

# NEMO Release Letter

Version 2022-07-22



# Content

Summary.....	1
Signature Features.....	2
Natural Performance Index (NPI).....	2
Natural Leverage Index (NLI).....	2
Unsupervised Learning.....	2
Meta-data Driven.....	3
Hyper-Dashboard.....	3
All Details.....	4
Instantly Live.....	5
New and Changed Features .....	6
Complete overhaul of Metrics (NEW and IMPROVED).....	6
Exported Columns (NEW).....	10
Reports (NEW and IMPROVED) .....	11
Focus (NEW and IMPROVED) .....	14
Ranker (NEW).....	16
Metadata Editor (NEW).....	17
Admin Panel (NEW and IMPROVED) .....	17
Compatibility and Limitations.....	18
Compatibility.....	18
Functional Limitations .....	18
Component Status.....	18
Known Issues.....	18
Documentation .....	18
Availability.....	18

## Summary

As of July 22, 2022, proALPHA has released NEMO version 2022-07-22.

NEMO – standing for Natural Enterprise Management Optimizer – is a new breed of AaaS – Analytics-as-a-Service – offering from proALPHA. NEMO analyzes all sorts of event data. In particular NEMO analyzes business processes as performed with proALPHA ERP. The objective of NEMO is to enable better daily decisions by relating operational activities (input factors) with financial results (output factors).

NEMO 2022-07-22 features various error corrections and performance improvements. Also, various housekeeping improvements have been implemented.

Furthermore, NEMO 2022-07-22 provides new and improved capabilities triggered by customers:

- Complete overhaul of Metrics (NEW and IMPROVED)
  - More precise metrics (IMPROVED)
  - Simpler metrics (IMPROVED)
  - More intuitive numbers (IMPROVED)
  - Dependency graphs (NEW)
- Exported Columns (NEW)
  - 52 newly added exported columns (NEW)
- Reports (NEW and IMPROVED)
  - (SAMPLE) Operating Cash Flow (NEW)
  - (SAMPLE) Part Consumption (NEW)
  - (SAMPLE) Operating Margin (NEW)
  - (SAMPLE) Price Analysis (NEW)
  - (SAMPLE) Belated Customer Invoices (IMPROVED)
  - (SAMPLE) Premature Supplier Payment (IMPROVED)
  - (SAMPLE) Tied Up Cash (IMPROVED)
  - (SAMPLE) Replenishment Time Analysis (IMPROVED)
  - (SAMPLE) Customer Aging (IMPROVED)
  - (SAMPLE) Supplier Aging (IMPROVED)
  - (SAMPLE) Part Aging (IMPROVED)
  - (SAMPLE) Payment Target Aging (IMPROVED)
  - Sorting (IMPROVED)
  - Export data to Microsoft Excel (NEW)
- Focus (NEW and IMPROVED)
  - NEMO Ranker Infoscape (NEW)
  - Searching in Value Lists (NEW)
  - Searching the Attribute Tree (NEW)
  - Creating Infoscape layouts (IMPROVED)
- Ranker (NEW)
  - Export data to Microsoft Excel (NEW)
- Metadata Editor (NEW)
  - Manage Intervals (NEW)
- Admin Panel (NEW)
  - Crawler Monitor (NEW)

# Signature Features

## Natural Performance Index (NPI)

The NPI measures and ranks the fitness of a business. High NPIs indicate a significant improvement potential which is likely to be achieved. They help the user find and decide between the available optimization opportunities and are key to the daily decision support provided by NEMO.

## Natural Leverage Index (NLI)

The NLI measures and ranks the degree of efficiency (“Wirkungsgrad”) of a certain operational measure. High NLIs indicate a significant leverage which is likely to be achieved. They help the user find and decide between the available opportunities and as such facilitate the daily decision support provided by NEMO.

## Unsupervised Learning

Since there is no optimum for business process optimization typical machine learning approaches don’t apply. Hence NEMO leverages robust advanced statistics out of the so-called space of unsupervised learning algorithms.



## Meta-data Driven

NEMO is not only data- but also metadata-driven. This means that virtually all metrics and scopes can be formed – either manually or automatically.

The screenshot shows the 'Metadata-Editor' interface. On the left, a sidebar lists various metrics, with 'OrderAcceptanceDeviation' selected. The main area displays the configuration for this metric:

- Conflict State:** NoConflict
- Display Name:** OrderAcceptanceDeviation
- Internal Name:** order\_acceptance\_deviation
- Description:** example of a canonical metric (Guenther)
- Unit:** days
- Aggregate to:** no aggregation
- Optimization Orientation:** Min
- Column:** order\_acceptance\_deviation
- Aggregation:** maximum
- Group By:** order\_acceptance\_deviation

## Hyper-Dashboard

NEMO continuously ranks all business process correlations. This enables dynamic dashboards which are complementing classical dashboards.

The screenshot shows the 'Hyper-Dashboard' interface. On the left, a sidebar lists various indicators, with 'OrderAcceptanceDeviation' selected. The main area displays a radar chart titled 'Best Opportunities to optimize indicators (by improving drivers)'. The chart compares 'Average' (blue) and 'Target' (green) values across several dimensions:

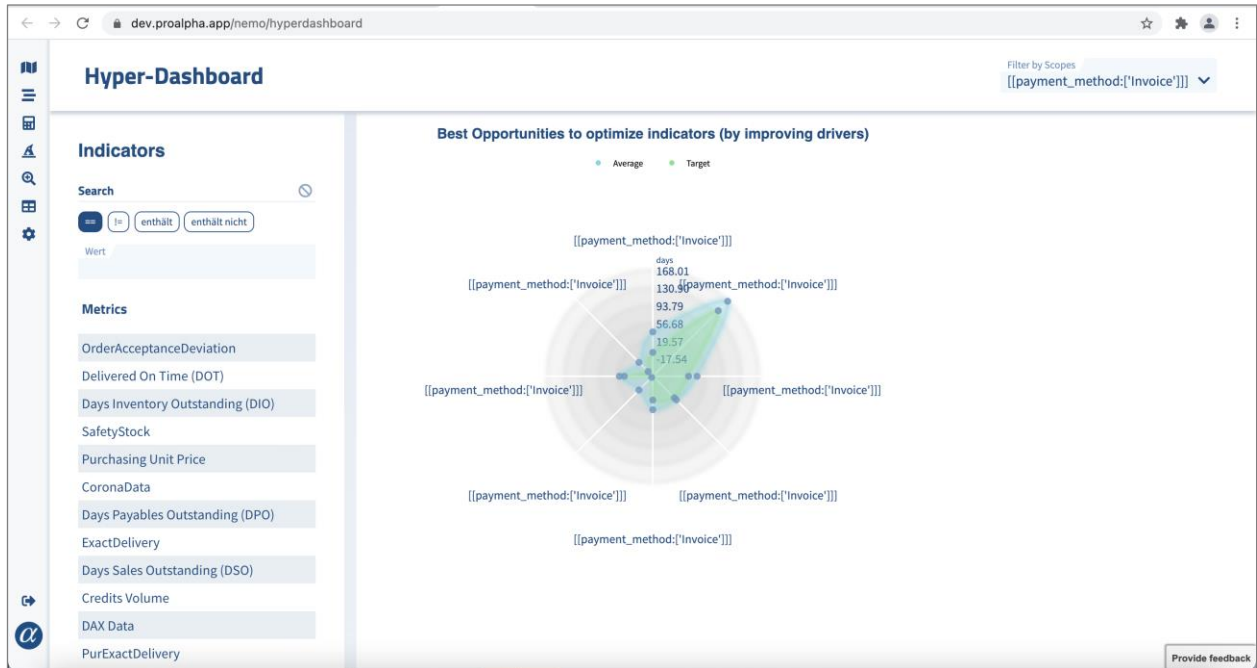
- [[transport\_time:[15]]]**
- [[customer\_industry:[Power - Waste, Sludge]]]**
- [[customer\_industry:[Building technology]]]**
- [[transport\_time:[6]]]**
- [[customer\_industry:[Power]]]**
- [[customer\_industry:[Building technology]]]**
- [[part\_type:[60]]]**

Values for the 'Average' series are: -8279064.35, -7784805.59, -7289062.83, -6794062.08, -6299061.32, -5804060.56.

