

# WIRTHSIM MOVIEDOC

VERSION 1.6.0 (MÄRZ 2017)



**WIRTHSIM** Professional  
embedded simulation

The screenshot displays the WirthSim Professional software interface. The main window shows a 3D model of a monorail system with several cars on tracks. The interface includes a menu bar (Datei, Bearbeiten, Elemente, Ebenen, Speichern, Optionen, Hilfe), a toolbar, and several panels:

- Element Details:** A table showing parameters and values for the selected element.
- Play Yard Navigator:** A small 3D view of the entire simulation area.
- Zeit (Time):** A clock showing the current simulation time (07:06:06) and a stopwatch.
- Durchsatz / Energieverbrauch (Throughput / Energy Consumption):** A summary table of key performance indicators.
- 3D 3D Sicht:** A 3D view of the simulation with a control bar for speed and volume.
- Statistik (Statistics):** A window showing a line graph of energy consumption over time.

Parameter	Werte
Breite, m	0.20
sizes	
model data	
Zeitschritte, s (100 = 10x/Sek. / 50 = 20x/Sek.)	100
Multiplikator (1000 = 1x Geschw.)	1
Max. FPS (Frames pro Sekunde)	25
Verifizieren	unknown type
Adjust_To_Full_Load	
Limite Pfad-Generierung (Anz.Elemente)	999
Trolley Monorail Position	Elektrohängebahn

Durchsatz / Energieverbrauch:	
Anzahl Aufträge	2400
Durchsatz (TEs/Std.)	707
Verbrauch/Std. (kW/h)	14.86
Kosten/Std.	2.23
Verbrauch/Jahr (kW/h)	26,147.48
Kosten/Jahr	3,922.12
Kosten/100 Transporte	0.32

Summe	
Ausschleuser	
Einschleuser	
Energieverbrauch	

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# Inhaltsverzeichnis

<b>MovieDoc</b> .....	<b>3</b>
<b>1 WirthSim Basis</b> .....	<b>4</b>
<b>2 WirthSim Handhabung Basis</b> .....	<b>5</b>
<b>3 WirthSim Handhabung Advanced</b> .....	<b>8</b>
<b>4 WirthSim Fehlermeldungen</b> .....	<b>10</b>
<b>5 Fördertechnik</b> .....	<b>11</b>
<b>6 Elektrohängebahnen</b> .....	<b>14</b>
<b>7 Lagertechnik</b> .....	<b>15</b>
7.1 Gassengebundene Regalbediengeräte .....	15
7.2 Kurven Regalbediengeräte.....	17
7.3 Shuttle Systeme .....	17
<b>8 Produktion</b> .....	<b>18</b>
<b>9 WirthSim EcoSim / Energiespitzen - Verbrauch</b> .....	<b>19</b>
<b>10 Simulation – Emulation via Datenbank Interface</b> .....	<b>20</b>
<b>11 WirthSim Art</b> .....	<b>21</b>
<b>12 WirthSim Projekte - Systeme</b> .....	<b>22</b>

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## **MovieDoc**

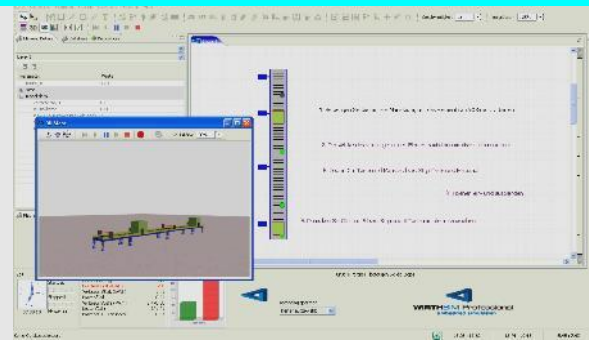
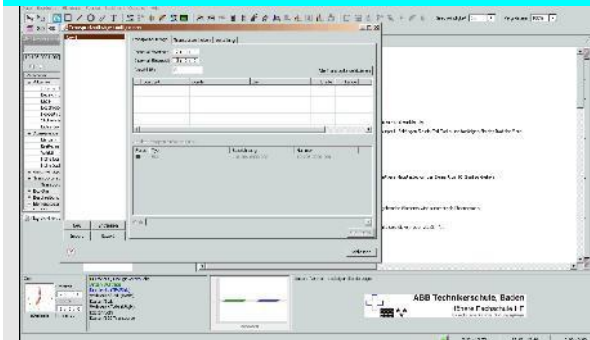
MovieDoc ist eine Sammlung von Kurzfilmen, welche leicht verständlich die Erstellung von WirthSim Simulationen illustriert. Da WirthSim wie ein Bausteinkasten aufgebaut ist, resultieren daraus fast unendlich viele Anwendungsszenarien. MovieDoc soll den Anwender bei der Einarbeitung in WirthSim unterstützen und die Möglichkeiten aufzeigen.

