

Annual Meeting of the IEEE Task Force on Process Mining



Monday September 11th 2017 (16.00-17.30)
UPC Nord Campus, Vertex Building VS217,
c/ Jordi Girona, 1-3, 08034 Barcelona

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

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

Agenda

| | |
|---------------|--|
| 16:00 – 16:05 | Welcome |
| 16:05 – 16:15 | <p>Overview of Activities and Developments in the Process Mining Space in 2016-2017 (Wil van der Aalst)</p> <p><i>This session will provide a quick overview of the goals of the task force and its activities. It also reflects on its activities and the developments in the process mining space.</i></p> |
| 16:15 – 16:30 | <p>Process Mining in Spain (Josep Carmona)</p> <p><i>This session will provide an overview of the process mining activities in Spain. Josep Carmona, also the host of this year's BPM conference, will summarize and reflect on initiatives in Spain.</i></p> |
| 16:30 – 17:00 | <p>XES Standardization and Certification (Eric Verbeek)</p> <p><i>On November 11th, 2016, the IEEE Standards Association has officially published the XES Standard as IEEE Std 1849TM-2016: IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams. The IEEE Task Force on Process Mining has been driving the standardization process for over six years, because the standard allows for the exchange of event data between different process mining tools. Eric Verbeek will give a short update on XES developments and then focus on XES certification. Recently, the XES WG accepted the XES Certification proposal distinguishing different levels of XES support for import and export (A1-D2). Now it is time to operationalize the certification process and the task force should play a key role in this. Eric will explain the different certification levels and discuss the organization.</i></p> |
| 17:00 – 17:25 | <p>Brainstorming Session on New Activities (All)</p> <p><i>The mission of the task force is to “promote the research, development, education and understanding of process mining”. The goal of this session is to think of new activities or ways to strengthen existing ones. Example questions include:</i></p> <ul style="list-style-type: none"> • <i>What are new success process mining stories and data sets?</i> • <i>Should there be a stand-alone process mining conference or not?</i> • <i>New workshops or special sessions (SSCI, CEC, WCCI, KDD, ICML, PAW, etc.)?</i> • <i>Best Process Mining Dissertation Award in 2018?</i> • <i>Do we need a database with tool information?</i> • <i>Books and articles aimed at practitioners?</i> • <i>New process mining MOOCs?</i> • <i>How to make process mining an integral part of Six Sigma?</i> • <i>How to better utilize the LinkedIn Process Mining Group?</i> • <i>Do we need a new Process Mining Manifesto?</i> • ... |
| 17:25 – 17:30 | Closing |

Agenda

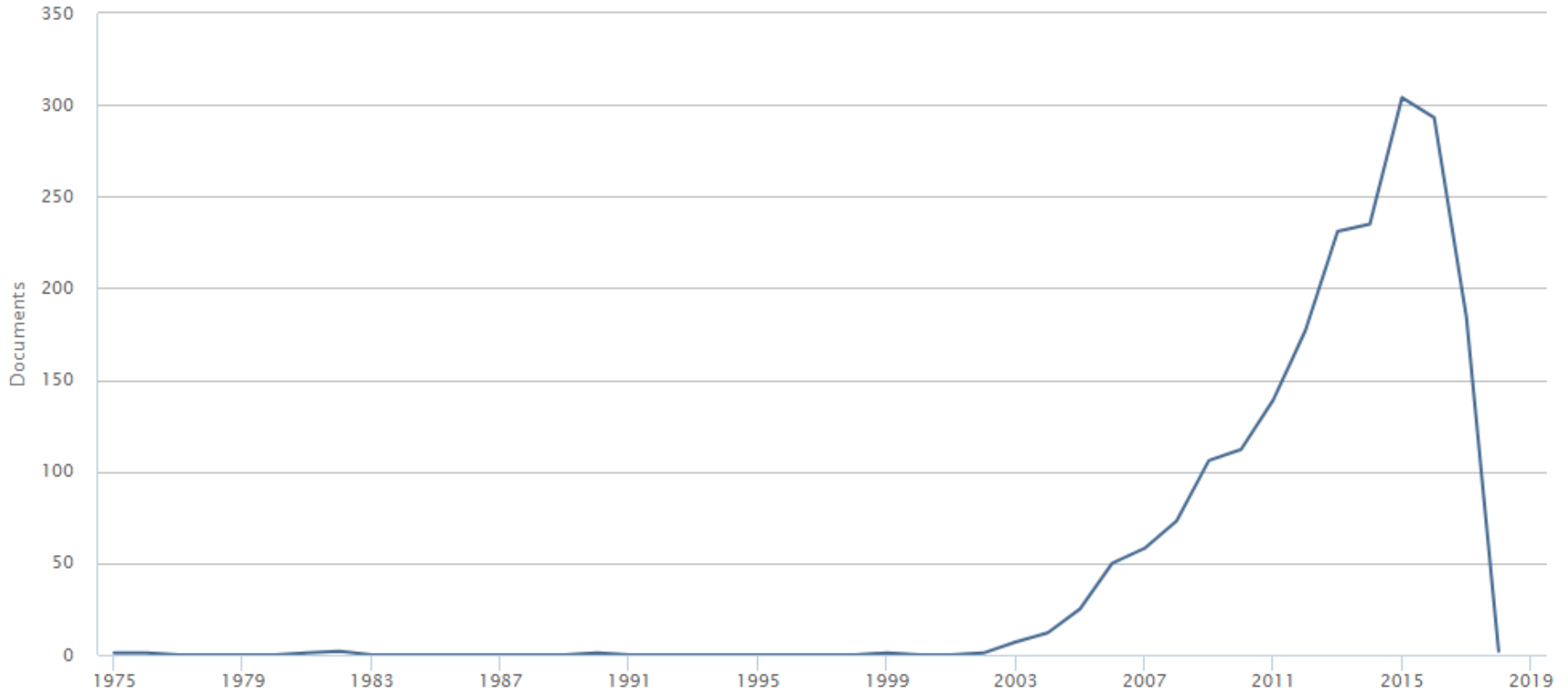
| | |
|---------------|--|
| 16:00 – 16:05 | Welcome |
| 16:05 – 16:15 | <p>Overview of Activities and Developments in the Process Mining Space in 2016-2017 (Wil van der Aalst)</p> <p><i>This session will provide a quick overview of the goals of the task force and its activities. It also reflects on its activities and the developments in the process mining space.</i></p> |
| 16:15 – 16:30 | <p>Process Mining in Spain (Josep Carmona)</p> <p><i>This session will provide an overview of the process mining activities in Spain. Josep Carmona, also the host of this year's BPM conference, will summarize and reflect on initiatives in Spain.</i></p> |
| 16:30 – 17:00 | <p>XES Standardization and Certification (Eric Verbeek)</p> <p><i>On November 11th, 2016, the IEEE Standards Association has officially published the XES Standard as IEEE Std 1849TM-2016: IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams. The IEEE Task Force on Process Mining has been driving the standardization process for over six years, because the standard allows for the exchange of event data between different process mining tools. Eric Verbeek will give a short update on XES developments and then focus on XES certification. Recently, the XES WG accepted the XES Certification proposal distinguishing different levels of XES support for import and export (A1-D2). Now it is time to operationalize the certification process and the task force should play a key role in this. Eric will explain the different certification levels and discuss the organization.</i></p> |
| 17:00 – 17:25 | <p>Brainstorming Session on New Activities (All)</p> <p><i>The mission of the task force is to “promote the research, development, education and understanding of process mining”. The goal of this session is to think of new activities or ways to strengthen existing ones. Example questions include:</i></p> <ul style="list-style-type: none"> • <i>What are new success process mining stories and data sets?</i> • <i>Should there be a stand-alone process mining conference or not?</i> • <i>New workshops or special sessions (SSCI, CEC, WCCI, KDD, ICML, PAW, etc.)?</i> • <i>Best Process Mining Dissertation Award in 2018?</i> • <i>Do we need a database with tool information?</i> • <i>Books and articles aimed at practitioners?</i> • <i>New process mining MOOCs?</i> • <i>How to make process mining an integral part of Six Sigma?</i> • <i>How to better utilize the LinkedIn Process Mining Group?</i> • <i>Do we need a new Process Mining Manifesto?</i> • ... |
| 17:25 – 17:30 | Closing |

Organizations Supporting our Task Force (70+)



Uptake of process mining

Documents by year



Goals

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Virtual Communities

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

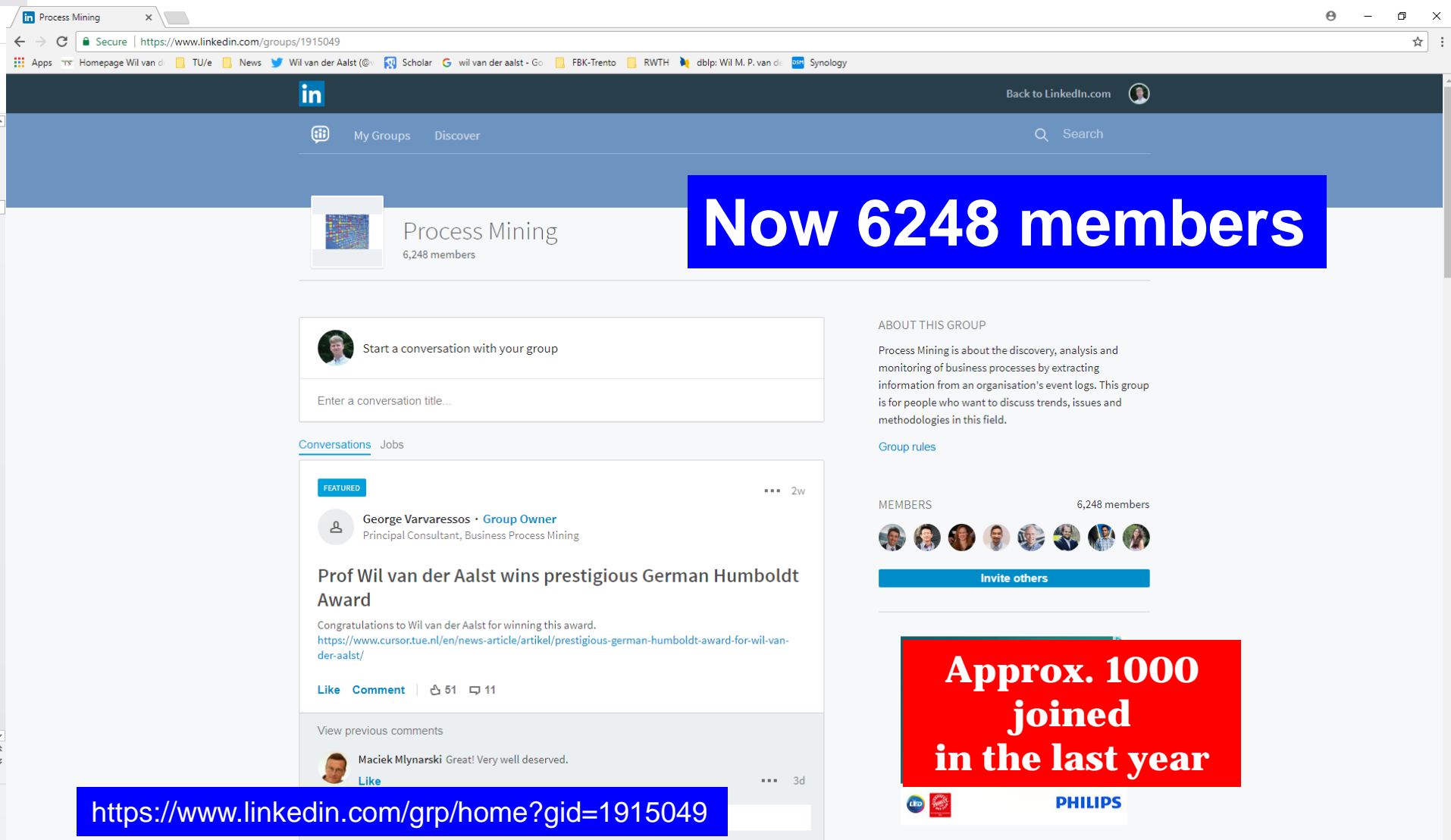
(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

LinkedIn Group on PM

(managed by George Varvaressos)



Process Mining
6,248 members


Now 6248 members

Start a conversation with your group

Enter a conversation title...

Conversations Jobs

FEATURED 2w


 **George Varvaressos · Group Owner**
Principal Consultant, Business Process Mining

Prof Wil van der Aalst wins prestigious German Humboldt Award

Congratulations to Wil van der Aalst for winning this award.
<https://www.cursor.tue.nl/en/news-article/artikel/prestigious-german-humboldt-award-for-wil-van-der-aalst/>

Like Comment | 51 11

View previous comments


 **Maciek Mlynarski** Great! Very well deserved.
Like 3d

ABOUT THIS GROUP

Process Mining is about the discovery, analysis and monitoring of business processes by extracting information from an organisation's event logs. This group is for people who want to discuss trends, issues and methodologies in this field.


Group rules

MEMBERS 6,248 members



[Invite others](#)

Approx. 1000 joined in the last year



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

About Feedback Privacy & Terms
LinkedIn LinkedIn Corp. © 2017

Virtual communities

- LinkedIn
 - Keep triggering discussions and sharing news
 - More case studies or war stories from users
 - Consider more non-commercial self-promotion
- @processmining page at facebook
 - 500 followers (students, younger researchers)
 - Some focus on teaching activities
 - Contact Joos Buijs / Dirk Fahland if you want to contribute as a administrator
- Other communities we could use/create?

Scientific Meetings

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

13th International Workshop on Business Process Intelligence 2017

to be held in conjunction with [BPM 2017](#) Barcelona, Spain, September 10 - 15, 2017

Index

- Home
- Workshop Program
- Important Dates
- Description
- Proceedings & Paper submission format
- Organizers
- Program Committee
- Previous Events
- BPI Challenge

[Log In](#)

Business Process Intelligence (BPI)

Thirteenth International Workshop on Business Process Intelligence (BPI'17) to be held in conjunction with BPM'17

This year's BPI Workshop is a two day event, featuring:

- The presentation of interesting research papers in the BPI domain,
- The [BPI Challenge 2017](#), where we revisit the well-known process of 2012, five years later,
- The [Process Discovery Contest](#),
- The IEEE Task Force meeting, and
- The Process Mining Reception

The workshop is sponsored by [Siav](#), one of the main Italian IT companies which develops and delivers solutions for the Enterprise Content Management market, with software products for Enterprise File Sync & Share (BlueDrive), Document and Workflow Management (Archiflow), Long Term Retention and Preservation (Virgilio).



Important Dates

| | |
|--|-------------------------------|
| Deadline for abstract submissions: | 19-May-2017 29 May 2017 |
| Deadline for workshop paper submissions: | 26-May-2017 5 June 2017 |
| Notification of acceptance: | 26 July 2017 |
| Camera-ready version workshop papers: | 7 July 2017 (Strict deadline) |
| Workshop Days: | 10-11 September 2017 |
| Post-proceedings deadline: | |

Workshop Program

Running well since 2005!
BPI 2018 in Sydney?
Discussion on conference?

Algorithms & Theories for the Analysis of Event Data



Algorithms & Theories for the Analysis of Event Data 2017

@ PN 2017 & ACSD 2017, June 26–27, Zaragoza, Spain

The workshop Algorithms & Theories for the Analysis of Event Data (ATAED 2017) is a satellite event of both the 38th International Conference on Application and Theory of Petri Nets and Concurrency and the 17th International Conference on Application of Concurrency to System Design (PN 2017 and ACSD 2017). 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, sets of 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).

ATAED 2017 solicits papers related to process mining and region theory. However, the scope is not limited to this. 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. Papers need to be submitted via [EasyChair](#).

Process mining makes 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 recorded 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.

Region theory makes it possible to synthesize a process model from a behavioral description. Applying to behavioral description and the language equivalent. In recent years, various based and state-based variants have mining. Here, there is only example to be improved. Hence, there are practical relevance.

**ATAED 2018 will be
in Bratislava,
Slovakia, June, 2018**

Other events

- SIMPDA : INTERNATIONAL SYMPOSIUM ON DATA-DRIVEN PROCESS DISCOVERY AND ANALYSIS
- DeHMiMoP: International Workshop on Declarative/Decision/Hybrid Mining and Modelling for Business Processes
- iERP - INTELLIGENT ERP SYSTEMS
- Conference on Traffic Mining Applied to Police Activities
- International Conference on ICT and Knowledge Engineering
- Workshop on Security and Privacy-enhanced Business Process Management
- AusDM : Australasian Data Mining Conference
- IEEE International Conference on BUSINESS INFORMATICS (CBI'17)
- EDOC : Enterprise Distributed Object Computing
- Conference on Advances in Databases, Knowledge, and Data Applications
- International Conference on Business Intelligence and Technology
- KDIR: International Conference on Knowledge Discovery and Information Retrieval
- Etc. Etc.