## All Details

NEMO works always on details. There is no need to do any pre-aggregations at all. This means that the user can drill down to the detailed business documents at any point in time and instantaneously.

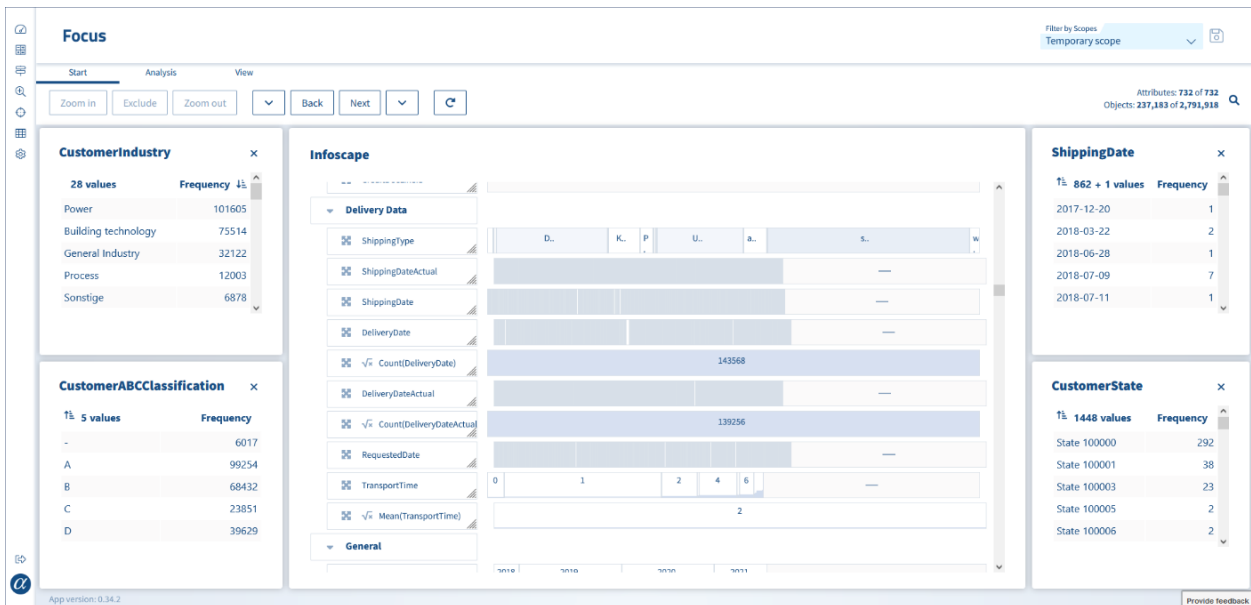
Here an example for the Payment Method Invoice. The Hyper-Dashboard provides an overview of the top measures for process improvements.



The Ranker table gives the details behind the Hyper-Dashboard.

NPI	NLI	Driver	Indicator	R Squared	Correlation	Actuals	Gain	Scope
601,917,952	40,704.1	Delivered On...	Days Invento...	0.05	0.23	€14,787.66k	€11,839,552...	PaymentMet...
567,153,024	38,353.1	PurExactDeli...	Days Invento...	0.06	0.25	€14,787.66k	€8,897,089.5...	PaymentMet...
558,322,112	40,228.5	PurExactDeli...	Days Invento...	0.07	0.26	€13,878.75k	€8,437,466.6...	[[invoicing_d...
551,381,504	1,133,087.3	RepLeadTi...	Days Invento...	0.24	0.49	€486.62k	€2,317,477.3...	[[customer_r...
541,763,584	39,035.5	Delivered On...	Days Invento...	0.05	0.22	€13,878.75k	€11,146,345...	[[invoicing_d...
368,957,248	13,932.0	Replenishme...	Days Invento...	0.53	0.73	€26,482.77k	€692,769.54k	[[part_type:[9]]
249,010,336	16,839.1	RepLeadTi...	Days Invento...	0.02	-0.14	€14,787.66k	€13,503,370...	PaymentMet...
248,111,296	25,661.8	RepLeadTi...	Days Invento...	0.04	-0.19	€9,668.50k	€6,729,405.4...	[[customer_j...
205,359,856	14,796.7	RepLeadTi...	Days Invento...	0.02	-0.13	€13,878.75k	€11,834,033...	[[invoicing_d...
176,447,920	32,377.2	PurExactDeli...	Days Invento...	0.09	0.30	€5,449.76k	€1,909,336.5...	[[customer_a...
174,167,904	23,651.6	RepLeadTi...	Days Invento...	0.03	-0.16	€7,363.89k	€6,652,653.0...	[[customer_a...
172,000,192	3,384.2	Delivered On...	Days Invento...	0.05	0.23	€50,825.06k	€3,189,364.7...	[[part_a_b_c...
171,797,920	3,349.2	Delivered On...	Days Invento...	0.05	0.23	€51,294.62k	€3,269,720.8...	[[invoice_doc...
171,730,720	3,349.2	Delivered On...	Days Invento...	0.05	0.23	€51,274.56k	€3,268,441.8...	[[supplier_a...
160,876,304	3,136.3	PurExactDeli...	Days Invento...	0.07	0.26	€51,294.62k	€2,386,454.0...	[[invoice_doc...
160,813,376	3,136.3	PurExactDeli...	Days Invento...	0.07	0.26	€51,274.56k	€2,385,520.6...	[[supplier_a...
152,162,416	2,993.8	PurExactDeli...	Days Invento...	0.07	0.26	€50,825.06k	€2,277,224.4...	[[part_a_b_c...
141,023,744	14,585.9	Delivered On...	Days Invento...	0.10	0.31	€9,668.50k	€1,458,552.4...	[[customer_j...
128,455,368	13,286.0	PurExactDeli...	Days Invento...	0.06	0.25	€9,668.50k	€2,082,220.8...	[[cus

And the Focus view gives the details behind the Ranker table. And all within seconds.



### Instantly Live

NEMO doesn't need any customization. Even chart-of-account or financial calendar are not needed for NEMO to function.

# New and Changed Features

## Complete overhaul of Metrics (NEW and IMPROVED)

We received valuable customer feedback on our implementation of metrics which we addressed comprehensively with this release.

We pursued following objectives:

- More precise metrics calculations
- Streamlined metrics definitions
- More intuitive numbers




We tackled these objectives in various ways:

- We introduced "count\_distinct" into our formula language syntax
- We made "Aggregate to" virtually unnecessary
- We finetuned the specifications of many of our default metrics

In consequence a few of our numbers have slightly changed but are remaining in the same magnitude.

### (1) count\_distinct

Here an example of the usage of „count\_distinct“ in the metrics formula.

Display Name		Number of Payment Targets	
Internal Name		number_of_payment_targets	
Description			
The number of payment targets enables the analysis of the associated process complexity. Calculation: The number of different payment targets is determined from the process data.			
Unit		without unit	
Aggregate to		No aggregation	
Optimization Orientation		Min	
	Column	customer_i_d	Aggregation maximum
	Column	payment_target_desc	Aggregation maximum
	Column	Add aggregation for column	
Group By		customer_i_d	
Formula			
count_distinct(payment_target_desc)			



(2) "Aggregate to" only needed in special cases anymore

By introducing "count\_distinct" in the formula syntax we could eliminate the need to specify "Aggregate to" for many metrics.

