

Process-driven transformations The end-to-end approach of SAP and Signavio

Process Intelligence Deep Dive



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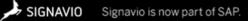
Content

• The SAP Signavio Business Transformation Suite

- What is Process Mining?
- SAP Signavio Process Intelligence
 - Product Capabilities
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 - Task Mining by FortressIQ
 - Use Cases and Customer Examples
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- What's coming in the next releases



The Business Transformation Suite



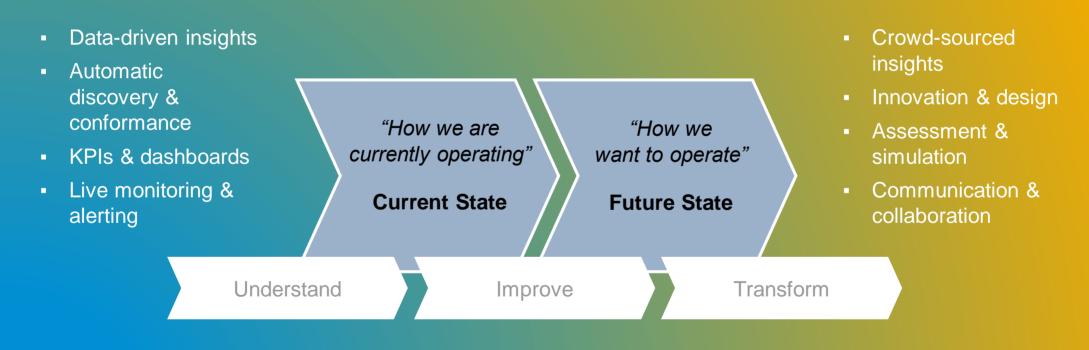


From Efficiency to Customer Excellence

Make customer experience an operational reality - fast and at scale

Data-Driven Process Management

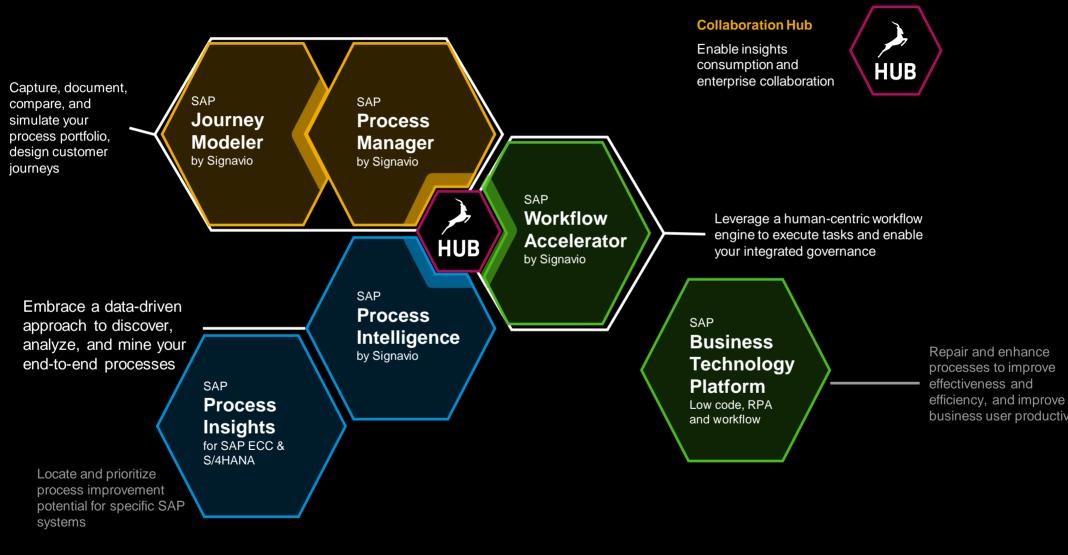
Human-Centred Process Management



From IT Transformation to Intelligent Automation

Turn technology opportunity into operational impact

The end-to-end transformation suite



What is Process Mining?



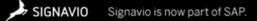


What is Process Mining?

Process mining is a technique designed to **discover**, **monitor** and **improve** real processes (i.e., not assumed processes) by extracting readily available knowledge from the event logs of information systems. Process mining includes:

- Automated process discovery (extracting process models from an event log)
- Conformance checking (monitoring deviations by comparing model and log)
- Social network/organizational mining
- Automated construction of simulation models
- Model extension
- Model repair
- Case prediction
- History-based recommendations

Source: Gartner





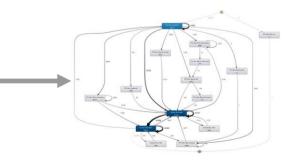
How does Process Mining work?