# 1 WirthSim Basis

MovieDoc zeigt in diesen Filmen das Basishandling (wie macht man was).

**Sprache umstellen**

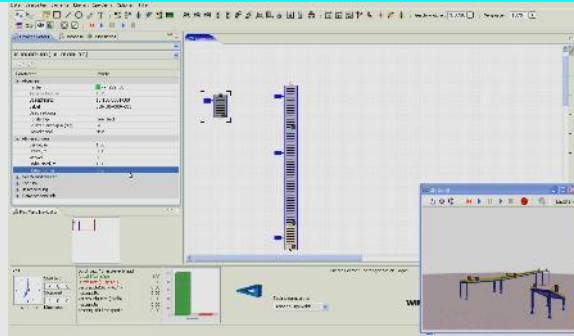
**Erstes Layout.avi**



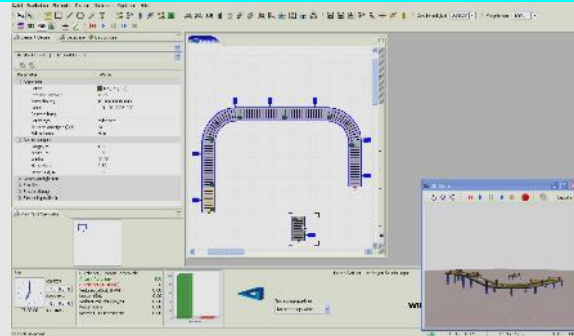
## 2 WirthSim Handhabung Basis

MovieDoc zeigt in diesen Filmen ausführlich die Handhabung (Basis) von WirthSim.

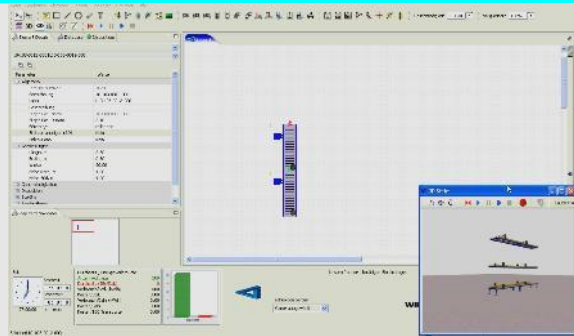
**Handhabung Nr.1 Hoehen.avi**



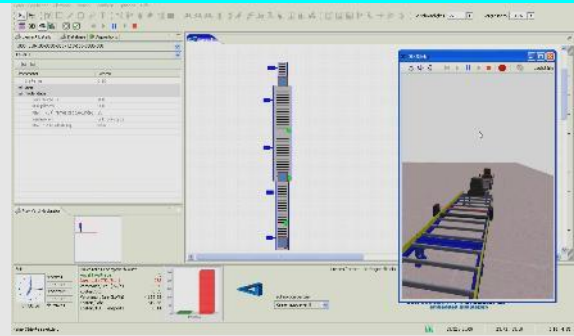
**Handhabung Nr.2 Hoehen.avi**



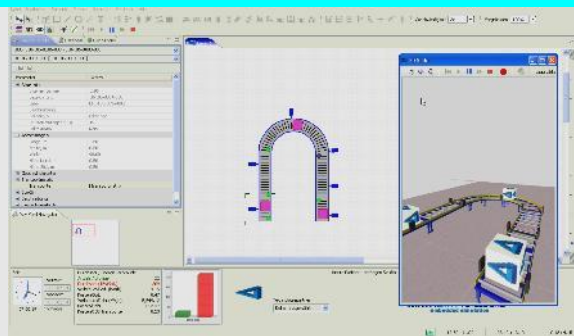
**Handhabung Nr.3 Hoehen ein-  
ausblenden.avi**