Aggregate to: No aggregation

Optimization Orientation: Min

Column: customer\_i\_d Aggregation: maximum

Column: payment\_target\_desc Aggregation: maximum

Column: Add aggregation for column

Group By: customer\_i\_d

Formula: count\_distinct(payment\_target\_desc)

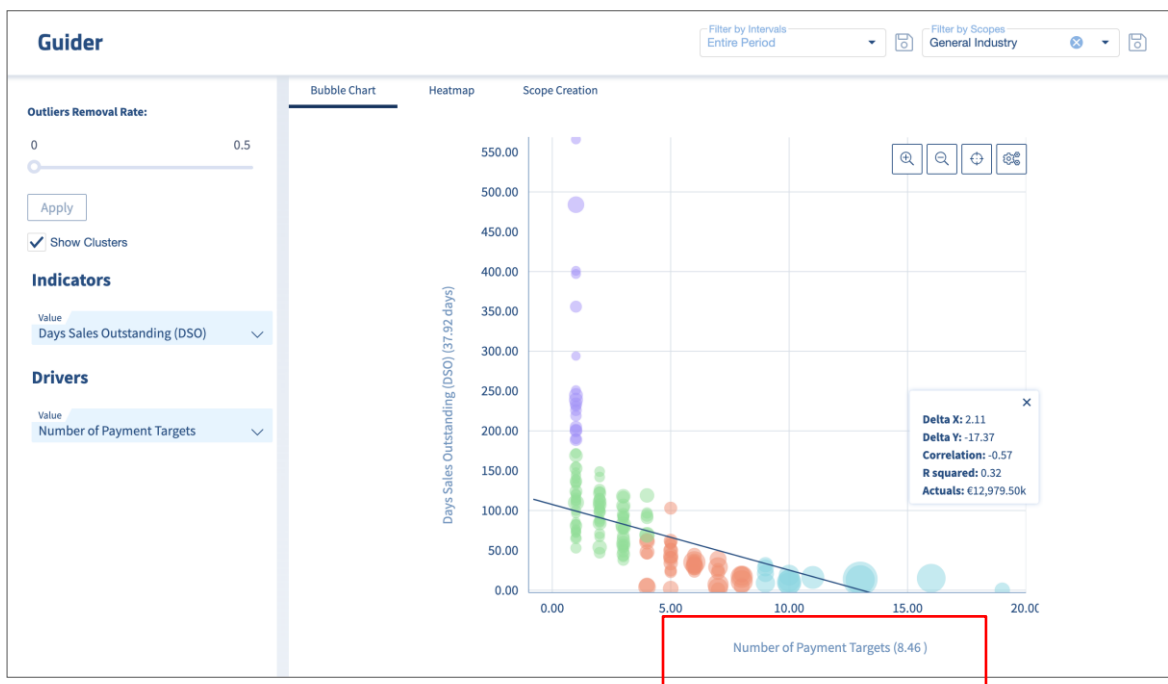
This also means that the column-specific "Aggregation" selection settings (see above) are not evaluated anymore for many of the default metrics. Hence for clarity purposes we recommend that you set them always to "Maximum" when not using "Aggregate to".

(3) Finetuning for consistency

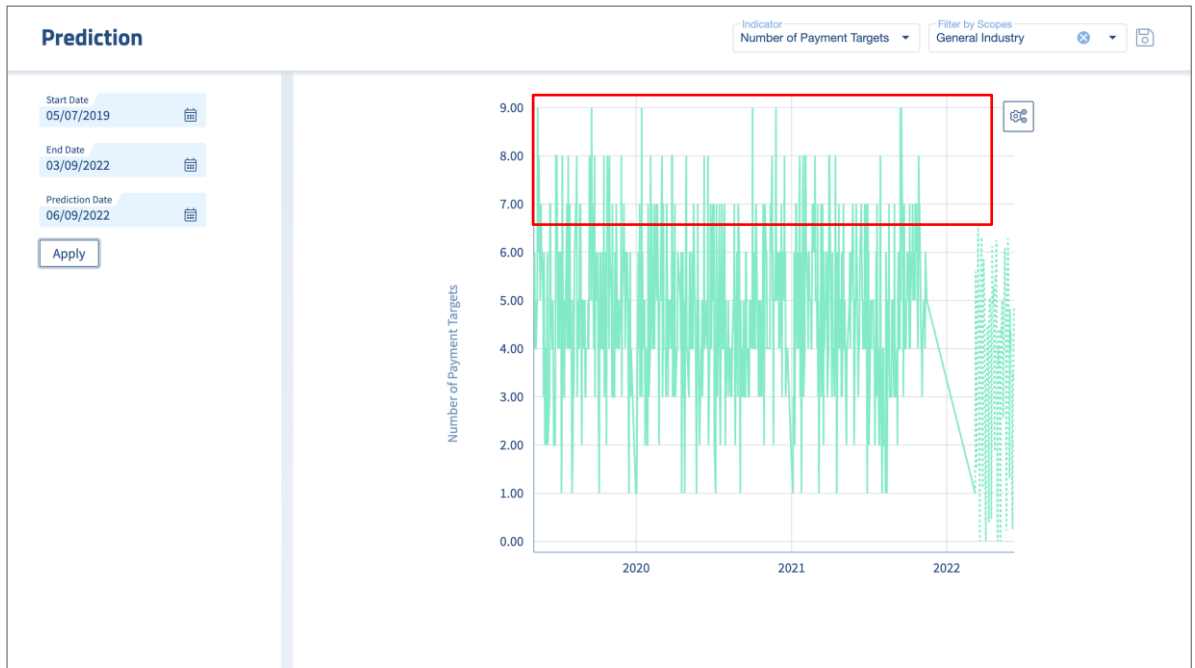
We paid attention to making the various calculations more intuitive.

Here an example across Guider, Prediction and Focus.

Guider shows an average of 8.46 payment targets.



Prediction history shows oscillations between 7 and 9 payment targets.



Focus shows 8 payment targets.

Global attribute search	Value	Value	Value	Value
PaymentOpenItemPaidOC	0	781.34	1864.99	2996
PaymentCashDiscountDue	2021-08-05		2021-08-28	
PaymentMethod	Invoice			
PaymentOpenItemPaidFC	0	781.34	1864.99	2996
PaymentOpenItemPaidCC	0	781.34	1864.99	2996
PaymentTargetDesc	14 Tage 2 % Skonto, 45	14 days less 2% discount o	1 4 3% discount o	A Payable by 30 days net. Payable by 7 days net. Payment before deliver y
Count(PaymentTarget)			8	
PaymentNettoDueDate	2021-08-05		2021-08-28	2

(The minimal variances are due to the different calculation algorithms.)

#### (4) Dependency graphs

Metrics are defined based on a number of input parameters from different types of columns. With the new dependency graphs the relation between all columns that make a metric are visualized. This way it's no longer necessary to switch between different categories in the Metadata Editor for a complete overview of these dependencies.

### Waste Reduction Rate (WRR)

Conflict State  
 NoConflict

Display Name  
 Waste Reduction Rate (WRR)

Internal Name  
 waste\_reduction\_rate

Description  
 Reflects the proportion of material movements, with a posting key that can be assigned to waste according to 6Sigma. However, no wastage from production postings has yet been taken into account. Calculation: All material postings and their posting keys with wastage are considered.

Unit  
 percent

Aggregate to  
 No aggregation

Optimization Orientation  
 Min

Column  
 waste\_mpcid

Aggregation  
 maximum

Column  
 Add aggregation for column

Group By  
 waste\_mpcid

Formula  
 mean(waste\_mpcid)

Creation Date  
 03/04/2022 11:59:50

Created By  
 tolkmit\_g

Changed Date  
 06/22/2022 13:43:13

Changed By  
 mueller\_l

**Dependencies:**

Dependency	Display name	Type
▼ GroupBy	Waste (MPCID)	DefinedColumn
Formula	MvmtPostingCodeID	ExportedColumn
▼ Formula	Waste (MPCID)	DefinedColumn
Formula	MvmtPostingCodeID	ExportedColumn

Delete

Save

## Exported Columns (NEW)

Most of the added columns have been requested by our customers. They will become available as soon as new data exports and loads have been performed. Based on these data refreshes we will research the feasibility of new default metrics. Those would become available with the next release provided they deem valuable.

