



**The bridge
to reality**

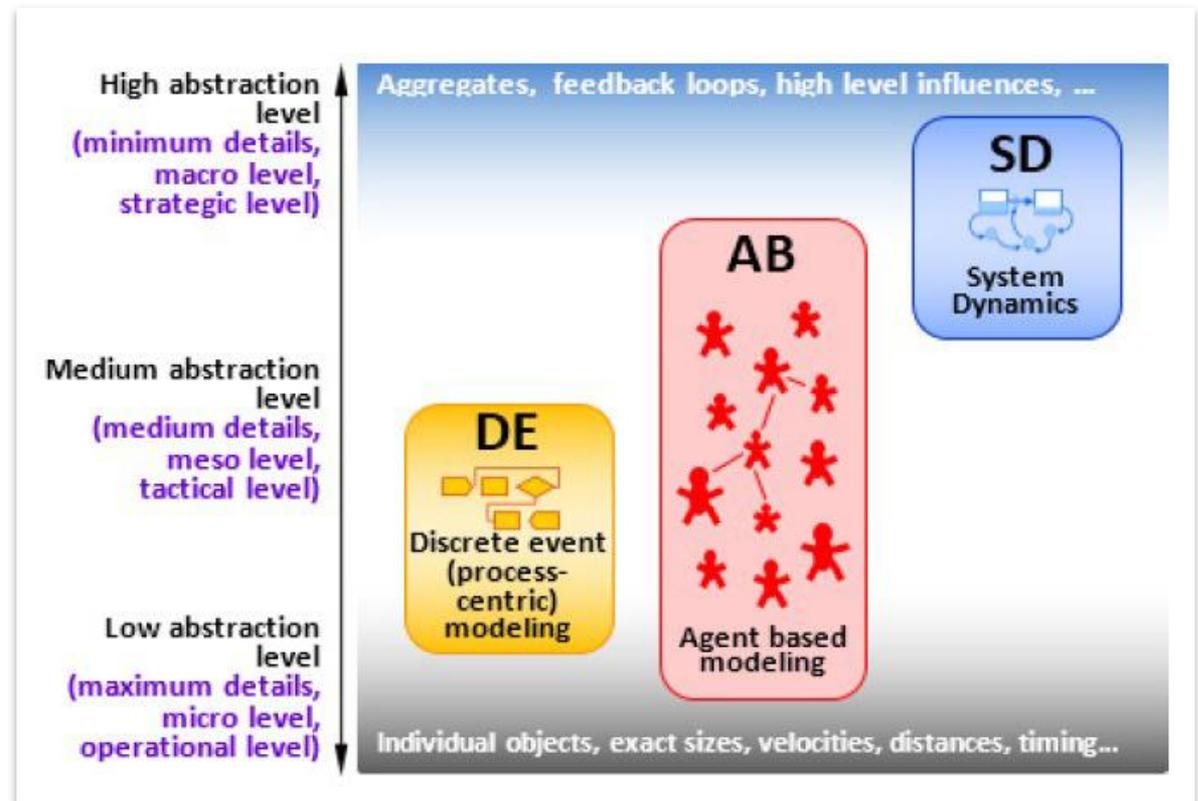
Straße & Schiene

mit  **anylogic[®]**

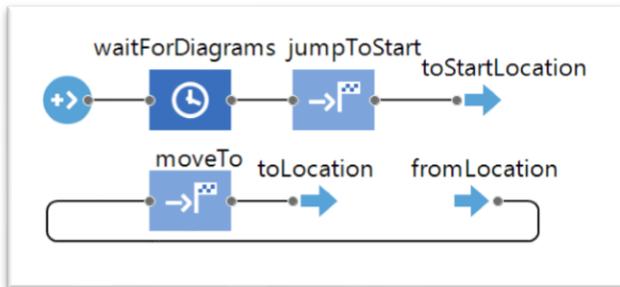
9.7.2019

Florian Hübler

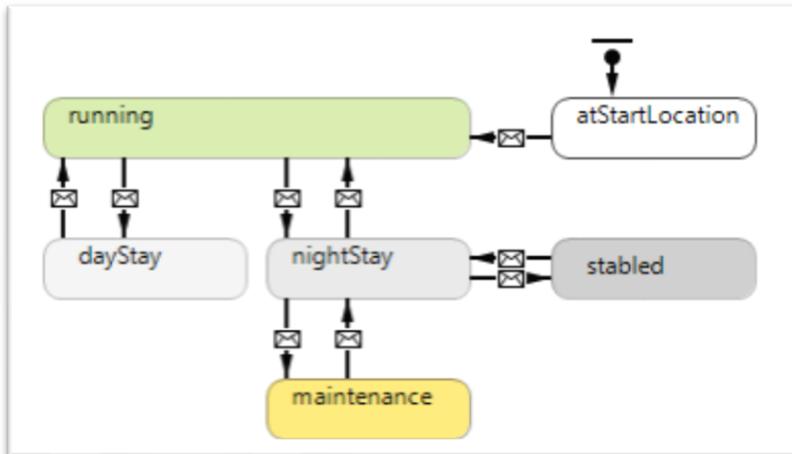
1.  anylogic®
2. 
3. 