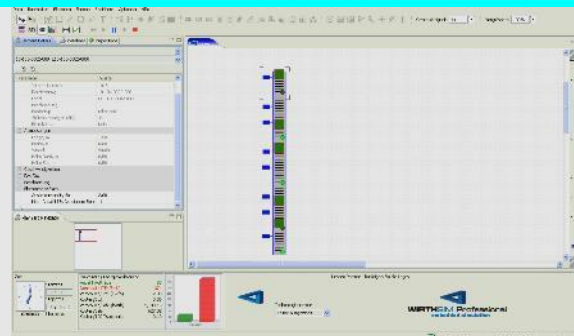
**Handhabung Nr.4 3D\_Grafik.avi**



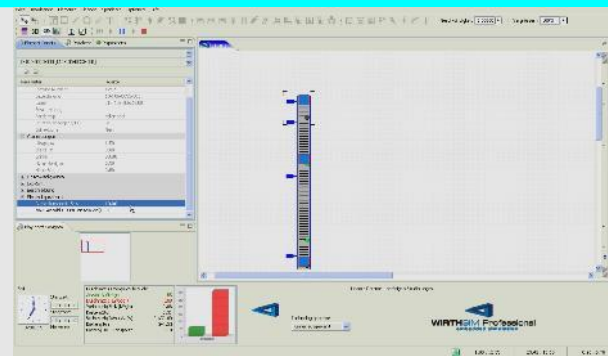
**Handhabung Nr.5 3D\_Texture.avi**



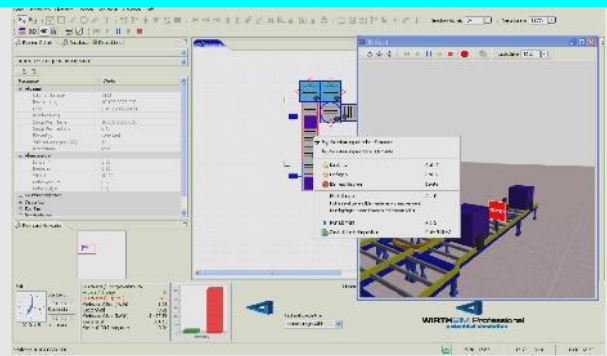
**Handhabung Nr.6 Bulk.avi**



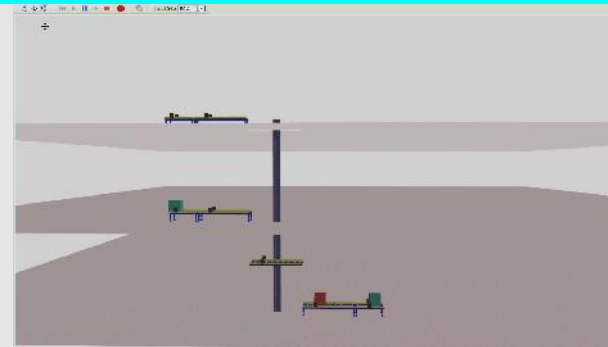
### Handhabung Nr.7 Geschwindigkeiten.avi



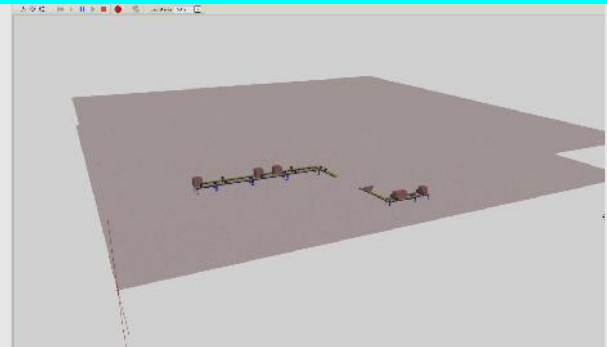
### Handhabung Nr.8 Fehlersituationen.avi



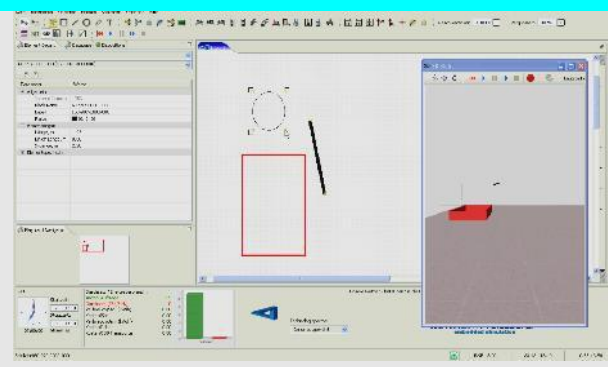
### Handhabung Nr.40 Stockwerke - Ebenen anlegen.avi