Industry Meetings

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

e.g. Process Mining Camp



PROCESS MINING
CAMP2017



Contests

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Contests

- Business Process Intelligence Challenge (BPIC) (every year, since 2011)
- Process Discovery Contest (2016, 2017)
- Industry awards:
 - Process Miner of the Year Award (Fluxicon)
 - Process Mining Thesis Award (Celonis)

Contests

- Best PhD thesis award (2014, 2015).
 - How to continue?
 - Positioning wrt to BPM Thesis award

IEEE CIS Task Force on Process Mining

Track: [best_process_mining_dissertation_award](#) Show pagecount

Login

search

Index

- Home
- Members
- Organizations
- People
- Countries
- News
- Events
- Process Mining Manifesto
- Process Mining Moves
- Process Mining Event Logs
- Process Mining Case Studies
- Process Mining Dissertation Award
- Process Discovery Contest
 - Edition 2016
- XES Working Group
 - News
 - Participants
 - Documents
 - Contact

Best Process Mining Dissertation Award

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 in 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.

News

- The Call for Nominations for the [Best Process Mining Dissertation Award 2016](#) has been published (February 2016).
- The [Best Process Mining Dissertation Award 2015](#) has been awarded to Jorge Munoz-Gama for his PhD thesis entitled "Conformance Checking and Diagnosis in Process Mining" (September 2015).
- The Reviewing Jury for the [Best Process Mining Dissertation Award 2015](#) has started its work; the winner will be announced on 31st July 2015.
- The [Best Process Mining Dissertation Award 2014](#) has been awarded to Andrea Burattin for his PhD thesis entitled "Applicability of Process Mining Techniques in Business Environments" (September 2014).

Nominate Now: Best Process Mining Dissertation Award 2016

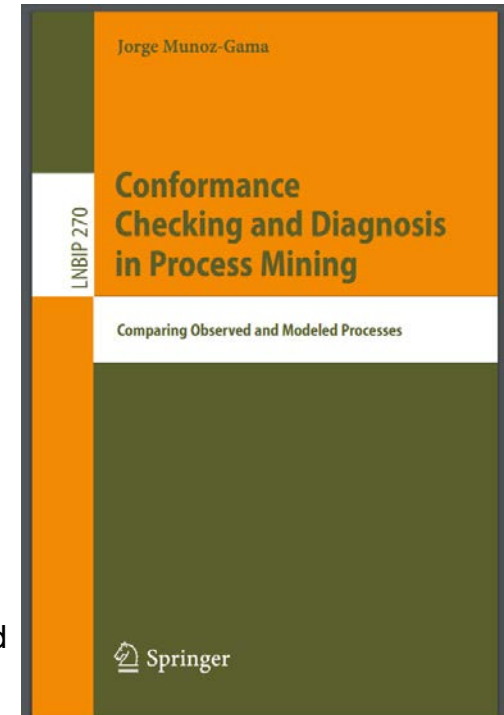

The call for the [Best Process Mining Dissertation Award 2016](#) is now online. Key dates and facts:

- theses defended and degree awarded in 2014 or 2015
- supervisor nominates **until 1st April 2016**
- award ceremony during the annual meeting of the IEEE CIS Task Force on Process Mining, co-located with [BPM'16](#) (September 18-22, 2016)

Please see the [call for nominations](#) for details and evaluation criteria.

Awards

Below you find the award winners of the previous years



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

Public Data Sets

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Data sets

4TU.Centre for Research Data

Collection: **IEEE TF on Process Mining - Event Logs**

[+ show all collections](#)

[All collections](#)

IEEE TF on Process Mining - Event Logs [\[Search in this collection\]](#)

[Real life Event Logs](#)

[Synthetic Event Logs](#)

<< more info...

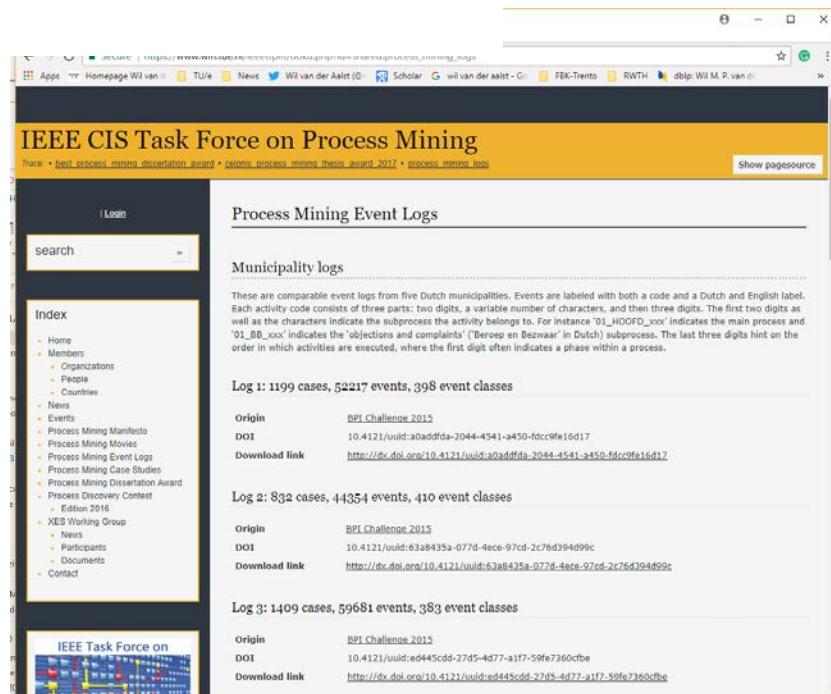
Home

Upload datasets

Personal page

| title | |
|-----------------|--|
| ▲ in collection | All collections |
| ▼ contains | Production Analysis with Process Mining Technology |
| ▼ contains | Real life Event Logs |
| ▼ contains | Synthetic Event Logs |
| ▼ contains | Workflow for Process Discovery Benchmark |

http://data.4tu.nl/repository/collection:event_logs



IEEE CIS Task Force on Process Mining

Process Mining Event Logs

Municipality logs

These are comparable event logs from five Dutch municipalities. 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.

Log 1: 1199 cases, 52417 events, 398 event classes

Origin: [BPI Challenge 2015](#)

DOI: [10.4121/uuid:a0addfda-2044-4541-a450-fdc09e16d17](https://doi.org/10.4121/uuid:a0addfda-2044-4541-a450-fdc09e16d17)

Download link: <http://dx.doi.org/10.4121/uuid:a0addfda-2044-4541-a450-fdc09e16d17>

Log 2: 832 cases, 44354 events, 410 event classes

Origin: [BPI Challenge 2015](#)

DOI: [10.4121/uuid:63a8435a-077d-4e0e-97cd-2c76d394d99c](https://doi.org/10.4121/uuid:63a8435a-077d-4e0e-97cd-2c76d394d99c)

Download link: <http://dx.doi.org/10.4121/uuid:63a8435a-077d-4e0e-97cd-2c76d394d99c>

Log 3: 1409 cases, 59681 events, 383 event classes

Origin: [BPI Challenge 2015](#)

DOI: [10.4121/uuid:e0445c0d-27d5-4d77-a1f7-59f67360cfe](https://doi.org/10.4121/uuid:e0445c0d-27d5-4d77-a1f7-59f67360cfe)

Download link: <http://dx.doi.org/10.4121/uuid:e0445c0d-27d5-4d77-a1f7-59f67360cfe>

New Data Sets

- BPI Challenge 2017 - loan application process of a Dutch financial institute
- BPI Challenge 2016 - from UWV (Employee Insurance Agency)
- Hospital Billing financial modules of the ERP system of a regional hospital
- JUnit 4.12 Software Event Log
- NASA Crew Exploration Vehicle (CEV) Software Event Log
- Sepsis Cases sepsis cases from a hospital
- Validation of Precision Measures - Event Logs and Process Models
- Data-driven Process Discovery
- Etc.

All on http://data.4tu.nl/repository/collection:event_logs

Standardization

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

XXES

Extensible Event Stream

Eric: approval, recent activities, certification

Research

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Scientific Publications

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Development

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Evaluation

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

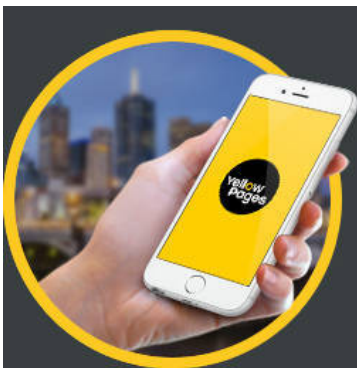
Some tools (not complete)

| Short name | Full name of tool | Version | Vendor | Webpage | XES support | Academic program (available online) | Webpage Academic program | Trial version (available online) | Webpage Trial version |
|-------------|---|---------|---------------------------------------|--|-----------------------------|-------------------------------------|--|----------------------------------|---|
| Celonis | Celonis Process Mining | 4 | Celonis GmbH | www.celonis.de | yes | yes | www.celonis.de/en/company/academic-alliance | yes | www.celonis.de/en/single-user/free-trial |
| Disco | Disco | 1.9.5 | Fluxicon | www.fluxicon.com | yes | yes | fluxicon.com/academic/ | yes | www.fluxicon.com/disco/ |
| EDS | Enterprise Discovery Suite | 4 | StereoLOGIC Ltd | www.stereologic.com | | no | | no | |
| Fujitsu | Interstage Business Process Manager Analytics | 12.2 | Fujitsu Ltd | www.fujitsu.com | | no | | no | |
| Icaro | Icaro EVERFlow | 1 | Icaro Tech | www.icarotech.com | | no | | no | |
| Icris | Icris Process Mining Factory | 1 | Icris | www.processminingfactory.com | yes | no | | | |
| LANA | LANA Process Mining | 1 | Lana Labs | www.lana-labs.com | not yet | no | | no | |
| Minit | Minit | 1 | Gradient ECM | www.minitlabs.com | yes | no | | yes | www.minitlabs.com/demo |
| myInvenio | myInvenio | 1 | Cognitive Technology | www.my-invenio.com | as of November 2016 release | yes | www.my-invenio.com/myinvenio-academic-alliance/ | yes | www.my-invenio.com/registration/ |
| Perceptive | Perceptive Process Mining | 2.7 | Lexmark | www.lexmark.com | no | no | | no | |
| ProcessGold | ProcessGold Enterprise Platform | 8 | Processgold International B.V. | www.processgold.com | yes | not yet | | no | |
| ProM | ProM | 6.6 | Open Source hosted at TU/e | www.promtools.org | yes | open source | www.promtools.org | | |
| ProM Lite | ProM Lite | 1.1 | Open Source hosted at TU/e | www.promtools.org | yes | open source | www.promtools.org | | |
| QPR | QPR ProcessAnalyzer | 2016 | QPR | www.qpr.com | yes | no | | no | |
| RapidProM | RapidProM | 4.0.0 | Open Source hosted at TU/e | www.rapidprom.org | yes | open source | www.rapidprom.org | | |
| Rialto | Rialto Process | 1.5 | Exeura | www.exeura.eu | yes | yes | www.exeura.eu/en/products/rialto-process/ | no | |
| Signavio | Signavio Process Intelligence | | Signavio | www.signavio.com | | | | | |
| SNP | SNP Business Process Analysis | 15.27 | SNP Schneider-Neureither & Partner AG | www.snp-bpa.com | yes | no | | yes | http://products.snp-ag.com/business-process-analysis |
| PPM | webMethods Process Performance Manager | 9.9 | Software AG | www.softwareag.com | | no | | no | |
| Worksoft | Worksoft Analyze & Process Mining for SAP | | Worksoft | www.worksoft.com | | | | | |

Evaluation

From indexing to scoring.

What role should the task force have?



Articles, books, ...

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

**outreach
activities**

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

**scientific
publications**

advancing software

development

evaluation

community building

**virtual
communities**

(linkedin, facebook, etc.)

**scientific
meetings**

(BPI, ATAED, etc.)

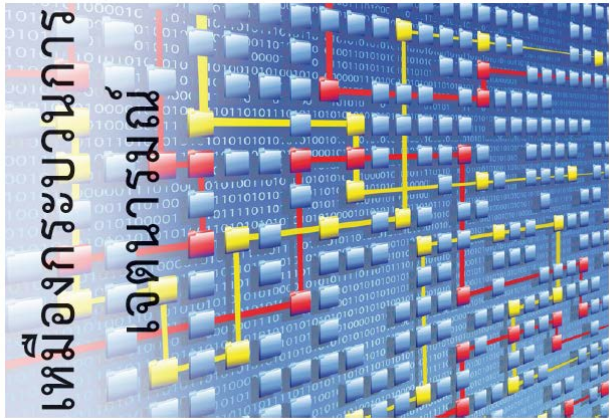
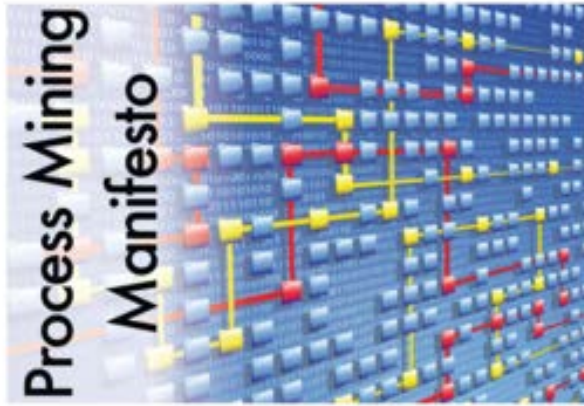
**industry
meetings**

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

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



Available in
16
Languages

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 [informational] 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.

Contents:

| | |
|-----------------------------------|----|
| Process Mining - State of the Art | 3 |
| Guiding Principles | 6 |
| Challenges | 10 |
| Epilogues | 13 |
| Glossary | 14 |

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 facing 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 เป้าหมายของคณะทำงานเฉพาะกิจนี้ คือ เพื่อส่งเสริมการวิจัย การพัฒนา การศึกษา การทำให้เกิดผล วิวัฒนาการ และความเข้าใจในเรื่องเหมืองกระบวนการ

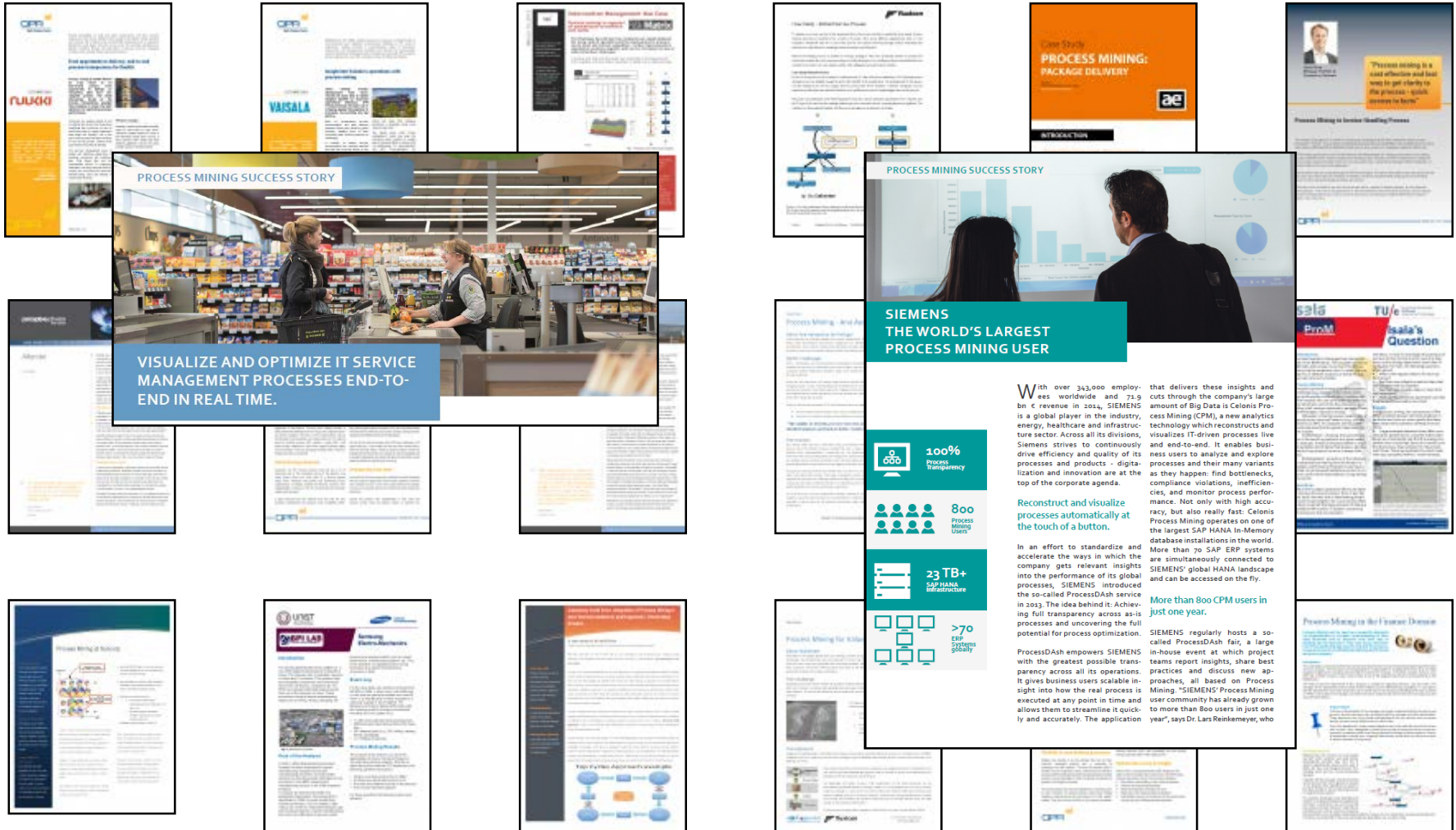
เหมืองกระบวนการ เป็นสาขาการวิจัยที่อยู่ในระยะเริ่มแรก ซึ่งในขณะนี้มองว่าอยู่ระหว่างคำถามวิจัยและเครื่องมือ ส่วนในอีกมุมหนึ่งมองว่าอยู่ระหว่างแบบจำลองกระบวนการและการวิเคราะห์แนวคิดของเหมืองกระบวนการคือ เพื่อการค้นพบ การนำสิ่งถูก และการปรับปรุงกระบวนการจริง (ไม่ใช่กระบวนการสมมุติ) ด้วยการสกัดความรู้จากบันทึกเหตุการณ์ที่มีอยู่ในระบบ (สารสนเทศ) หรืออยู่ในปัจจุบัน เหมืองกระบวนการรวมถึง การค้นพบกระบวนการ (ได้อัตโนมัติ) (การสกัดแบบจำลองกระบวนการจากบันทึกเหตุการณ์) การตรวจสอบการสอดคล้อง (เช่น การนำสิ่งถูกความเบื้องต้นของการเปรียบเทียบระหว่างแบบจำลองกับบันทึก)

