Open for Innovation

KNIME

Spring Summit 2017
- Welcome and Introduction -

Michael Berthold
KNIME

#KNIMESummit2017
Predictive Analytics at Work
Star Attendees

9: Takahiro Ohshima
8: Eugen Deretey
   Jean-Christophe Mozziconacci
7: Klaus-Peter Huber
   Nils Weskamp
Agenda

• Hot Topics and KNIME
• A Brief Look back at 2016
• The 2017 Spring Summit!
Hot Topics:
Modern AI in a Nutshell
Recent Topics (NIPS)

- Reinforcement Learning
- Recurrent Neural Networks
- Graphical Models
- Learning Rates, Stochastic Gradient Descent, Weight Normalization...
- Autonomous Car Driving Demos
- Wait: that was 1997
Recent Topics (NIPS 2016!)

• Reinforcement **Deep** Learning
• Recurrent **Deep** Networks
• Graphical Models
• Learning Rates, Stochastic Gradient Descent, Weight Normalization...
• Autonomous Car Driving Demos
AI: Hype vs. Reality

“Temper Your Expectations, But Don’t Give Up On AI”

*Mike Gualtieri (Forrester)*

(pure AI is the hype, pragmatic AI is what we get)
Boring Topic:
Data Integration

Hot Topic:
Data Blending
Visual Data (and Tool!) Blending
Will They Blend? blog post series

Table of content

- SAS, SPSS, and MATLAB meet Amazon S3: setting the stage
- XML meets JSON
- MS Access meets H2. Test your Baseball Knowledge!
- Amazon S3 meets MS Azure Blob Storage. A match made in heaven?
- Local vs. remote files. Will blending overcome the distance?
- MS Word meets Web Crawling. Identifying the Secrets of the Papal Archives
- A Cross-Platform Ensemble Model: R meets Python and KNIME
- Twitter meets PostgreSQL. More than idle chat?
- Hadoop Hive meets Excel. Your flight is boarding now.
- Open Street Maps (OSM) meets CSV Files and Google
- IBM Watson meets Google API

Will They Blend? Experiments in Data & Tool Blending. Kindle epub meets image JPEG: Will KNIME make peace between the Capulets and the Montagues?

https://www.knime.org/blog/will-they-blend
Hot(?) Topic:
Scalability, Big Data, Cloud.
Scalability, Big Data, Cloud

• Lots of Work on our Big Data Extensions
  – New&Cooking: KNIME on Spark, H20 Integration

• Blending with / Connectors to Cloud Resources

• Cloud Deployments: Analytics Platform and Server
Hot Topics:
Guided Analytics
How to make Data Science Useable?

• Black Box: Limited Applicability (narrow, well-defined tasks)
• Analytical (Workflow) Templates: Limited Audience (still requires Data Science!)
Remember this?

Business Analyst

KNIME WebPortal

Data Scientist

Explanations

MoreExplanations

Analytics with Interaction Points

Feedback
How to make Data Science Useable?

• Black Box: Limited Applicability (narrow, well-defined tasks)

• Analytical Templates: Limited Audience (requires Data Science!)

• Guided Analytics = Workflows as Analytical Applications Puts Business Analyst in Driver’s Seat (wearing a Safety Belt!)
Guided Analytics at the Summit...

• What’s New and Cooking Sessions
  – Lots of progress in 2016/17: WebPortal interactivity

• Two “KNIME Use Case” Talks on Thursday
  – Greg Landrum for Life Science
  – Rosaria Silipo for Customer Intelligence
An Update on 2016...
### Tool Satisfaction

<table>
<thead>
<tr>
<th>Tool</th>
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New Members

• Katharina Koch
  – Karl-Wilhelm
• Sabrina Reiner
• Arthur von Eschen
• Vincenzo Tursi
• Roland Burger
• Mihály Medzihradszky (Medzi)
• Christian Dietz
Summit 2017
Changes & Highlights
New This Year:

- Parallel Tracks on Thursday Morning
- Tech Briefings
- KNIME Case Studies (this year: Guided Analytics)
- and a Panel
During the Breaks: check out the Exhibition Area

Partners:
• Dymatrix
• EPAM (& Infomatix)
• Datatroniq
• Advanced Analytic Services
• GEMMACON
• TIBCO
• Microsoft
• Consist

Partners (cont.)
• Informationsfabrik
• Schrödinger
• Chemaxon / Infocom

and:
• KNIME Demo Station
Wednesday AM...