Display Name	Description
PaymentDunning	#ERP-Origin: logical
PaymentFirstDunningDate	mahnfällig #ERP-Origin: FO_MahnZeile.MahnDatum
PaymentFirstDunningLevel	Mahnstufe #ERP-Origin: FO_MahnZeile.MahnStufe
PaymentLastDunningDate	mahnfällig #ERP-Origin: FO_MahnZeile.MahnDatum
PaymentLastDunningLevel	Mahnstufe #ERP-Origin: FO_MahnZeile.MahnStufe
PaymentByAssociation	Verband #ERP-Origin: FO_OP.Verband
MvmtMRPArea	Dispobereich #ERP-Origin: MD_Artikel.Lagergruppe
MvmtMRPCategory	#ERP-Origin: character /*MD_Artikel_DispoArt_Info*/
MvmtMRPOrderingMethod	#ERP-Origin: character /*MD_Artikel_BestellVerfahren_Info*/
MvmtMRPAreaTarget	#ERP-Origin: character/*MD_Artikel_Bereich_Info*/
MvmtPQty	Bestellmenge #ERP-Origin: MD_Artikel.Bestellmenge
MvmtMRPMinSuggQty	MinVorschlMenge #ERP-Origin: MD_Artikel.minSuggestedQty
MvmtMRPMinQty	Mindestmenge #ERP-Origin: MD_Artikel.Mindestmenge
MvmtMRPHorizont	Horizont #ERP-Origin: MD_Artikel.Horizont
MvmtMLMSafetyStock	Sicherheitsbestand #ERP-Origin: MLM_StorPartData.SafetyStock
MvmtMLMOrderPoint	Meldebestand #ERP-Origin: MLM_StorPartData.OrderPoint
MvmtMLMMaximumOnHand	Maximalbestand #ERP-Origin: MLM_StorPartData.MaximumOnHand
MvmtMLMReplenishLevel	Auffüllbestand #ERP-Origin: MLM_StorPartData.ReplenishLevel
PMProjectLastScheduled	Iz Terminierung #ERP-Origin: JBT_Project.lastSchedule
PurOrderLineFirstConfDate	AB Datum #ERP-Origin: E_AB_Kopf.AB_Datum
PurOrderLineLastConfDate	AB Datum #ERP-Origin: E_AB_Kopf.AB_Datum
PurOrderLineAmountConf	#ERP-Origin: integer
QuoteDocProjectOID	JBT_Project_Obj #ERP-Origin: V_BelegKopf.JBT_Project_Obj
QuoteDocLineGrossProfitPct	#ERP-Origin: decimal
QuoteDocLineGrossProfitAmtOC	#ERP-Origin: decimal
QuoteDocLineGrossProfitAmtFC	#ERP-Origin: decimal
QuoteDocLineGrossProfitAmtCC	#ERP-Origin: decimal
OrderDocProjectOID	JBT_Project_Obj #ERP-Origin: V_BelegKopf.JBT_Project_Obj
OrderDocLineGrossProfitPct	#ERP-Origin: decimal
OrderDocLineGrossProfitAmtOC	#ERP-Origin: decimal
OrderDocLineGrossProfitAmtFC	#ERP-Origin: decimal
OrderDocLineGrossProfitAmtCC	#ERP-Origin: decimal
BODocProjectOID	JBT_Project_Obj #ERP-Origin: V_BelegKopf.JBT_Project_Obj
BODocLineGrossProfitPct	#ERP-Origin: decimal
BODocLineGrossProfitAmtOC	#ERP-Origin: decimal

BODocLineGrossProfitAmtFC	#ERP-Origin: decimal
BODocLineGrossProfitAmtCC	#ERP-Origin: decimal
ShippingDocProjectOID	JBT_Project_Obj #ERP-Origin: V_BelegKopf.JBT_Project_Obj
ShippingDocLineGrossProfitPct	#ERP-Origin: decimal
ShippingDocLineGrossProfitAmtOC	#ERP-Origin: decimal
ShippingDocLineGrossProfitAmtFC	#ERP-Origin: decimal
ShippingDocLineGrossProfitAmtCC	#ERP-Origin: decimal
InvoiceDocProjectOID	JBT_Project_Obj #ERP-Origin: V_BelegKopf.JBT_Project_Obj
InvoiceDocLineGrossProfitPct	#ERP-Origin: decimal
InvoiceDocLineGrossProfitAmtOC	#ERP-Origin: decimal
InvoiceDocLineGrossProfitAmtFC	#ERP-Origin: decimal
InvoiceDocLineGrossProfitAmtCC	#ERP-Origin: decimal
CreditDocProjectOID	JBT_Project_Obj #ERP-Origin: V_BelegKopf.JBT_Project_Obj
CreditDocLineGrossProfitPct	#ERP-Origin: decimal
CreditDocLineGrossProfitAmtOC	#ERP-Origin: decimal
CreditDocLineGrossProfitAmtFC	#ERP-Origin: decimal
CreditDocLineGrossProfitAmtCC	#ERP-Origin: decimal

## Reports (NEW and IMPROVED)

### (SAMPLE) Operating Cash Flow (NEW)

Operating cash flow refers to the amount of cash generated by a company after deducting costs from its revenue.

Process date	Cash received	Cash paid	Net cash flow
2019-05-06	437545.91	1994535.61	-1556989.71
2019-05-07	150166.50	953273.10	-803106.60
2019-05-08	225959.33	2804283.81	-2578324.48
2019-05-10	78741.69	1136639.64	-1057897.96
2019-05-13	701825.75	950114.54	-248288.79
2019-05-14	-282403.59	1078070.95	-1360474.53
2019-05-17	59844.15	1036115.02	-976270.87
2019-05-19	212.77	212.77	0.00
2019-05-20	1566405.87	18511118.38	-16944712.50
2019-05-23	7462920.33	1552067.70	5910852.63
2019-05-24	58574.44	1932708.19	-1874133.76
2019-05-25	968.50	242.37	727.13
2019-05-28	110141.78	1134221.22	-1024079.44
2019-05-29	245902.30	8222480.04	-7976577.74
2019-05-30	401.21	80.24	320.97
2019-05-31	107664.53	6515.20	101149.33
2019-06-01	76926.05	44336.82	32589.23
2019-06-02	159.52	159.52	0.00
2019-06-03	193343.77	381960.80	-188617.04
2019-06-04	345287.42	1002022.55	-656735.13
2019-06-05	622017.88	4081273.97	-3459256.09
2019-06-08	660370.33	505496.95	154873.38

## (SAMPLE) Part Consumption (NEW)

This report contains part information and its key metrics such as monthly number of orders, total usage and safety stock. These metrics are dynamically adjusted according to the interval.