เครือข่ายสังคม / เหมืององค์การ การสร้างแบบจำลองได้อัตโนมัติ การขยายแบบจำลอง การให้คำแนะนำ การพยากรณ์ และ การให้คำแนะนำโดยใช้ความเป็นไปได้


| | |
|------------------------------------|----|
| เนื้อหา: | |
| เหมืองกระบวนการ - ความรู้เบื้องต้น | 3 |
| หลักการแนะนำ | 6 |
| ความท้าทาย | 10 |
| ปัจฉิมบท | 13 |
| อภิธานศัพท์ | 14 |

เทคนิคของเหมืองกระบวนการสามารถวัดความยากบันทึกเหตุการณ์ที่มีอยู่ได้ทั้งในระบบสารสนเทศในปัจจุบัน เทคนิคเหล่านี้มีวิวัฒนาการที่ค้นพบ และการปรับปรุงกระบวนการในการประยุกต์ใช้ในหลากหลายโดเมน โดยมีวิสัยทัศน์ที่เชื่อมโยงประเภทที่นำไปใช้ความสนใจของเหมืองกระบวนการที่เพิ่มขึ้น ในมุมมองนี้ การบันทึกเหตุการณ์ที่เพิ่มขึ้น ทำให้มีสถานะหลายชนิดที่เกี่ยวข้องกับประวัติของกระบวนการ ในมุมมองนี้มีความต้องการปรับปรุงและสนับสนุนกระบวนการเชิงปฏิบัติการระดับภูมิภาคซึ่งเป็นการเปลี่ยนแปลงอย่างรวดเร็ว เจตนารมณ์นี้สร้างขึ้นโดย IEEE Task Force on Process Mining และสิ่งได้ส่งเสริมนื่องเหมืองกระบวนการ จึงได้กำหนดวัตถุประสงค์ของหลักการแนะนำ และรายการความท้าทายที่สำคัญ เจตนารมณ์นี้หวังที่จะทำหน้าที่เป็นคู่มือสำหรับนักพัฒนาซอฟต์แวร์ นักวิทยาศาสตร์ นักศึกษา ผู้จัดการธุรกิจ และผู้ใช้ เป้าหมายคือเพื่อที่จะเป็นคู่มือการของเหมืองกระบวนการในฐานะเครื่องมือที่ปรับปรุงการออกแบบ (ใหม่) ความรู้และสนับสนุนกระบวนการในการดำเนินการทางธุรกิจ

24 Case studies




PROCESS MINING SUCCESS STORY



VISUALIZE AND OPTIMIZE IT SERVICE MANAGEMENT PROCESSES END-TO-END IN REAL TIME.

PROCESS MINING SUCCESS STORY



SIEMENS THE WORLD'S LARGEST PROCESS MINING USER

With over 343,000 employees worldwide and 79.9 bn € revenue in 2014, SIEMENS is a global player in the industry, energy, healthcare and infrastructure sector. Across all its divisions, Siemens strives to continuously drive efficiency and quality of its processes and products - digitalization and innovation are at the top of the corporate agenda.

Reconstruct and visualize processes automatically at the touch of a button.

In an effort to standardize and accelerate the ways in which the company gets relevant insights into the performance of its global processes, SIEMENS introduced the so-called ProcessDash service in 2013. The idea behind it: Achieving full transparency across asset processes and uncovering the full potential for process optimization.

ProcessDash empowers SIEMENS with the greatest possible transparency across all its operations. It gives business users scalable insight into how the real process is executed at any point in time and allows them to streamline it quickly and accurately. The application that delivers these insights and cuts through the company's large amount of Big Data is Celonis Process Mining (CPM), a new analytics technology which reconstructs and visualizes IT-driven processes live and end-to-end. It enables business users to analyze and explore processes and their many variants as they happen: find bottlenecks, compliance violations, inefficiencies, and monitor process performance. Not only with high accuracy, but also really fast: Celonis Process Mining operates on one of the largest SAP HANA In-Memory database installations in the world. More than 70 SAP ERP systems are simultaneously connected to SIEMENS' global HANA landscape and can be accessed on the fly.

More than 800 CPM users in just one year.

SIEMENS regularly hosts a so-called ProcessDash fair, a large in-house event at which project teams report insights, share best practices and discuss new approaches, all based on Process Mining. "SIEMENS' Process Mining user community has already grown to more than 800 users in just one year", says Dr. Lars Reimlemer, who

- 100% Process Transparency
- 800 Process Mining Users
- 23 TB+ SAP HANA Infrastructure
- >70 ERP SYSTEMS

Too little activity: Send more case studies!

PROCESS MINING SUCCESS STORY



**INNOVATION IS AN
ALLIANCE WITH THE FUTURE**

SIEMENS



Innovation is the cornerstone of Siemens' success, not only today, but throughout its 170-year-old history.

In the age of digitization and Industry 4.0, Siemens embraces new trends and cul-

Siemens audit department initially engaged with Celonis in the year the start-up was first established. The aim: to find a solution capable of making processes transparent within the company as well as, like an x-ray image, revealing poten-

(Online) Courses

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

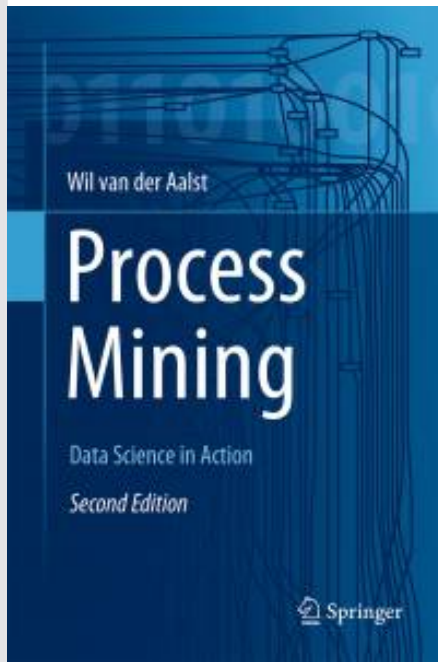
(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Process Mining: Data science in Action

Available in on-demand mode



coursera Catalog Search catalog Institutions W

Home > Data Science > Data Analysis

Overview

Syllabus

Creators

Ratings and Reviews

Process Mining: Data science in Action

[Go to Course](#)

Already enrolled


Process Mining: Data science in Action

About this course: 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.


[More](#)

Who is this class for: This course is aimed at both students and professionals. A basic understanding of logic, sets, and statistics (at the undergraduate level) is assumed. Basic computer skills are required to use the software provided with the course (but no programming experience is needed). Participants are also expected to have an interest in process modeling and data mining but no specific prior knowledge is assumed as these concepts are introduced in the course.




Created by: Eindhoven University of Technology



<https://www.coursera.org/learn/process-mining>



Taught by: Wil van der Aalst, Professor dr.ir.
Department of Mathematics & Computer Science

| | |
|---|--|
|  Language | English |
|  How To Pass | Pass all graded assignments to complete the course. |
|  User Ratings | ★★★★☆ Average User Rating 4.8 See what learners said |

Financial Aid is available for learners who cannot afford the fee. [Learn more and apply.](#)

[Preview Course Materials](#)

Future Learn MOOC

Introduction to Process Mining with ProM



Courses Programs About

FREE ONLINE COURSE

Introduction to Process Mining with ProM

Learn how to use the free, open source process mining framework (ProM) to analyse, visualise, and improve processes based on data.

[Go to course – started 5 Sep](#)

FREE online course Duration: 4 weeks 3 hours pw Certificates available



CREATED BY



SHARE

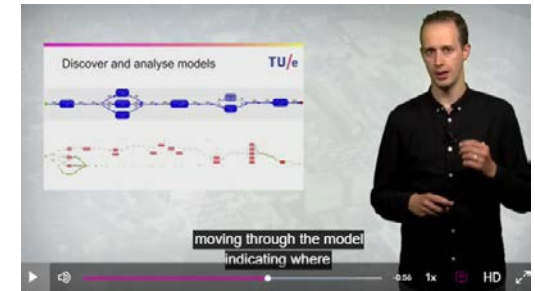


[View transcript](#)

[Download video: standard or HD](#)

<https://www.futurelearn.com/courses/process-mining>

Future Learn MOOC Process Mining in Healthcare



[Categories](#) [Courses](#) [Programs](#) [Degrees](#)

ONLINE COURSE

Process Mining in Healthcare

Learn how process mining can be used to turn healthcare data into valuable insights to improve patient care while reducing costs.

TU/e Technische Universiteit Eindhoven University of Technology

Join free

Upgrade - €69

+ shipping

[What's the difference?](#)



[Overview](#) [Topics](#) [Start dates](#) [Requirements](#) [Educators](#)

Movies

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

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

Login

search

Index

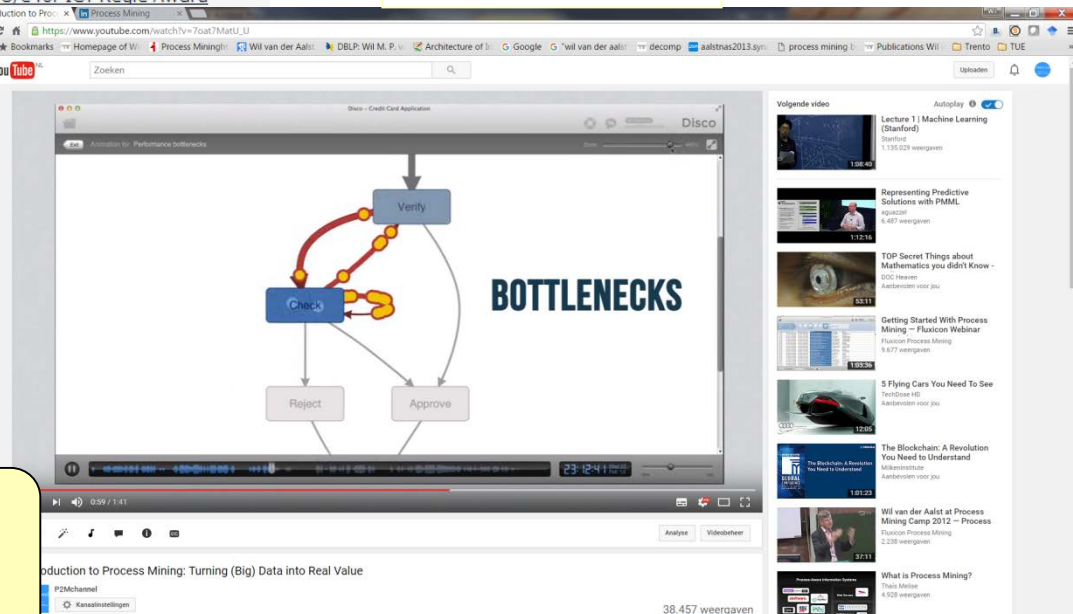
- Home
- Members
 - Organizations
 - People
 - Countries
- News
- Events
- Process Mining Manifesto
- Process Mining Movies
- Process Mining Event Logs
- Process Mining Case Studies

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](#) (IBM)
- [Fuzzy model animation](#)
- [Process Mining animations using BPMione](#)
- [Interstage Automated Process Discovery demo](#)
- [Nomination of Process Mining Research at TU/e for ICT Regie Award](#)
- [Presentations on http://fluxicon.com/c](#)
- [Prototyping Process Mining for SAP OR](#)
- [Process mining 20sec](#)
- [Process mining](#)
- [Introduction to Process Mining](#)
- [ProcessMining - Improve Revenue, Red](#)
- [Process Variants - Process Mining TV](#)
- [Process mining](#) (Dutch, English subtitle)
- [Perceptive Software & Alliander: Proc](#)
- [15-min Video recording bpmNEXT pres](#)

Help to promote it: put it on your website!

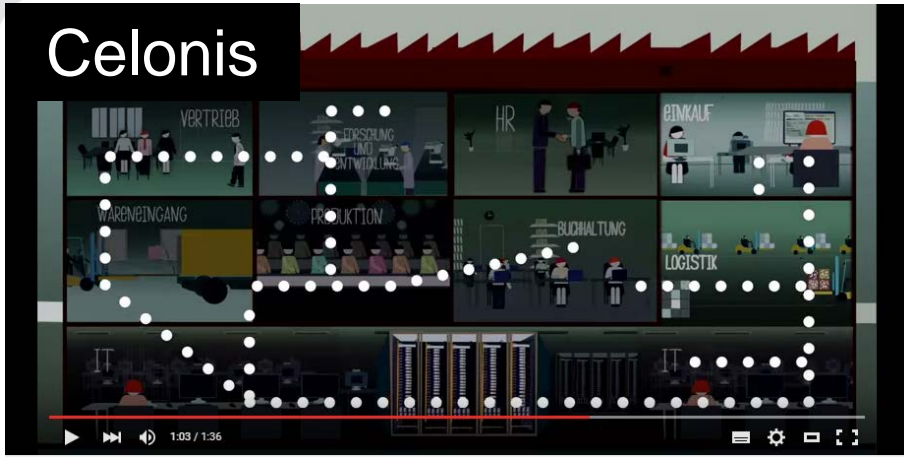
50.000+ views



The screenshot shows a YouTube video player with a process flow diagram. The diagram has a central 'Verify' box with arrows pointing to 'Check', 'Reject', and 'Approve'. A red path highlights a loop between 'Check' and 'Verify'. The word 'BOTTLENECKS' is written in large blue letters on the right side of the diagram. The video player interface includes a progress bar, volume control, and a list of recommended videos on the right side.

Send links to your videos!

Examples of PM Movies



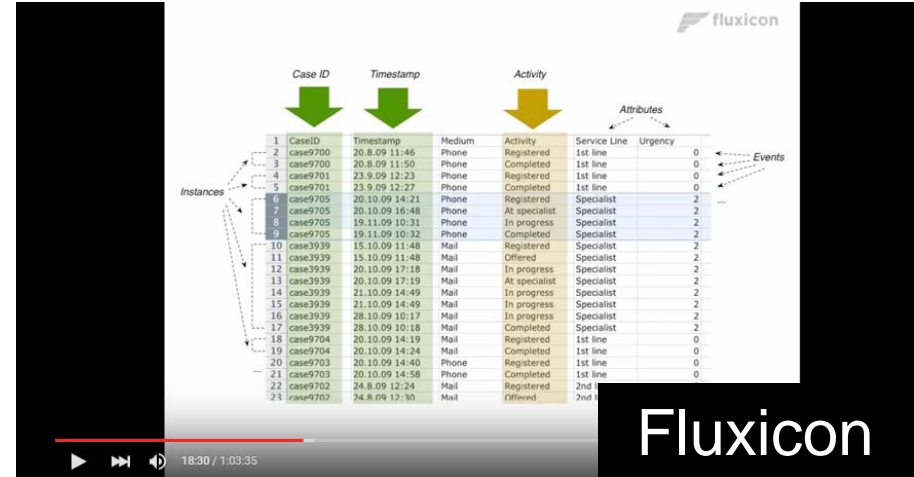
<https://www.youtube.com/watch?v=eUOutoXp75U>



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



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



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

Outreach Activities

creating awareness

articles, books

(e.g., popular press)

(online) courses

(Coursera PM course, etc.)

movies

(YouTube, etc.)

outreach
activities

(schools, leaflets, etc.)

sharing data

public data sets

(4TU data center, etc.)

standardization

(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities

(linkedin, facebook, etc.)

scientific
meetings

(BPI, ATAED, etc.)

industry
meetings

(PM Camp, etc.)

contests

(BPIC, PDC, etc.)

