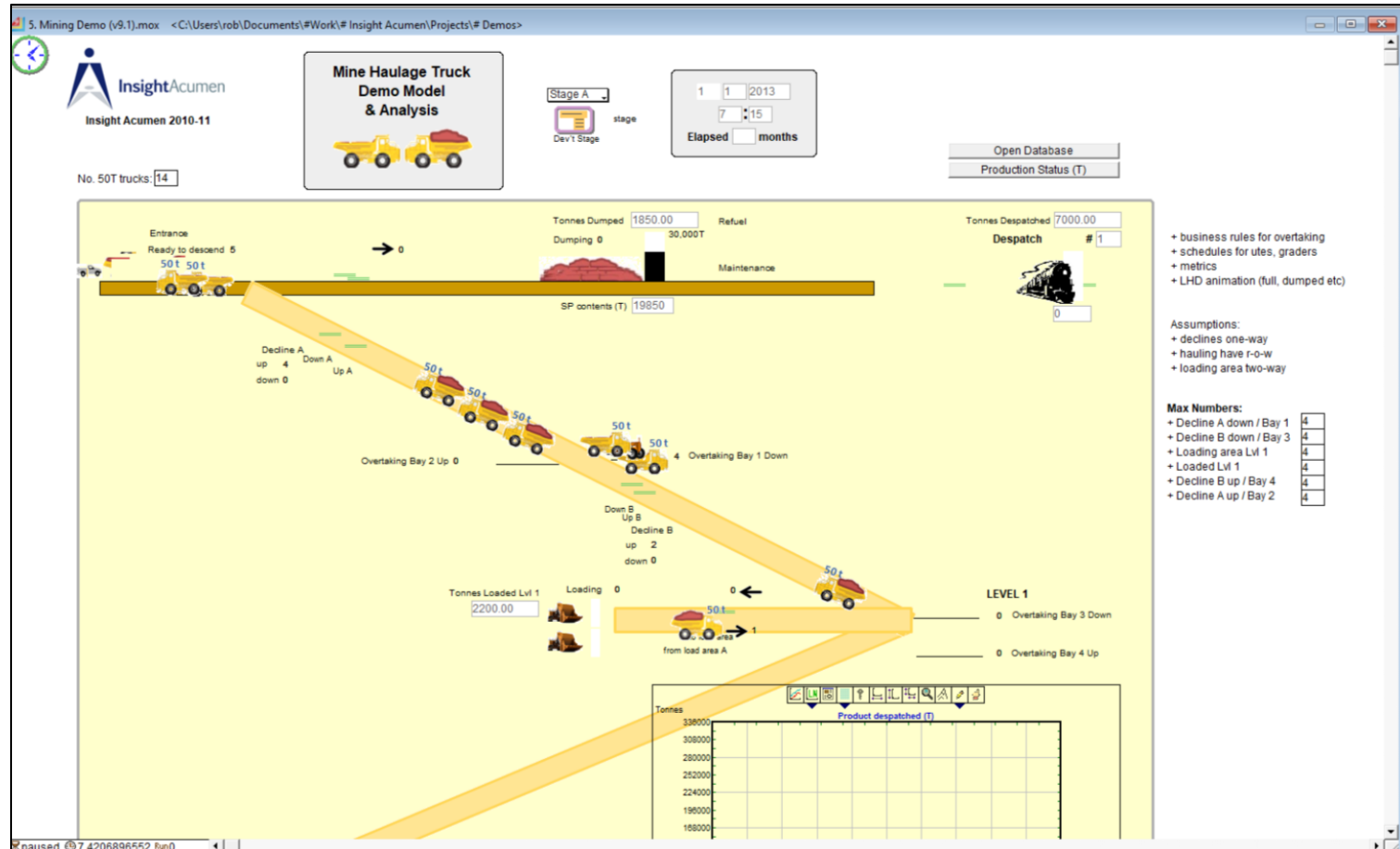




Mine Haulage Truck Model





Potential Scope

- This is a demo model in previous ExtendSim Version 9.
- Could be used as basis for a further-developed model to analyse benefits of different capacity trucks or different business rules for fleet.