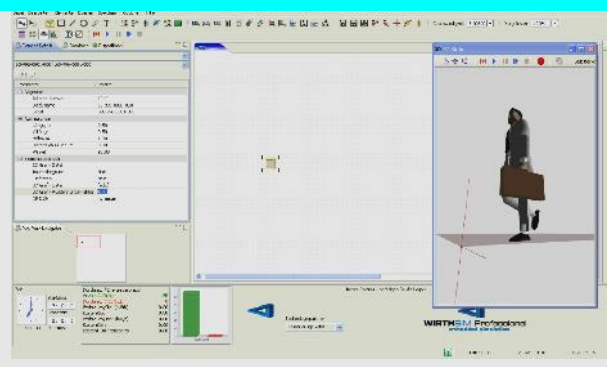
### Handhabung Nr.41 Stockwerke - Ebenen Steigfoerderer.avi



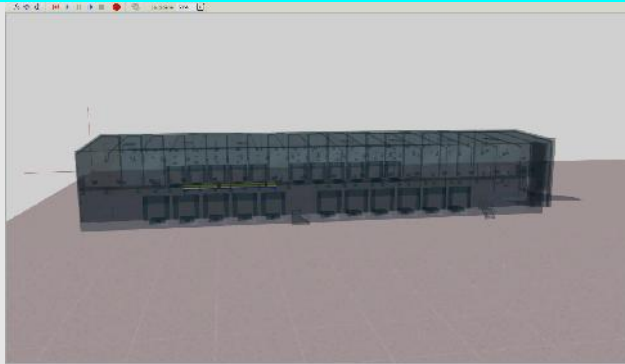
### Handhabung Nr.51 Hilfselemente.avi



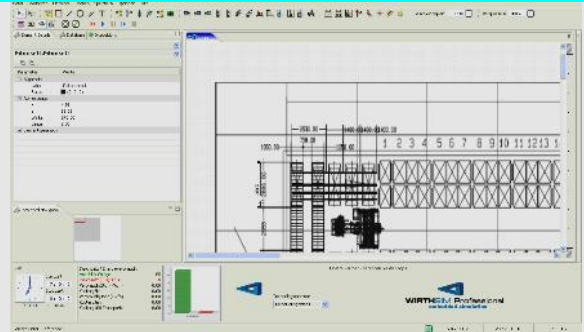
### Handhabung Nr.61 3D\_Elemente Einfuegen.avi



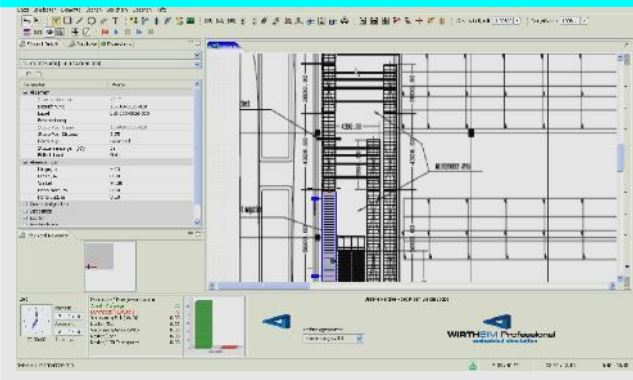
### Handhabung Nr.62 3D\_Elemente Einfuegen.avi



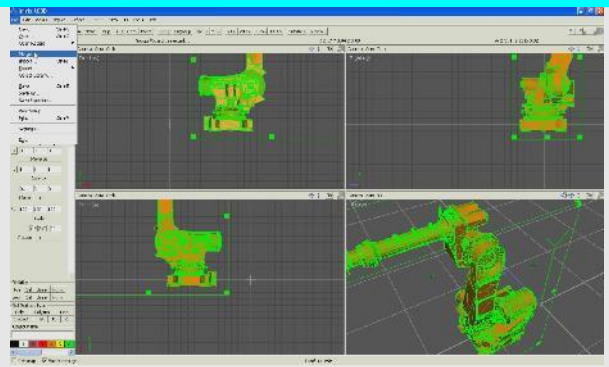
### Handhabung Nr.63 Layout - Plan hinterlegen.avi



