



TrendMiner
A SOFTWARE AG COMPANY

CHEAT SHEET

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TrendMiner N.V. | VAT BE 0894.414.630 | RPR Hasselt, Belgium
IBAN: BE82 737022894568 | BIC: KREDBEBB | T +3211263830
info@trendminer.com | www.trendminer.com



WHAT? Descriptive Analytics

What process state is representative of my problem? Select interesting or abnormal patterns, relevant events, or certain time frames.

TIME NAVIGATION

- Menu** – Access the TrendMiner functionalities.
- Timespan Controls** – Select desired timespan for the Context Bar.
- Context Bar** – Overview of data selected by the Timespan Controls. Used for convenient selection of time periods in the Focus Chart.
- Focus Chart** – Detailed view of the selected time period. Allows for further time navigation, exporting and switching from the trend viewer to scatter plots. The view in the Focus Chart is also used in certain search functionalities.

FILTERS

1. **Time Based Filter** – A static filter which is applied to certain time periods. Can be created manually or on top of search results. Time based filters are only applied once and show up as ad hoc filters.

2. **Criteria Based Filter** – A dynamic filter based on certain search criteria. Can be created after saving a search. Criteria filters are automatically applied to historical and new incoming data.

TAG BUILDER

1. **Formula** – Create calculated tags using existing tags or further adapt on previously created calculated tags.

2. **Aggregation** – Create new tags based on certain operators to *smooth out* signals with noise or *highlight* certain trend parts.

3. **Data Import** – Import tags from a CSV-file in case certain information is not available in your historian data.

4. **Prediction** – Create a tag based on linear regression. Pick proposed candidates which influence the prediction accuracy.

WHEN? HOW OFTEN? Discovery Analytics

Did it happen before? When? Where? In what condition (context)? How many times? + Hypothesis Testing.

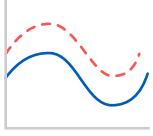
SIMILARITY	VALUE BASED	DIGITAL STEP	
Time defined? Pattern? Can my process be described by specific time behaviour?	Criteria? Limits? Am I looking for periods exceeding or defined by certain criteria?	Switching? Am I looking for switching/transitions?	
CONTEXT	AREA	ACTIONS ON SEARCH RESULTS	
Annotations? Did I create comments before?	Operation Zone? Under which conditions does my process operate?	Sorting Filters	Exporting Calculations Context Layers

More information including ContextHub and DashHub available on support.trendminer.com


WHY? Diagnostic Analytics

Used to find Root Causes or generate hypotheses. Why did it happen? How did this situation compare with normal operation? What Influenced this situation?

COMPARING TIME PERIODS



Multiple Layers
n Good Periods vs. n Bad Periods



Compare layers



Tags
● —
● —

Layer 1
—



Layer 2
— %
— %

Layer 3
— %
— %



Create Layers

 → 

1. Manually


 → 

2. From results

 → 



3. From saved views

DIAGNOSE



 Diagnose gives you tag suggestions for correlation and fingerprint deviations, based on a selected timeframe, tags and layers. Diagnose can search in the past on all indexed tags for possible early indicators.

CALCULATIONS ON SEARCH RESULTS

1. Calculation from search

 → 

2. Apply calculation details

 → 




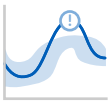
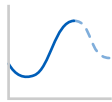
3. View calculated values on the search result list.

Results

WHAT'S NEXT? Real Time & Predictive Analytics























What is likely to happen next?

How is this situation going to evolve?

FINGERPRINTS 	MONITORING & ALERTS 	PREDICTIVE MODE 
 <p>What is the behaviour of my process?</p>	 <p>Alert me when a similar event or deviation is detected!</p>	 <p>How will my current batch/process evolve?</p>







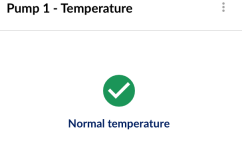






KNOWLEDGE MANAGEMENT

Capture and document findings. Provide colleagues the latest information concerning your processes.

 CONTEXT IN TRENDHUB	 → 		 → 		 → 	
	1. Manually – after selecting a time period in the focus chart.		2. On top of results – after search.		3. Automatic – After activating a monitor.	
 ACTIONS IN CONTEXTHUB	Create items		Filter items		Search items	
	Add fields		Comment		Attach files	
 CONTEXT VIEWS	Describe events		List your events		Gantt your events	
	Contextualize process events		Create specialized lists		Display events in Gantt form	
	Visualize your events		Share/export your findings		Live event updates	
	Display event views in the focus chart		Share or export your event views with others	 	Get the latest information	

DASHBOARD YOUR WORK

Keep a close eye on your processes by using intuitive dashboarding structures that provide you and your colleagues with pertinent information at a glance.

CREATE DASHBOARD TILES	 Reactor 601 tile using a TrendHub view	 Maintenance request tile using CH view	 Alert status using your active monitors	 Display last known value		
	Work Organizer 	Test platform 	Pump 1 - Temperature 	Throughput 		
KEEP INFORMED	Tile descriptions		Click throughs		Auto-refresh updates	
	Click on a tile to retrieve tile information		Click through your tile to open source information		Set your board to refresh periodically	
COMMUNICATE YOUR FINDINGS	 Export reports		 Share dashboards			