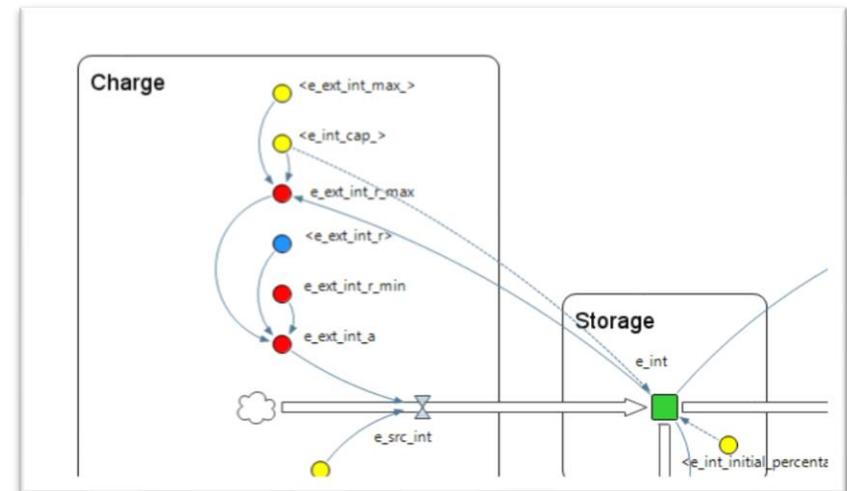
Prozessflussdiagramm



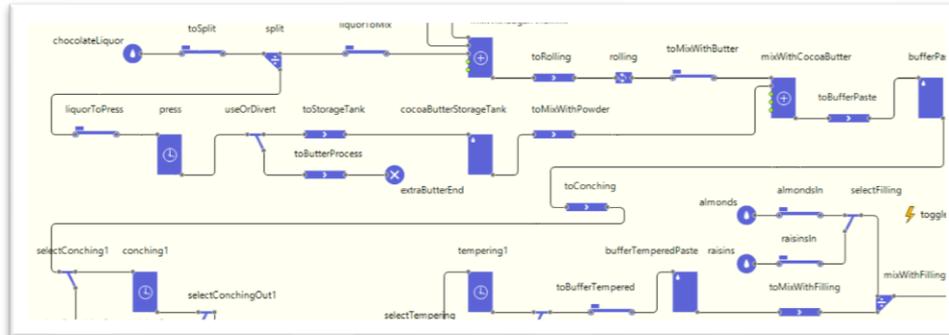
Zustandsdiagramm



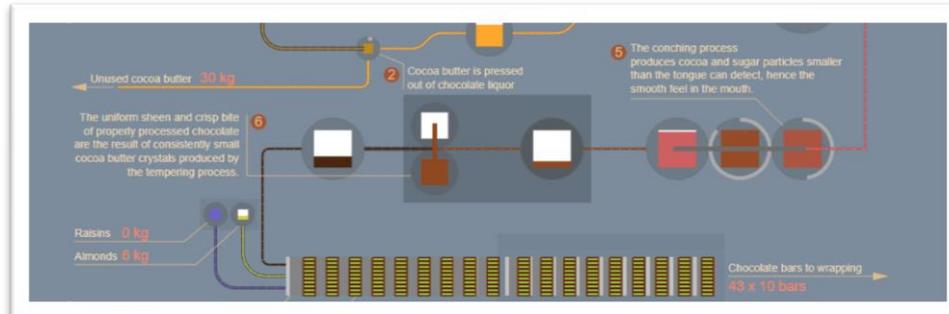
Bestandsflussdiagramm



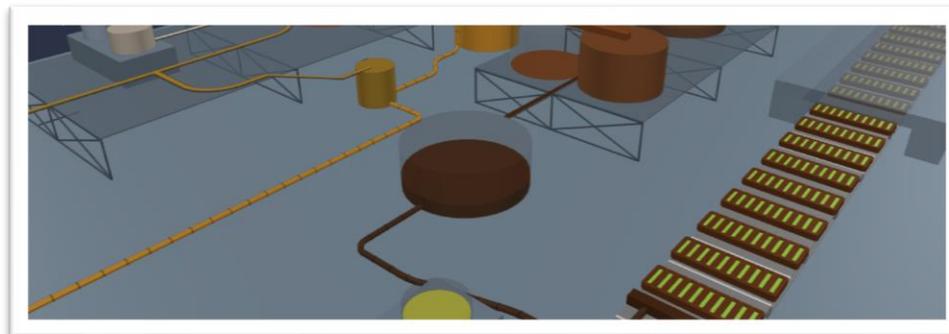
Logik



Layout
(2D)

