrict which LLM's can be used (Snowflake feature)
- To access LLM's in other regions, enable Cross-Region Inference (Snowflake feature)

wiki.onqpr.com/pa/index.php/AI_Agent

The screenshot displays the AI Agent interface. On the left, a panel titled "Recommendations for looping" contains a gear icon and a list of three recommendations. The first recommendation is "Optimize the Invoice Due Date Process", the second is "Improve Delivery: Goods Issue Process", and the third is "Streamline SO Item Created Process". On the right, a settings panel titled "AI Agent" is visible, featuring tabs for "Presets", "General", and "Layout", and buttons for "Filter" and "Advanced". Below these are fields for "System prompt", "User prompt", "Input data", "LLM name" (set to "llama3.2-3b"), "LLM parameters", "Title" (set to "Recommendations for process loopi..."), and "Description".

Recommendations for looping

To improve the process and alleviate the found issues, the following recommendations are made:

- 1. Optimize the Invoice Due Date Process:** Review the process for clearing invoices due dates and identify bottlenecks. Consider implementing a more efficient process for clearing invoices due dates, such as automating the process or implementing a more streamlined workflow.
- 2. Improve Delivery: Goods Issue Process:** Review the process for issuing deliveries and identify bottlenecks. Consider implementing a more efficient process for issuing deliveries, such as automating the process or implementing a more streamlined workflow.
- 3. Streamline SO Item Created Process:** Review the process for creating sales orders and identify bottlenecks. Consider implementing a more efficient process for creating sales orders, such as automating the process or implementing a more streamlined workflow.

AI Agent

Presets General Layout

Filter Advanced

System prompt >

User prompt >

Input data >

LLM name
llama3.2-3b

LLM parameters >

Title
Recommendations for process loopi...

Description >

Object-centric models can be filtered by object attributes

- Object-centric models can be filtered by object attributes, enabling filtering that works across all charts
- Filter can be created:
 - For entire dashboard from header
 - For individual chart/flowchart in chart settings
 - Selecting items from charts
- Object-to-object relations are followed only in forward and backward directions
 - Applied for both in the perspective creating and filtering
- Performance improvements for object-centric models

Add filter rule

Include Objects Exclude Objects Turn Filter Rule off

Object Type
purchase_order

Attribute
Vendor (EKKO-LIFNR)

Values
Bike Components Corp, Nipple Navigators Co

Object Relation Steps
0

i This rule includes purchase_order objects where Vendor (EKKO-LIFNR) is Bike Components Corp or Nipple Navigators Co.