Reports																Reports (SAMPLE) Part Consumption	Filter by Intervals Entire Period	Filter by Scopes All Data	
Part id	Part prod...	Part type	Part group	Part desc 1	Part desc 2	Part desc 3	Part desc 4	Number o...	Monthly o...	Avg order ...	Min order ...	Max order...	Avg order ...	Total usage	Monthly t...	Safety stock	Monthly s...	Replenish...	
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
13691700	A0	End Product	A0	3-D Ultra R...				1	0.02	1.00		1	1	-171				0	
10001	4999	Partial Prnt ...	4999	1-2-3 Bum...				1018	29.08									0	
327204	2513	Assembly G...	2513	3-D World...				2	0.05	1.00		1	1	-53	2	0.06	0	0.00	21
311608	2513	Assembly G...	2513	3 for 1 Valu...				1	0.02	1.00		1	1	-76					21
326149	2513	Assembly G...	2513	3 for 1 Valu...				1	0.02	1.00		1	1	-76					21
326149	2513	Assembly G...	2513	3 for 1 Valu...				1	0.02	1.00		1	1	-76	1	0.03	0	0.00	21
105524	4621	Purchased ...	4621	3 for 1 Valu...				7	0.20	1.43		1	2	-22					56
103553	4611	Purchased ...	4611	3 Free Gam...				127	3.62	1.31		1	6	-42	366	10.46	0	0.00	7
212673	4512	Purchased ...	4512	3 Grandes ...				2	0.05	12.00		4	20	-33					42
101181	4515	Purchased ...	4515	007: Nightf...				83	2.37	13.90		4	60	-53					0
101181	4515	Purchased ...	4515	007: Nightf...				84	2.40	14.60		4	60	-52	5618	160.51	0	0.00	0
100656	2612	Purchased ...	2612	007: Quant...				176	5.02	1.30		1	6	-43					7
100656	2612	Purchased ...	2612	007: Quant...				166	4.74	1.27		1	6	-43	727	20.77	0	0.00	7
111775	4632	Purchased ...	4632	10 Amazin...				848	24.22	1.70		1	48	-52					7
105514	4621	Purchased ...	4621	3in1 Adren...				35	1.00	2.09		1	6	-34					7
105514	4621	Purchased ...	4621	3in1 Adren...				34	0.97	2.12		1	6	-34	126	3.60	0	0.00	7
103551	4611	Purchased ...	4611	3 in 1: Gam...				221	6.31	1.56		1	10	-47					7
100036	4512	Purchased ...	4512	3 In Three L...				12	0.34	12.00		6	16	-44	1126	32.17	0	0.00	7
100062	4515	Purchased ...	4515	3-K Trivia (1...				23	0.65	11.17		1	16	-41					7
111774	4632	Purchased ...	4632	1001 Night...				1376	39.31	1.46		1	20	-47	2830	80.86	0	0.00	7
106183	4551	Purchased ...	4551	3 Mega Ga...				99	2.82	47.71		8	308	-37					7
14762200	1121	End Product	1121	3 Ninjas Kic...				1	0.02	1.00		1	1	-2					7

## (SAMPLE) Operating Margin (NEW)

The operating margin represents how efficiently a company is able to generate profit through its core operations.

Reports										Reports (SAMPLE) Operating Margin	Filter by Intervals Entire Period	Filter by Scopes All Data
Process date	Revenue	Costs	Operational costs	Gross profit	Operation profit	Operating expenses	Gross margin in percentage	Operating margin in perce...				
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
2020-12-17	649549.21	247344.86	302564.85	402204.35	346984.36	55219.99	61.92	53.42				
2022-03-21	40900.00	0.00	0.00	40900.00	40900.00	0.00	100.00	100.00				
2019-05-06	256627.06	53035.70	84758.27	203591.36	171868.79	31722.57	79.33	66.97				
2019-05-07	334154.94	28868.06	72971.78	305286.88	261183.16	44103.72	91.36	78.16				
2019-05-08	140752.18	19956.41	60439.93	120795.77	80312.25	40483.52	85.82	57.06				
2019-05-17	174447.00	38042.20	59622.40	136404.80	114824.60	21580.20	78.19	65.82				
2019-05-20	353638.20	162858.71	181811.12	190779.49	171827.08	18952.41	53.95	48.59				
2019-05-28	68550.53	40311.52	84198.98	645239.01	601351.55	43887.46	94.12	87.72				
2019-05-29	1515109.54	755773.51	905535.16	759336.03	609574.38	149761.65	50.12	40.23				
2019-06-03	228779.18	87655.70	109533.37	141123.48	119245.81	21877.67	61.69	52.12				
2019-06-12	470304.34	138605.50	178673.00	331698.84	291631.34	40067.50	70.53	62.01				
2019-06-18	170231.43	32922.81	42777.18	137308.62	127454.25	9854.37	80.66	74.87				
2019-06-24	299889.84	130133.58	233604.44	169756.26	66285.40	103470.86	56.61	22.10				
2019-06-28	3059242.92	1379086.86	2437108.70	1680156.06	622134.22	1058021.84	54.92	20.34				
2019-07-01	270067.74	28595.35	35616.08	241472.39	234451.66	7020.73	89.41	86.81				
2019-07-09	71758.52	16118.20	40584.16	55640.32	31174.36	24465.96	77.54	43.44				
2019-07-11	424400.33	83184.30	156094.18	341216.03	268306.15	72909.88	80.40	63.22				
2019-07-12	972689.61	179216.14	316984.94	793473.47	655704.67	137768.80	81.58	67.41				
2019-07-17	210427.50	68536.29	102520.08	141891.21	107907.42	33983.79	67.43	51.28				
2019-07-18	187130.47	34261.60	63572.94	152866.87	123557.53	29311.34	81.69	66.03				
2019-07-19	86566.71	11364.82	21466.18	75201.89	65100.53	10101.36	86.87	75.20				
2019-07-24	456557.52	228005.04	236792.98	228552.48	219764.54	8787.94	50.06	48.14				

## (SAMPLE) Price Analysis (NEW)

This report contains the list price and realized price of part per order number.

Invoice no	Part id	Part group	Part type	Part desc 1	Part desc 2	Part desc 3	Part desc 4	List price	Realized price	Price deviation	List price deviat...	Realized price d...	Difference
21406464	323862	ZC	5	Tabletop: The Ga...				3448.00	563.44	2884.56	158.61	-5610.51	5769.12
21403918	301719	4611	10	Oretachi Game C...				468.00	98.50	369.50	140.40	-229.10	369.50
20408265	111775	4632	10	10 Amazingly Aw...				140.00	16.95	123.05	42.00	-81.05	123.05
21404396	103547	4611	10	10 Great Games ...				22.00	0.95	21.05	6.60	-14.45	21.05
19405966	338058	2543	5	Bubble Bobble E...				2505.00	360.50	2144.50	751.50	-1393.00	2144.50
19408665	111775	4632	10	10 Amazingly Aw...				140.00	17.05	122.95	6.30	-116.65	122.95
20405292	17276400	1124	9	The Legend of Pr...				2210.00	1127.52	1082.48	132.60	-2032.36	2164.96
20406915	16356900	1124	9	Microsoft Return ...				2573.12	1500.89	1072.23	360.24	-1784.22	2144.46
20408794	119581	4611	10	10 Minute Soluti...				47.00	6.71	40.29	14.10	-26.19	40.29
21403351	104377	4611	10	100 Action Arcad...				59.00	3.69	55.31	17.70	-37.61	55.31
21406580	20099000	1212	9	Tanglink (2014, U...				159.65	137.45	22.20	-56.68	-167.68	111.00
21401755	104964	4612	10	8th Wonder of th...				343.00	42.75	300.25	205.80	-394.70	600.50
20403041	111554	3112	6	Aquanoid (1992, ...				97.00	22.61	74.39	14.55	-59.84	74.39
20401867	310994	2432	5	Gamma-Attack (...				1890.00	255.73	1634.27	567.00	-1067.27	1634.27
21403100	108368	4512	10	Abenteuer Atlant...				13.00	2.69	10.31	31.20	-51.28	82.48
21407435	20052100	1124	9	Tom Clancy's Rai...				837.20	496.69	340.51	16.74	-323.77	340.51
19404046	14810600	1921	9	American Dream ...				292.33	67.70	224.63	8.77	-215.86	224.63
21405128	18544900	ZWV	9	Spider-Man 2 (2...				10114.00	5948.76	4165.24	303.42	-3861.82	4165.24
21400740	100655	2612	10	The \$100,000 Pyr...				47.00	1.23	45.77	7.05	-38.72	45.77
19406045	15089700	1124	9	Builder's Block (1...				5997.20	2706.61	3290.59	419.80	-2870.79	3290.59
20403590	326604	ZC	5	Hurdle Turtle (20...				2115.00	532.09	1582.91	634.50	-948.41	1582.91
21401944	102152	4515	10	Ahl Megami-Sa...				25.00	2.79	22.21	7.50	-14.71	22.21

