



IEEE
Computational
Intelligence
Society

Annual Meeting of the IEEE Task Force on Process Mining



Monday August 31th, 2015, 16.00-18.00

University of Innsbruck,

Hörsaal 2 (Lecture Hall 2), School of Management (SOWI),

Universitätsstraße 15, 6020 Innsbruck, Austria

<http://www.win.tue.nl/ieeetfpm/>

Process mining reception









Agenda

16:00 – 16:05	Welcome
16:05 – 16:20	Overview of Activities 2014-2015 (Wil van der Aalst)
16:20 – 16:45	<p>Best Process Mining Dissertation Award Ceremony (Chaired by Marcello La Rosa)</p> <p>The Best Process Mining Dissertation Award is a yearly award conferred by the IEEE Task Force on Process Mining to the author of an outstanding PhD thesis on business process intelligence. The winner of the first edition of this award will be announced during this meeting.</p> <ul style="list-style-type: none"> - Conferral of the award - Presentation (15 minutes) by the award winner
16:45 – 17:00	Update and Overview of XES Standardization (Felix Mannhardt)
17:00 – 17:20	Discussion -
17:20 – 17:30	Planned Activities for 2015-2016
17.30	Closing
Evening	Reception – Seegrube Alpenlounge (for BPM participants)

Namaste مرحبا Willkommen Bem Vindo Selamat Datang
Croeso
Bienvenidos Bienvenue Croeso Welcome Bienvenidos أهلا وسهلا
Benvenuti Welkom
Bem Vindo
Croeso
Namaste
أهلا وسهلا مرحبا
Selamat Datang
Welcome Bienvenue Bem Vindo
Willkommen
Benvenuti Willkommen
Benvenuti
Kalώς ήλθατε

IEEE CIS Task Force on Process Mining

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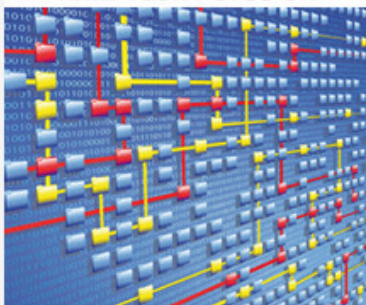
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IEEE Task Force on



Process Mining

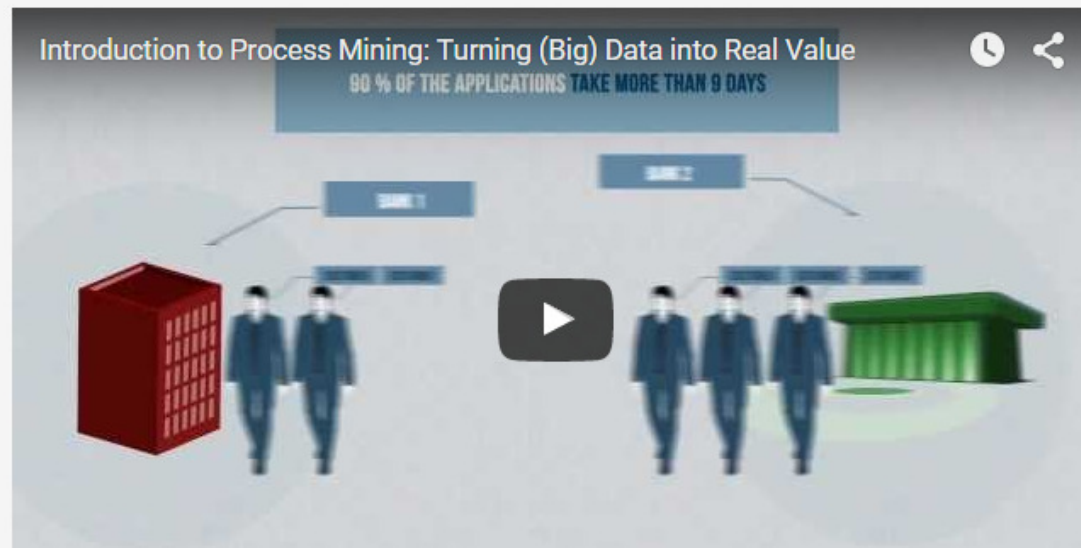
More and more people, both in industry and academia, consider **process mining** (see the [promotional video](#) for an introduction) as one of the most important innovations in the field of business process management. It joins ideas of process modeling and analysis on the one hand and data mining and machine learning on the other. Therefore, the IEEE has established a **Task Force on Process Mining**. This Task Force is established in the context of the [Data Mining Technical Committee \(DMTC\)](#) of the [Computational Intelligence Society \(CIS\)](#) of the [Institute of Electrical and Electronic Engineers, Inc. \(IEEE\)](#).

The goal of this Task Force is to promote the research, development, education and understanding of process mining. More concretely, the goal is to:

- m
- p
- pl
- th
- the organization of Conferences/Workshop with IEEE CIS Technical Co-Sponsorship, and
- publications in the form of special issues in journals, books, articles (e.g., in the IEEE Computational Intelligence Magazine).

The goal of the PM Task Force is to promote the research, development, education and understanding of process mining.

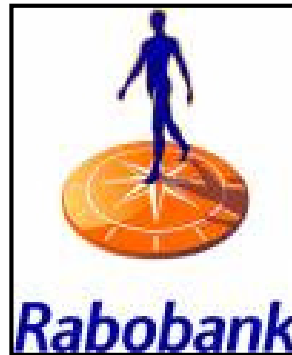
Note that process mining includes (automated) **process discovery** (extracting process models from an event log), **conformance checking** (monitoring deviations by comparing model and log), **social network/organizational mining**, **automated construction of simulation models**, **case prediction**, and **history-based recommendations**.



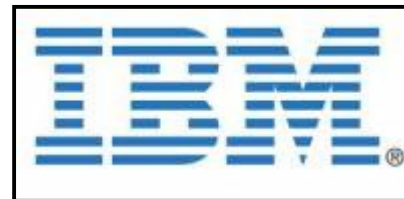
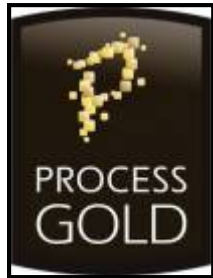


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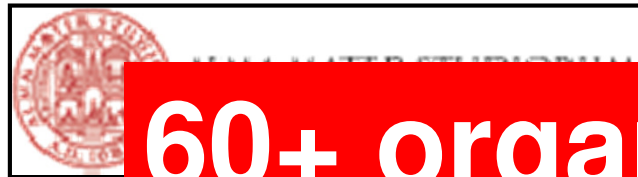
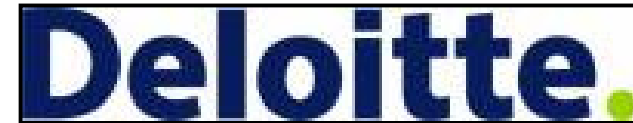
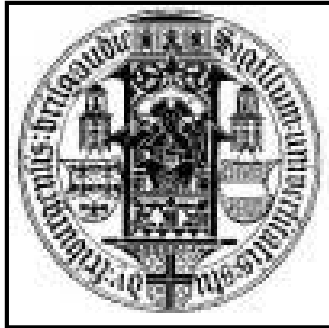
Organizations Supporting our Task Force (1/3)



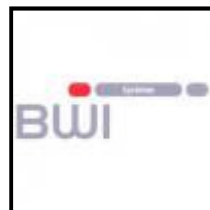
Organizations Supporting our Task Force (2/3)



Organizations Supporting our Task Force (3/3)



60+ organizations





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[Burattin, Andrea](#)
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[Khalaf, Rania](#)
[Kumar, Akhil](#)
[Leeuwenkamp, Wim](#)
[Liu, Yingbo](#)

Only ask to become a member if you want to actively promote process mining as a topic/discipline beyond your own work and personal interests!

indi

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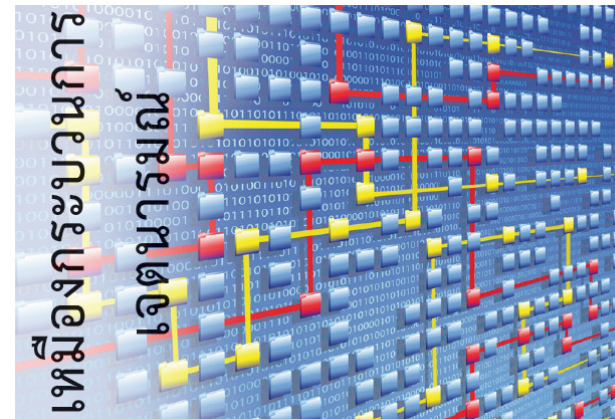


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Overview of activities 2014-2015

PM Manifesto now also in Thai

http://www.win.tue.nl/ieeetfpm/doku.php?id=shared:process_mining_manifesto



14

Languages
(do we miss an obvious language?)

A manifesto is a "public declaration of principles and intentions" by a group of people. This manifesto is written by members and supporters of the IEEE Task Force on Process Mining. The goal of this task force is to promote the research, development, education, implementation, evolution, and understanding of process mining.

Process mining is a relatively young research discipline that sits between computational intelligence and data mining on the one hand, and process modeling and analysis on the other hand. The idea of process mining is to discover, monitor and improve real processes (i.e., not assumed processes) by extracting knowledge from event logs readily available in today's (information) systems. Process mining includes (automated) process discovery (i.e., extracting process models from an event log), conformance checking (i.e., monitoring deviations by comparing model and log), social network/organizational mining, automated construction of simulation models,

model extension, model repair, case prediction, and history-based recommendations.

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Process mining techniques are able to extract knowledge from event logs commonly available in today's information systems. These techniques provide new means to discover, monitor, and improve processes in a variety of application domains. There are two main drivers for the growing interest in process mining. On the one hand, more and more events are being recorded, thus, providing detailed information about the history of processes. On the other hand, there is a need to improve and support business processes in competitive and rapidly changing environments. This manifesto is created by the IEEE Task Force on Process Mining and aims to promote the topic of process mining. Moreover, by defining a set of guiding principles and listing important challenges, this manifesto hopes to serve as a guide for software developers, scientists, consultants, business managers, and end-users. The goal is to increase the maturity of process mining as a new tool to improve the (re)design, control, and support of operational business processes.