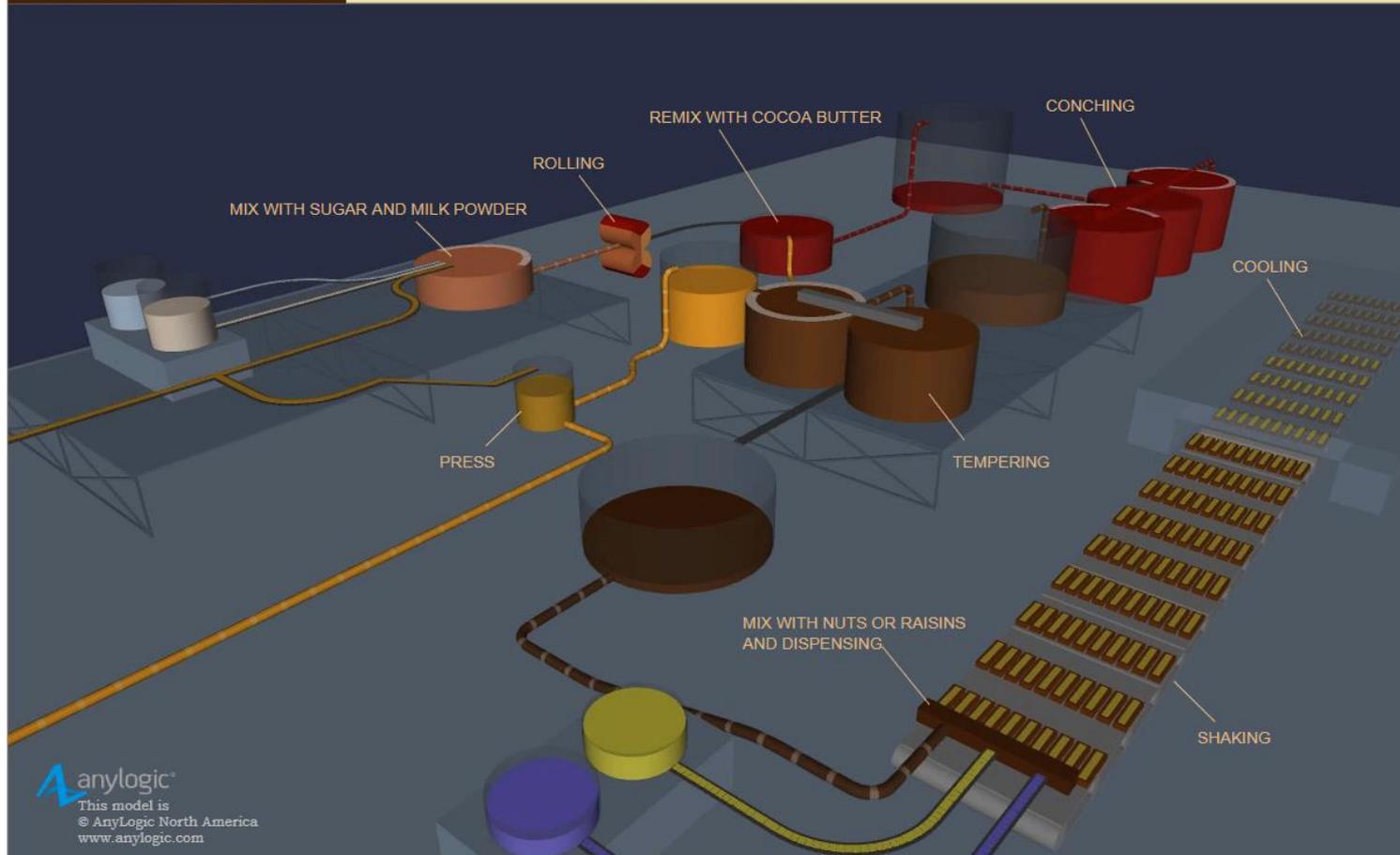


Layout
(3D)