## (SAMPLE) Belated Customer Invoices (IMPROVED)

- New Column "Late Invoicing Deficit"

## (SAMPLE) Premature Supplier Payment (IMPROVED)

- New Column "Early Payment Deficit"

## (SAMPLE) Tied Up Cash (IMPROVED)

- Error in calculation DSO and DPO fixed

## (SAMPLE) Replenishment Time Analysis (IMPROVED)

- New Column "Number of Suppliers"

## Sorting problem with all aging reports is now fixed (IMPROVED)

- (SAMPLE) Customer Aging
- (SAMPLE) Supplier Aging
- (SAMPLE) Part Aging
- (SAMPLE) Payment Target Aging

## Export data to Microsoft Excel

Data of any report can now be exported to Microsoft Excel files. The amount of data to be exported can be customized.

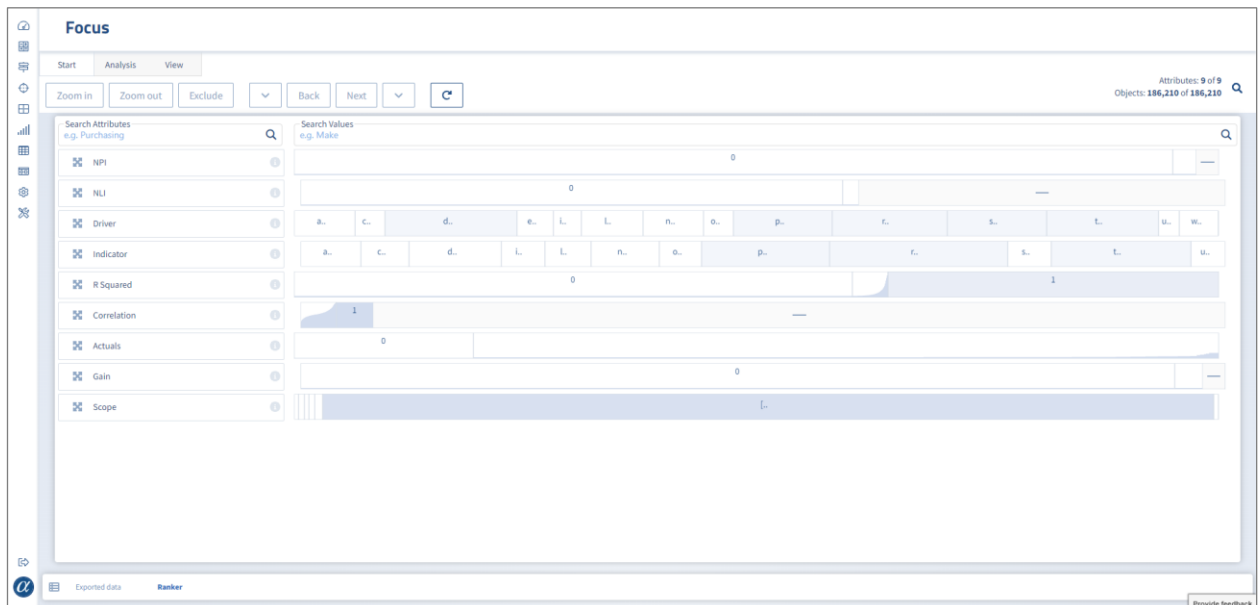
The screenshot shows a 'Reports' interface with a table of data. An 'Export Data' dialog box is open, allowing users to select export options. The dialog has three radio buttons: 'current page', 'all data', and 'customize pages' (which is selected). Below these, there are 'Export pages:' fields with 'From' and 'To' dropdowns set to 1 and 20 respectively. A progress bar shows 'Loading 25%'. 'Close' and 'Export' buttons are at the bottom of the dialog.

Part id	Part prod...	Part type	Part group	Part desc 1	Part desc 2	Part desc 3	Part desc 4	Number o...	Monthly o...	Avg order ...	Min order ...	Max order...	Avg order ...	Total usage	Monthly t...	Safety stock	Monthly s...	Replenish...	
324759	4612	Purchased ...	4612	007: Agent ...				27	0.77	1.15		1	3	-82	69	1.97	0	0.00	42
111776	4632	Purchased ...	4632	007: Blood ...				595	17.00	1.48		1	20	-54	1240	35.43	0	0.00	7
118577	4551	Purchased ...	4551	007: Car Ch...				61	1.74	104.15		1	384	-40	28675	819.29	0	0.00	7
20153800	1922	End Product	1922	007: Everyt...								1	1	-26	1	0.03	0	0.00	0
104289	4623	Purchased ...	4623	007: Legend...								1	8	-27	72	2.06	0	0.00	7
329665	ZC	Assembly G...	ZC	007: Licenc...								1	1	-56	1	0.03	0	0.00	0
108369	4512	Purchased ...	4512	007: Nightf...								4	32	-54					7
101181	4515	Purchased ...	4515	007: Nightf...								4	60	-53					0
101181	4515	Purchased ...	4515	007: Nightf...								4	60	-52	5618	160.51	0	0.00	0
100656	2612	Purchased ...	2612	007: Quant...								1	6	-43					7
100656	2612	Purchased ...	2612	007: Quant...								1	6	-43	727	20.77	0	0.00	7
117021	4115	Purchased ...	4115	007: Quant...								1	5	-38					7
117021	4115	Purchased ...	4115	007: Quant...								1	5	-38	299	8.54	0	0.00	7
212916	2441	Purchased ...	2441	007: Racing...				37	1.05	1.22		1	5	-43	285	8.14	0	0.00	7
101180	4515	Purchased ...	4515	007: The W...				106	3.02	8.72		2	24	-53	4567	130.49	0	0.00	0
100654	2612	Purchased ...	2612	007: The W...				25	0.71	1.56		1	11	-52	72	2.06	0	0.00	42
247450	2457	Assembly G...	2457	007: Tomor...				1	0.02	1.00		1	1	-56					21
247450	2457	Assembly G...	2457	007: Tomor...				1	0.02	1.00		1	1	-56	1	0.03	0	0.00	21
101236	4526	Make-To St...	4526	007: Tomor...				52	1.48	1.27		1	5	-48					21
101236	4526	Make-To St...	4526	007: Tomor...				51	1.45	1.27		1	5	-48	83	2.37	0	0.00	21
207803	2414	Assembly G...	2414	0 day Attac...				2	0.05	2.00		2	2	-113					21
329349	2521	Assembly G...	2521	00 Beat Dr...				1	0.02	1.00		1	1	-56					21