เจตนารมณ์ คือ "คำประกาศต่อสาธารณชนถึงหลักการและความตั้งใจ" ของคนกลุ่มหนึ่ง และผู้สนับสนุนของ IEEE Task Force on Process Mining เป้าหมายของคณะกรรมการเฉพาะกิจนี้ คือ เพื่อส่งเสริมการวิจัย การพัฒนา การศึกษา การทำให้เกิดผล วิวัฒนาการ และความเข้าใจในเรื่องเหมืองกระบวนการ

เหมืองกระบวนการ เป็นสาขาการวิจัยอยู่ในระยะเริ่มแรก ซึ่งในขณะนั้นจะอยู่ระหว่างภาคการคำนวณและเหมืองข้อมูล ส่วนในอีกมุมหนึ่งจะอยู่ระหว่างแบบจำลองกระบวนการและการวิเคราะห์แนวคิดของเหมืองกระบวนการคือ เพื่อการค้นพบ การนำสิ่งถูก และการปรับปรุงกระบวนการจริง (ไม่ใช่กระบวนการเสมือน) ด้วยการสกัดความรู้จากบันทึกเหตุการณ์ที่มีอยู่ในระบบ (สารสนเทศ) ที่มีอยู่แล้วในปัจจุบัน เหมืองกระบวนการรวมถึง การค้นพบกระบวนการ (ได้อัตโนมัติ) (การสกัดแบบจำลองกระบวนการจากบันทึกเหตุการณ์) การตรวจสอบการสอดคล้อง (เช่น การนำสิ่งถูกความเบื้องต้นของการเปรียบเทียบระหว่างแบบจำลองกับบันทึก)

เครือข่ายสังคม / เหมืององค์กร การสร้างแบบจำลองได้อัตโนมัติ การขยายแบบจำลอง การให้คำแนะนำได้อัตโนมัติใช้งานมาเป็นกันชน

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เทคนิคของเหมืองกระบวนการสามารถสกัดความรู้จากบันทึกเหตุการณ์ที่มีอยู่โดยทั่วไปในระบบสารสนเทศในปัจจุบัน เทคนิคเหล่านี้มีใช้ในในการค้นพบ, การนำสิ่งถูก และการปรับปรุงกระบวนการในการประยุกต์ใช้ในหลากหลายโดเมน โดยมีวิธีคิดที่เชื่อมโยงกับสาขาที่นำให้ความรู้ของเหมืองกระบวนการที่ขึ้น ในมุมหนึ่งมีการบันทึกเหตุการณ์ที่มากขึ้น ทำให้มีสารสนเทศละเอียดเกี่ยวกับประวัติของกระบวนการ ในอีกมุมหนึ่งมีความต้องการปรับปรุงและสนับสนุนกระบวนการธุรกิจ ในลักษณะอัตโนมัติมากขึ้นและการเปลี่ยนแปลงอย่างรวดเร็ว เจตนารมณ์นี้สร้างขึ้นโดย IEEE Task Force on Process Mining และสิ่งได้ส่งเสริมเรื่องเหมืองกระบวนการ ยิ่งไปกว่านั้น ด้วยการกำหนดชุดของหลักการแนะนำ และรายการความท้าทายที่สำคัญ เจตนารมณ์นี้หวังที่จะทำหน้าที่เป็นคู่มือสำหรับนักพัฒนาซอฟต์แวร์ นักวิทยาศาสตร์ นักศึกษา ผู้จัดการธุรกิจ และผู้ใช้ เป้าหมายคือเพื่อที่จะเพิ่มวุฒิภาวะของเหมืองกระบวนการในฐานะเครื่องมือที่เชื่อถือได้สำหรับการออกแบบ (ใหม่) ความรู้และสนับสนุนกระบวนการในการดำเนินการทางธุรกิจ

Translated by Wichian Premchaiswadi et al.

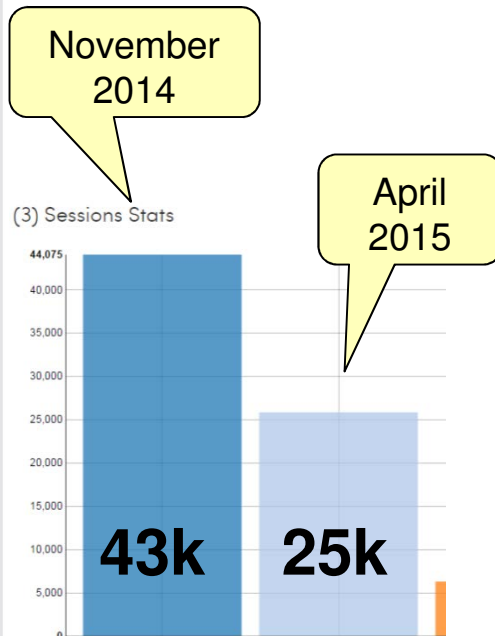
Discussion topic: Update of manifesto? Volunteers?

PM MOOC

TU/e Technische Universiteit
Eindhoven
University of Technology

Process Mining: Data science in Action

Process mining is the missing link between model-based process analysis and data-oriented analysis techniques. Through concrete data sets and easy to use software the course provides data science knowledge that can be applied directly to analyze and improve processes in a variety of domains.



About the Course

Data science is the profession of the future, because organizations that are unable to use (big) data in a smart way will not survive. It is not sufficient to focus on data storage and data analysis. The data scientist also needs to relate data to process analysis. **Process mining bridges the gap between traditional model-based process analysis (e.g., simulation and other business process management techniques) and data-centric analysis techniques such as machine learning and data mining.** Process mining seeks the confrontation between event data (i.e., observed behavior) and process models (hand-made or discovered automatically). This technology has become available only recently, but it can be applied to any type of operational processes (organizations and systems). Example applications include: analyzing treatment processes in hospitals, improving customer service processes in a multinational, understanding the browsing behavior of customers using a booking site, analyzing failures of a baggage handling system, and improving the user interface of an X-ray machine. All of these applications have in common that dynamic behavior needs to be related to process models. Hence, we refer to this as "data science in action".

The course explains the key analysis techniques in process mining. Participants will learn various process discovery algorithms. These can be used to automatically learn process models from raw event data. Various other process analysis techniques that use event data will be presented. Moreover, the course will provide **easy-to-use software, real-life data sets, and practical skills to directly apply the theory** in a variety of application domains.

Course Syllabus

This course starts with an overview of approaches and technologies that use event data to support decision making and business process (re)design. Then the course

Sessions

October 7, 2015 - December 2, 2015 ▾

Starts in a month

Eligible for

Course Certificate
Statement of Accomplishment

Course at a Glance

-  8 weeks of study
-  4-6 hours/week
-  English

Certificate Available
For Learners



44,038
total learners joined

184
different countries

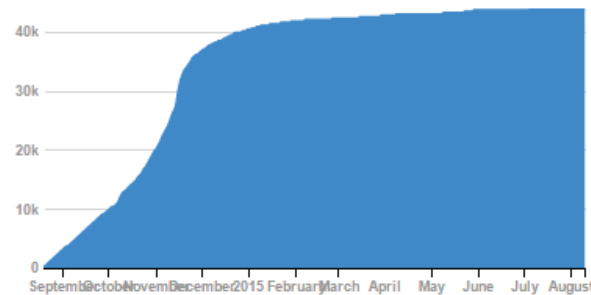
15,382 (35%)
from emerging economies

818
on Signature Track

- United States 24%
- India 11%
- China 5%
- Netherlands 4%
- United Kingdom 4%
- Russian Federation 3%
- Germany 3%
- Spain 3%
- Canada 3 %
- Brazil 2%
- France 2%
- Australia 2%
- Italy 1%
- Poland 1%
- Mexico 1%
- Singapore 1%
- Ukraine 1%
- Taiwan 1%
- ...

Enrollment

Cumulative enrollment over time

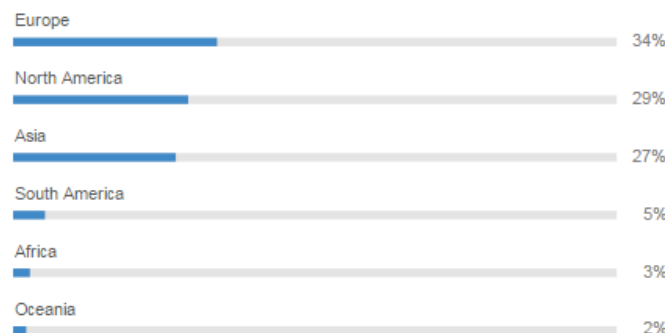


Intent

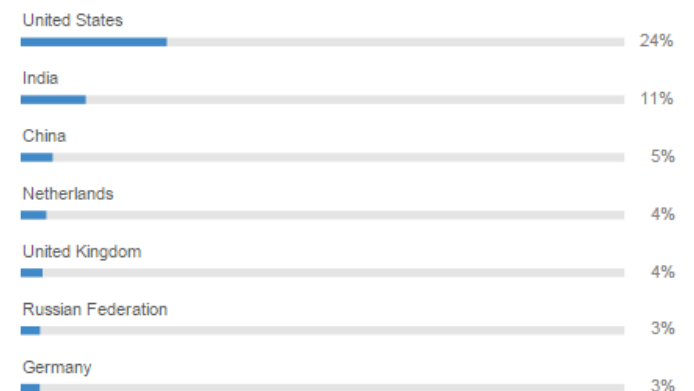


Values extrapolated based on responses from 21,365 learners.

Continent



Country



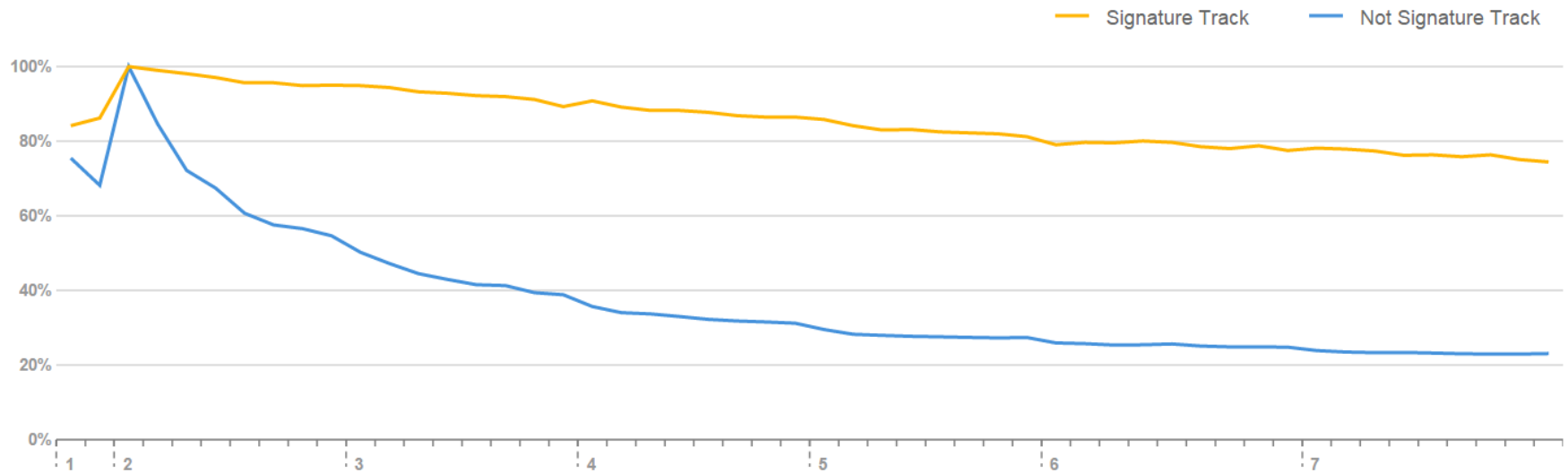
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November 2014

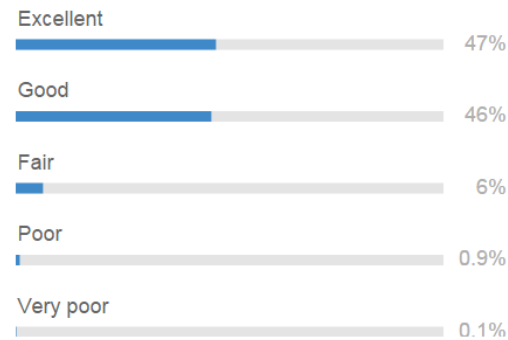
Lecture Activity

Number of learners viewing each lecture (% of maximum viewership)



November
2014

Rate the quality of the course materials (e.g., lectures, exercises, readings) in this course.



Now mining results with Patrick Mukala, Joos Buijs, and Maikel Leemans.

25,664
total learners joined

164
different countries

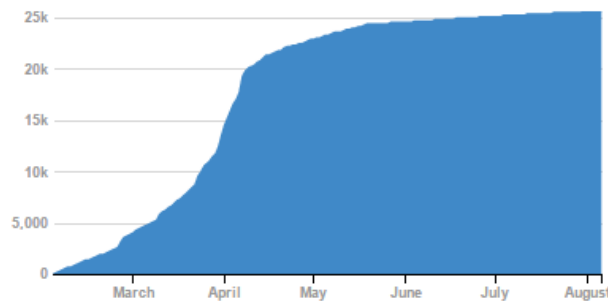
9,588 (37%)
from emerging economies

605
on Signature Track

- United States 23%
- India 11%
- China 6%
- Netherlands 4%
- Germany 3%
- United Kingdom 3%
- Russian Federation 3%
- Brazil 3%
- Spain 3%
- Canada 3%
- France 2%
- Australia 2%
- Poland 1%
- Taiwan 1%
- Italy 1%
- Ukraine 1%
- Mexico 1%
- Singapore 1%
- Turkey 1%

Enrollment

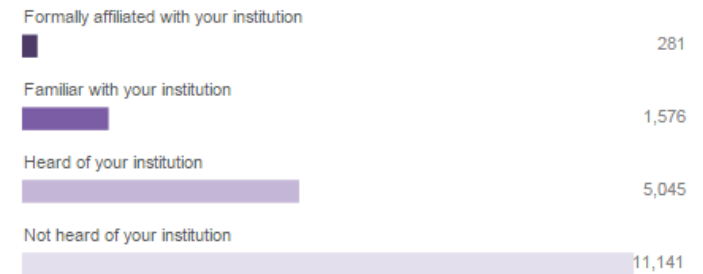
Cumulative enrollment over time



This graph excludes 1 learners for whom we don't have time of enrollment.