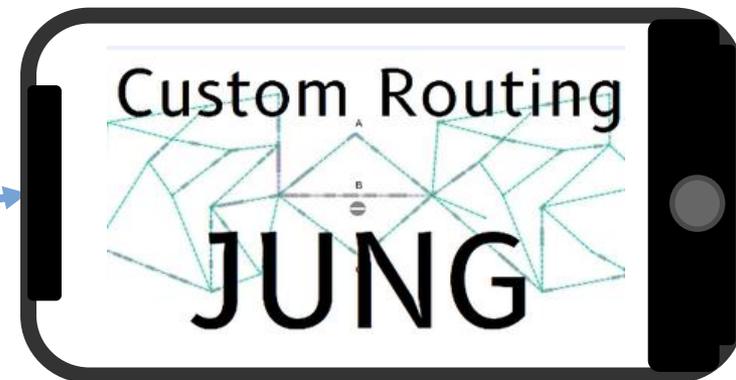
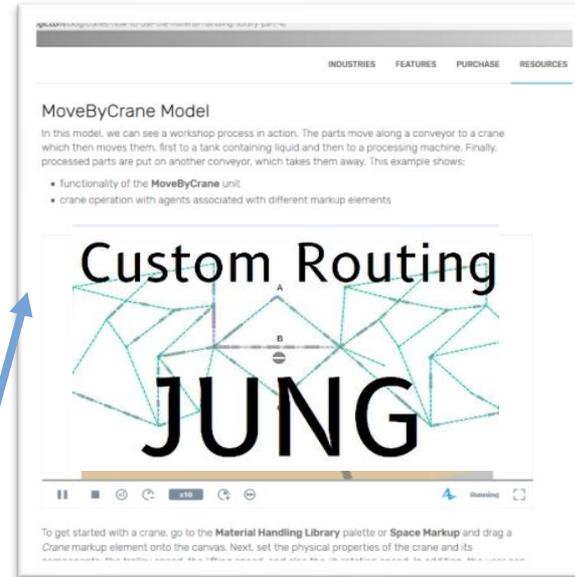
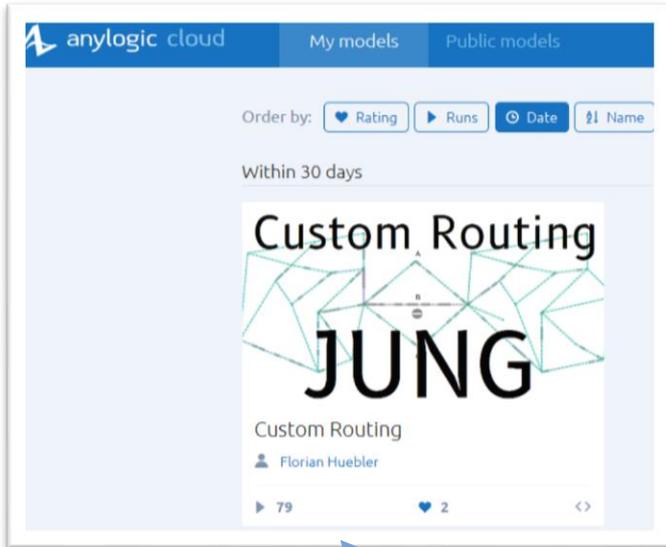


Chocolate Production

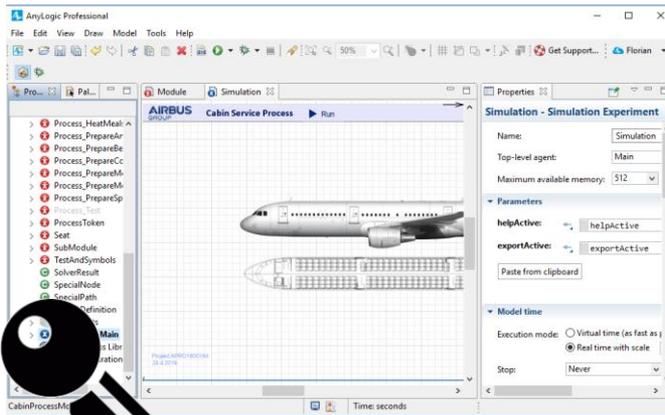
A Fluid Library demo model with extensive usage of various tanks



AnyLogic Besonderheit: AnyLogic Cloud



AnyLogic Besonderheit: Lizenzfreie Modellausführung





Bibliothek zur
Prozessmodellierung



Fußgängerbibliothek



Flüssigkeitsbibliothek



Bibliothek für
den Materialtransport



Straßenverkehrsbibliothek

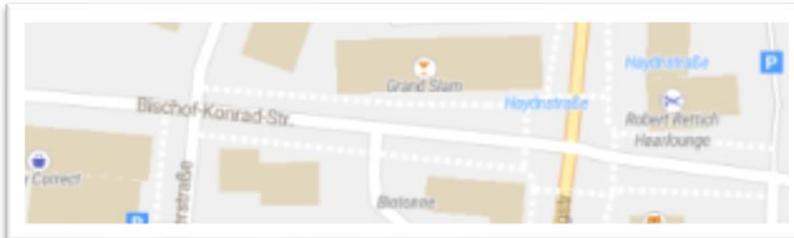
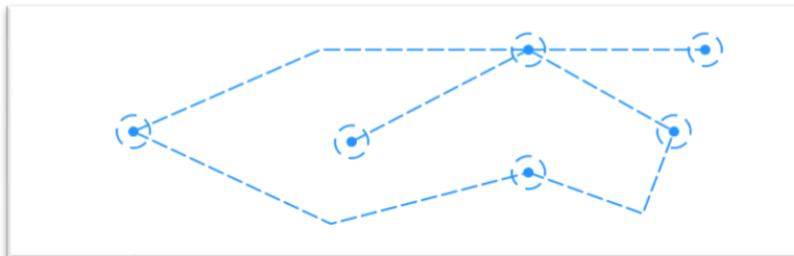


Eisenbahnbibliothek



Straße

Makro



- (Standard) Agenten
- Vereinfachtes Layout

Mikro



- Straßenverkehrsbibliothek
- Detailliertes Straßenlayout
- „Besonderes“ Verhalten