## Focus (NEW and IMPROVED)

## NEMO Ranker Infoscape (NEW)

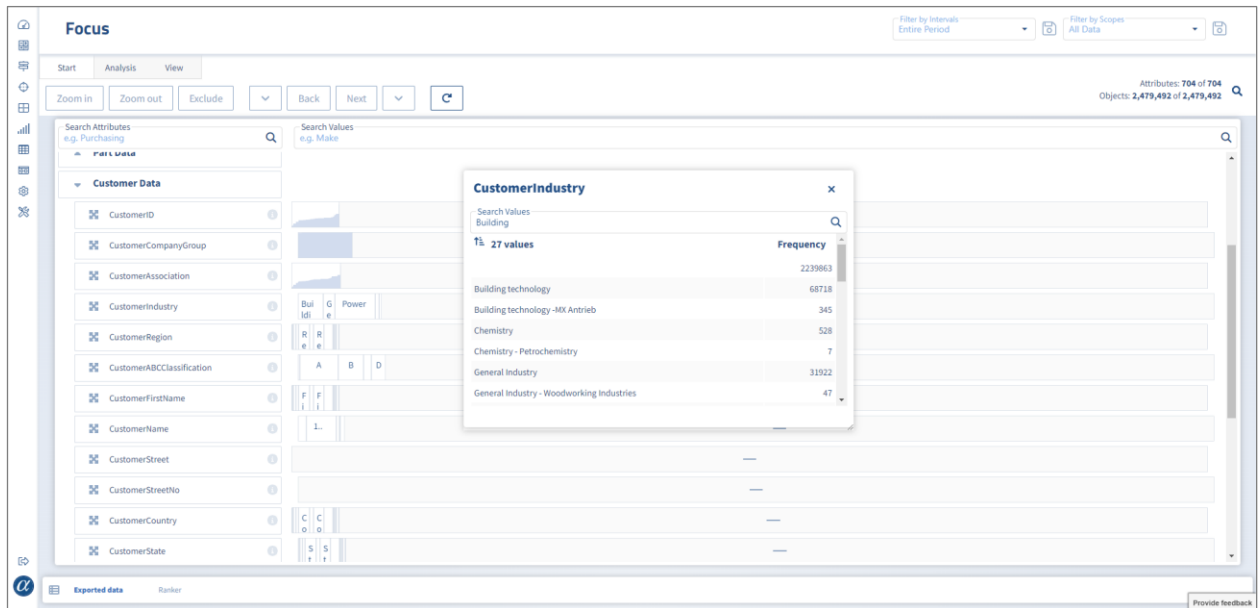
In addition to the Default Infoscape NEMO Ranker data can now be analyzed with Focus as well.





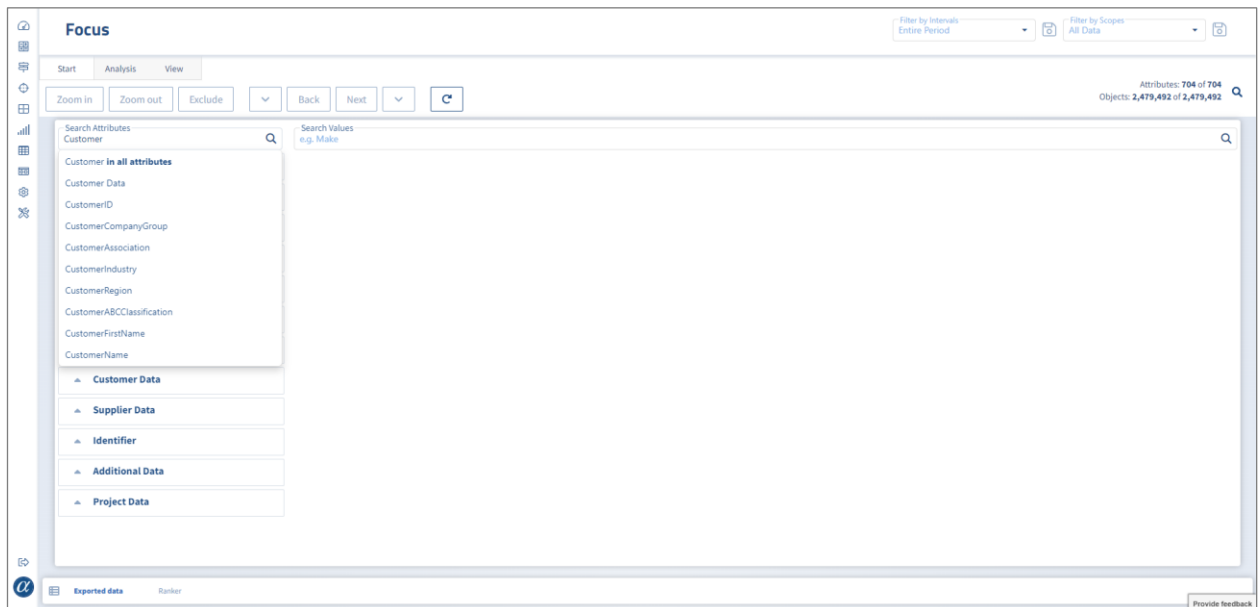
## Searching in Value Lists (NEW)

More qualified search is now supported by searching directly in Value Lists instead of a global search.



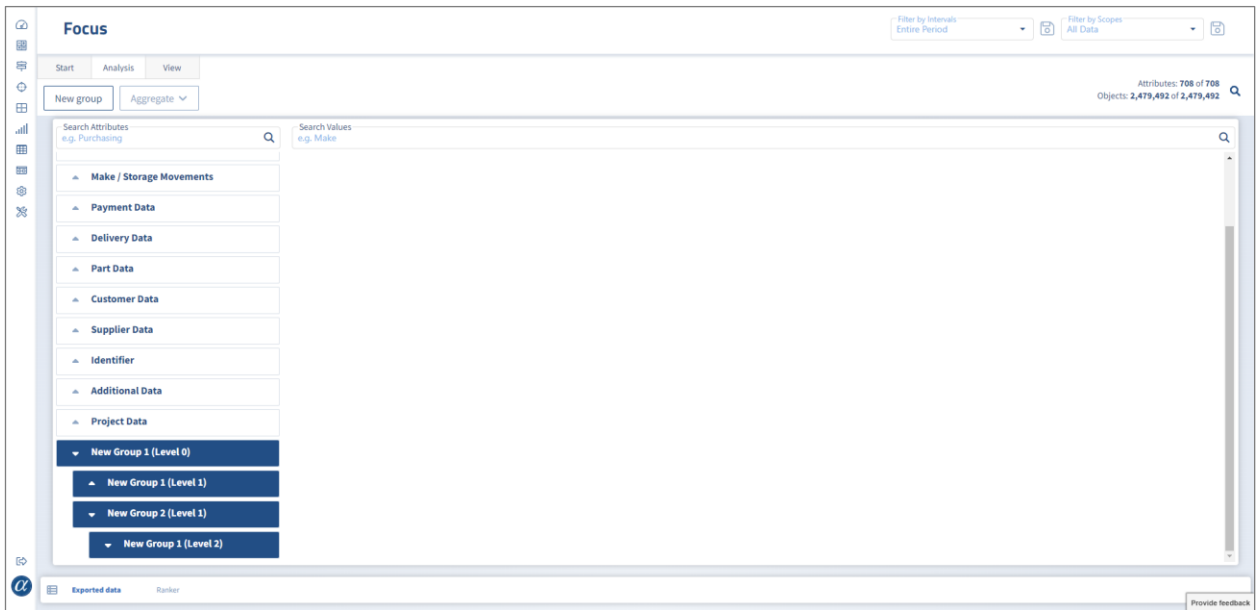
## Searching the Attribute Tree (NEW)

Besides searching values it's now possible to search Attributes, too.