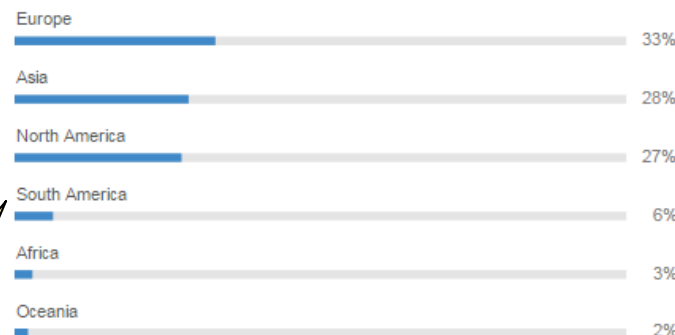
Institutional Brand Awareness

[Learn more about how brand awareness is measured »](#)



Values extrapolated based on responses from 1,477 learners. [Learn more](#)

Continent



Country

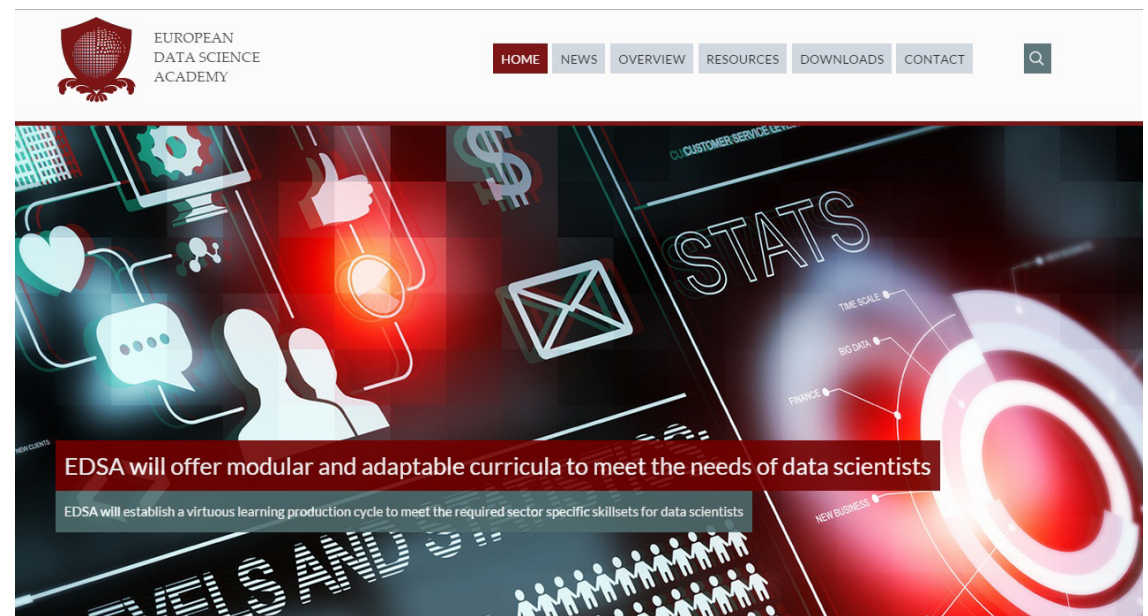


[Show All](#)

April
2015

Next run: October 7, 2015

- Help to promote it!
- Use it (e.g., as part of a course)!
- More process mining MOOCs planned in context of the European Data Science Academy (EDSA)



Various PM Movies

IEEE CIS Task Force on Process Mining

Trace: • [process mining manifesto](#) • [introduction to process mining turning big data into real value](#) • [process mining movies](#)

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Process Mining Movies

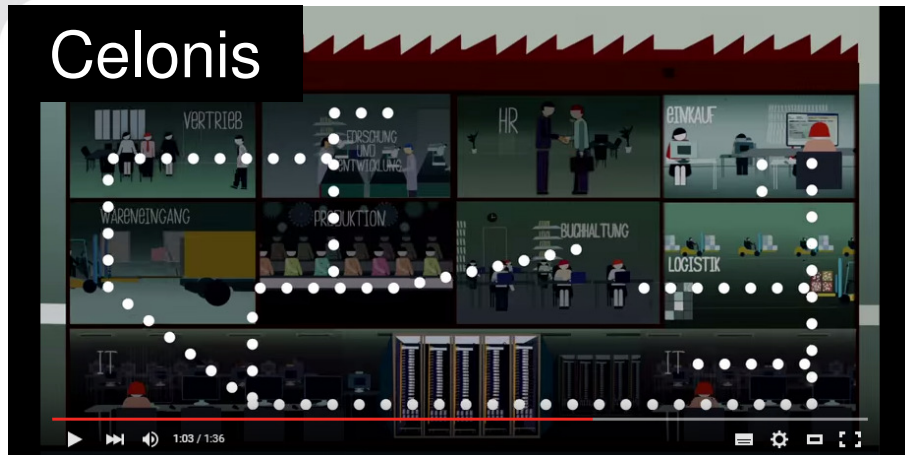
- [Introduction to Process Mining: Turning \(Big\) Data into Real Value](#)
- [Process Mining In A Nutshell \(Fluxicon\)](#)
- [Perceptive Process Mining](#)
- [Automated Business Process Discovery - QPR ProcessAnalyzer](#)
- [Overview of the Business Process Insight \(BPI\) platform of IBM](#)
- [Fuzzy model animation](#)
- [Process Mining animations using BPM1one](#)
- [Interstage Automated Process Discovery demo](#)
- [Nomination of Process Mining Research at TU/e for ICT Regie Aw](#)
- [Presentations on http://fluxicon.com/camp/2012/ \(Fluxicon\)](#)
- [Prototyping Process Mining for SAP Order-To-Cash](#)
- [Process mining 20sec](#)
- [Process mining](#)
- [Introduction to Process Mining](#)
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- [Process mining \(Dutch, English subtitled\)](#)
- [Perceptive Software & Alliander: Process Mining](#)
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Help to promote it: put it on your website!

26.000+ views

Send links to your videos!

Examples of PM Movies



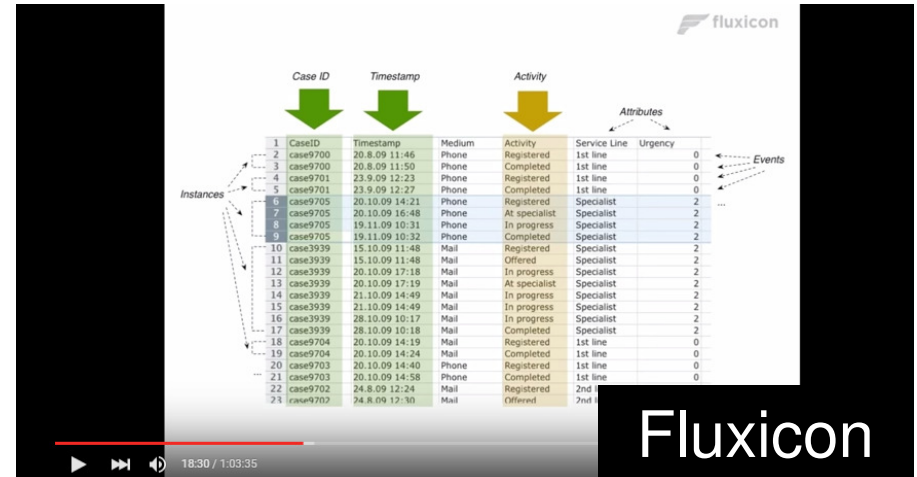
<https://www.youtube.com/watch?v=eUOutoXp75U>



<https://www.youtube.com/watch?v=D0jaUMOU31I>

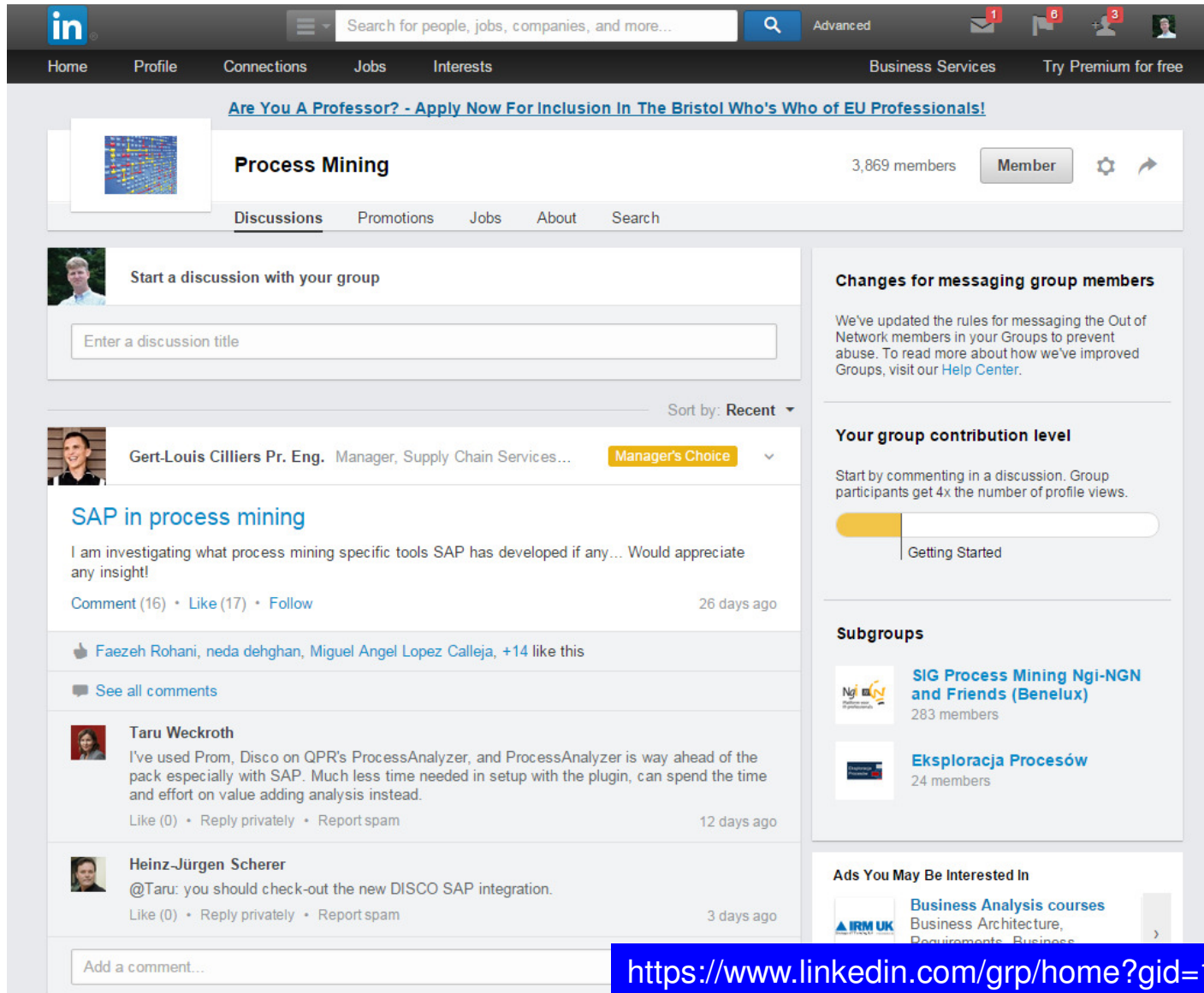


<https://www.youtube.com/watch?v=nKy2Sx2WYRE>



<https://www.youtube.com/watch?v=KCpY90T3rQk>

LinkedIn Group on PM (input by George Varvaressos)



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Process Mining

3,869 members [Member](#)

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Start a discussion with your group

Enter a discussion title

Sort by: Recent

Gert-Louis Cilliers Pr. Eng. Manager, Supply Chain Services... [Manager's Choice](#)

SAP in process mining

I am investigating what process mining specific tools SAP has developed if any... Would appreciate any insight!