	Makro	Mikro
Routing	✓	✓
Kombination Bibliotheken	✓	✓
erweitertes GIS	✓	
Physikalisches Verhalten		✓
Menschliches Verhalten		✓
Überholen / Spuren / Kreuzungsverhalten		✓
Verkehrsregeln		✓



Logik



Layout
(2D)

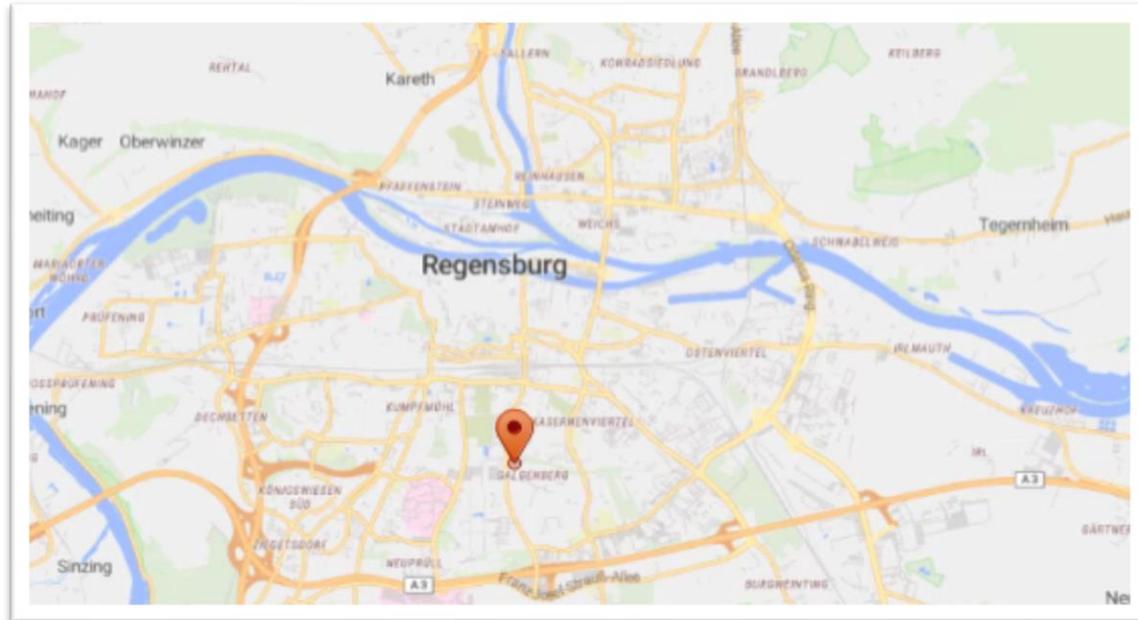


Layout
(3D)