Most IT systems record every detail of what happens in a process in the form of event logs. Think of these activities as 'digital footprints' people leave behind as they move through a process. Process mining captures the digital footprints from any number of systems throughout an organization and organizes them in a way that shows each step of the journey to complete that process, along with any deviations from the expected path.

Event Logs Humans case id event id properties timestamp activity resource cost 35654423 30-12-2010:11.02 register request Pete 50 35654424 examine thoroughly 400 31-12-2010:10.06 Sue 35654425 05-01-2011:15.12 check ticket Mike 100 35654426 06-01-2011:11.18 decide Sara 20035654427 07-01-2011:14.24 reject request 200 Pete 35654483 30-12-2010:11.32 register request Mike 50 35654485 30-12-2010:12.12 check ticket 100 Mike 30-12-2010:14.16 examine casually 400 35654487 Pete 35654488 05-01-2011:11.22 decide Sara 200 35654489 08-01-2011:12.05 200 pay compensation Ellen **IT Systems**

From Event Logs to real-life Process Models

Process Models





SAP Signavio Process Intelligence

Signavio Process Intelligence An end-to-end approach to data-driven process management

Analytic Tools for Everyone

Three different analysis tools to cater for individual needs of user groups throughout the analysis to insight life-cycle.

Empowering Business Users

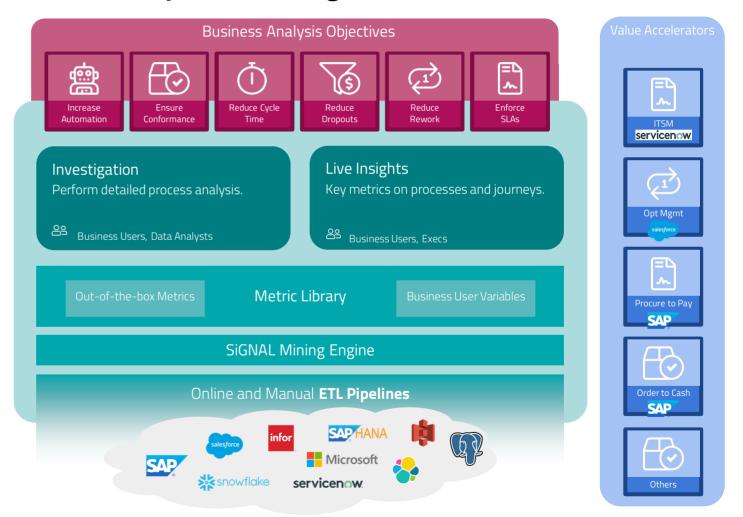
The Metrics Library empowers business users to leverage the computational power of the SiGNAL without technical knowledge.

Mining at Scale

The SiGNAL Mining Engine is a cloud-based inmemory query engine that can process events logs of up to 100M rows in real-time.

Extended Connectivity

The ETL Pipelines allows simplifies online and manual data acquisition with a unique process mining oriented data model creation.

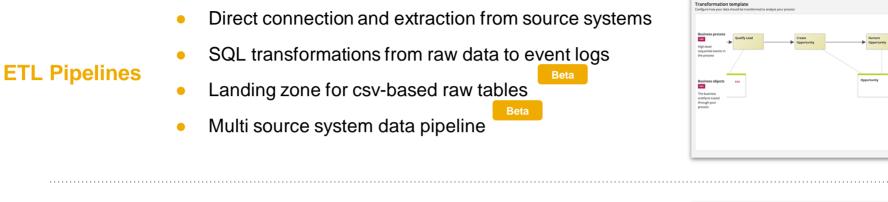


Process Intelligence - Main capabilities

Data Ingestion and Online connectivity from common source system **Preparation** Process-oriented data modelling environment SiGNAL language offering traditional SQL operators and **Process Analytics** process mining specific functions **Engine** SiGNAL queries packaged as reusable metrics Out of the box metrics to jump start the analysis A complete storytelling approach to record thoughts and **Process Analysis and** findings **Visualisation** Four process oriented visualisations and eight BI widgets A central library to save and share knowledge Lights on - Procure to Pay (post-Operational insights exposed in context on any canvas (value chains, processes, journeys) **Insights in context** Full control and updates over key process performance and compliance indicators

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Data Ingestion and Preparation