Other Outreach Activities



Scientific Research Community

Process Mining

Mieke Jans



Scientific Research Community (SRC)

International network of researchers
that encourage national (Belgian) and international
cooperation
at postdoctoral level.



Partners of SRC on Process Mining

[Business Informatics](#) @ Hasselt University – Koen Vanhoof, Mieke Jans, Benoît Depaire, Niels Martin

[UGent MIS](#) – Frederik Gailly, Jan Claes

[LIRIS](#), KULeuven – Jan Vanthienen, Jochen De Weerd, Bart Baessens, Monique Snoeck, Seppe vanden Broucke, Estefania Serral Asensio

[Vrije Universiteit Amsterdam](#) – Hajo Reijers, Henrik Leopold, Dennis Schunselaar

[Free University of Bozen-Bolzano](#) – Enrico Franconi, Diego Calvanese, Marco Montali

[Universitat Politècnica de Catalunya](#) – Josep Carmona

[Technical University of Denmark](#) – Barbara Weber, Ekkart Kindler

[Fondazione Bruno Kessler](#) – Chiara Ghidini, Chiara Di Francescomarino, Riccardo De Masellis, Mauro Dragoni

[Data61-CSIRO](#) – Nick van Beest

[Queensland University of Technology](#) – Arthur ter Hofstede, Marcello La Rosa, Moe Wynn, Chun Ouyang, Michael Adams, Artem Polyvyanyy

[Rutgers Accounting Research Center](#) – Miklos Vasarhelyi, Alex Kogan, Michael Alles

[University of Tartu](#) – Marlon Dumas, Luciano García-Bañuelos, Dietmar Pfahl, Raimundas Matulevicius, Fabrizio Maria Maggi

[Technical University of Eindhoven](#) – Wil van der Aalst, Massimiliano de Leoni

[Technical University of Eindhoven](#) – Paul Grefen, Remco Dijkman, Irene Vanderfeesten, Rik Eshuis

[Wirtschaftsuniversität Wien](#) – Jan Mendling, Claudio Di Ciccio, Cristina Cabanillas, Andreas Rogge-Solti, Monika Malinova

Support of Flanders (Belgium)

A flemish grant to support research on the following challenges:

1. Improving usability and understandability for non-experts
2. Understanding and reducing the representational bias in process discovery
3. Improving the metrics to measure the quality of process discovery algorithms

Agenda

| | |
|---------------|--|
| 16:00 – 16:05 | Welcome |
| 16:05 – 16:15 | <p>Overview of Activities and Developments in the Process Mining Space in 2016-2017 (Wil van der Aalst)</p> <p><i>This session will provide a quick overview of the goals of the task force and its activities. It also reflects on its activities and the developments in the process mining space.</i></p> |
| 16:15 – 16:30 | <p>Process Mining in Spain (Josep Carmona)</p> <p><i>This session will provide an overview of the process mining activities in Spain. Josep Carmona, also the host of this year's BPM conference, will summarize and reflect on initiatives in Spain.</i></p> |
| 16:30 – 17:00 | <p>XES Standardization and Certification (Eric Verbeek)</p> <p><i>On November 11th, 2016, the IEEE Standards Association has officially published the XES Standard as IEEE Std 1849TM-2016: IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams. The IEEE Task Force on Process Mining has been driving the standardization process for over six years, because the standard allows for the exchange of event data between different process mining tools. Eric Verbeek will give a short update on XES developments and then focus on XES certification. Recently, the XES WG accepted the XES Certification proposal distinguishing different levels of XES support for import and export (A1-D2). Now it is time to operationalize the certification process and the task force should play a key role in this. Eric will explain the different certification levels and discuss the organization.</i></p> |
| 17:00 – 17:25 | <p>Brainstorming Session on New Activities (All)</p> <p><i>The mission of the task force is to “promote the research, development, education and understanding of process mining”. The goal of this session is to think of new activities or ways to strengthen existing ones. Example questions include:</i></p> <ul style="list-style-type: none"> • <i>What are new success process mining stories and data sets?</i> • <i>Should there be a stand-alone process mining conference or not?</i> • <i>New workshops or special sessions (SSCI, CEC, WCCI, KDD, ICML, PAW, etc.)?</i> • <i>Best Process Mining Dissertation Award in 2018?</i> • <i>Do we need a database with tool information?</i> • <i>Books and articles aimed at practitioners?</i> • <i>New process mining MOOCs?</i> • <i>How to make process mining an integral part of Six Sigma?</i> • <i>How to better utilize the LinkedIn Process Mining Group?</i> • <i>Do we need a new Process Mining Manifesto?</i> • ... |
| 17:25 – 17:30 | Closing |

Process Mining in Spain

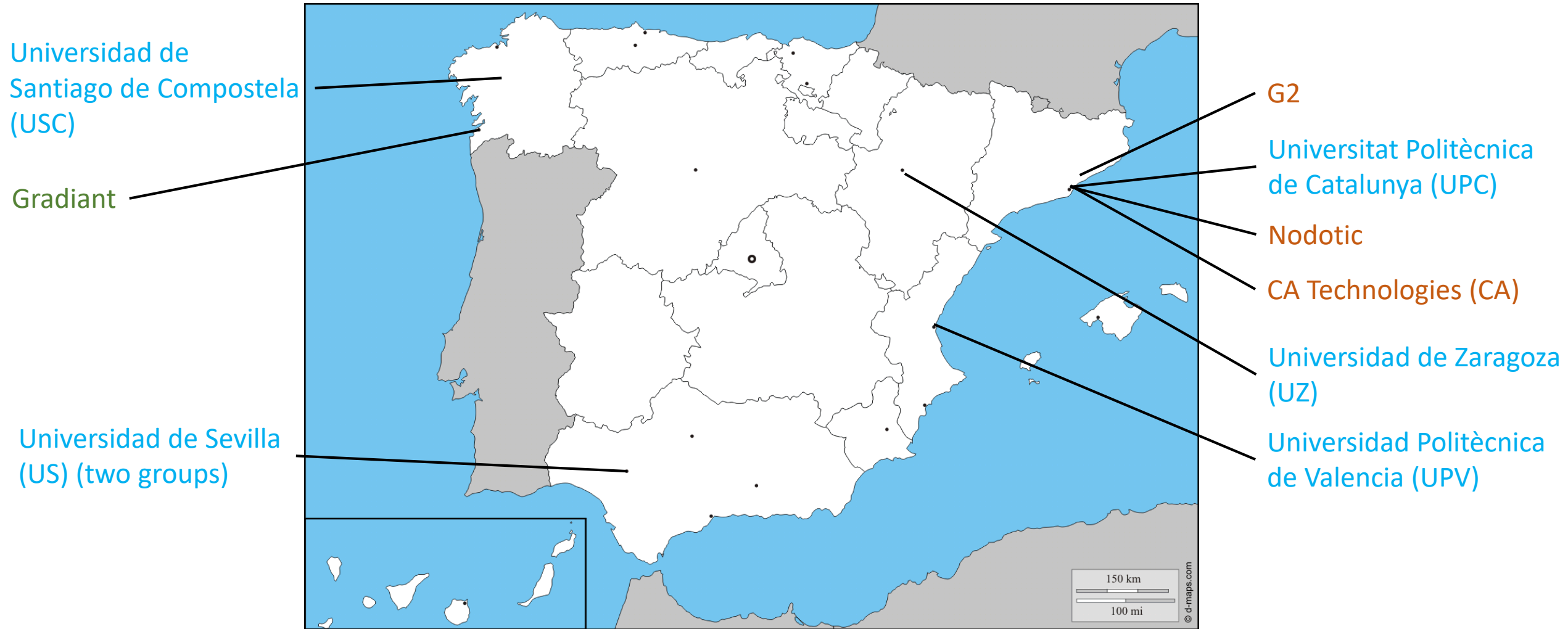
Pedro Alvarez (**UZ**), Josep Carmona (**UPC**), Luis Carrasco (**Nodotic**),
Carlos Fernandez-Llatas (**UPV**), Helena Fernandez (**Gradient**),
Maria Teresa Gómez (**US**), Manuel Lama (**USC**),
Marc Solé (**CA**), Antonio Ruiz (**US**), Antonio Valle (**G2**)

UNIVERSITY

R & D

COMPANY

Geographical distribution of organizations



Companies: CA Technologies, G2, Nodotc

CA Strategic Research

Strategic Research through collaboration

CA Technologies, one of the world's **leading providers of information technology** (IT) management software and solutions, is committed to advance technology research in areas of strategic importance to our company and to our customers.

Strategic Research, the research brand of CA Technologies, **partners with internal and external organizations** to further innovation in enterprise IT management.

By engaging with academia, professional associations, industry standards bodies, customers and partners, Strategic Research explores novel products and emerging technologies.

- Currently **30+ research projects** investigating emerging technologies
- Goal is to **enhance, extend CA Technologies products and solutions**
- **Collaboration with universities and research bodies** around the world
- **Protecting IP through patents**
- **Research results** have been published in major academic and business conference proceedings and journals

BPM @CA Strategic Research

MAJOR HYPOTHESIS

Process Mining can be used **to generate the profile of a user** in a digital platform?

Under the validation of the hypothesis that Process Mining can be used for profiling of users, CA Strategic Research has shown interest in the following research topics:

Anomaly Detection

- **Process Mining can be used for** summarizing the activities performed by a user and, in particular, **detecting identity theft**. Process models are precise enough to highlight the peculiarities of user's behavior.

Categorization

- Exists a **distance between process models** that **approximates the similarity of the respective users'** functional roles (i.e. similar positions or responsibilities). Anomalous behavior is also filtered out by such distance.

Classification

- When a group of individuals is considered, **Process Mining can be used for explaining the common behavior of a group**.
- If an organization or institution has divided their users in a set of groups, **multiple models can be generated with the objective of classifying new users according to such models**.



- Seminar/Dissemination
 - Manage the LinkedIn Group “Mineria de Procesos”: 107 members
 - Organize seminars and workshops for practitioners
 - Practical course on theory/practice
- Industrial projects using process mining:
 - KAO: *Process improvement for bill management*
 - Telefónica Spain: *Improvement for process support*
 - Catalan Institute of Oncology: *Identification of Targets in Recurrent Cancer*
- Comercial activities around the Disco tool
- More on www.gedos.es

Nodotic is a young consulting company based in Barcelona. Our **focus** is centered in **improving** the **business** of our **clients** by a better **organization**, **reengineering** of the processes and a smart use of **technology**.

Our values are **Independence** from third parties, **Flexibility** to fit the needs and circumstances of our clients , **commitment** with our projects and **experience** of our team.

Our **team** is composed exclusively of **Senior Business Consultants** with more than 20 years of experience in a **broad** range of **business domains** (Finance, Supply Chain, IT, Sales, etc.) developed in **management** positions in **multinational** companies.

Nodotic has a **proven** track of successful **projects** in **Process Reengineering** and recently Nodotic has incorporated to his portfolio of services the practice of Process Mining as an excellent way to **enhance** the value proposition of our projects.

| # | Organization | Process | Value Proposition | Status |
|---|---|---|---|-------------|
| 1 | Administrative Unit of one of the top 3 Financial Services Company in Spain | Customer Claims through regulatory organisms (CNMV, Bank of Spain and CECA) | <ul style="list-style-type: none"> Identify improvements opportunities (as usual): bottlenecks, reworks, lead times, SLA's, etc.) Identify the first points of the process to improve to maximize the impact of a RPA (Robotic Process Automation) initiative. | In progress |
| 2 | Administrative Unit of one of the top 3 Financial Services Company in Spain | Money laundry prevention in international transfers | <ul style="list-style-type: none"> Identify improvements opportunities (as usual): bottlenecks, reworks, lead times, SLA's, etc.) Identify the first points of the process to improve to maximize the impact of a RPA (Robotic Process Automation) initiative. | In progress |
| 3 | Dental Clinic Chain with 10 millions customers and more than 5000 centers | Customer Assistance, from reservation to closing of service. | <ul style="list-style-type: none"> Identify improvements opportunities (as usual): bottlenecks, reworks, lead times, SLA's, etc.) Use the knowledge on the process as a commercial tool to demonstrate Quality and Control as a differentiation from the competitors. | Pilot |

More info in www.nodotic.com and www.processmining.pro

Institutions: Gradient

Gradiant, 3^o ICT technology centre in Spain

A non-profit private research and development centre focused on technological development and knowledge transfer to industry.

~100
People

5M€
Revenue in
2015



12

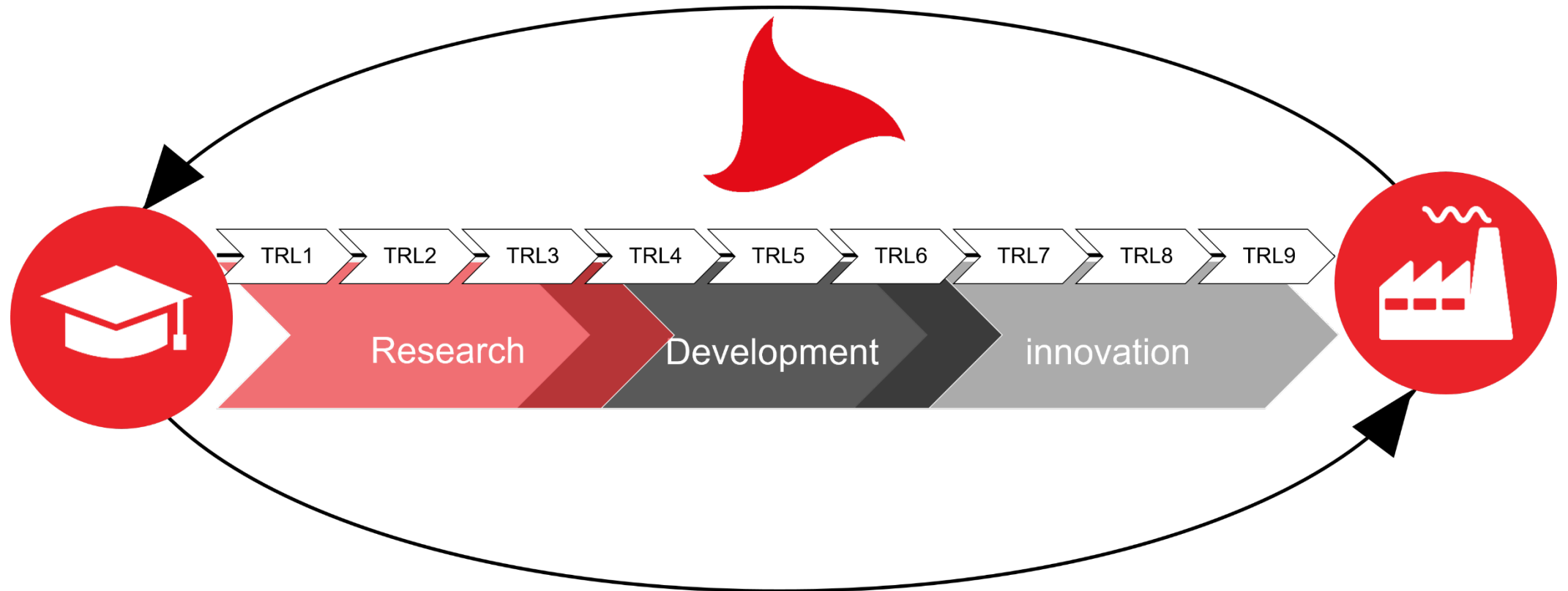
European projects

65%
Contracted companies

35%
Competitive public
funding



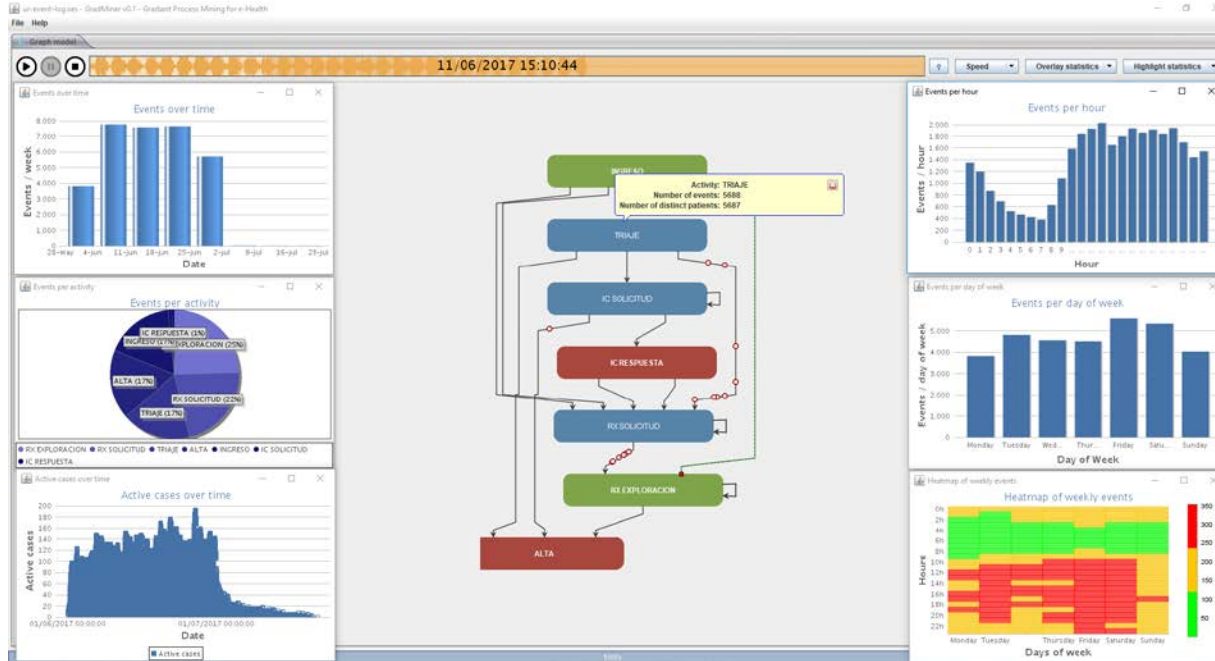
Gradiant's model: Transfer chain



FOCUS ON INDUSTRY NEEDS:
SAME LANGUAGE, FLEXIBILITY, COMPETITIVENESS, PROFITABILITY



Activity based on process mining



An ICT tool to facilitate the understanding and simulation of complex processes is under development. Presently, focused on health care processes.