Comment (16) · Like (17) · Follow 26 days ago

👍 Faezeh Rohani, neda dehghan, Miguel Angel Lopez Calleja, +14 like this

🗨️ See all comments

Taru Weckroth

I've used Prom, Disco on QPR's ProcessAnalyzer, and ProcessAnalyzer is way ahead of the pack especially with SAP. Much less time needed in setup with the plugin, can spend the time and effort on value adding analysis instead.

Like (0) · Reply privately · Report spam 12 days ago

Heinz-Jürgen Scherer

@Taru: you should check-out the new DISCO SAP integration.

Like (0) · Reply privately · Report spam 3 days ago

Add a comment...

Changes for messaging group members

We've updated the rules for messaging the Out of Network members in your Groups to prevent abuse. To read more about how we've improved Groups, visit our [Help Center](#).

Your group contribution level

Start by commenting in a discussion. Group participants get 4x the number of profile views.

Getting Started

Subgroups

- SIG Process Mining Ngi-NGN and Friends (Benelux)**
283 members
- Eksploracja Procesów**
24 members

Ads You May Be Interested In

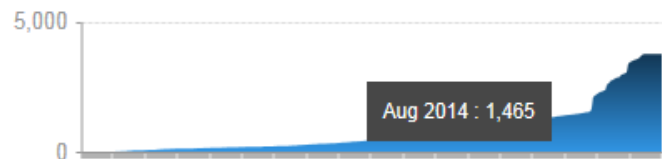
Business Analysis courses
Business Architecture, Requirements, Business

<https://www.linkedin.com/grp/home?gid=1915049>

LinkedIn Group on PM

Incredible growth: more than doubled since last meeting

TOTAL MEMBERS



NEW MEMBERS



469 joined
on 17 Nov 2014
(first run MOOC)

2400 joined
in the last year

MEMBERS

3,867

Like any community, a LinkedIn group might be close-knit or vast, brand new or already thriving. Explore this group to see if it's right for you.

NEW MEMBERS



346 joined
on 6 April 2015
(second run MOOC)

LinkedIn Group on PM

Good:

- In the last 12 months there has been a lot more activity
- More contributors from a variety of different fields
- More discussions and comments

But:

- How to increase the number of members even more?
- How to get researchers to post studies?
- How to get more members posting comments?
- Ideas for synergy (TF and group)?

18 Case studies



Too little activity: Send more case studies!

Data Sets

IEEE CIS Task Force on Process Mining

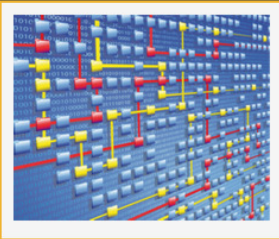
Trace • start • process_mining_case_studies • process_mining_logs

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 - Countries
- News
- Events
- Process Mining Manifesto
- Process Mining Movies
- Process Mining Event Logs
- Process Mining Case Studies



Process Mining Event Logs

Incident management log

This is an event log from Volvo IT Belgium. The log contains events from an incident and problem management system called VINST.

Origin [BPI Challenge 2013](#)
DOI 10.4121/uuid:500573e6-acc4-4b0c-9576-aa5468b10cee
Download link <http://dx.doi.org/>

Incident management log, open pr

DOI 10.4121/uuid:3:
Download link <http://dx.doi.org/>

Incident management log, closed p

DOI 10.4121/uuid:c:
Download link <http://dx.doi.org/>

Event log of a loan application

This is a real-life log, taken from a Dutch Fir anonymization, the log contains all data as process for a personal loan or overdraft with attribute AMOUNT_REQ, which is global, i.e. The first letter of each task name identifies whole, on selections of the whole process :

Origin [BPI Challenge 2](#)
DOI 10.4121/uuid:3:

Send more (ask Boudewijn van Dongen) !

3TU.Datacentrum

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Dataset | BPI Challenge 2015

Link/cite as [doi:10.4121/uuid:31a308ef-c844-48da-948c-305d167a0ec1](https://doi.org/10.4121/uuid:31a308ef-c844-48da-948c-305d167a0ec1) | [show link code](#) | [full citation](#)

title	BPI Challenge 2015
creator	B. F. van Dongen
contributor	Eindhoven University of Technology
date accepted	2015-05-01
date created	2009-11-18 through 2015-03-05
date published	2015
description	This data is provided by five Dutch municipalities. The data contains all building permit applications over a period of approximately four years. There are many different activities present, denoted by both codes (attribute conceptname) and labels, both in Dutch (attribute taskNameNL) and in English (attribute taskNameEN). The cases in the log contain information on the main application as well as objection procedures in various stages. Furthermore, information is available about the resource that carried out the task and on the cost of the application (attribute SUMIleges). The processes in the five municipalities should be identical, but may differ slightly. Especially when changes are made to procedures, rules or regulations the time at which these changes are pushed into the five municipalities may differ. Of course, over the four year period, the underlying processes have changed. The municipalities have a number of questions, namely: What are the roles of the people involved in the various stages of the process and how do these roles differ across municipalities? What are the possible points for improvement on the organizational structure for each of the municipalities? The employees of two of the five municipalities have physically moved into the same location recently. Did this lead to a change in the processes and if so, what is different? Some of the procedures will be outsourced from 2018, i.e. they will be removed from the process and the applicant needs to have these activities performed by an external party before submitting the application. What will be the effect of this on the organizational structures in the five municipalities? Where are differences in throughput times between the municipalities and how can these be explained? What are the differences in control flow between the municipalities? There are five different log files available in this collection. Events are labeled with both a code and a Dutch and English label. Each activity code consists of three parts: two digits, a variable number of characters, and then three digits. The first two digits as well as the characters indicate the subprocess the activity belongs to. For instance '01_HOOFD_xxx' indicates the main process and '01_BB_xxx' indicates the 'objections and complaints' ('Beroep en Bezwaar' in Dutch) subprocess. The last three digits hint on the order in which activities are executed, where the first digit often indicates a phase within a process. Each trace and each event, contained several data attributes that can be used for various checks and predictions. Furthermore, some employees may have performed tasks for different municipalities, i.e. if the employee number is the same, it is safe to assume the same person is being identified.
language	nl
publisher	Eindhoven University of Technology
subject	BPI Challenge 2015
subject	Business Process Intelligence (BPI)
▲ in collection	Real life Event Logs
related publication	11th International Workshop on Business Process Intelligence 2015
▼ has part	BPI Challenge 2015 Municipality 1
▼ has part	BPI Challenge 2015 Municipality 2
▼ has part	BPI Challenge 2015 Municipality 3
▼ has part	BPI Challenge 2015 Municipality 4
▼ has part	BPI Challenge 2015 Municipality 5

▲ 3TU.DC info

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TU Delft

TU/e

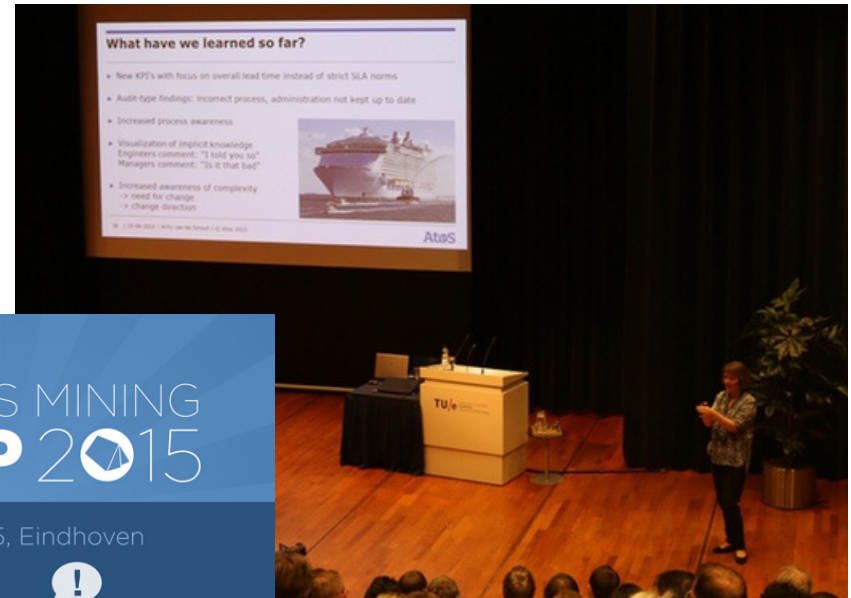
UNIVERSITEIT TWENTE.

Some new logs

- B.F. van Dongen (2015) **BPI Challenge 2015**. Eindhoven University of Technology. Dataset. <http://dx.doi.org/10.4121/uuid:31a308ef-c844-48da-948c-305d167a0ec1>
- Buijs, J.C.A.M. (2014) **Environmental permit application process ('WABO'), CoSeLoG project**. Eindhoven University of Technology. Dataset. <http://dx.doi.org/10.4121/uuid:26aba40d-8b2d-435b-b5af-6d4bfbd7a270>
- Buijs, J.C.A.M. (2014) **Receipt phase of an environmental permit application process ('WABO'), CoSeLoG project**. Eindhoven University of Technology. Dataset. <http://dx.doi.org/10.4121/uuid:a07386a5-7be3-4367-9535-70bc9e77dbe6>
- de Leoni, M. (Massimiliano); Mannhardt, F. (Felix) (2015) **Road Traffic Fine Management Process**. Eindhoven University of Technology. Dataset. <http://dx.doi.org/10.4121/uuid:270fd440-1057-4fb9-89a9-b699b47990f5>

Process Mining Camp 2015

(Fluxicon, Eindhoven, June 2015)

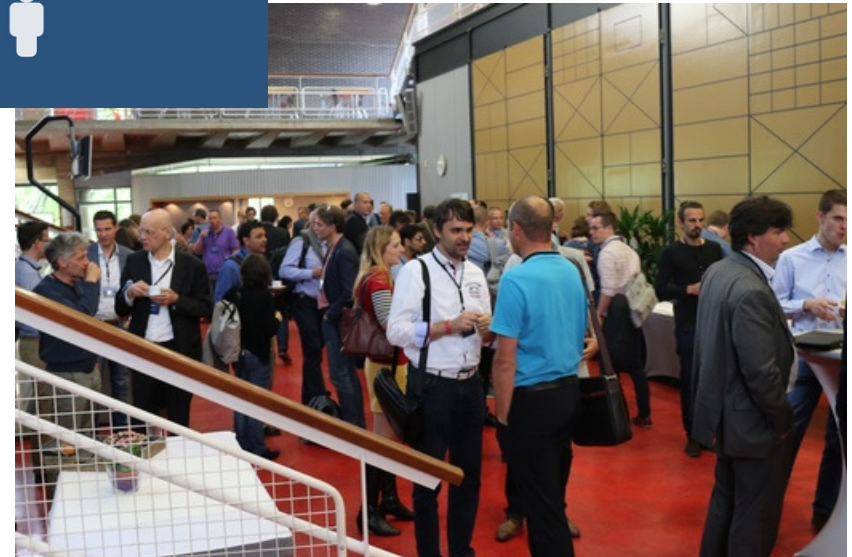


PROCESS MINING
CAMP 2015

15 June 2015, Eindhoven



On 15 June, Fluxicon organized the annual process mining community meeting 'Process Mining Camp' for the fourth time. **173 campers from 17 different countries** came together to share their experiences, challenges, and success stories about process mining.