Event Log Upload

- Simplified csv upload of event logs
- Interactive column mapper

case,id	event_name	end,time	Changeld	ChangeMade@yld	EmailMessageActivityId	
1,04	104	7,04	7,04	7,04	7,04	
Case ID	- INT NAME - V	ID TIME		- Choice	- Choice	
0061+000008g/MAAZ	Create Opportunity	2018-10-01 06:26				
0061+00000RpMAAZ	Customer contact role addect Business	2018-10-01 06:30	00K1 n000008s20pEAF	0050Y000003io12QAA		
0061+000008()*MAAZ	Customer contact role added, Influencer	2018-10-01 06:30	00K1+000008s20x6AF	0050Y000003+12QAA		
0061+00000Rju/PAAR	Create Opportunity	2018-10-01 08:22				
0061+0000088/5uAAJ	Create Opportunity	2018-10-01 09:49				
061+0000088U2AAj	Create Opportunity	2018-10-01 09:56				
061+00000R8saAA8	Create Lead	2018-10-01 10:23				
061+00000RksaAA8	Create Opportunity	2018-10-01 11:37				
061+00000R85aAAB	Activity logged: Task (Onsite Meeting)	2018-10-03 12:32				
061+000008ksaA48	Team Member added: Pre-Sales	2019-04-11 21:08	QAA33xx10000001tpd0	0050Y000004FEX2QAD		
BAAasin00000RiksaAAB	Opportunity next step updated	2019-04-25-06:00	0171r0000PMpCbdAQF	0051~000005M/9QAAS		
BAAASIN00000RiksaAAB	Opportunity next step updated	2019-04-29 13:02	0171r0000P54reCAQT	0051+000005M9QAA5		
061+00000RksaA48	Opportunity Dead - No Decision	2019-05-07 09:55	0171r0000Pf0NU3AQM	0051+000005M/9QAAS		
061+00000RiksaAA8	Opportunity-dose date updated	2019-05-07 09:55	0171r0000Pt0NUeAQM	0051+000005M9QAA5		
061+00000RikszAAB	Create Lead	2018-10-01 10:32				
061+00000RkszAA8	Create Opportunity	2018-10-01 11:38				
061+00000RikszAAB	Customer contact role added, Business	2018-10-01 11:38	00K1+000008h2Tq6AN	0050Y000004FrcgQAC		
061+00000Riss2AA8	Customer contact role added. Decision	2018-12-05 13:41	00K1+00000892/96A8	0051+000005M/9QAAS		
061+00000RikszAA8	Create Lead	2019-02-21 16:36				
0061-0000088scAAB	Opportunity next step updated	2019-04-25-05-48	0171r0000PMuCKLADN	0051+000005M/9QAA5		

 Process settings

 Intra
 API

 Contramitations
 State setting

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Continuously update event logs with an automated interface (REST)





Process Analytics Engine

Signavio Analytics Language

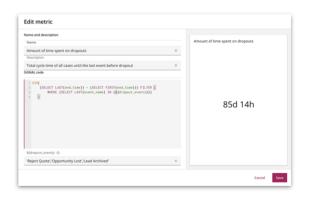
Queries as easy as SQL

 Process Oriented analytical functions (e.g. MATCH for conformance, SUB SELECTS for event logs)

iame Reworks by Payment Type		Reworks by Payment Type	
International			
		Rework Rate	
Description		70	
Optional		60	
Nidget type		50	
		40	
iGNAL code		30	
IGNAL CODE			
lar style		20	
/ertical	~	10	
1 SELECT		0Online	Invoice
2 payment_type AS "Payment Type",		Payment Ty	
<pre>3(COUNT(case_id) filter(where rework = 'True'))/(COUNT(case_id))*</pre>	100 AS CRewo	Payment Iy	ipe .
4 FROM THIS_PROCESS			

SiGNAL Metrics

- Packaged and re-usable SiGNAL statements
- Variables can be managed by non-technical users in the UI without SiGNAL knowledge.







Process Analysis and Visualisation

Flexible notebook-style process analysis canvas

Investigation

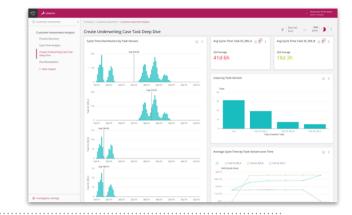
- A complete storytelling approach to record thoughts and findings
- Leveraged by process experts and data analysts

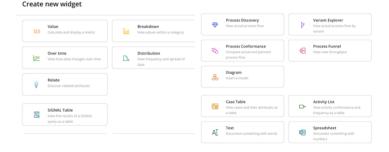
Widgets

- Process oriented visualisations (e.g. conformance, interactive discovery, funnel)
- BI-like widgets to slide & dice (e.g. bar chart, pie charts, etc.)
- Storytelling components (e.g. notes and sheets)

Metrics Library

- Central repository for all KPIs created by users
- Out of the box SiGNAL Metrics provided by Signavio