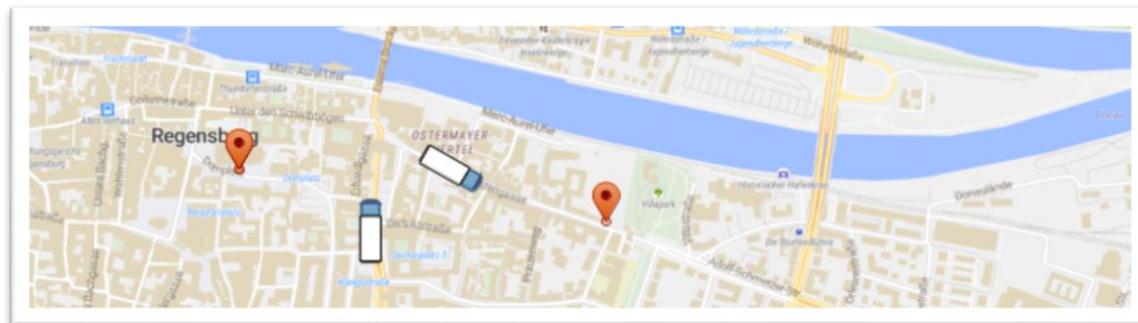




Karte

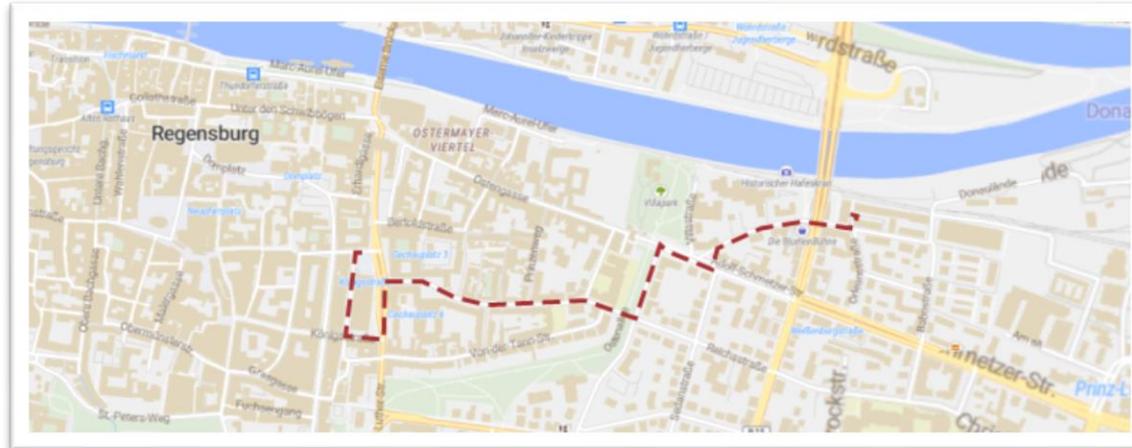


Punkte

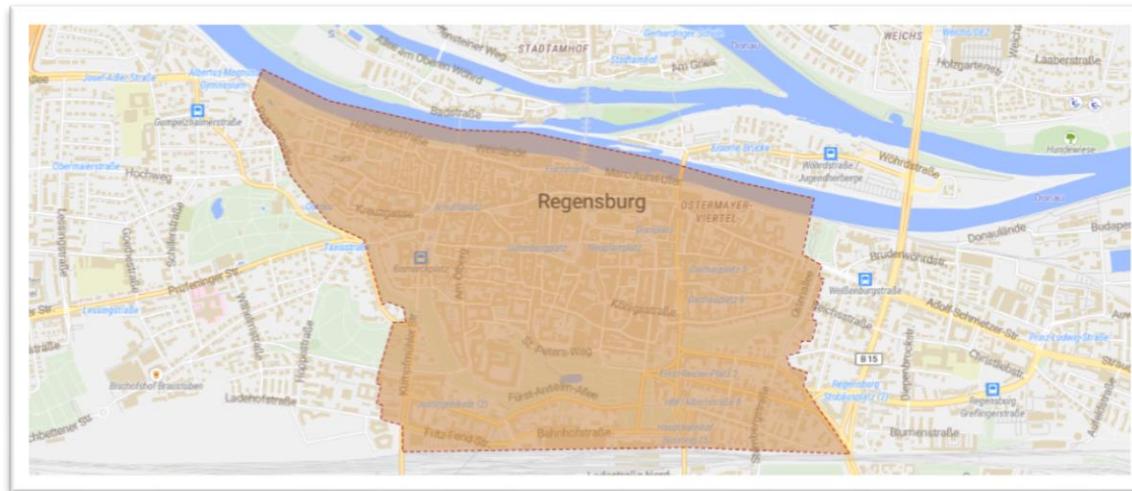




Routing



Gebiete





	Makro	Mikro
Manuelles Erstellen	✓	✓
Automatisiertes Erstellen (Excel/DB/csv)	✓	✓
Interaktive OSM Karte	✓	
Shapefile Import	✓	

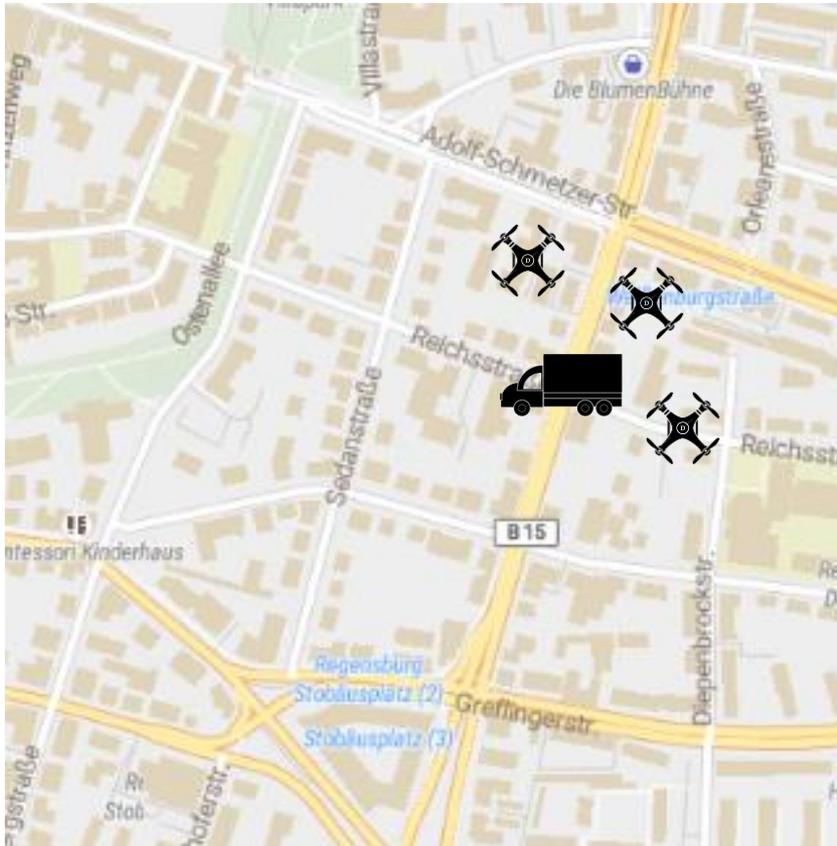
Beispiel: Kreuzung (Mikro)