IEEE
Computational
Intelligence
Society

Camp Impressions



PROCESS MINING
CAMP 2015

15 June 2015, Eindhoven



Camp Impressions



PROCESS MINING
CAMP 2015

15 June 2015, Eindhoven



ATAED 2015

(June 2015, Brussels)

Call for papers

Algorithms & Theories for the Analysis of Event Data (ATAED'2015)

Brussels, Belgium, June 22–23, 2015

The workshop **Algorithms & Theories for the Analysis of Event Data (ATAED'2015)** is a satellite event of both the 36th International Conference on Application and Theory of Petri Nets and Concurrency (**Petri nets 2015**) and the 14th International Conference on Application of Concurrency to System Design (**ACSD 2015**). The workshop aims to attract papers related to Process Mining, Region Theory and other synthesis techniques. These techniques have in common that "lower level" behavioral descriptions (event logs, partial orders, transition systems, etc.) are used to create "higher level" process models (e.g., various classes of Petri nets, BPMN, or UML activity diagrams).



Recent developments in process mining make it possible to analyze event data, thereby focusing on behavior rather than correlations and simplistic performance indicators. For example, event logs can be used to automatically learn end-to-end process models based on historic event data. Next to the automated discovery of the real underlying process, there are process mining techniques to analyze bottlenecks, to uncover hidden inefficiencies, to check compliance, to explain deviations, to predict performance, and to guide users towards "better" processes. ATAED'2015 solicits papers related to process mining algorithms and theories. However, the scope is not limited to this. On the one hand, other types of "lower level" behavioral descriptions may be used (next to event logs), e.g., transition systems, partially ordered runs, sequence charts, and markov chains. On the other hand, also related problems (next to process mining) may be addressed, e.g., hardware synthesis, visualization of concurrent system behavior, synthesis of controllers,



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Proceedings: <http://ceur-ws.org/Vol-1371/> 2015 //

The program committee invites submission of full papers (up to 15 pages) and of short papers (up to 5 pages). Papers should be submitted as pdf-files using the Springer LNCS-format (<http://www.springer.de/comp/lncs/authors.html>). Papers need to be submitted via EasyChair.

Topics

Possible topics of the solicited papers are:

- theory and applications of process mining
- automated business process model discovery
- conformance checking, alignments, and replay algorithms
- extensions and applications of region theory in different fields
- business process intelligence and other data-driven process oriented approaches
- techniques combining formal methods with data science approaches
- algorithms, theories, and tools for region theory and other forms of synthesis
- case studies and empirical investigations using event data

Important Dates

- Deadline for papers: May 10th, 2015
- Notification of paper acceptance: June 1st, 2015
- Deadline for final contributions: June 10, 2015
- Workshop: June 22-23, 2015



History of the workshop

The workshop can be viewed as a succession of the Applications of Region Theory (ART) workshop series:

- Applications of Region Theory (ART) 2013, Barcelona, Spain
- Applications of Region Theory (ART) 2011, Newcastle upon Tyne, UK
- Applications of Region Theory (ART) 2010, Braga, Portugal

Regions have been defined about 20 years ago by Ehrenfeucht and Rozenberg as sets of nodes of a finite transition system that correspond to potential conditions that enable or disable transition occurrences in a corresponding elementary net system. Initially, region theory focused on synthesis approaches where the transition system and resulting Petri net are equivalent (e.g., bisimilar). In recent years, various forms of region-based ideas (language-based and state-based variants) have been applied in the context of process mining. Here, there is only example behavior and, as a result, classical techniques fail to work. One needs to deal with new problems such as noise and incompleteness. Hence, there are many theoretical challenges with a high practical relevance. This workshop is not limited to region-based approaches. In fact all techniques that aim at learning or checking concurrent behavior from transition systems, runs, or event logs are welcome. The workshop is supported by the IEEE Task Force on Process Mining.

For more information, visit:

[http://wiki.femuni-haagen.de/art/index.php/Algorithms_%26_Theories_for_the_Analysis_of_Event_Data_\(ATAED\)_2015](http://wiki.femuni-haagen.de/art/index.php/Algorithms_%26_Theories_for_the_Analysis_of_Event_Data_(ATAED)_2015)



CIDM 2014

(Florida, December 2014)



Call for Papers



Special Session on
Business Process Analytics, Process Mining and Process Big Data

at the 2014 IEEE Symposium on Computational Intelligence and Data Mining (CIDM)

December 9-12, 2014, Orlando, Florida



Organizers

Andrea Burattin, *University of Padua, Italy*
Fabrizio M. Maggi, *University of Tartu, Estonia*
Marcello Leida, *Etisalat BT Innovation Centre, UAE*

Now we live in a time where the amount of data generated daily goes easily beyond the storage and processing capabilities of nowadays systems: organizations, governments but also individuals generate large amounts of data at a rate that has started to overwhelm the ability to timely extract useful knowledge from it. Nevertheless the strategic importance of the knowledge hidden in

(CIDM 2014). The goal of this special session is to allow experts in the area of process mining and (big) data analysis to share new techniques, applications and case studies. Therefore, submissions of papers on new process mining techniques, ap-

CIDM 2015

6th IEEE Symposium on Computational Intelligence and Data Mining (CIDM 2015)



Call for Papers



Special Session on Process Mining

at the 2015 IEEE Symposium on Computational Intelligence and Data Mining (CIDM)

December 7-10, 2015, Cape Town, South Africa



Organizers

Andrea Burattin, *University of Innsbruck, Austria*
Fabrizio M. Maggi, *University of Tartu, Estonia*
Chiara Di Francescomarino, *FBK, Italy*

Nevertheless, the strategic importance of the knowledge hidden in these data is paramount for effective decision making and need to be extracted quickly in order to effectively react to dynamic situations. Efficient stream processing approaches for real time analysis are crucial enabling the predictive capabilities required by

WCCI 2014 (Beijing July 2014)

Special Session on Process Mining at
the 2014 IEEE Congress on Evolutionary Computation (IEEE CEC 2014)

hosted by
IEEE World Congress on Computational Intelligence ([IEEE WCCI 2014](#))
Beijing, China, 6-11 July 2014

Call for Papers

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[IEEE Task Force on
Process Mining](#)

[Download it in textual format](#)

The [IEEE Task Force on Process Mining](#) is organizing a Special Session on Process Mining at the 2014 IEEE Congress on Evolutionary Computation (IEEE CEC 2014).

Process mining is a relatively young research discipline that sits between computational intelligence and data mining on the one hand and process modeling and analysis on the other hand. The idea of process mining is to discover, monitor and improve real processes (i.e., not assumed processes) by extracting knowledge from event logs readily available in today's systems. Process mining provides an important bridge between data mining and business process modeling and analysis. Process mining research started in the late nineties. At that time, there was little event data available and the process mining techniques were extremely naive and hence unusable. Over the last decade, larger amounts of event data have become available and process mining techniques have matured. Moreover, process mining algorithms have been implemented in various academic and commercial systems. Today, there is an active group of researchers working on process mining and it has become one of the "hot topics" in BPM research. Moreover, there is a huge interest from industry in process mining. More and more software vendors started adding process mining functionality to their tools.

The aim of this special session on process mining is to increase the awareness of the community of computational intelligence and, particularly in evolutionary computation, on the issues and current solutions around process mining. The topics of interest include, but are not limited to:

- Process Mining
- Business Process Intelligence
- Automated Business Process Discovery
- Decision and Rule Mining
- Visual Analytics in Process Mining
- Business Process Conformance Checking
- Application of Computational Intelligence to Process Mining
- Case studies

The accepted papers will be published in the IEEE CEC conference proceedings.

- Dr. Massimiliano de Leoni, Department of Mathematics, University of Padua and Faculty of Mathematics and Computer Science, Eindhoven University of Technology.
- Dr. Luciano García-Bañuelos, Institute of Computer Science University of Tartu, Estonia.
- Dr. Minseok Song, School of Technology Management, Ulsan National Institute of Science and Technology, South Korea
- Dr. Lijie Wen, School of Software, Tsinghua University, P.R. China

Special issue IEEE TSC



SI "PROCESSES MEET BIG DATA"

I. AIMS AND SCOPE

The aim of process mining is to discover, monitor and improve business processes by extracting knowledge from event logs readily available in today's information systems. Process monitoring and analysis has enjoyed a tremendous growth and a rapid development at both conceptual and algorithmic levels. In particular, there have been successful realizations of process monitoring systems in many application areas, including manufacturing, e-health and e-government. Today, the current trend toward large-scale collaborative processes featuring thousands of elementary activities per minute is generating a number of new research issues. When large-scale processes are executed on (cloud-based) service-oriented environments or even on the global Net, elementary activities can be mapped to fine or coarse-grained protocol events and process logs increasingly come to show all typical properties of "big data": wide physical distribution, diversity of formats, non-standard data models, heterogeneous semantics. Computing metrics over such "big logs" also requires to handle security and privacy concerns of many participants, and even to deal with non-uniform trustworthiness of log entries. New techniques are therefore required for designing, validating and deploying process metrics in this scenario, as well as for effectively dash-boarding the processes' performance indicators.

This special issue of IEEE Transaction on Service-Oriented Computing is intended to create an international forum for presenting innovative developments of process monitoring and analysis over service-oriented architectures, aimed at handling "big logs" and use them effectively for discovery, dash-boarding and mining. The ultimate objective is to identify the promising research avenues, report the main results and promote the visibility and relevance of this area.

II. TOPICS COVERED INCLUDE

- *Process monitoring on SOA and clouds*
- *Validation and benchmarking of process monitoring*
- *Efficiently mining rare patterns in "big logs"*
- *Scalable techniques for distributed process monitoring*
- *Monitoring and analysis of cloud-based processes*
- *Architectures and data models for synthesizing and handling "big logs"*
- *Securing log data*
- *Privacy-aware computation of process metrics*
- *Log obfuscation and access control*
- *Practical systems and tools for big log analysis and log dashboards*
- *Applications combining process management and big data, e.g. audits*

III. IMPORTANT DATES

January 30, 2014: Submission deadline
 March 30, 2014: Notification of the first-round review
 April 30, 2014: Revised submission due
 June 15, 2014: Final notice of acceptance/reject

IV. SUBMISSION GUIDELINES

Manuscripts should be prepared according to the instruction of the "Information for Authors" section of the journal. Submissions should be done through the IEEE TSC journal [website](http://www.ieee-tsc.org). Submitted manuscripts will be thoroughly reviewed using the standard procedure followed for regular IEEE TSC submissions.

V. GUEST EDITORS

Rafael Accorsi (U of Freiburg, DE)
 Wil M.P. van der Aalst (TU Eindhoven, NL)
 Ernesto Damiani (U of Milan, IT)



<http://www.dagstuhl.de/13481>

27 submissions
final stage of reviewing
+/-7 papers expected

Report from Dagstuhl Seminar 13481
Unleashing Operational Process Mining
 Edited by
 Rafael Accorsi¹, Ernesto Damiani², and Wil van der Aalst³

1. Universitäts Freiburg, DE, raaccorsi@inf-freiburg.de
 2. Università degli Studi di Milano - Crema, IT, eresto.damiani@unimi.it
 3. Eindhoven University of Technology, NL, w.m.p.v.d.aalst@tue.nl

Abstract
 This report documents the program and the outcomes of Dagstuhl Seminar 13481 "Unleashing Operational Process Mining". Process mining is a young research discipline extracting organizational information and then mining on the one hand and process modeling and analysis on the other hand. The goal of process mining is to discover, monitor, diagnose and improve and optimize by extracting knowledge from event log readily available in today's information systems. Process mining bridges the gap between data mining and business process modeling and analysis. The seminar that took place November 2013 was the first of its kind. About 20 process mining experts joined here to discuss the main process mining challenges and present cutting edge results. This report aims to describe the presentations, discussions, and findings.