CANCEL APPLY

Object-centric Flowchart

General Layout Filter Advanced

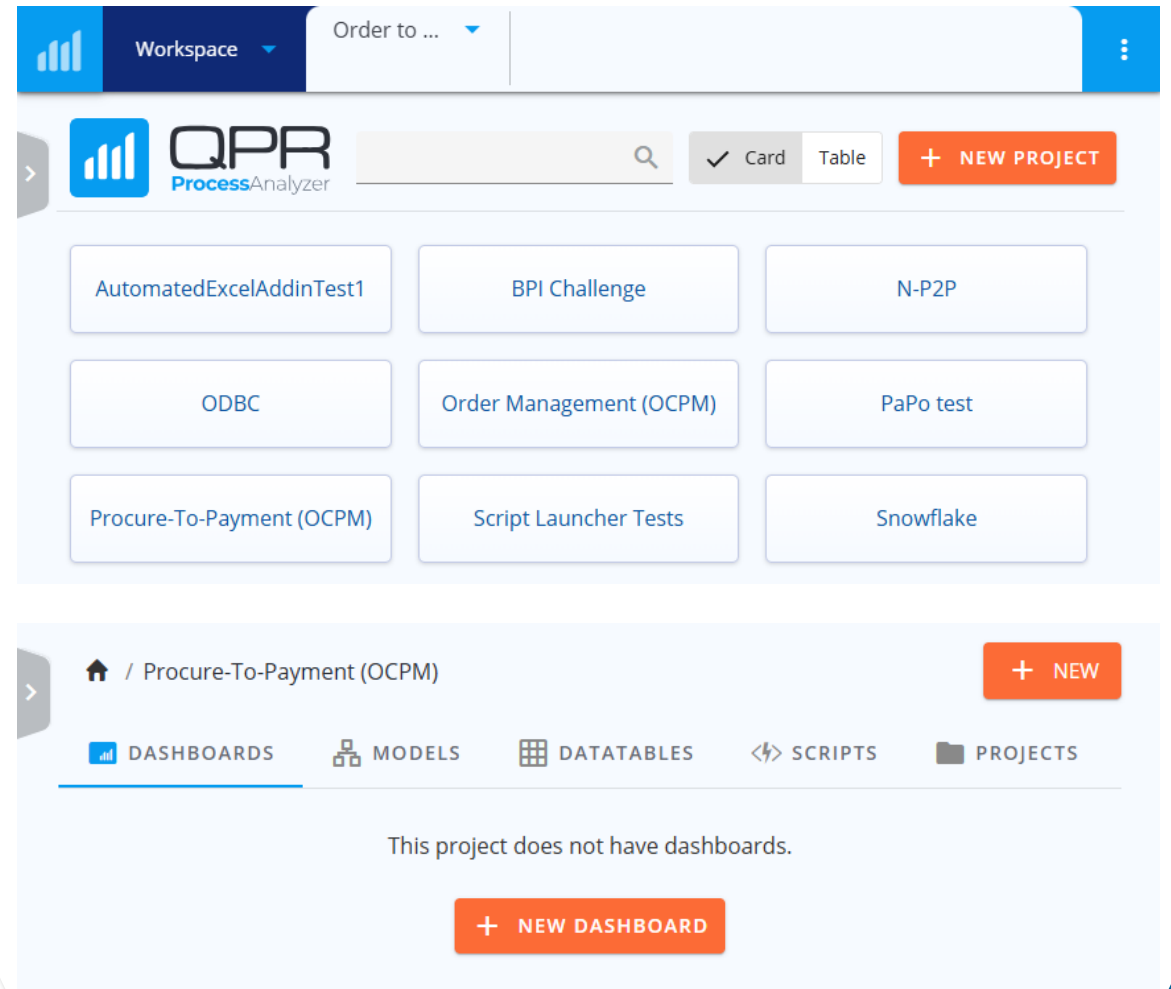
Follow Dashboard Filters

+ Object-centric Filter

payment Payment Method (ZLSCH) is C:
Bank Collection

UI streamlined by removing Home view and adding card layout to Workspace

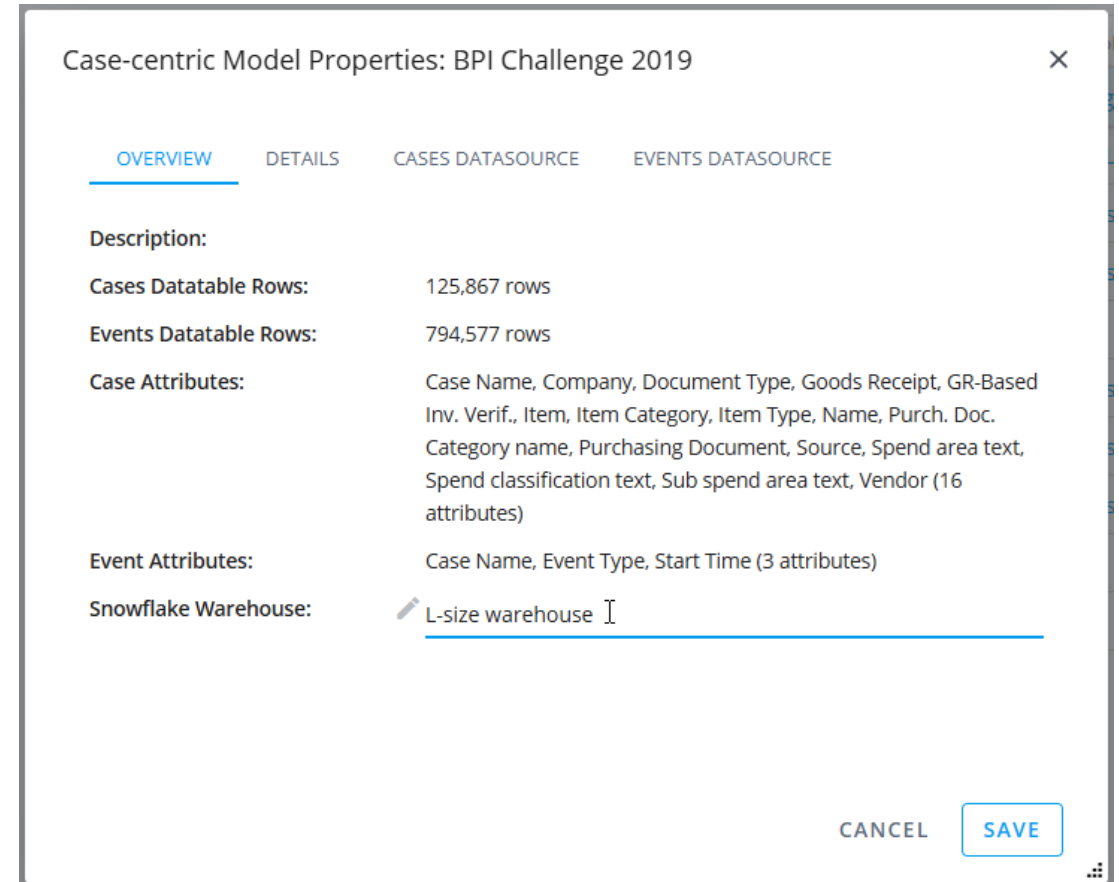
- Home screen has been removed
 - Ready-made dashboards are available in the navigation menu
 - Dashboards can be opened with two clicks after login
- Workspace has new *card layout* showing projects for easier content browsing
 - Cards can be searched
 - Card layout is optimal for mobile
 - Editing operations are in the table layout only
- New dashboards etc. can be created more easily as button to create new object is shown if there are no items
- Workspace shows the **Snowflake location** in project's table layout (database and schema)