Data API	Marca List of memos adned for the process Select sites rate rate Complete admbute set.				Edit variables 8 New metric		
Custom attributes	0	Name				Sutus	
Data views Users	0	Percent of cases affected by rework Number of cases affected by rework divided by the total number of cases				(said	
JANKA	0	Average number of reworks per case Average number, per case, of events that appear at least beice				(see	
	0	Average cycle time of automated activities Average cycle time of automated activities in the process				(MAR)	
	0	Conformance level Percentage of cases without conformance issues				1000	
	0	Average confirmation time for sales orders Average time from the creation of the sales order item to its confirmation				Table .	
	0	Average cycle time Average cycle time calculated from the first to the last event.				Vale	
	0	Conformance level Percentage of cases without conformance issues				(MAR)	
	0	Automation rate Percentage of automated events				(MAR)	
	0	Beturn rate Percentage of cases in which an item was returned				1444	
	0	Late payment rate Percentage of cases where the invoice was cleared after its due date				Tana	

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Insights in context

Journey Live Insights

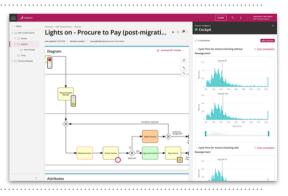
- Operational insights exposed in a customer experience context
- Drive operational improvements with a customer mindset

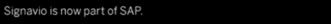


Process Live Insights

SIGNAVIO

- Operational insights exposed in a process context
- Full control and real-time updates over the key process performance and compliance indicators





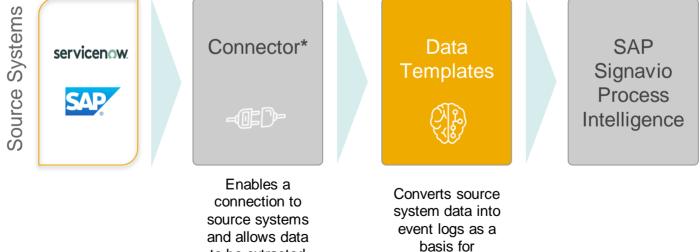


Process Intelligence Value Accelerator

A Value Accelerator is a process, system-specific, packaged rapid deployment solution made with a starting set of analysis metrics and data transformations.



performance and



process mining

to be extracted

*included with PI but not part of the business solutions package



Example: Order-to-Cash for SAP ECC and SAP S/4HANA



100% **Business Domain** Metrics Sales, Distribution, Finance Process Discovery No payment rate Dunning rate () F + : + : Q 23 Occurrences Activitie 0 % 0.06 % Use Cases Q **Sales optimization** [Q] Create Sales Order 1.6k On-time delivery rate Late payment rate **Cycle time reduction** + Working capital optimization 26.29 % 0% Create Outbound 545 Delivery Item Variants 66% Supported Processes Update Sales Do Post Goods Issue 505 59 Average invoice payment time Return rate E E • CMWAE **Order-to-Cash** 18h 47m 0.73 % ė Create Debit Mem Create Invoice Item 166 473 Request Item Source System Average confirmation time for sales order Average logistics processing time 121 [A] SAP Update Sales Dor 125 Post Invoice 367 (VDATU) Cannot display widge Cannot display widge Applicable Industry **Any Industry** Average processing time for sales orders • 2d 7h Solution Content Live Connector for SAP ECC & S4HANA Standard Data Model

Process Metrics & KPIs



Task Mining with FortressIQ



Together, Signavio and FortressIQ combine **top-down and bottom-up approaches to model**, **discover, govern and monitor processes and tasks.** They enable customers to drive a human and data-driven approach for complex transformations.

Process Discovery with no Blind Spots

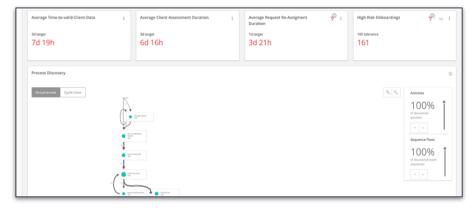
Discover the full width and depth of a process, from the high level process execution view to the granular tasks that users perform within that context

Perfect Work Instructions

Provide work instructions with added real-data based information (task info, screenshots, etc.)

End-to-End Intelligent Automation

Optimize the overall process instead of just focusing on a certain step. Integrate BPM, RPA, RDA initiatives for transformational value







Top Use Cases

IT Transformation	 End-to-end support for IT-driven transformations Focus on as-is analysis and to-be state definition
	 Transformations to S/4HANA and Rise program
Data-driven Process Management	 Discovery and Conformance centric Main performance and compliance KPIs are exposed in context Make process management a modern data-driven practice
Digital and CX Transformation	 Operational Model + Customer Experience + Data Digital Twin Tailored views for different company stakeholders
Compliance and Audit	 Transparent operations foster adherence to int./ext regulations Constantly updated frameworks for regular audits

• More complete than a "sampling-based" approach



THANK YOU!

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