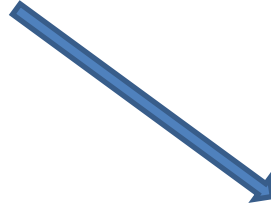
Demo

- Model tracks trucks as individual “items”.
- Model has empty trucks on declines, full (just filled) trucks on inclines, utility vehicles and graders.
- Business rules are used to give higher priorities to some vehicles ahead of others, eg full trucks on inclines have priority over empty trucks on declines, and over utes and graders.
- Overtaking bays are used to manage the business rules in terms of numbers on slopes, priority of travel etc.
- No human resources modelled, but they could be included.
- No maintenance (sked / unsked) modelled yet, but that could be included.



Demo

Mine layout event definitions

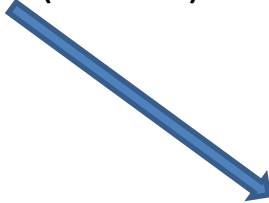


Viewer "Advanced Resources[2]->Mine Decline Event Definition[23]" (5. Mining Demo (v9.1).mox)

Definition of events for the decline development (includes start state).

Record #	Event name	Description	Type	Depth (m)	Length (m)	Gradient (%)
1	Decline A (Unloaded)	Downhill	Initial entry slope	200.0	1400.0	8.0%
2	Overtaking 1 (Unloaded)	Downhill		0.0	0.0	0.0%
3	Decline B (Unloaded)	Downhill		100.0	1250.0	8.0%
4	Overtaking 2 (Unloaded)	Downhill		0.0	0.0	0.0%
5	Decline C (Unloaded)	Downhill		100.0	1000.0	8.0%
6	Loading Area A	Level		0.0	900.0	0.0%
7	Decline C (Hauling)	Uphill		100.0	1000.0	8.0%
8	Overtaking 2 (Hauling)	Uphill		0.0	0.0	0.0%
9	Decline B (Hauling)	Uphill		100.0	1250.0	8.0%
10	Overtaking 1 (Hauling)	Uphill		0.0	0.0	0.0%
11	Decline A (Hauling)	Uphill	Final exit slope	200.0	1400.0	8.0%
12	Dumping	Level	Level stage to unload/dump area	0.0	1200.0	0.0%
13	Decline D (Unloaded)	Downhill		100.0	1000.0	8.0%
14	Overtaking 3 (Unloaded)	Downhill		0.0	0.0	0.0%
15	Decline E (Unloaded)	Downhill		100.0	1000.0	8.0%
16	Loading Area B	Level				
17	Decline E (Hauling)	Uphill		100.0	1000.0	8.0%
18	Overtaking 3 (Hauling)	Uphill		0.0	0.0	0.0%
19	Decline D (Hauling)	Uphill		100.0	1000.0	8.0%

Production Status (tonnes)



Viewer "Advanced Resources[2]-..."

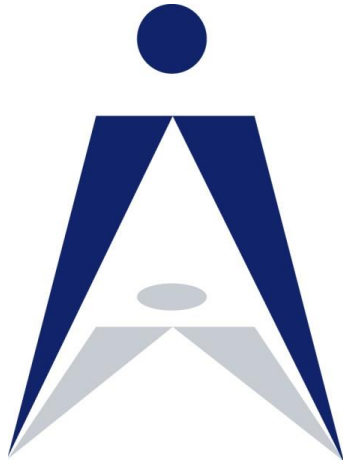
[double-click here to enter tooltip comments]

Record #	Activity / process	Product (T)
1	Loaded level 1	2200
2	Loaded level 2	0
3	Loaded level 3	0
4	Loaded total	2200
5	Hauled / dumped	1850
6	SP current contents	19850
7	Despatched	3500



So what?

- Insight Acumen is able to develop a model to model attributes of your fleet, whether aircraft, trucks, trains, cars or widgets.
- These attributes can be tracked over time and their impacts tested in the future.
- ExtendSim is way more powerful than MS Excel and by design is able to model changing states over time.
- So users can run their current state model with various SME future assumptions and constraints, then view their system state one day in the future, or one week, or one month, or 10 years into the future.
- Test those blue-sky ideas in a low-risk and powerful modelling & simulation environment.



InsightAcumen

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