We are interested in collaborations with

- Research centres: efficient algorithms.
- Hospitals and other institutions that run complex processes: use cases.
- Partnerships with industry.



Universities: UPC, UPV, US, USC, UZ



SABIEN-ITACA at UPV

SABIEN (Health and Wellbeing Technologies) is the R&D&I Area Institute for Information and Communication Technologies (ITACA) at Universitat Politècnica de València, dedicated to the application of Information and Communication Technologies (ICT) to the fields of public health, quality of life and social services.



- Start in 1998
- 29 Agreements with companies (2000-)
- 75 EU and national projects (2000-)
- 1.1 M€ competitive funds average every year (2000-)
- 2 Spin-offs





- **Funded Projects:**
 - **MOSAIC (H2020)**
 - Process Mining For Patient Flow analysis of Diabetes patients In Spain, Greece and Italy
 - **LINK (H2020)**
 - 2PhD Applying Process Mining to Cardiovascular Diseases Patient Flow
 - **CrowdHEALTH (H2020)**
 - Task for Analysis the patient Flow of patients with obesity
 - **PALIA 4 MySphera.**
 - Web Application for applying Process Mining to Real Time Location Systems in Hospitals
- **Exploratory Actions**
 - **Analysis of Behavior Modeling in IoT**
 - MySphera LOCS
 - eSense Lab (Sahid Beheshti University Iran)
 - **Analysis of Patient Flow in Stroke Patients (Hospital General de Valencia)**
 - **Analysis of Patient Flow in Extern Consultations at Hospital La Fe Valencia**
 - **Analysis of Surgery Patients Flow at Hospital General de Valencia**
 - **Following of Addictive and Mental Health patients with Fundacion san Juan de Dios**



- Colaboration actions:

- Process Mining 4 Healthcare:

- Promoting a Initiative for enforce the application of Process Mining to Healthcare



- PMCode

- Process Mining Framework for .NET Platform (expected presentation at BHI'18)

- Industrial Partners in Process Mining Initiatives



Who & Where we are

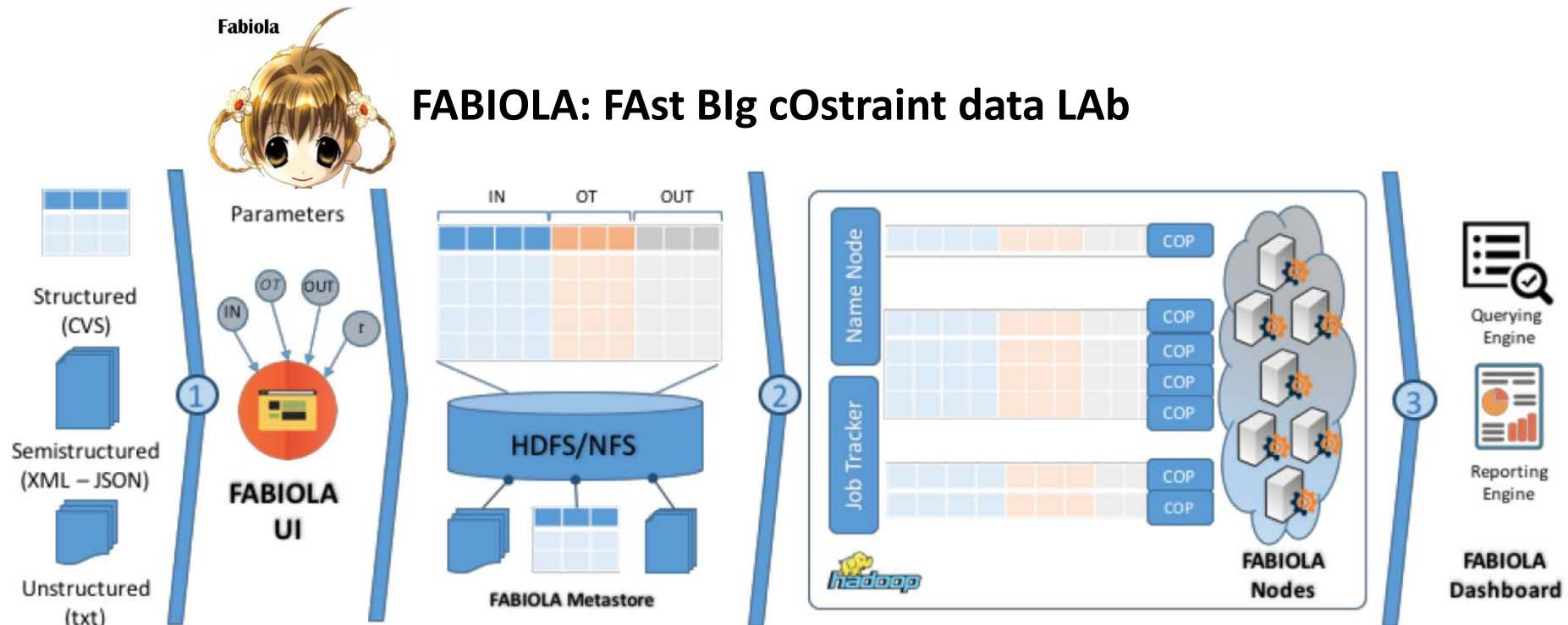
<http://www.idea.us.es/>
[@Idea_Group_US](#)

The image shows a map of Europe with a red location pin in Spain, near the University of Seville logo. The map labels various countries: Irlanda, Reino Unido, Dinamarca, Polonia, Alemania, Austria, Francia, Italia, Grecia, Turquía, España, Portugal, Túnez, and Mar Mediterráneo. To the right of the map is a list titled "IDEA Research Group - Members" with the following entries:

| Name | Role | Profile Photo | Links |
|------------------------------|--|---------------|-------------------|
| María Teresa Gómez, PhD | Full-time Lecturer (Profesor Contratado Doctoral) | [Photo] | Twitter, LinkedIn |
| Rafael Martínez Gasca, PhD | Full-time Lecturer (Profesor Titular de Universidad) | [Photo] | Twitter, LinkedIn |
| Ángel Jesús Varela Vaca, PhD | Lecturer (Profesor Sustituto Interino) | [Photo] | Twitter, LinkedIn |
| Diana Borrego, PhD | Lecturer (Profesora Ayudante Doctor) | [Photo] | Twitter, LinkedIn |
| Rafael Ceballos, PhD | Full-time Lecturer (Profesor Contratado Doctor) | [Photo] | Twitter, LinkedIn |
| José Miguel Pérez Álvarez | PhD student | [Photo] | Twitter, LinkedIn |
| Luisa Parody, PhD | Research staff | [Photo] | Twitter, LinkedIn |
| Fernando de la Rosa, PhD | Full-time Lecturer (Profesor Colaborador) | [Photo] | Twitter, LinkedIn |

Research: Conformance checking Using Big Data for Parallelization

- **Find misalignment parallelly using Hadoop**
 - Create Constraint Satisfaction Problems that solves the misalignment [ATAED 2016]
 - Parallelize the computation of the logs using Fabiola infrastructure [ISD 2017]



Industrial application: Process discovery and Diagnosis

- Challengers in Assembly processes in Airbus
 - Different formats: store information in relational databases and logs
 - Heterogeneous information is stored
 - Operator
 - Resource
 - Design of tests
 - Sensors
 - Different frequencies of storage
- Discovery
 - Assembly: Whole process & each station
 - Life-cycle of Incidences
 - Is the information enough? Is it correctly recovered?
- Diagnosis
 - Several things can fail in an assembly process: Persons, hardware, software?
 - Is it the obtained models correct according to the company guidelines?



Process Mining in Spain (University of Seville)

IEEE Task Force on Process Mining

Alfonso E. Márquez-Chamorro, Manuel Resinas y Antonio Ruiz-Cortés

Grupo ISA

Escuela Técnica Superior de Ingeniería Informática
Universidad de Sevilla



September 2017



Research results

- An evolutionary method for the generation of decision rules for the run-time prediction of process indicators, and a full software stack consisting of a tool to support the training phase and a framework that enables the integration of run-time predictions with BPMS:
- Alfonso E. Márquez Chamorro, Manuel Resinas, Antonio Ruiz Cortés, Miguel Toro: **Run-time prediction of business process indicators using evolutionary decision rules**. Expert Syst. Appl. 87: 1-14 (2017).

Research results

- A method for the application of statistical techniques for the determination of thresholds of process performance indicators (PPIs):
 - Adela del-Río-Ortega, Félix García, Manuel Resinas, Elmar Weber, Francisco Ruiz, Antonio Ruiz Cortés: **Enriching Decision Making with Data-Based Thresholds of Process-Related KPIs**. CAiSE 2017: 193-209

Technology transfer

- **PROSAS project** was carried out with the Andalusian Service of Health (SAS) and Accenture, and consisted in the development of a system for the automatic management of performance indicators and SLAs for the IT Department of SAS.

Teaching

- Process mining is being taught as topic in two different subjects in the University of Seville.
 - **Process and Services management** (Bachelor degree).
 - **Enterprise Architecture** (Master degree).

Process Mining Activities

Research and Teaching

Manuel Lama Penín
(manuel.lama@usc.es)

Information Technology Research Center (CiTIUS)

UNIVERSITY OF SANTIAGO DE COMPOSTELA

citus.usc.es

▷ **4 senior researchers**

(Alberto Bugarín, Manuel Lama, Manuel Mucientes, Juan C. Vidal)

▷ **5 PhD students**

▷ **Research topics**

- Process discovery and conformance
- Process model simplification
- Trace clustering
- Concept drift
- Process model summarization
- Remaining time prediction

▷ 3 R+D projects from 2012

- Supported by the Spanish Ministry of Economy
- Unstructured processes
- **Domains:** E-Learning, Marketing, Health

▷ 4 R+D contracts from 2014

- Structured and unstructured processes
- **Topics:** process discovery, pattern extraction, trace clustering
- **Domains:** Health (3), Government (1)

▷ Transfer technology activities

- IV edition of the USC program for transfer technology

▷ **Business Process Management**

- Subject from 2009/2010
- Bachelor Degree in Computer Science Engineering of the University of Santiago de Compostela
- Foundations of business process management
- **From 2015/2016** includes process mining activities
(Theory: 3 hours + Exercises: 8 hours)

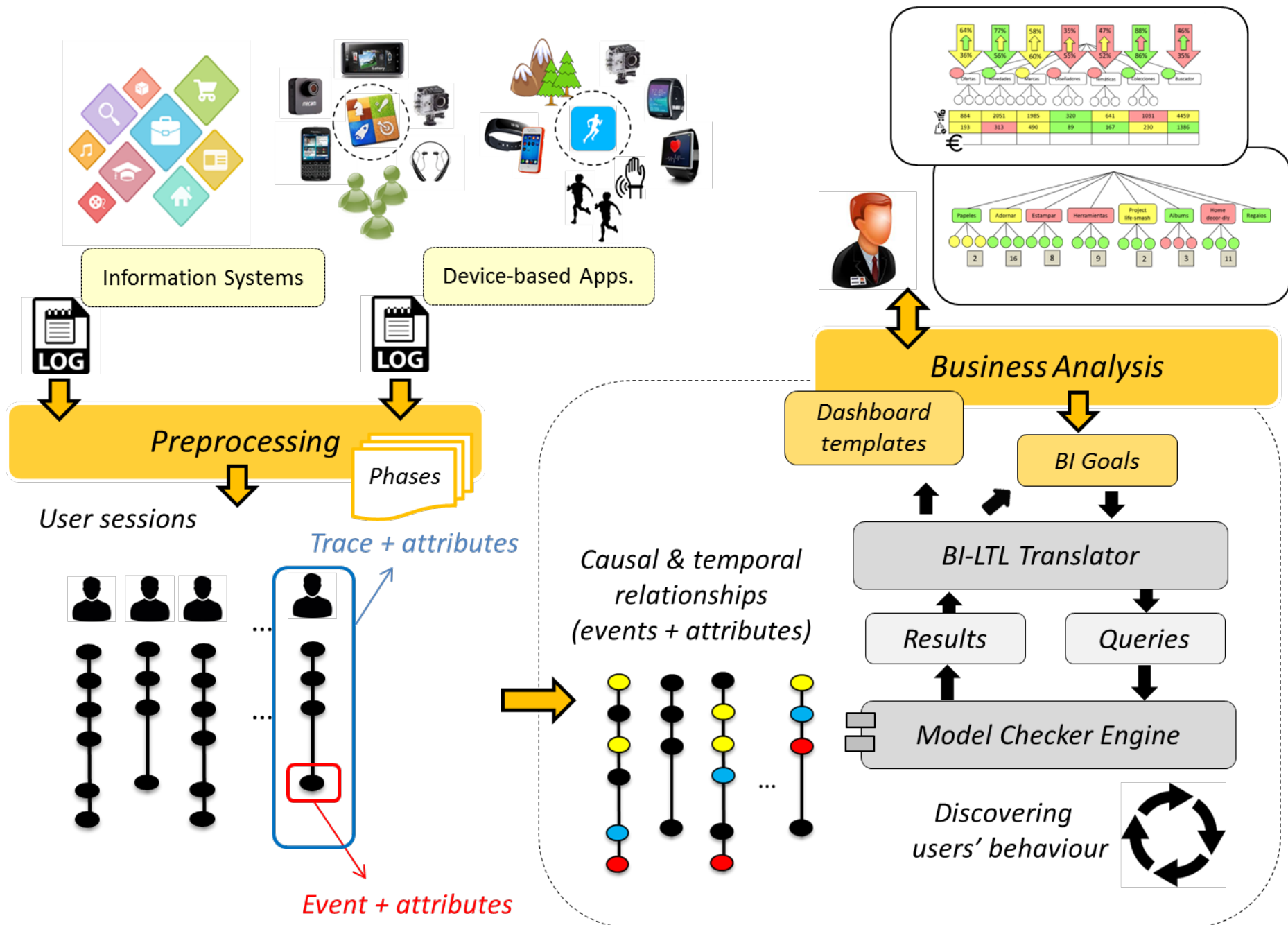
▷ **3 Master Thesis** (from 2013)

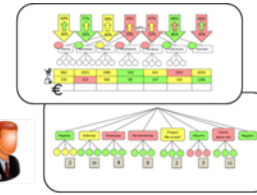
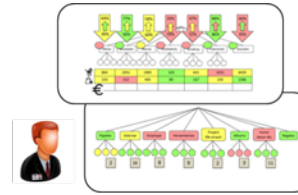
▷ **6 Degree Thesis** (from 2012)