Beispiel: Kreuzung II (Mikro)



Projekt: Auslieferung Letzte Meile (Makro)



Bildnachweis:

Links: Eigene Darstellung / Sreenshot

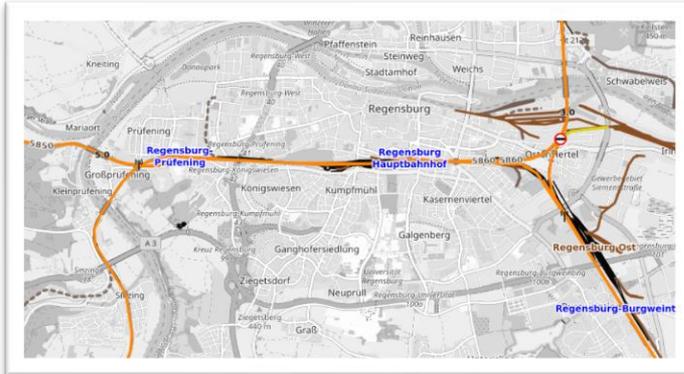
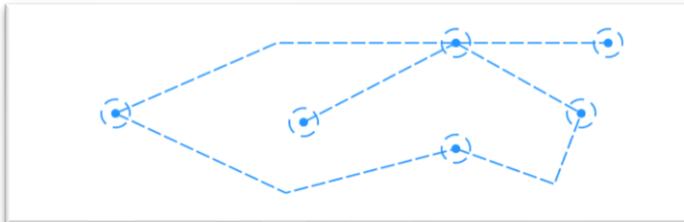
Rechts Oben: CC BY-SA 3.0 Stefan Kühn <https://de.wikipedia.org/wiki/DHL#/media/Datei:DHL-Fahrzeug.jpg>

Rechts Unten: CC BY-SA 3.0 Frank Höffner https://de.wikipedia.org/wiki/Logistikdrohne#/media/Datei:Package_copter_microdrones_dhl.jpg



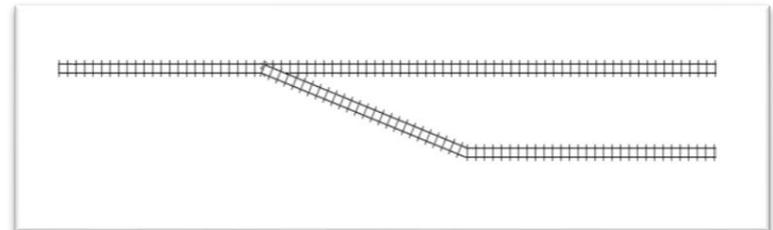
Schiene

Makro



- (Standard) Agenten
- Vereinfachtes Layout

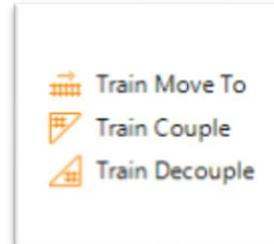
Mikro



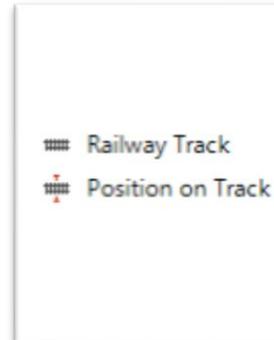
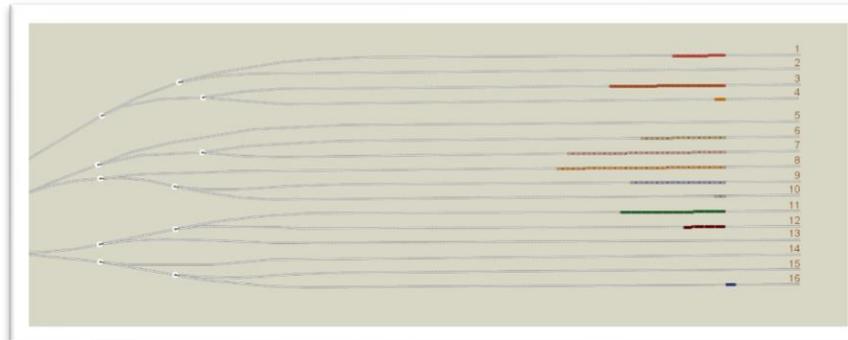
- Eisenbahnbibliothek
- Detailliertes Streckenlayout
- „Besonderes“ Verhalten



Logik



Layout
(2D)



Layout
(3D)





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erweitertes GIS	✓	
Physikalisches Verhalten		✓
Weichenverhalten		✓
Kollisionserkennung		✓
Zugbildung		✓