9:00am - Registration, Coffee & Snacks

10:00am - Opening and KNIME Session

- Welcome and Introduction
  Michael Berthold (KNIME)

- What’s New
  Bernd Wiswedel and Team (KNIME)

- What’s Cooking in KNIME Labs
  Bernd Wiswedel and Team (KNIME)

12:30pm - Lunch Break

1:30pm - KNIME Session

- A Peek into KNIME Big Data Labs
  Tobias Kötter and Team (KNIME)
...Wednesday PM...

2:30pm - Session – KNIME in the Enterprise

- Deploying KNIME to the Enterprise: Reshaping Data & Architecture for Healthcare
  James Lumley (Eli Lilly and Company)

- Digital factories with CloudFoundry, KNIME, and BOSH
  Jan Pospisil (Siemens), Steffen Zuber & Noah Ispas (Anynines)

- Tech Briefing: Distributed Workflow Executors
  Thorsten Meinl (KNIME)

3:45pm - Afternoon Break

4:15pm - Special Session

- The KNIME Model Factory or "Getting your life back"
  Iris Adä & Phil Winters (KNIME)

5:00pm - End of Day 1

6:00pm - Coaches depart to Dinner Location

7:00pm - Flying Dinner at "ewerk"
Wednesday PM...

- Busses leave Hotel at 6pm
- Returns starting at 10pm.
- Last bus at midnight!

3:45pm - Afternoon Break

4:15pm - Special Session

- The KNIME Model Factory or "Getting your life back"
  *Iris Adä & Phil Winters (KNIME)*

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Thursday AM...

8:00am - Registration, Coffee & Snacks

9:00am - Parallel Track

<table>
<thead>
<tr>
<th>Parallel Track - Life Sciences</th>
<th>Parallel Track - Connectivity</th>
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<tbody>
<tr>
<td>Guided Analytics in Action: Patent Analysis from your Browser</td>
<td>Orchestrating a proprietary endurance qualification system for HV batteries with</td>
</tr>
<tr>
<td>Greg Landrum (KNIME)</td>
<td>KNIME</td>
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<tr>
<td>Practical applications of Matched Molecular Pairs (MMPs) at Vernalis</td>
<td>Maximilian Mücke (ACCUmotive) and Jürgen Walter (Datatroniq)</td>
</tr>
<tr>
<td>Steve Roughley &amp; Richard Sherhod (Vernalis)</td>
<td>User experience with KNIME for large industrial data sets and applications</td>
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<tr>
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<td>Bernhard Lang (Siemens)</td>
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<td></td>
<td>Tech Briefing: Connecting to SAP HANA</td>
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<td></td>
<td>Kilian Thiel (KNIME) and Norbert Havas (EPAM)</td>
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</table>

10:15am - Coffee Break
### Parallel Track - Life Sciences
- Image segmentation, single molecule tracking, and data analysis with KNIME and KNIP
  - Jan Eglinger (Friedrich Miescher Institute for Biomedical Research)
- de.NBI - Bioinformatics Integrations for KNIME
  - Knut Reinert (FU Berlin) and colleagues

### Parallel Track - Customer Intelligence
- Venice Airport: a small big data story
  - Fabrizio Montino (Marco Polo Venice Airport) and Dario Cannone (Miriede)
- Guided Analytics in Action: Customer Segmentation from your Browser
  - Rosaria Silipo & Vincenzo Tursi (KNIME)
- Tech Briefing: Customized Distance Functions in KNIME
  - Bernd Wiswedel (KNIME)

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12:00pm - Lunch
...Thursday PM...