DisCo – Distributed Computing R&D Group

University of Zaragoza

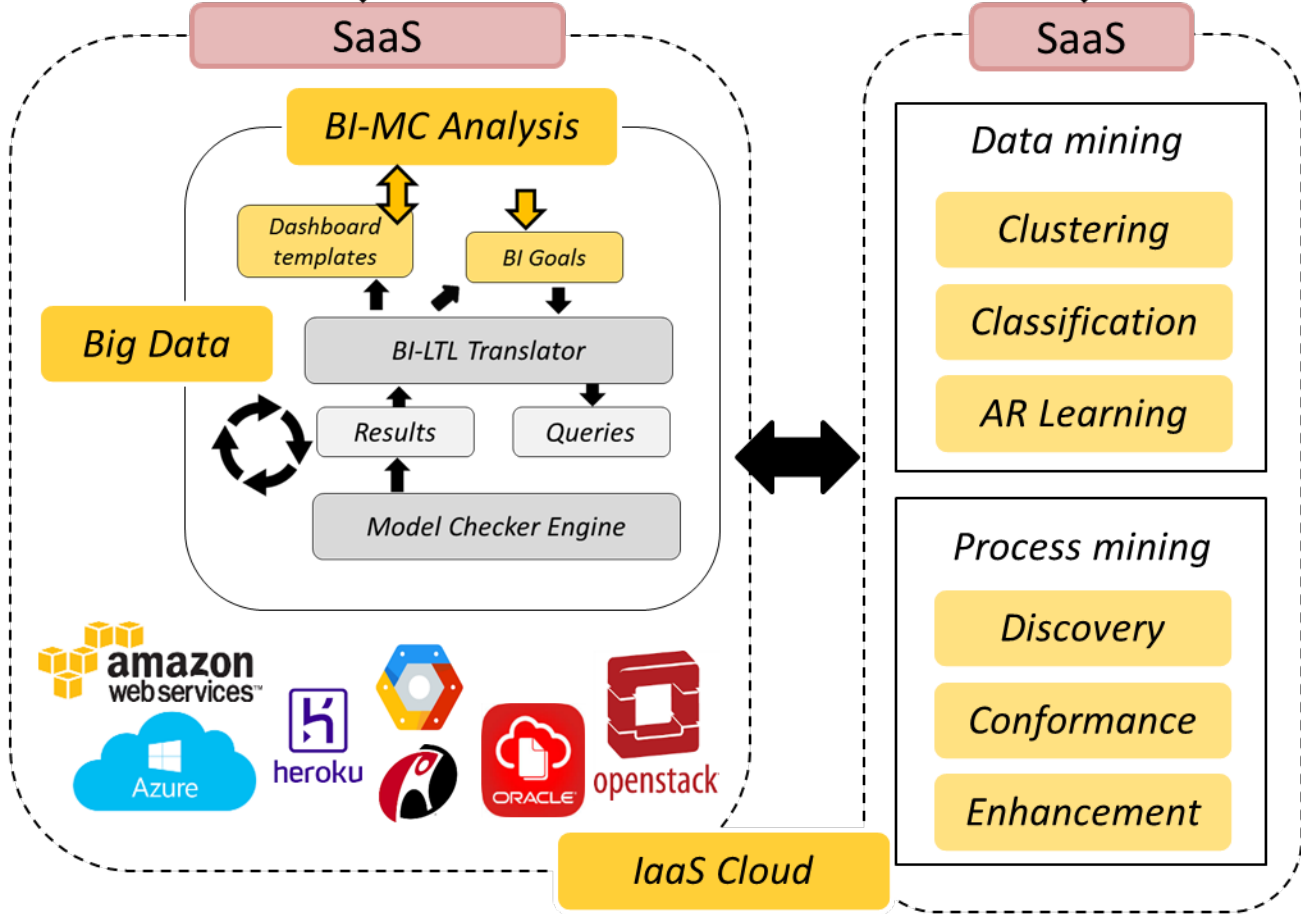
- Research topics:
 - Business Intelligence, data & process mining
 - Big-Data & cloud computing
 - Integration of heterogeneous computing environments
- Some of the projects under development
 - *“BAI4SOW: Soft computing as a tool for Business Artificial Intelligence”*, granted by MINECO
 - *“LEBIS: Large-scale Business Intelligence integrating ecosystems of service providers”*, MINECO
 - *“DJ-Running: Emotions, location and music for sport performance improvement of long-distance runners”*, MINECO
 - *Industrial pilots: Up&Scrap, EFOR, Health&Care, etc.*





| | |
|-------------------|--------------------|
| <i>Business</i> | <i>Security</i> |
| <i>Innovation</i> | <i>Integration</i> |
| <i>Economics</i> | <i>Scalability</i> |

LEBIS - Mining as-a-Service
Big-Data + Cloud + SaaS



UPC

- Research: since 2008, has contributed in fundamental research for:
 - Process Discovery
 - Conformance checking
- Tools:
 - PMLAB, genet, rbminer, aim, cd, ...
 - Contributions to ProM
- Industrial Projects:
 - Intel Corporation: *Discovery of memory protocols, extraction of behavior*
 - Diputacio de Tarragona: *Discovery and Visualization of citizen' processes*
 - CA Technologies: *Precision improvement, event abstraction for unstructured processes*

UPC

- Participation in Spanish/International Projects
 - 1 Project by the Ministry of Science and Innovation (2011-2013)
 - 1 Project by the Ministry of Economy (2015-2017)
- Initiatives on Process Mining
 - IEEE Task Force
 - SRC on Process Mining
 - PM4HC
- We failed at:
 - Marie Curie ITN on PM (with TU/e, Tartu University, Universidad de Zaragoza, Freiburg University, University of Stuttgart, Pontificia Universidad Católica de Chile, Viseo Technologies, CA Technologies, Fluxicon): 2013-2015

Overall Grid of Activities

| Group | Fundamental Research | Technology transfer/Applications | Teaching/Dissemination |
|-----------|----------------------|----------------------------------|------------------------|
| CA | Medium | High | Low |
| G2 | Low | High | High |
| Nodotic | Low | High | Low |
| UPC | High | Medium | High |
| UPV | Medium | High | High |
| US (IDEA) | Medium | High | Low |
| US (ISA) | Medium | High | Medium |
| USC | High | High | High |
| UZ | Medium | High | Medium |
| Gradiant | Low | Medium | Low |

 High

 Medium

Agenda

| | |
|---------------|--|
| 16:00 – 16:05 | Welcome |
| 16:05 – 16:15 | <p>Overview of Activities and Developments in the Process Mining Space in 2016-2017 (Wil van der Aalst)</p> <p><i>This session will provide a quick overview of the goals of the task force and its activities. It also reflects on its activities and the developments in the process mining space.</i></p> |
| 16:15 – 16:30 | <p>Process Mining in Spain (Josep Carmona)</p> <p><i>This session will provide an overview of the process mining activities in Spain. Josep Carmona, also the host of this year's BPM conference, will summarize and reflect on initiatives in Spain.</i></p> |
| 16:30 – 17:00 | <p>XES Standardization and Certification (Eric Verbeek)</p> <p><i>On November 11th, 2016, the IEEE Standards Association has officially published the XES Standard as IEEE Std 1849TM-2016: IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams. The IEEE Task Force on Process Mining has been driving the standardization process for over six years, because the standard allows for the exchange of event data between different process mining tools.</i></p> <p><i>Eric Verbeek will give a short update on XES developments and then focus on XES certification. Recently, the XES WG accepted the XES Certification proposal distinguishing different levels of XES support for import and export (A1-D2). Now it is time to operationalize the certification process and the task force should play a key role in this. Eric will explain the different certification levels and discuss the organization.</i></p> |
| 17:00 – 17:25 | <p>Brainstorming Session on New Activities (All)</p> <p><i>The mission of the task force is to “promote the research, development, education and understanding of process mining”. The goal of this session is to think of new activities or ways to strengthen existing ones. Example questions include:</i></p> <ul style="list-style-type: none"> • <i>What are new success process mining stories and data sets?</i> • <i>Should there be a stand-alone process mining conference or not?</i> • <i>New workshops or special sessions (SSCI, CEC, WCCI, KDD, ICML, PAW, etc.)?</i> • <i>Best Process Mining Dissertation Award in 2018?</i> • <i>Do we need a database with tool information?</i> • <i>Books and articles aimed at practitioners?</i> • <i>New process mining MOOCs?</i> • <i>How to make process mining an integral part of Six Sigma?</i> • <i>How to better utilize the LinkedIn Process Mining Group?</i> • <i>Do we need a new Process Mining Manifesto?</i> • ... |
| 17:25 – 17:30 | Closing |



XES Standard

Eric Verbeek

Overview

Standard for XES – eXtensible Event Stream
– for achieving interoperability in event logs
and event streams.

XES

Extensible Event Stream

Goal

- Facilitate export of event logs and event streams from an information system to an analysis tool
 - like, for example, a process mining tool

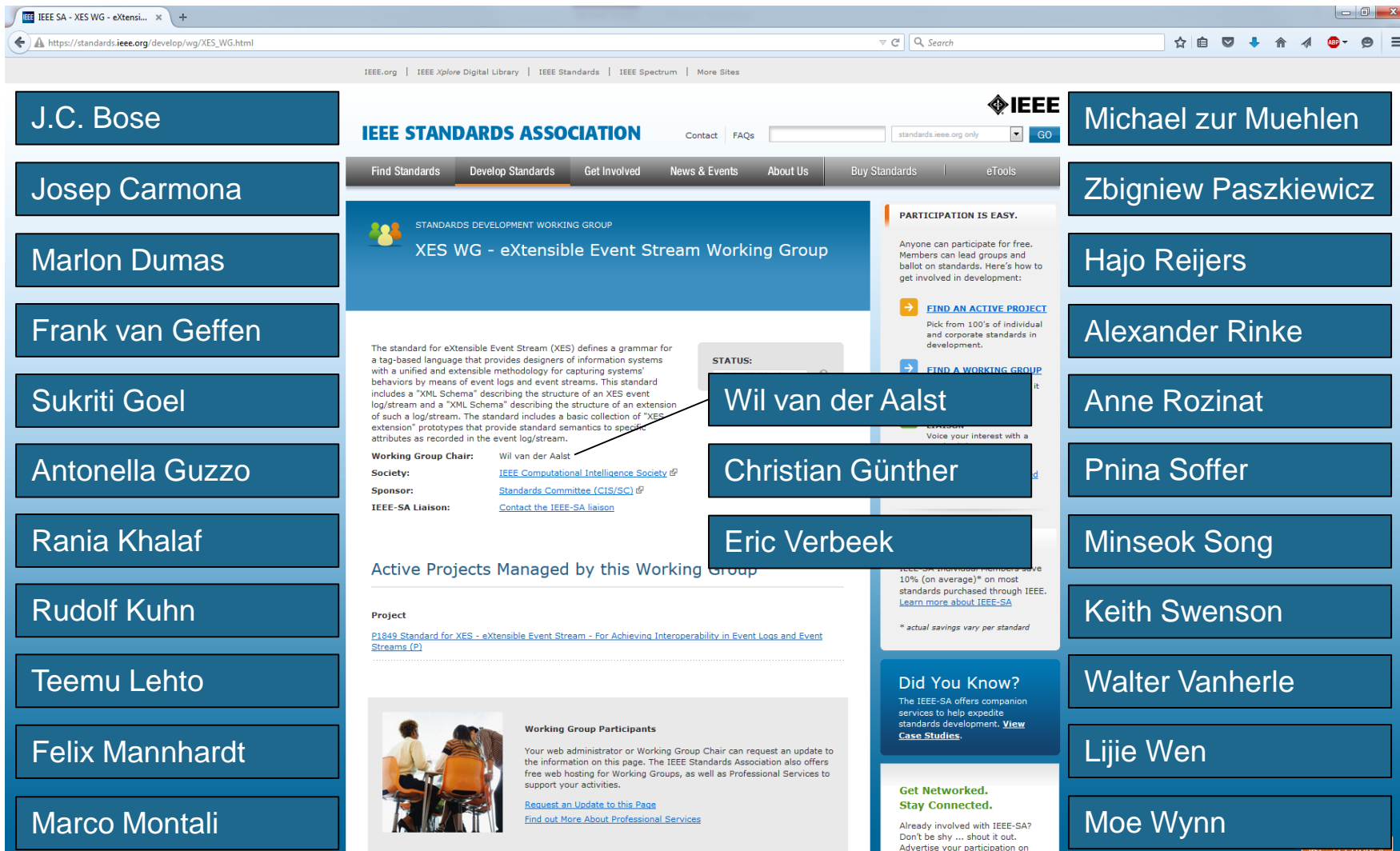


Scope

- To define a grammar for a language capturing event logs and event streams
 - XML Schema for event logs and event streams
 - XML Schema for extensions
 - Basic extensions



Working Group



IEEE SA - XES WG - eXtensi... x

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

IEEE.org | IEEE Xplore Digital Library | IEEE Standards | IEEE Spectrum | More Sites

IEEE STANDARDS ASSOCIATION Contact FAQs standards.ieee.org only GO

Find Standards | **Develop Standards** | Get Involved | News & Events | About Us | Buy Standards | eTools

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](#)
[Find out More About Professional Services](#)

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

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

XES Standard Proposal

Recirc
• Jul 7

Approved
• D03
• Sep 26

Draft
• Sep 30

Published
• 1849-2016
• Nov 11



Published XES Standard

- **DOI:** [10.1109/IEEESTD.2016.7740858](https://doi.org/10.1109/IEEESTD.2016.7740858)

[Browse Standards](#) 

1849-2016 - IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams

Status: **Active - Approved**

[View Document](#)

80
Full
Text Views

Related Articles

[C95.6-2002 - IEEE Standard for Safety Levels With Respect to Human Exposure to E...](#)

[1413.1-2002 - IEEE Guide for Selecting and Using Reliability Predictions Based o...](#)

[1553-2002 - IEEE Trial-Use Standard for Voltage-Endurance Testing of Form-Wound ...](#)

[View All](#)

[Abstract](#)

[Figures](#)

[References](#)

[Citations](#)

[Keywords](#)

[Definitions](#)

[Metrics](#)

[Versions](#)

[Media](#)

Abstract:

A grammar for a tag-based language whose aim is to provide designers of information systems with a unified and extensible methodology for capturing systems behaviors by means of event logs and event streams is defined in the XES standard. An 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 are included in this standard. Moreover, a basic collection of so-called XES extension prototypes that provide semantics to certain attributes as recorded in the event log/stream is included in this standard.

- DOI: [10.1109/MCI.2017.2670420](https://doi.org/10.1109/MCI.2017.2670420)

[Browse Journals & Magazines](#) > [IEEE Computational Intelligen...](#) > [Volume: 12 Issue: 2](#) [?](#)

IEEE 1849: The XES Standard: The Second IEEE Standard Sponsored by IEEE Computational Intelligence Society [Society Briefs]

[View Document](#)

31
Full
Text Views

Related Articles

[Optimization-based transistor sizing](#)

[Reciprocal EMG control of elbow extension by FES](#)

[Interaction of array of finite electrodes with layered biological tissue: effect...](#)

[View All](#)

6

Author(s)

[Giovanni Acampora](#) ; [Autilia Vitiello](#) ; [Bruno Di Stefano](#) ; [Wil van der Aalst](#) ; [Christian Gunther](#) ; [Eric Verbeek](#)

[View All Authors](#)

[Abstract](#)

[Authors](#)

[Figures](#)

[References](#)

[Citations](#)

[Keywords](#)

[Metrics](#)

[Media](#)

Abstract:

Presents information on the development of IEEE Standard 1849, the XES Standard.