Snowflake warehouse can be specified for each model

- Model settings has **Snowflake warehouse** field for specifying name of the Snowflake warehouse used for model's queries
 - Warehouse needs to be created beforehand to Snowflake – trying to use non-existing warehouse will show error
 - If field is empty, warehouse specified in Snowflake connection string is used
- Use case: Larger models can use larger warehouse – no need to use project-specific connection string
- It's recommended to use smallest warehouse in the connection string because it's used e.g., in datatable preview

wiki.onqpr.com/pa/index.php/QPR_ProcessAnalyzer_Project_Workspace#Change_Snowflake_Warehouse_for_Model



The screenshot shows a dialog box titled "Case-centric Model Properties: BPI Challenge 2019" with a close button (X) in the top right corner. The dialog has four tabs: "OVERVIEW" (selected), "DETAILS", "CASES DATASOURCE", and "EVENTS DATASOURCE".

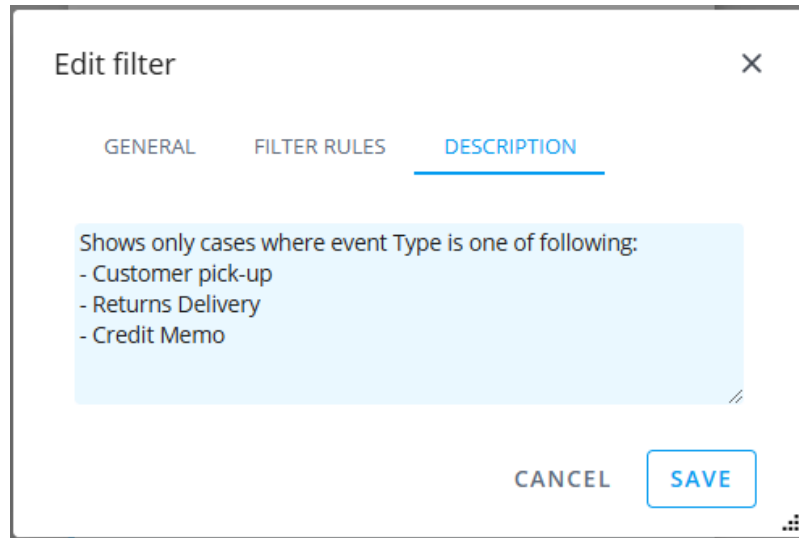
Under the "OVERVIEW" tab, the following information is displayed:

- Description:**
- Cases Datatable Rows:** 125,867 rows
- Events Datatable Rows:** 794,577 rows
- Case Attributes:** Case Name, Company, Document Type, Goods Receipt, GR-Based Inv. Verif., Item, Item Category, Item Type, Name, Purch. Doc. Category name, Purchasing Document, Source, Spend area text, Spend classification text, Sub spend area text, Vendor (16 attributes)
- Event Attributes:** Case Name, Event Type, Start Time (3 attributes)
- Snowflake Warehouse:** L-size warehouse (with a pencil icon for editing)

At the bottom right of the dialog, there are "CANCEL" and "SAVE" buttons, and a small grid icon in the bottom right corner.

Other improvements

- Non-existing event types are now allowed to be selected in charts
 - Error message was shown earlier
- Description field is available in filter properties dialog for adding explanation for filters



Edit filter

GENERAL FILTER RULES DESCRIPTION

Shows only cases where event Type is one of following:

- Customer pick-up
- Returns Delivery
- Credit Memo

CANCEL SAVE

- Snowflake: Changed tables variable actions to use stringified format
 - Variables are now compatible with linked settings
- Improved detection of models with invalid datasource configuration
 - Note: String type of data is not anymore accepted in events timestamp column
 - Detection is provided by the *CheckModelValidity* function

wiki.onqpr.com/pa/index.php/QPR_ProcessAnalyzer_Objects_in_Expression_Language#CheckModelValidity