Seminar: 27, 28 November 2013, www.dagstuhl.de/13481
 ISBN ACM Subject Classification: H.2.8 Database Applications (Data mining), H.2.1 Logical Design (Data models), K.2 Management of Computing and Information Systems
 Keywords and phrases: Process mining, Big data, Cloud-oriented thinking
 Digital Object Identifier: 10.1007/978-3-319-1216

Executive Summary
 Rafael Accorsi
 Ernesto Damiani
 Wil van der Aalst

Guest Editors: Rafael Accorsi, Ernesto Damiani, and Wil van der Aalst

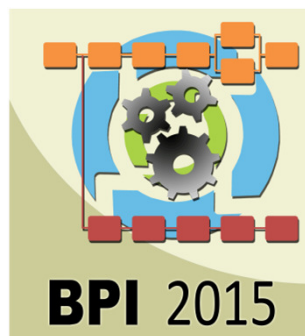
Science shifted from being predominantly "analog" to "digital" in just a few years. This has had an immediate impact on the way we do business and communication. Consider now the phrase "The Next of Kin" in order to refer to the convergence and mutual reinforcement of four interconnected trends: social, mobile, cloud, and information. The term "Big Data" is often used to refer to the incredible growth of data in recent years. However, the ultimate goal is not to collect more data, but to turn data into real value. This means that data should be used to improve existing products, processes and services, or create new ones.

Process data is the most important source of information. Events may take place inside a machine (e.g., an X-ray machine or baggage handling system), inside an enterprise information system (e.g., an order placed by a customer), inside a hospital (e.g., the analysis of a blood sample), inside a social network (e.g., exchanging a message or forming a group), inside a transportation system (e.g., checking in, buying a ticket, or passing through a toll booth), etc.

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BPI+BPIC 2005-2015

- Business Processing Intelligence (BPI) workshop and the Business Processing Intelligence Challenge (BPIC)
 - 2015: Innsbruck
 - 2014: Eindhoven
 - 2013: Beijing
 - 2012: Tallinn
 - 2011: Clermont-Ferrand
 - ...



Winners 2015



The image features a dark stage with several bright spotlights shining down from above. In the foreground, a staircase with red carpeting leads up towards the center of the stage. The text is centered in the upper half of the image, overlaid on the stage background.

**Best Process Mining
Dissertation Award**



IEEE
task force on
process mining



IEEE taskforce on process mining

Best Dissertation in Process Mining 2015



Queensland University of Technology

UNIVERSITÀ DELLA CALABRIA



DIMES - Dipartimento di INGEGNERIA INFORMATICA
MODELLISTICA, ELETTRONICA E SISTEMISTICA



Technische Universiteit
Eindhoven
University of Technology

Where innovation starts

The Call

- theses **defended** in **2013-2014**
- **4 excellent submissions**
- reviewed by

Antonella Guzzo

University of Calabria (co-chair)

Marcello La Rosa

QUT (co-chair)

Paola Mello

University of Bologna

Stefanie Rinderle-Ma

University of Vienna

Call for Nominations for Best Process Mining Dissertation Award 2015

Organized by
Dirk Fahland, Eindhoven University of Technology, The Netherlands
Antonella Guzzo, University of Calabria, Italy
Marcello La Rosa, Queensland University of Technology, Australia

for the
IEEE Task Force on Process Mining

The Process Mining Dissertation Award is awarded by the IEEE Task Force on Process Mining to an outstanding PhD thesis focused on the area of business process intelligence. The award is particularly dedicated to works contributing to **research the area of process mining** and/or the **innovative use of process mining techniques** for solving practically relevant problems.

With this award, the IEEE Task Force on Process Mining wants to draw attention to excellent works by young researchers and promote the research area as a whole.

The Best Process Mining Dissertation Award will be conferred by the IEEE Task Force on Process Mining to the winner during the meeting of the IEEE Task Force at the 13th Int. Conference on Business Process Management in Innsbruck, Austria on August 2015. As part of this event, the recipient will be invited to give a presentation on the main results of the thesis in a form suitable for the event and audience.

The selected thesis will also be recommended for publication as a monograph in the LNBIP series published by Springer. Further, the Dissertation Award will be accompanied by a monetary prize of 1,000 EUR.

Section criteria

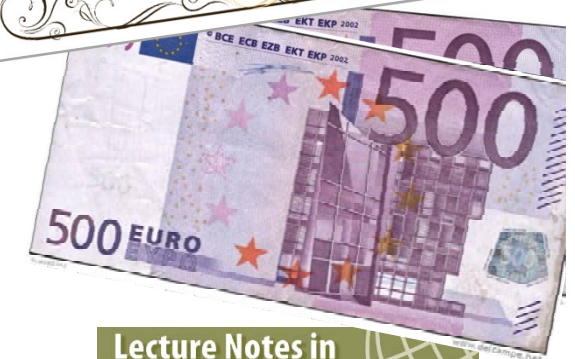
- Significance and innovation
- Technical depth:
 - conceptualization
 - formalization
 - implementation
 - evaluation
- Potential impact on academia and practice
- Quality of presentation
- Quality and number of publications
- Citations

And the winner is...

Jorge Munoz-Gama

for this PhD thesis

**Conformance Checking and
Diagnosis in Process Mining**



Lecture Notes in
Business Information
Processing

LNBIP

What the reviewers said...

...The thesis features **significant contributions**....

...quickly became a **reference** in the field...

...all techniques are **quite robust** and **effective** in practice...

...**high technical depth**...
...**implemented** and **evaluated**...

...The publication throughput and quality are **outstanding**...

Call for Nominations 2016

- thesis **defended in 2014-2015**
- written in **English**

- supervisors nominate until **1st May 2016**
(see <http://tinyurl.com/pm-phd-award>)
- organized by Dirk Fahland, Antonella Guzzo,
Marcello La Rosa

- interested in sponsoring? contact Dirk at
d.fahland@tue.nl



IEEE
task force on
process mining



IEEE
Computational
Intelligence
Society

XES Standard

Felix Mannhardt, Eric Verbeek

Standardization Process

1. Find Sponsor: July 13th, 2014
 - Webinar on XES: June 20th, 2014



Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project
 - Sponsor submits PAR: February 11th, 2015
 - IEEE SA accepts PAR: March 26th, 2015



Active Project



The screenshot shows the IEEE Standards Association website for project P1849. The URL in the browser is <https://standards.ieee.org/develop/project/1849.html>. The page title is "IEEE PROJECT P1849 - Standard for XES - eXtensible Event Stream - For Achieving Interoperability in Event Logs and Event Streams". The status is "Active Project". The page includes a "RELATED MATERIALS" section with a link to "Approved PAR" dated March 26, 2015. A "Standards Help" section mentions that IEEE-SA Standards Development Services are proven to expedite the process by 40%. The "Working Group" is "XES WG - eXtensible Event Stream Working Group", the "Sponsor" is "CIS/SC - Standards Committee", and the "Society" is "CIS - IEEE Computational Intelligence Society". The page also has a "Get Involved In The Development Of This Standard" section with links for "Contact the IEEE-SA Liaison" (Michael Kinness), "Learn More About Standards Participation", and "Become a Member and Ballot on this Standard".

<https://standards.ieee.org/develop/project/1849.html>

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IEEE PROJECT

P1849 - Standard for XES - eXtensible Event Stream - For Achieving Interoperability in Event Logs and Event Streams

STATUS: **Active Project**

RELATED MATERIALS

[Approved PAR](#) - **March 26, 2015**

Standards Help

IEEE-SA Standards Development Services are proven to expedite the process by 40%. [Click here to learn more!](#)

Working Group: [XES WG - eXtensible Event Stream Working Group](#)

Sponsor: [CIS/SC - Standards Committee](#)

Society: [CIS - IEEE Computational Intelligence Society](#)

July 13, 2014

Get Involved In The Development Of This Standard

Contact the IEEE-SA Liaison [Michael Kinness](#)
Simply click here to voice your interest.

Learn More About Standards Participation [More](#)
Anyone can participate, there are a variety of programs and services to facilitate the involvement of industry and the public.

Become a Member and Ballot on this Standard [Tell Me More](#)
Membership empowers you to participate & lead in the development of standards.

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Feedback

Project Scope

- Defines a grammar for event logs and event streams
- Includes two XML Schema's
 - XES event log/stream
 - Extension of such a log/stream
- Includes basic extensions



Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project
 - Sponsor submits PAR: February 11th, 2015
 - IEEE SA accepts PAR: March 26th, 2015

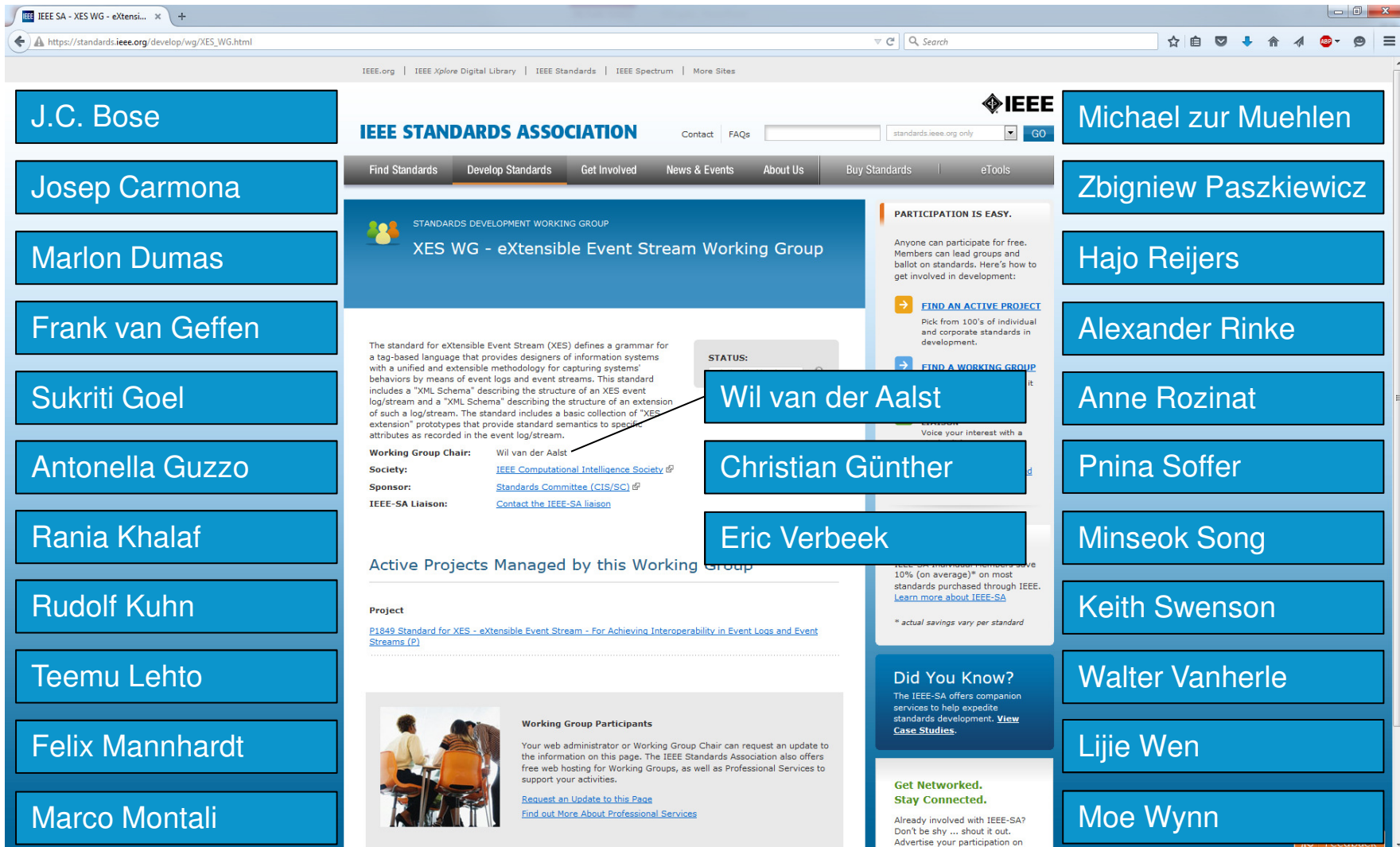


Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations
 - Form Working Group: August 22nd, 2015



Working Group



IEEE SA - XES WG - eXtensi... x +

https://standards.ieee.org/develop/wg/XES_WG.html

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STANDARDS DEVELOPMENT WORKING GROUP
XES WG - eXtensible Event Stream Working Group

PARTICIPATION IS EASY.
Anyone can participate for free. Members can lead groups and ballot on standards. Here's how to get involved in development:
→ **FIND AN ACTIVE PROJECT**
Pick from 100's of individual and corporate standards in development.
→ **FIND A WORKING GROUP**
Voice your interest with a

The standard for eXtensible Event Stream (XES) defines a grammar for a tag-based language that provides designers of information systems with a unified and extensible methodology for capturing systems' behaviors by means of event logs and event streams. This standard includes a "XML Schema" describing the structure of an XES event log/stream and a "XML Schema" describing the structure of an extension of such a log/stream. The standard includes a basic collection of "XES extension" prototypes that provide standard semantics to specific attributes as recorded in the event log/stream.