Published in: [IEEE Computational Intelligence Magazine](#) (Volume: 12, Issue: 2, May 2017)

XES Certification Proposal

RfC1
• Jun 7

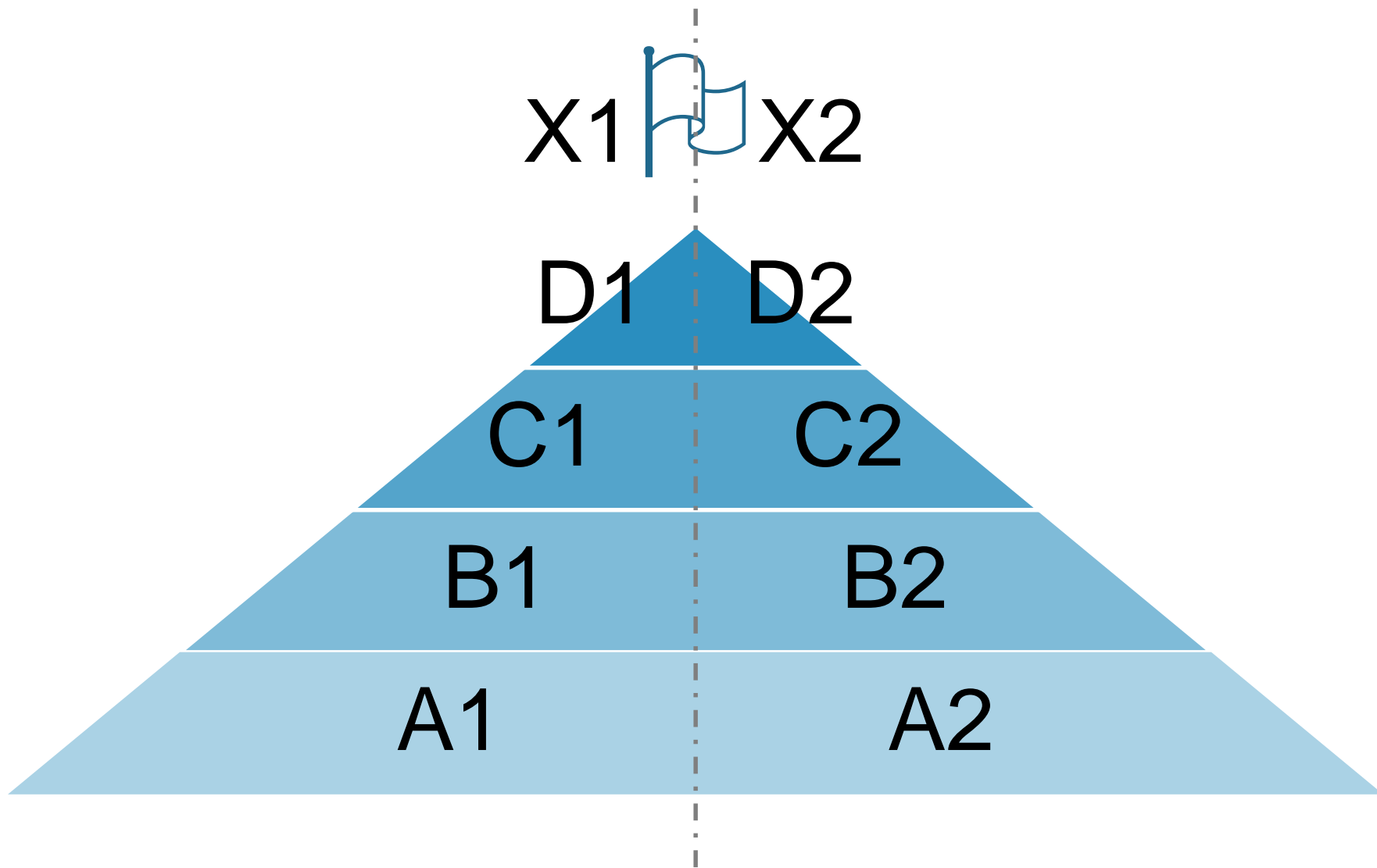
RfC2
• June 21

RfA
• Jul 5

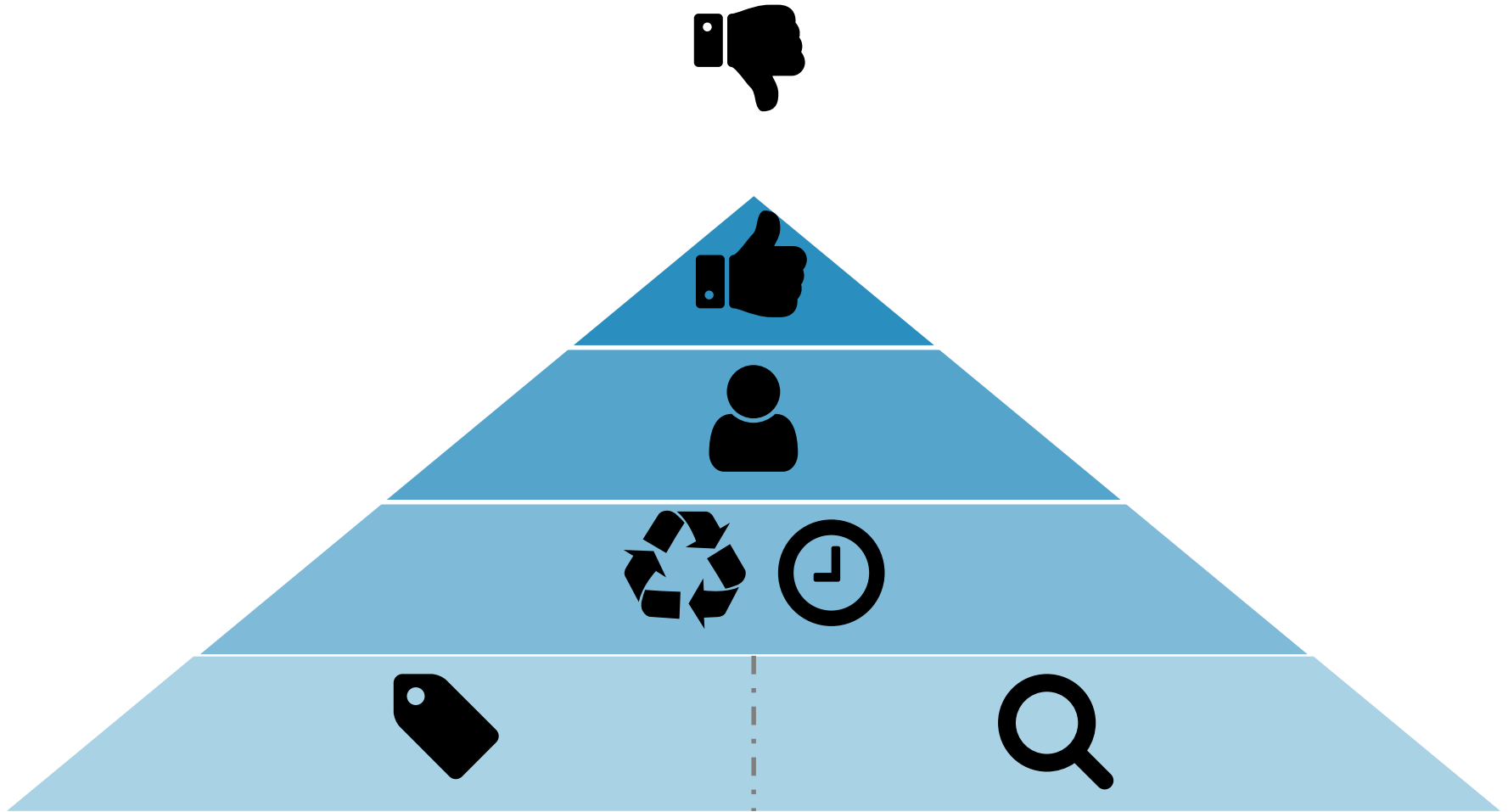
Approved
• Jul 19



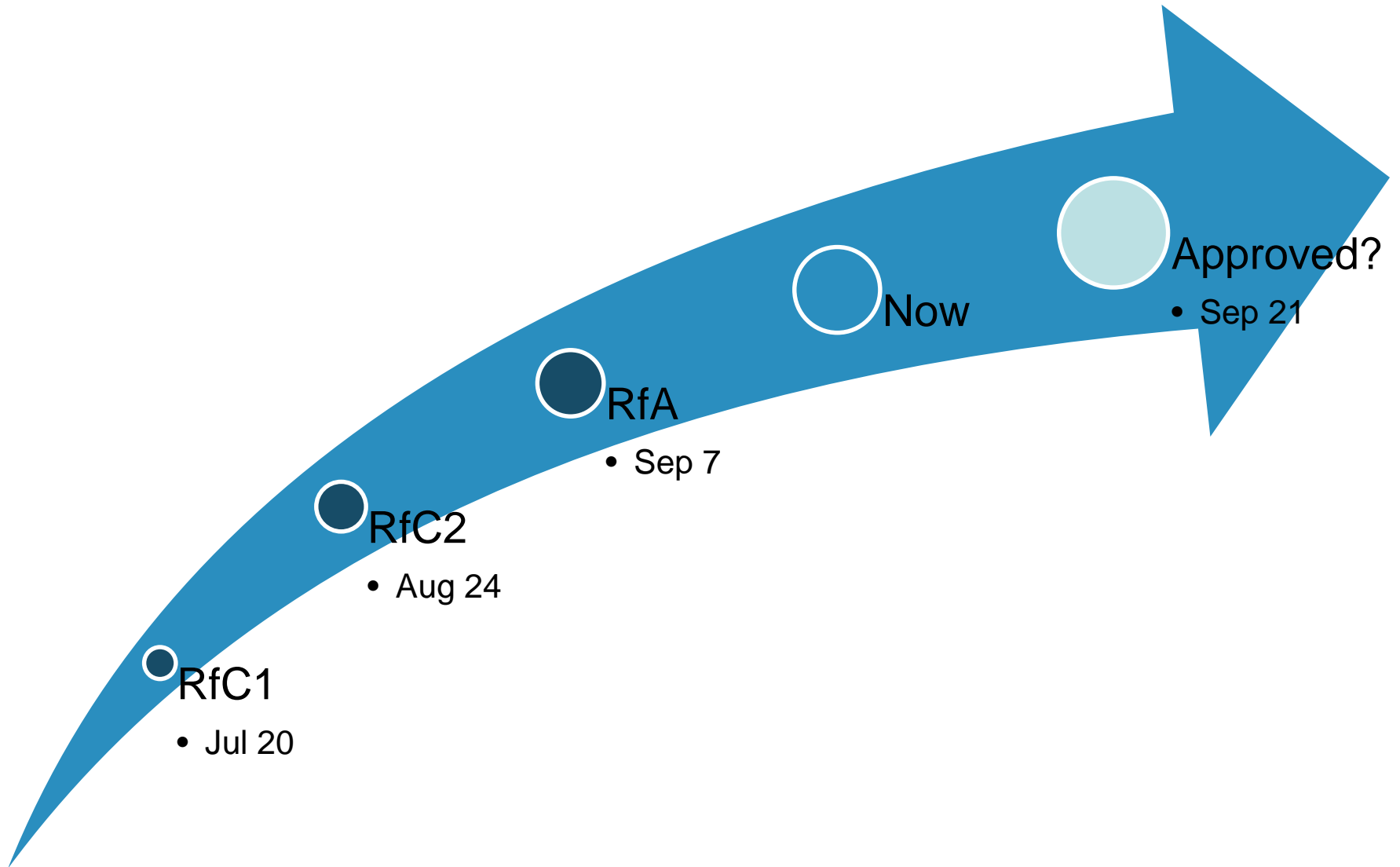
XES Certification



XES Certification

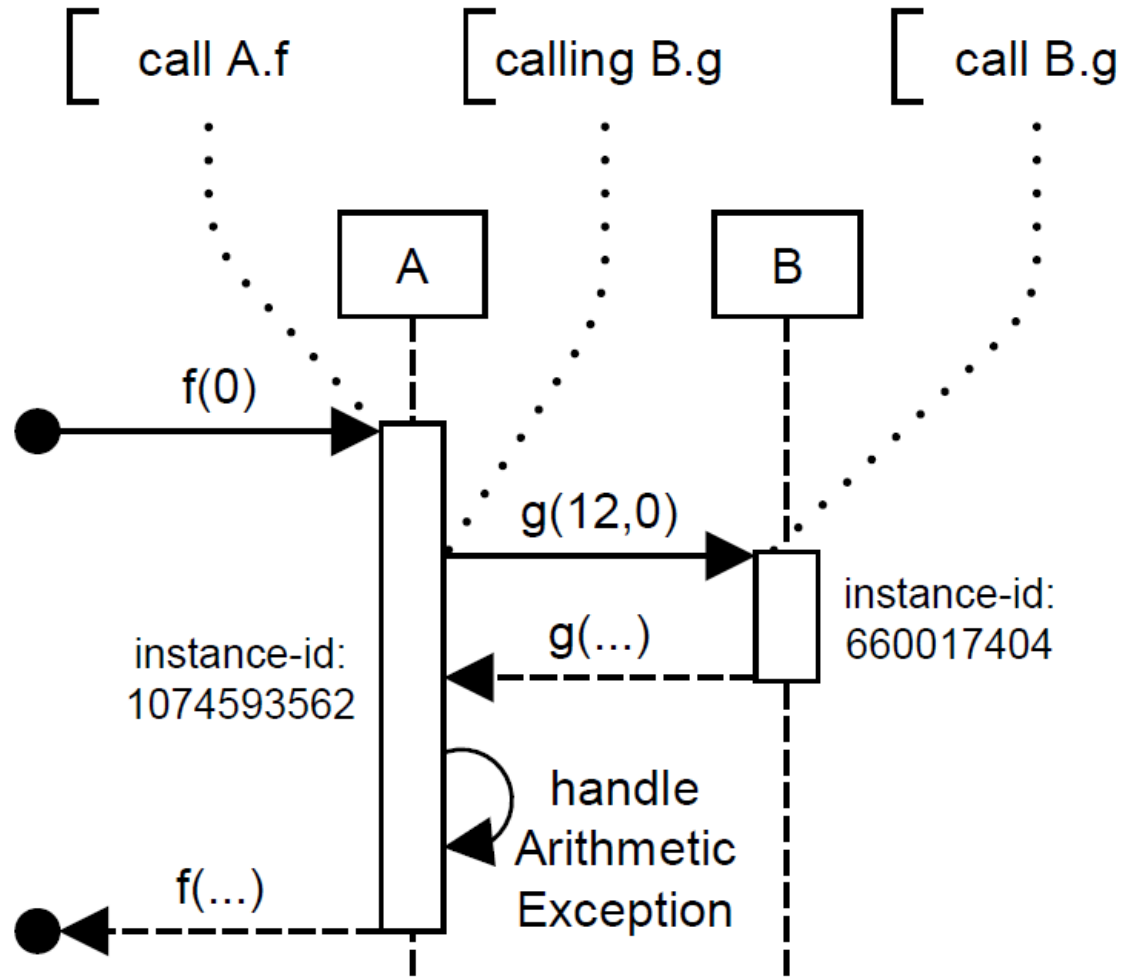


SW Event Ext. Proposal



SW Event Extension

- Software events



Action points

- XES Certification
 - Certify existing tools
- XES Software Extensions
 - Software Event (to be approved)
 - Software Communication (to be proposed)
 - Software Telemetry (to be proposed)
- Provide data sets via 4TU data center

New data sets

December 7 Felix Mannhardt

- Sepsis Cases- Event Log

February 6 Boudewijn van Dongen

- BPI Challenge 2017

April 21 Maikel Leemans

- NASA Crew Exploration Vehicle (CEV) Software Event Log

April 21 Maikel Leemans

- Apache Commons Crypto 1.0.0 - Stream CbcNopad Unit Test Software Event Log

XES Certification

Proposal on how to obtain a
certification for your tool

Tools supporting XES

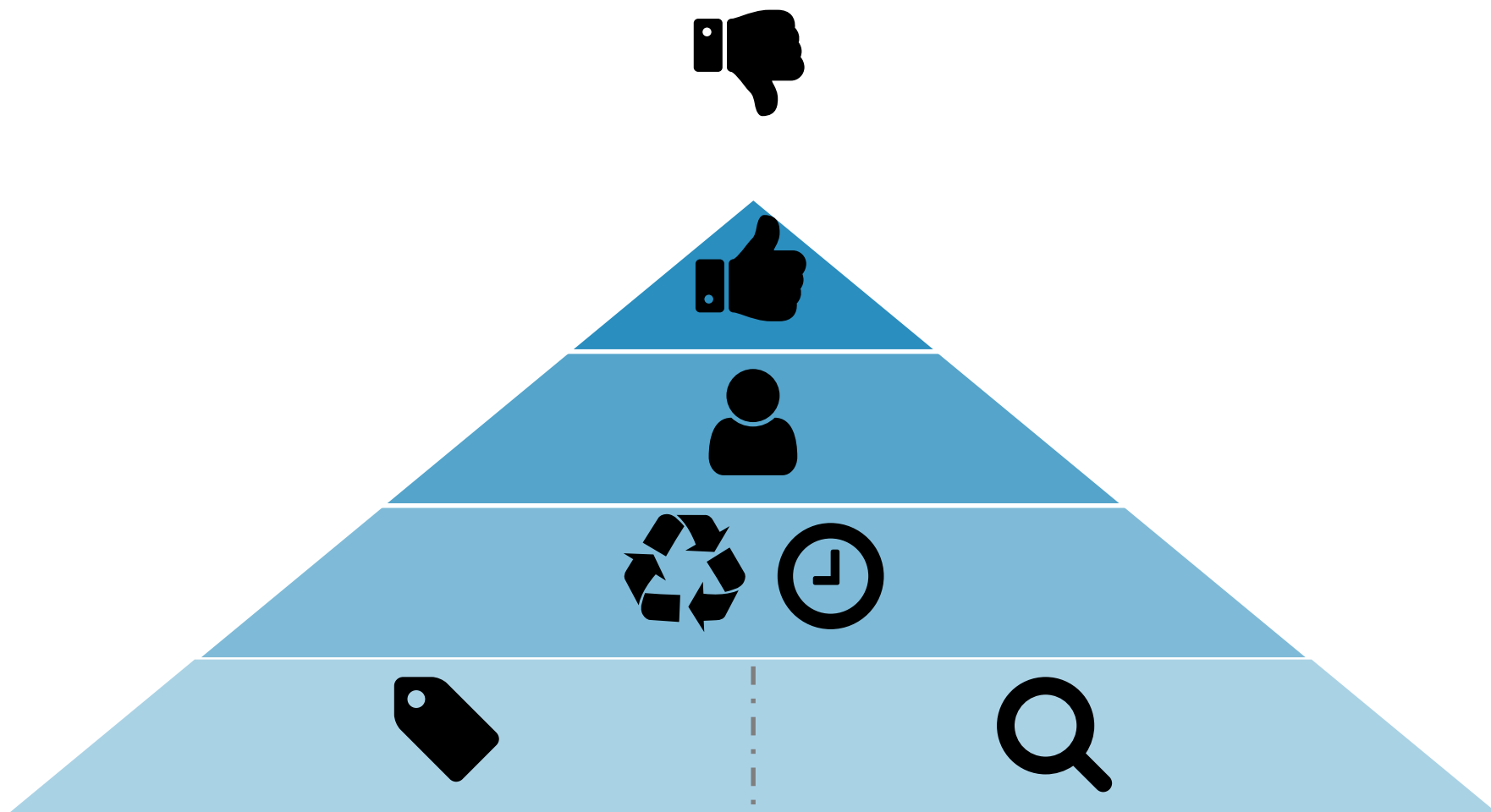
- Celonis Process Mining
- Disco
- Icris Process Mining Factory
- Minit
- myInvenio
- ProcessGold Enterprise Platform
- ProM
- ProM Lite
- QPR Process Analyzer
- RapidProM
- Rialto Process
- SNP Business Process Analysis
- ...