1:00pm - Session – Data and Tool Blending
- Smart Data at BW Bank – Big Data Analytics with Cassandra, Spark and KNIME
  Gerrit Bungeroth (BW Bank) and Stefan Weingaertner (AdvancedAnalytics.Academy)
- Tech Briefing: Instrumenting KNIME with KNIME
  Iris Aua (KNIME)
- Will they Blend: An interactive Session
  Rosaria Silipo (KNIME) and other blender Guests

2:30pm - Afternoon Break

3:00pm - Session – Internet of Things
- Fault Prediction and Failure Detection of drives using real-time signal processing and machine learning techniques
  Jürgen Walter & Stefan Weingaertner (Datatroniq)
- Predictive Next Best Action for Marketing Demand Generation and Sales
  Eric Bower & Josip Lazarevski (Palo Alto Networks)
- Poster Introduction
  Phil Winters (KNIME)
...Thursday PM

4:15pm - Short Break

4:30pm - Special Session
- My Boss Can't Understand My Unsupervised Learning Models
  Dean Abbott (Abbott Analytics)

5:30pm - Open Bar and Poster Session
# Friday AM Workshops

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>08:30</td>
<td>Registration, Coffee &amp; Snacks</td>
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<tr>
<td>09:30-11:00</td>
<td>Workshops: Session I</td>
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<table>
<thead>
<tr>
<th>Name of Workshop</th>
<th>Instructors</th>
<th>Room</th>
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<tbody>
<tr>
<td>SeqAn and OpenMS (CIBI/de.nbi) Integration Workshop</td>
<td>Temesgen H. Dadi (Free Uni. Berlin), Julianus Pfeuffer (Eberhard Karls Uni. Tübingen), Alexander Fillbrunn (Uni. Konstanz)</td>
<td>Berlin-Dubai</td>
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<tr>
<td>3D-e-Chem KNIME Nodes for Integrated Structural Cheminformatics Analysis and Computer-Aided Drug Discovery</td>
<td>M. Vass (Vrije Universiteit Amsterdam), S. Verhoeven (Netherlands eScience Center), R. McGuire (Radboudumc, BioAxis Research), C. de Graaf (Vrije Universiteit Amsterdam)</td>
<td>Berlin-Peking</td>
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<tr>
<td>KNIME Model Factory Workshop: Details, Ideas and Interaction</td>
<td>Iris Adä &amp; Phil Winters (KNIME), Dean Abbott (Abbott Analytics)</td>
<td>Berlin-London</td>
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<tr>
<td>KNIME Image Processing</td>
<td>Christian Dietz &amp; Martin Horn (KNIME)</td>
<td>Berlin-Berlin 1</td>
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<tr>
<td>KNIME Big Data</td>
<td>Tobias Kötter &amp; Björn Lohrmann (KNIME)</td>
<td>Berlin-Berlin 3</td>
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Friday AM Workshops

11:00-11:30  **Coffee Break**

11:30-13:00  **Workshops: Session II**

<table>
<thead>
<tr>
<th>Name of Workshop</th>
<th>Instructors</th>
<th>Room</th>
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<tbody>
<tr>
<td>Helping Your Boss Leverage Advanced Analytics (&amp; KNIME)</td>
<td>Phil Winters &amp; Greg Landrum (KNIME)</td>
<td>Berlin-Dubai</td>
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<tr>
<td>KNIME Text Mining</td>
<td>Kilian Thiel &amp; Roland Burger (KNIME)</td>
<td>Berlin-Peking</td>
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<tr>
<td>KNIME Server</td>
<td>Jon Fuller &amp; Iris Adä (KNIME)</td>
<td>Berlin-London</td>
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<td>Data Preparation from the Trenches</td>
<td>Dean Abbott (Abbott Analytics)</td>
<td>Berlin-Berlin 1</td>
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<tr>
<td>IoT Analytics with KNIME</td>
<td>Stefan Weingaertner (Datatronicq)</td>
<td>Berlin-Berlin 3</td>
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13:00-14:00  **Lunch and end of KNIME Spring Summit**  

**Lunch Boxes available!**
Up Next?

2017 Fall Summit
November 1-3, 2017. Austin, Texas.
And now back to the Summit...

...have Fun!