STATUS:

Working Group Chair: Wil van der Aalst
Society: [IEEE Computational Intelligence Society](#)
Sponsor: [Standards Committee \(CIS/SC\)](#)
IEEE-SA Liaison: [Contact the IEEE-SA liaison](#)

Active Projects Managed by this Working Group

Project
[P1849 Standard for XES - eXtensible Event Stream - For Achieving Interoperability in Event Logs and Event Streams \(P\)](#)

Working Group Participants
Your web administrator or Working Group Chair can request an update to the information on this page. The IEEE Standards Association also offers free web hosting for Working Groups, as well as Professional Services to support your activities.
[Request an Update to this Page](#)
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Did You Know?
The IEEE-SA offers companion services to help expedite standards development. [View Case Studies.](#)

Get Networked. Stay Connected.
Already involved with IEEE-SA? Don't be shy ... shout it out. Advertise your participation on

Participants:

- J.C. Bose
- Josep Carmona
- Marlon Dumas
- Frank van Geffen
- Sukriti Goel
- Antonella Guzzo
- Rania Khalaf
- Rudolf Kuhn
- Teemu Lehto
- Felix Mannhardt
- Marco Montali
- Michael zur Muehlen
- Zbigniew Paszkiewicz
- Hajo Reijers
- Alexander Rinke
- Anne Rozinat
- Pnina Soffer
- Minseok Song
- Keith Swenson
- Walter Vanherle
- Lijie Wen
- Moe Wynn
- Wil van der Aalst
- Christian Günther
- Eric Verbeek

Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations
 - Form Working Group: August 22nd, 2015



Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations
 - Form Working Group: August 22nd, 2015 ✓
 - Policies & Procedures: In progress



Policies & Procedures

- Formal document
 - Submitted, waiting for approval from sponsor
- Chair, Vice Chair, Secretary, no Treasurer
 - Wil van der Aalst, Christian Günther, Eric Verbeek
- Chair appoints other officers
- Membership is open
- Two-thirds majority

Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations
 - Form Working Group: August 22nd, 2015 ✓
 - Policies & Procedures: In progress



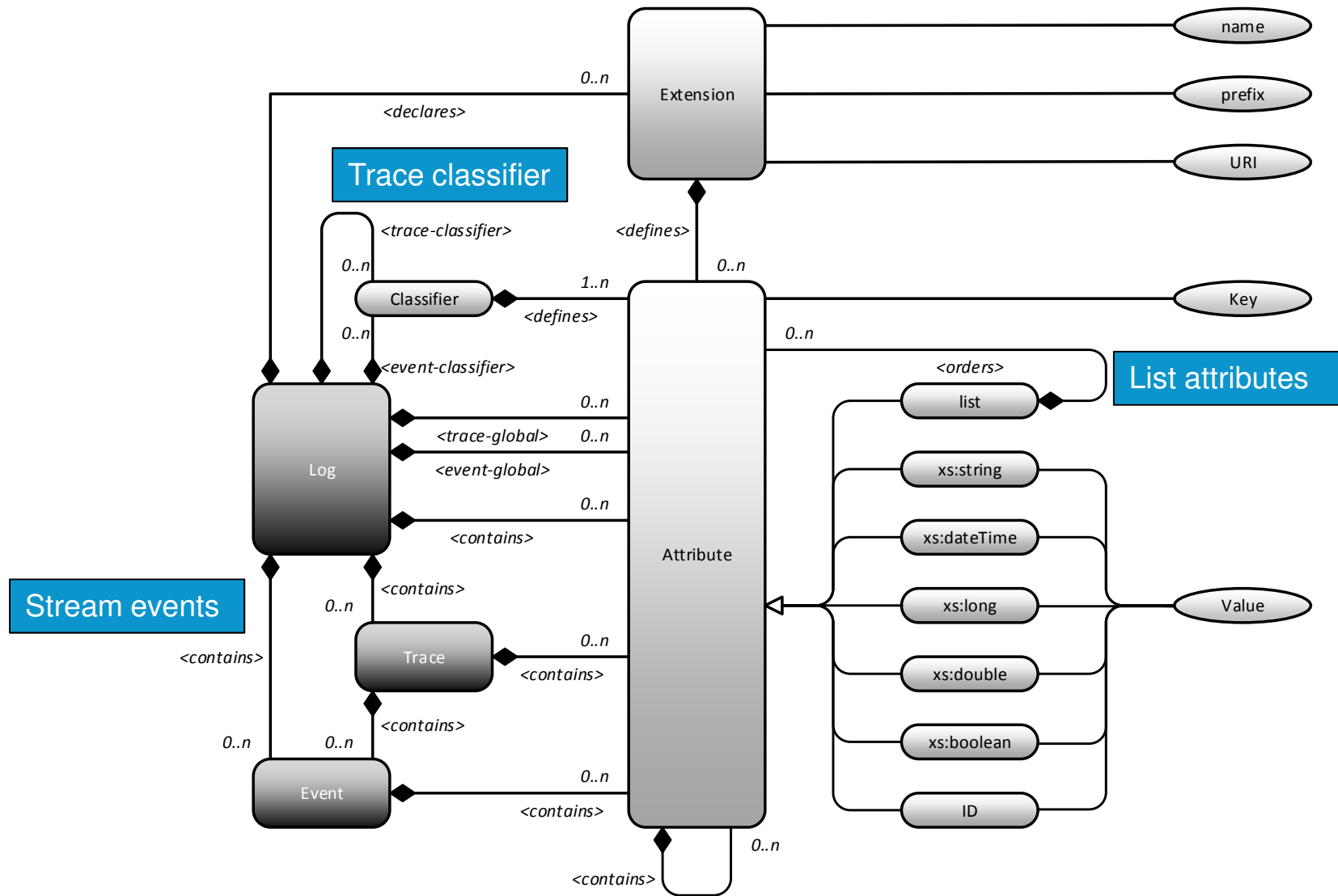
Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations ⌚
4. Draft Development
 - In progress, Revision 7

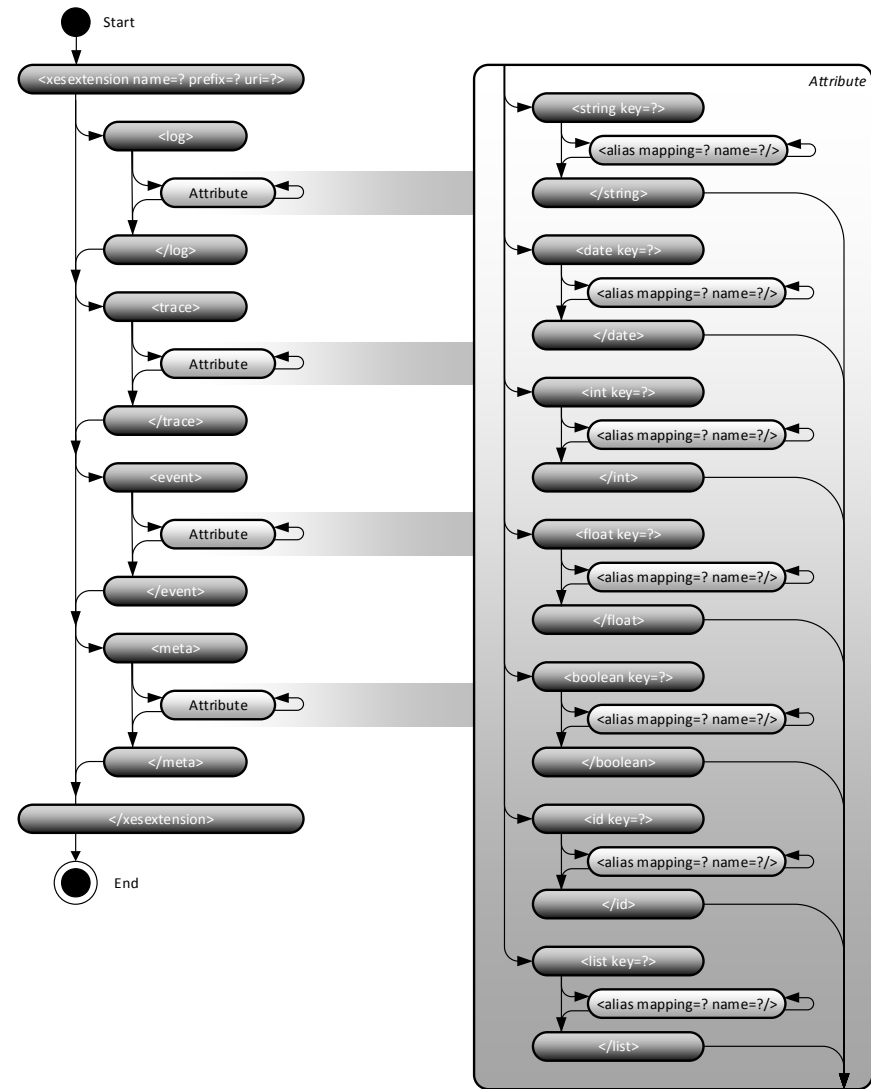
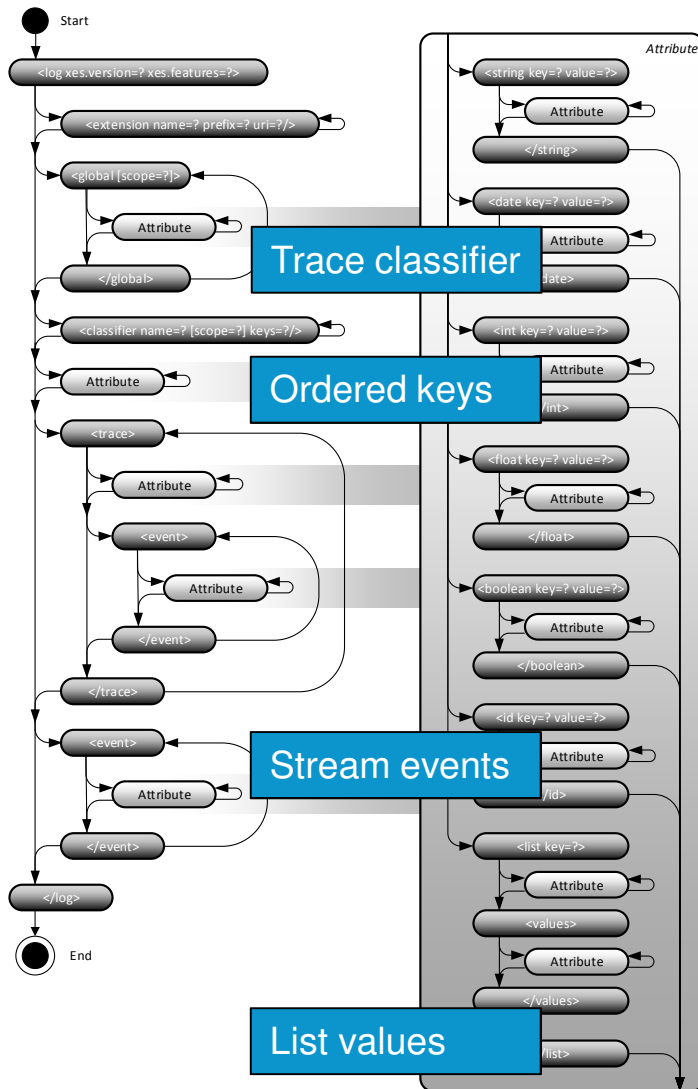
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Metadata Structure