Motivation

- What does it mean if two different tools support XES?
- Can one tool successfully import a XES log file that was exported by another tool?



Levels



Certification Objectives

Import

- Show an artifact, for example a discovered process model, that shows that the relevant imported attributes have been used.

• B1:   

Export

- Export the data, as loaded in the tool, to a XES event log that shows that the relevant loaded attributes have been exported.

• C2:  

Import: Logs

Real-life

- Sanitized BPIC logs
- Tools should not crash when importing these log files































Artificial

- Tools should not crash, but should furthermore show that the relevant attributes from every log were used

Real-life logs

| Event log | Traces | Events | Size in KB |
|------------------------|--------|-----------|------------|
| BPIC12 | 13,087 | 262,200 | 72,363 |
| BPIC13_closed_problems | 1,487 | 6,660 | 4,090 |
| BPIC13_incidents | 7,554 | 65,533 | 38,627 |
| BPIC13_open_problems | 819 | 2,351 | 1,370 |
| BPIC15_1 | 1,199 | 52,217 | 40,261 |
| BPIC15_2 | 832 | 44,354 | 33,616 |
| BPIC15_3 | 1,409 | 59,681 | 45,673 |
| BPIC15_4 | 1,053 | 47,293 | 36,131 |
| BPIC15_5 | 1,156 | 59,083 | 44,961 |
| BPIC17 – Offer log | 42,995 | 193,849 | 107,557 |
| BPIC17 | 31,509 | 1,202,267 | 565,373 |

Artificial logs

| Event log | Level / Flag | Event attributes |
|-----------|--------------|--|
| LevelA1 | A1 |  |
| LevelA2 | A2 | Q ( + ) |
| LevelB1 | B1 |  ,  ,  |
| LevelB2 | B2 | Q ( + ),  |
| LevelC1 | C1 |  ,  |
| LevelC2 | C2 | Q ( + ),  |
| LevelD1 | D1 |  ,  ,  ,  ,  ,  ,  |
| LevelD2 | D2 | Q ( + ),  ,  ,  ,  ,  |
| FlagX1 | X1 |  (only non-standard attributes) |
| FlagX2 | X2 | Q,  (only non-standard attributes) |

Process

1. Report, by vendor
 - Template
2. Demo, by vendor and XES WG rep
 - Preferably live, screencast acceptable
 - In case of issues: back to Report
3. Approval, by XES WG
 - Within 2 weeks
4. Publication, by XES WG rep
 - On the TF website

Report (1)

Tool

- Name
- Vendor
- Version
- Requested cert. level(s)
 - Import (if applicable)
 - Export (if applicable)

Meta

- Authors
- Date
- History

Report (2)

Import

- Name of import log
- Walk-through with screenshots showing that the log is imported successfully
- If artificial log: Walk-through with screenshots showing that the attributes contained in the log were used

Export

- Walk-through with screenshots showing that the current data as stored by the tool is exported successfully to a log
- Walk-through with screenshots showing that the attributes as contained in the log match the current data as stored by the tool

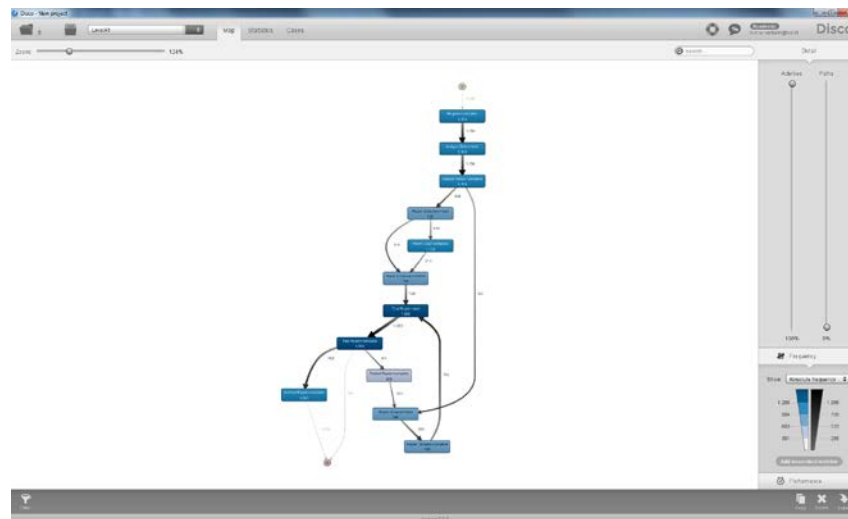
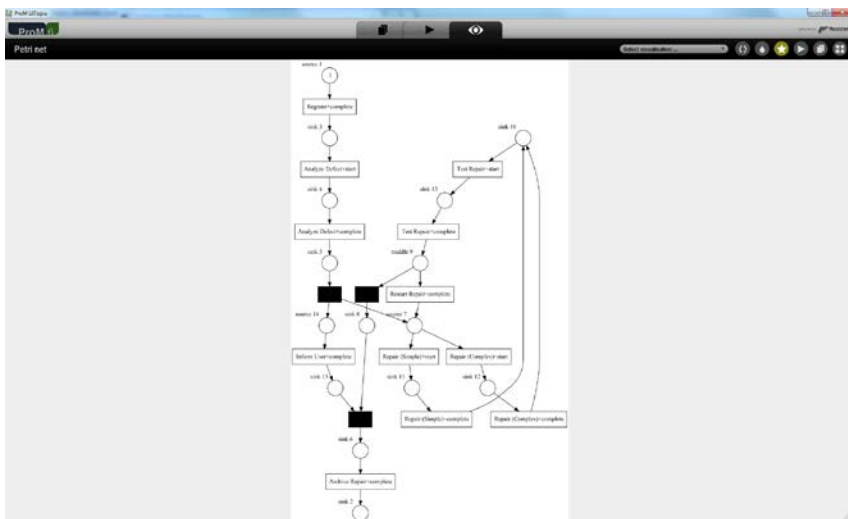
Sample Reports

ProM 6.7

- Import/Export
 - A-D, X

Disco 2.0.0

- Import/Export
 - A1-D1



Discussion

Comments?



Approval?



Evaluate interest in developing JSON-based Business Process Trace Representation

Prepared for Annual Meeting of the IEEE Task Force on Process
Mining in Barcelona (@BPM 2017)

Aleksander Slominski, Vinod Muthusamy
IBM Research

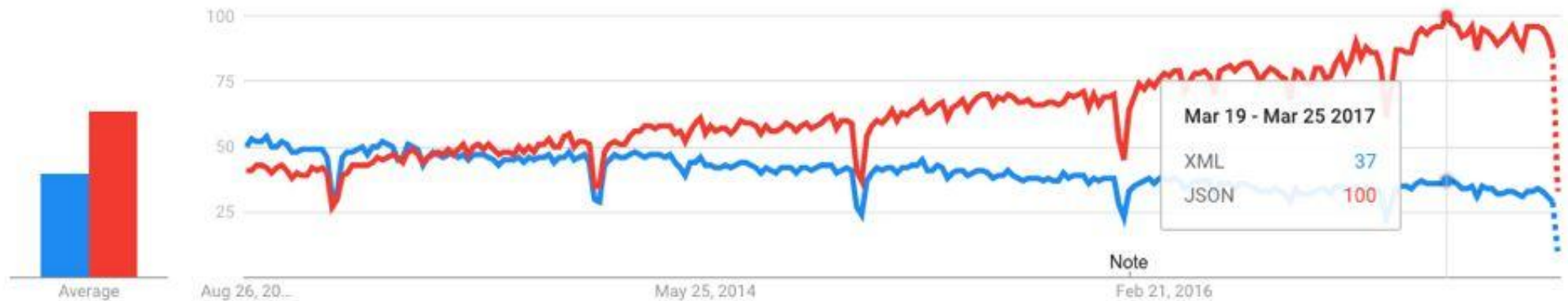
<https://goo.gl/ofKMhx>


Motivation: Google Trends

Compare Interest in XML and JSON



Interest over time 



Interest over time 

Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. Likewise a score of 0 means the term was less than 1% as popular as the peak.

<https://trends.google.com/trends/explore?cat=5&date=today%205-y&q=XML,JSON>

<https://goo.gl/ofKMhx>

Why JSON representation for Business Process Traces?

JSON is the most popular format today (previous slide)

XML is not dead but we need to move to where developers are?

Updated XES standard for JSON representation? New standard?

That should be community decision?

Before we do anything let find out what BPM developers want or anybody involved in Business Process?

<https://goo.gl/ofKMhx>

Proposed next steps:

1. Quick one-minute survey: open <https://goo.gl/Nhosgt> and provide your input (see the right side screenshot of the questions)
2. If you are interested in working on JSON format please join Slack server for discussion <https://bpm2json-invite.mybluemix.net/> to get invitation to join Slack server: passcode is **'hola'** (The survey data will be automatically posted to Slack server channel #survey to be used for discussion)

Slides link: <https://goo.gl/ofKMhx>

Evaluate interest in developing JSON Business Process Trace Format based

For additional context please visit <https://goo.gl/ofKMhx>

How important is to have standard JSON for business process traces?

1 2 3 4 5 6 7 8 9 10

How important is it to have capability to convert IEEE XES XML based traces to JSON?

1 2 3 4 5 6 7 8 9 10

Any other thoughts about JSON and Business Process Traces

Your answer

Contact information (optional)

Your answer

SUBMIT

[https://goo.gl/
ofKMhx](https://goo.gl/ofKMhx)

Agenda

| | |
|---------------|---|
| 16:00 – 16:05 | Welcome |
| 16:05 – 16:15 | <p>Overview of Activities and Developments in the Process Mining Space in 2016-2017 (Wil van der Aalst)</p> <p><i>This session will provide a quick overview of the goals of the task force and its activities. It also reflects on its activities and the developments in the process mining space.</i></p> |
| 16:15 – 16:30 | <p>Process Mining in Spain (Josep Carmona)</p> <p><i>This session will provide an overview of the process mining activities in Spain. Josep Carmona, also the host of this year's BPM conference, will summarize and reflect on initiatives in Spain.</i></p> |
| 16:30 – 17:00 | <p>XES Standardization and Certification (Eric Verbeek)</p> <p><i>On November 11th, 2016, the IEEE Standards Association has officially published the XES Standard as IEEE Std 1849TM-2016: IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams. The IEEE Task Force on Process Mining has been driving the standardization process for over six years, because the standard allows for the exchange of event data between different process mining tools. Eric Verbeek will give a short update on XES developments and then focus on XES certification. Recently, the XES WG accepted the XES Certification proposal distinguishing different levels of XES support for import and export (A1-D2). Now it is time to operationalize the certification process and the task force should play a key role in this. Eric will explain the different certification levels and discuss the organization.</i></p> |
| 17:00 – 17:25 | <p>Brainstorming Session on New Activities (All)</p> <p><i>The mission of the task force is to “promote the research, development, education and understanding of process mining”. The goal of this session is to think of new activities or ways to strengthen existing ones. Example questions include:</i></p> <ul style="list-style-type: none"> • <i>What are new success process mining stories and data sets?</i> • <i>Should there be a stand-alone process mining conference or not?</i> • <i>New workshops or special sessions (SSCI, CEC, WCCI, KDD, ICML, PAW, etc.)?</i> • <i>Best Process Mining Dissertation Award in 2018?</i> • <i>Do we need a database with tool information?</i> • <i>Books and articles aimed at practitioners?</i> • <i>New process mining MOOCs?</i> • <i>How to make process mining an integral part of Six Sigma?</i> • <i>How to better utilize the LinkedIn Process Mining Group?</i> • <i>Do we need a new Process Mining Manifesto?</i> • <i>...</i> |
| 17:25 – 17:30 | Closing |

Brainstorming Session on New TF Activities

creating awareness

articles, books
(e.g., popular press)

(online) courses
(Coursera PM course, etc.)

movies
(YouTube, etc.)

outreach
activities
(schools, leaflets, etc.)

sharing data

public data sets
(4TU data center, etc.)

standardization
(XES)

advancing knowledge

research

scientific
publications

advancing software

development

evaluation

community building

virtual
communities
(linkedin, facebook, etc.)

scientific
meetings
(BPI, ATAED, etc.)

industry
meetings
(PM Camp, etc.)

contests
(BPIC, PDC, etc.)

Agenda

| | |
|---------------|--|
| 16:00 – 16:05 | Welcome |
| 16:05 – 16:15 | <p>Overview of Activities and Developments in the Process Mining Space in 2016-2017 (Wil van der Aalst)</p> <p><i>This session will provide a quick overview of the goals of the task force and its activities. It also reflects on its activities and the developments in the process mining space.</i></p> |
| 16:15 – 16:30 | <p>Process Mining in Spain (Josep Carmona)</p> <p><i>This session will provide an overview of the process mining activities in Spain. Josep Carmona, also the host of this year's BPM conference, will summarize and reflect on initiatives in Spain.</i></p> |
| 16:30 – 17:00 | <p>XES Standardization and Certification (Eric Verbeek)</p> <p><i>On November 11th, 2016, the IEEE Standards Association has officially published the XES Standard as IEEE Std 1849TM-2016: IEEE Standard for eXtensible Event Stream (XES) for Achieving Interoperability in Event Logs and Event Streams. The IEEE Task Force on Process Mining has been driving the standardization process for over six years, because the standard allows for the exchange of event data between different process mining tools. Eric Verbeek will give a short update on XES developments and then focus on XES certification. Recently, the XES WG accepted the XES Certification proposal distinguishing different levels of XES support for import and export (A1-D2). Now it is time to operationalize the certification process and the task force should play a key role in this. Eric will explain the different certification levels and discuss the organization.</i></p> |
| 17:00 – 17:25 | <p>Brainstorming Session on New Activities (All)</p> <p><i>The mission of the task force is to “promote the research, development, education and understanding of process mining”. The goal of this session is to think of new activities or ways to strengthen existing ones. Example questions include:</i></p> <ul style="list-style-type: none"> • <i>What are new success process mining stories and data sets?</i> • <i>Should there be a stand-alone process mining conference or not?</i> • <i>New workshops or special sessions (SSCI, CEC, WCCI, KDD, ICML, PAW, etc.)?</i> • <i>Best Process Mining Dissertation Award in 2018?</i> • <i>Do we need a database with tool information?</i> • <i>Books and articles aimed at practitioners?</i> • <i>New process mining MOOCs?</i> • <i>How to make process mining an integral part of Six Sigma?</i> • <i>How to better utilize the LinkedIn Process Mining Group?</i> • <i>Do we need a new Process Mining Manifesto?</i> • ... |
| 17:25 – 17:30 | Closing |

Any new ideas?

Use the task force!



W: www.vdaalst.com

T: @wvdaalst

E: w.m.p.v.d.aalst@tue.nl

Closing

Thanks!!



*Next: Welcome Reception @
Barcelona Biomedical Research Park*

Mon Sep 11, 2017

7:00 PM - 9:00 PM

Carrer del Dr. Aiguader, 88, 08003 Barcelona, Spain

Description

(See below the location in Google Maps)