## Creating Infoscape layouts (IMPROVED)

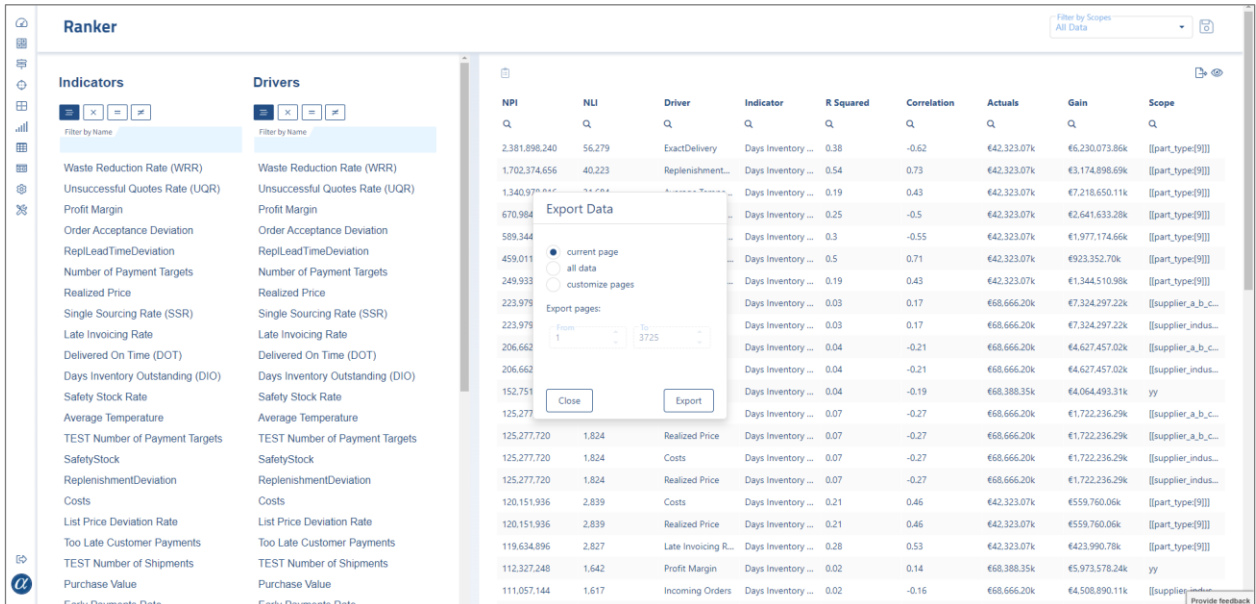
Start creating layouts for Infoscapes by creating a skeleton of empty Attribute Groups first.



## Ranker (NEW)

### Export data to Microsoft Excel

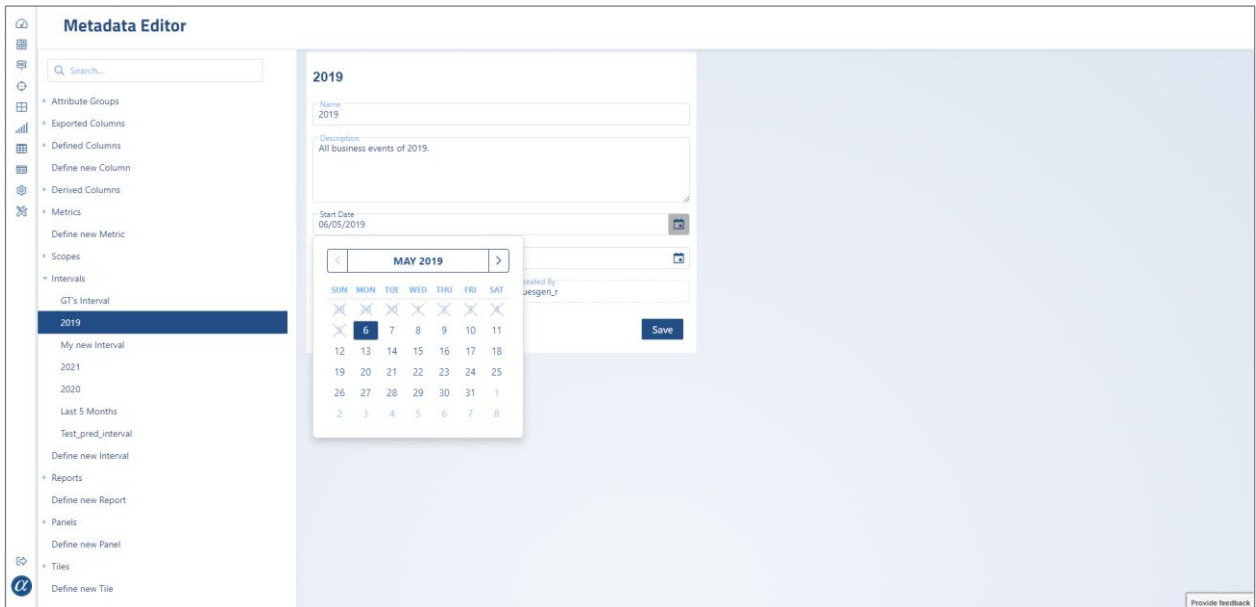
Crawler results data can now be exported to Microsoft Excel files. The amount of data to be exported can be customized.



## Metadata Editor (NEW)

### Manage Intervals (NEW)

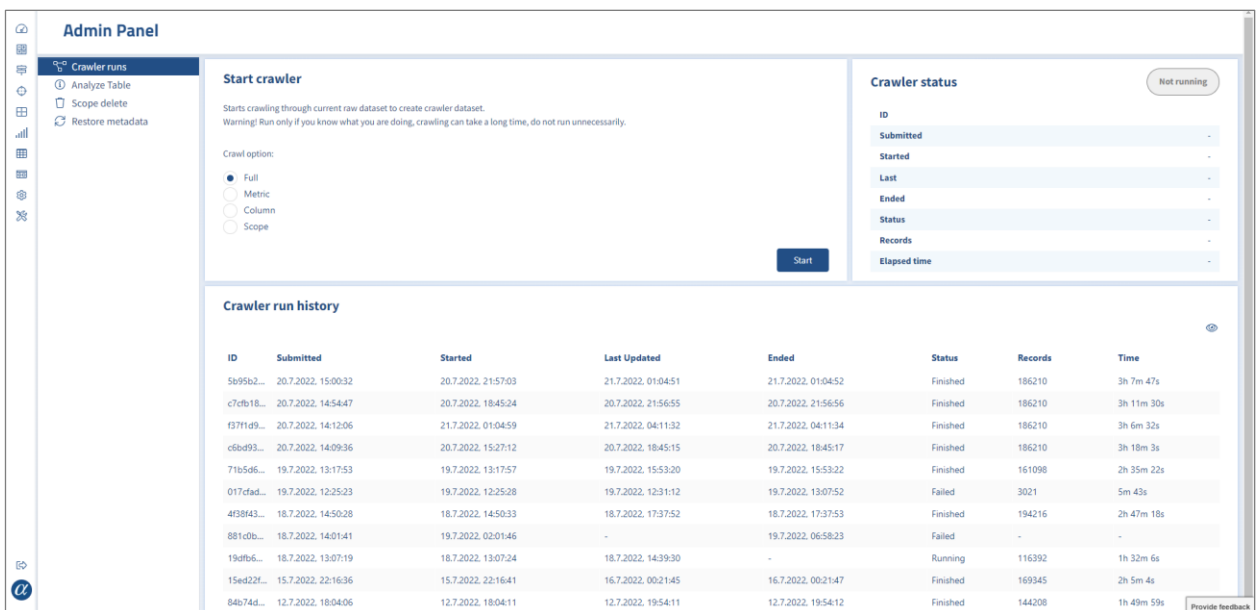
Intervals can now also be created and edited with help of the Metadata Editor.



## Admin Panel (NEW and IMPROVED)

### Crawler Monitor (NEW)

Monitor the status of NEMO Crawler and explore the history of past runs or start new Crawler runs on demand.



# Compatibility and Limitations

## Compatibility

NEMO is compatible with all ERP releases from 6.1 onwards.

## Functional Limitations

Following functionality is restricted as of now:

- WRR doesn't comprise production waste yet.
- Updating of Reports is not supported yet.
- Calculations of Driver and Indicators are not based on Intervals yet.

## Component Status

- Project Management support is only available as prototype currently.
- Qlik integration doesn't function yet.

## Known Issues

- None

# Documentation

Apart from this Release Letter, the following documentation is available from pAWorld (<https://paworld.proalpha.com/display/RN/Knowledge>).

- NEMO Glossary 2022-06-24 (no update)
- NEMO Data Structure 2022-05-13 (no update)
- NEMO Formula Syntax 2022-07-22 (updated)

# Availability

All customer environments as well as DEMO have been updated already.