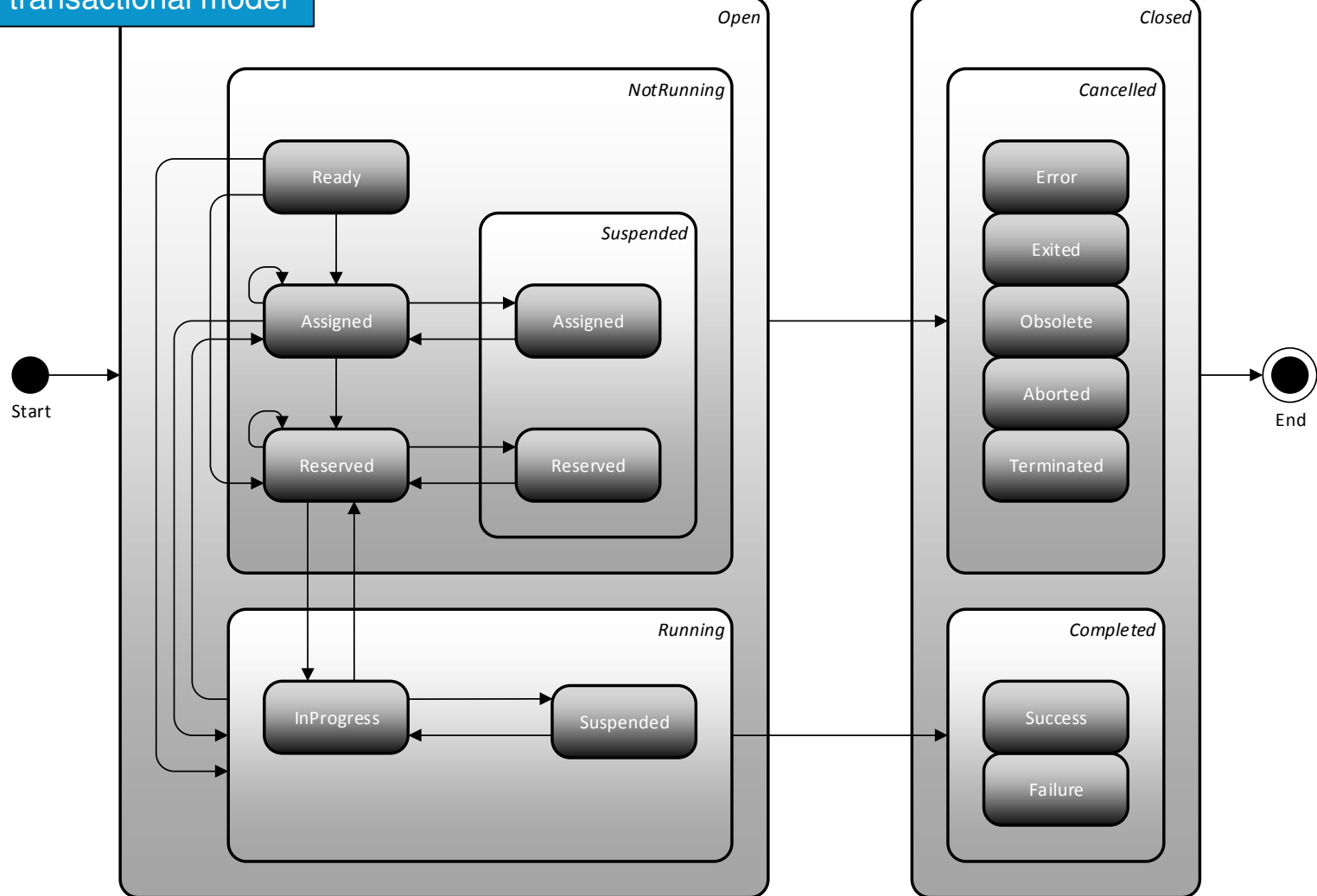


XML Serialization



Lifecycle Extension

BPAF transactional model



Planning

- September 2015
 - October 2015
 - November 2015
 - December 2015
 - ...
 - December 2016
- 1st comment round
 - 2nd comment round
 - Approval round
 - First draft Proposal
 - ...
 - Accepted Proposal



Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations 
4. Draft Development
 - In progress, Revision 7



Standardization Process

1. Find Sponsor: July 13th, 2014 ✓
2. Initiating the Project ✓
3. Working Group Operations ⌚
4. Draft Development ⌚
5. Sponsor Balloting
 - Expected December 2015
6. Final Approval & Publication
7. Maintaining the Standard



XES Tools

- AProMore
- Celonis
- Disco
- Lean Document Prod.
- ProM
- minit
- QPR
- RapidProM
- Rialto PI
- YAWL
- Any more?



XES Extensions

- Concept
- Lifecycle
- Organizational
- Time
- Semantic
- ID
- Cost
- Alignment
- Any more?



- Standard
- Moe Wynn
- Felix Mannhardt
- Any more?

XES Usage

Event Logs

- 3TU.Datacentrum
- BPI Challenge logs
- **Any more?**

Advanced Tools

- Dotted Chart
- Inductive Miner
- Data Aware Miner
- Data Aware Replayer
- **Any more?**



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XXES

Extensible Event Stream



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Discussion

From last year's meeting

Established: Working group on legal/ethical aspects of process mining

- In a first kick-off meeting in June 2015, Frank van Geffen, Anne Rozinat, and Léonard Studer reviewed and organized the materials on the topic of legal/ethical aspects of process mining from various sources / with input from various other people.
- The initiative will be continued after the summer. Interested parties can contact Anne Rozinat (anne@fluxicon.com) to be updated about developments and provide further input.

Data Sets & Case Studies

- What data sets are you using?
- Are they public?
- Many unknown successful projects (cf. ProcessGold, Fluxicon, Celonis, QPR, Perceptive, etc.). How to make this better visible?



Process Mining Manifesto

- What languages are we missing?
- Manifesto was released in 2011. Is it time to make an update?
 - What are the new challenges?
 - What are the new insights?
 - New angle on process mining?
- Who would like to take the initiative?

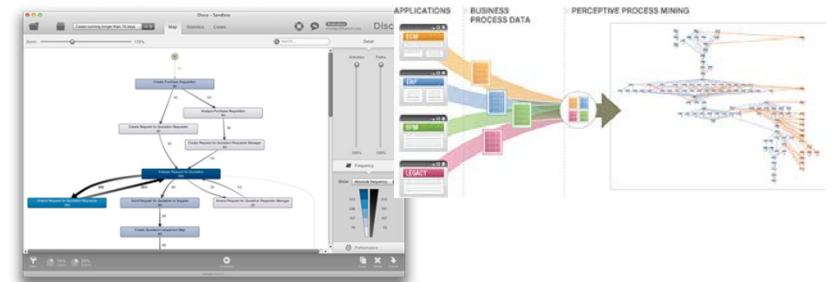
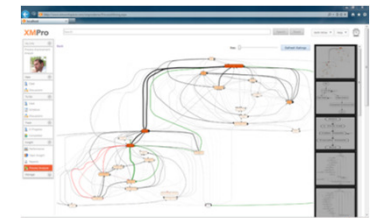
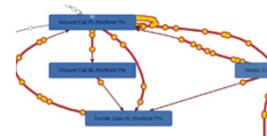


Process Mining Software

- Should we add tool information to the website (index)?
- What features should be listed?
- If we add this, any volunteers to maintain this? (sync. with other sources such as wikipedia, paper, XES?)



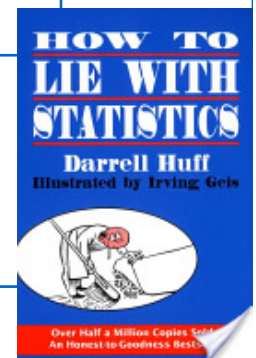
Quality. Processes. Results.



Data Quality

	case	event	belongs to	c attribute	position	activity name	timestamp	resource	e attribute
missing data	In reality a case has been executed but it has not been recorded in the log	Events are missing within the trace although they occurred in reality.	Association between events and cases is lost (correlation problem)	Case attribute was not recorded.	Ordering of events in the trace is lost.	Activity names of events are missing.	Timestamps of events are missing.	Resources that executed an activity have not been recorded.	Event attribute was not recorded.
incorrect data	Some cases in the log belong to a different process.	Events that were not actually executed for some cases are logged	Association between events and cases are logged incorrectly.	Values corresponding to case attributes are logged incorrectly.	Order is mixed up.	Wrong activity names are recorded.	Incorrect timestamps.	Incorrect resource assigned to event.	Attributes of events are recorded incorrectly.
imprecise data			Difficult to correlate events to specific cases (too coarse).	Provided value is too coarse, e.g., city but no address.	For example concurrent events may have become totally ordered.	Activity names are too coarse.	Days rather than minutes or seconds. Hence, precise order cannot be derived.	Just role or department is recorded.	Provided value is too coarse.
irrelevant data	Irrelevant cases are included and cannot be removed easily.	Events may be irrelevant and difficult to remove							

How to ensure the correctness of data?
How to avoid misuse of process mining?



Opportunities?

- Process Mining and Big Data
- Process Mining and Data Science
- Process Mining and Customer Journey
- Process Mining and Industry 4.0?
- Process Mining and Internet of Things?
- Process Mining and Quantified Self?
- Process Mining and Smart XXXX?
- Domain-specific Process Mining
 - Healthcare
 - ...





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Planned Activities for 2015-2016

Continued Activities

(assumption)

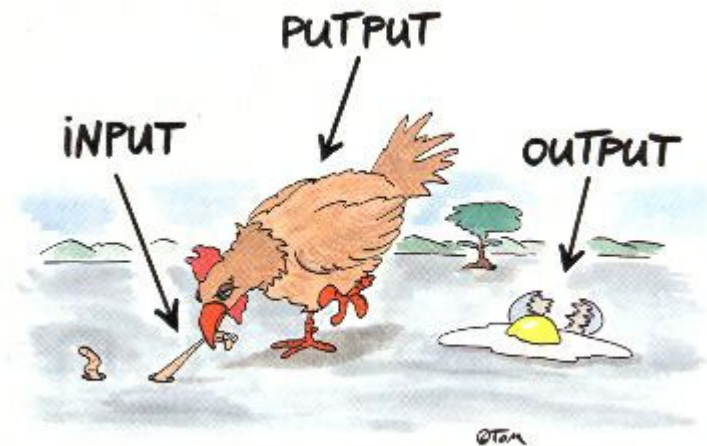
- BPI workshop (co-located with BPM 2016 in Rio)
- BPI challenge (co-located with BPM 2016 in Rio)
- Best Process Mining Dissertation Award
- Algorithms & Theories for the Analysis of Event Data (ATAED 2016, Toruń, Poland)
- Process Mining Camp (Fluxicon)
- XES standardization
- Dutch Special Interest Group Process Mining (Ngi-Ngn), e.g. “Process Mining Bazaar” (14 October 2015, Amsterdam)
- ...

Volunteers needed!

- Process Mining Session at the IEEE World Congress on Computational Intelligence (WCCI 2016), Vancouver, Canada, July 2016
(see <http://www.wcci2016.org/spsessions.php>, proposals due by 15 November 2015)
- Process Mining Session at the IEEE Symposium on Computational Intelligence and Data Mining (CIDM) / IEEE Symposium Series on Computational Intelligence (SSCI 2016), Greece, December 2016.

Input Needed

- Additional Use Cases
- Additional Public Data Sets
- Additional MOOCs, books, etc. for end-users



new initiatives



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any ideas?

Closing

Thanks!!