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Shapefile Import	✓	

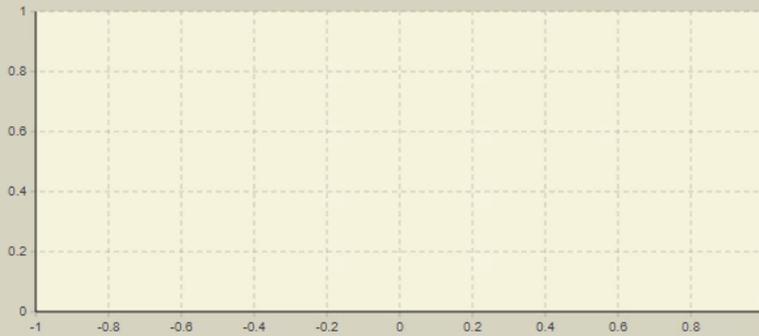
Hump Yard

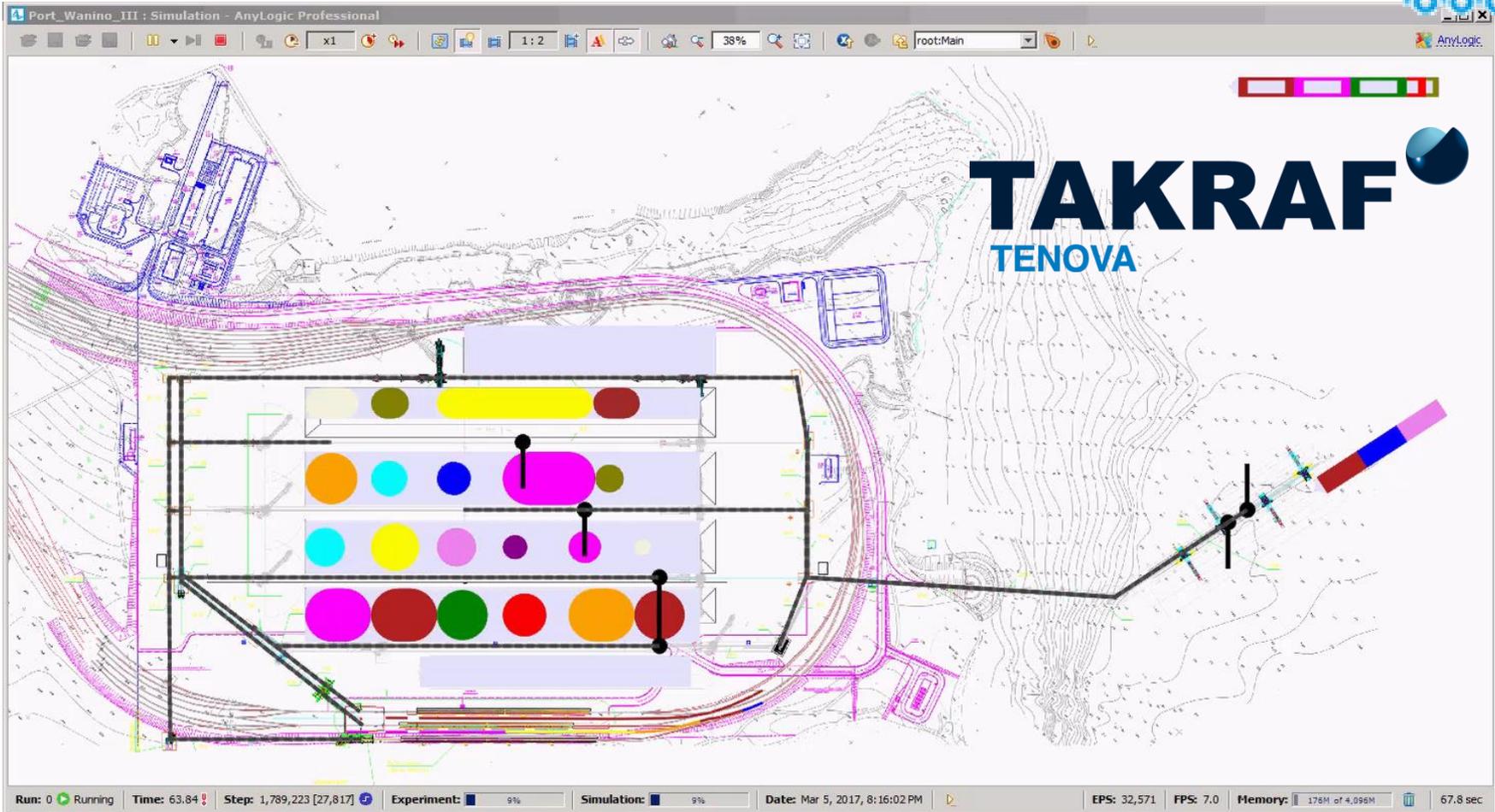
2D 3D Logic



Distribution of time spent in the yard by a rail car, minutes

View departure tracks







Railway Maintenance Analysis Simulation Tool

Version v4 14.2.2018 (Changelog)



- Diagrams
- Start Date
- Options
- Scheduling
- Import Schedule

TPE

Run 1
Slots: Standard
Cycle: 22.5k



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Image Copyright: Nicholas Hair.

**Vielen Dank für Ihre
Aufmerksamkeit!**



Florian Hübler

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