### Handhabung Nr.64 Sim. Layouterstellung auf Plan.avi



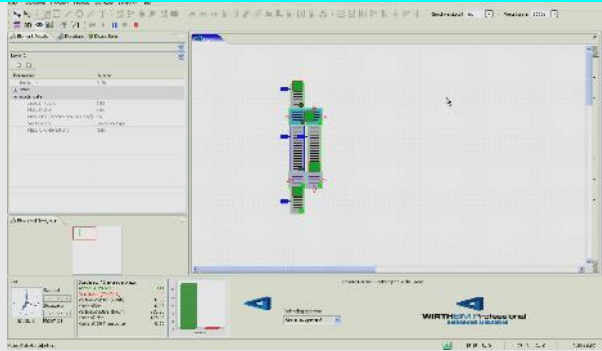
### Handhabung Nr.65 3D\_Objekte Anpassen.avi



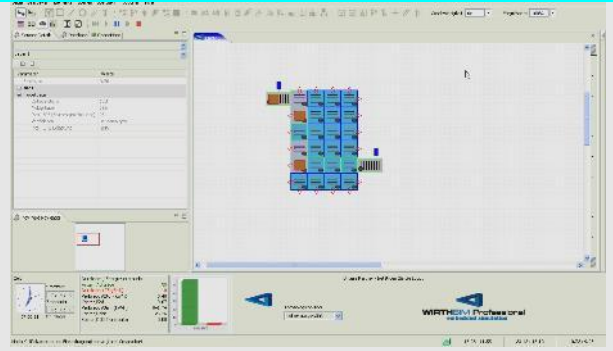
### 3 WirthSim Handhabung Advanced

MovieDoc zeigt in diesen Filmen ausführlich die Handhabung (Advanced) von WirthSim.

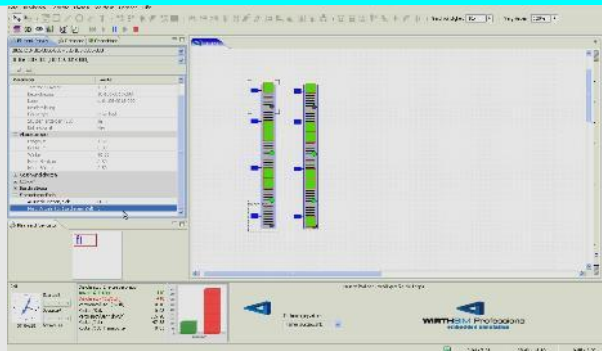
**Foerdertechnik Nr. 1 Pfade Weg waehlen.avi**



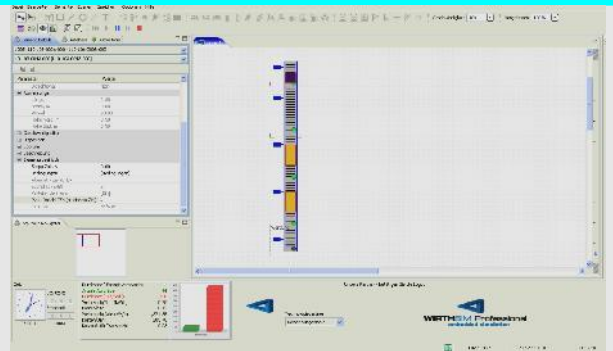
**Foerdertechnik Nr. 2 Pfade einschraenken.avi**



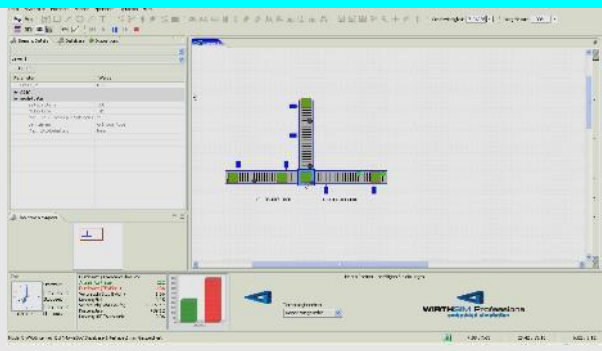
**Foerdertechnik Nr. 11 Ziellimitierungen  
Vergleich mit und ohne.avi**



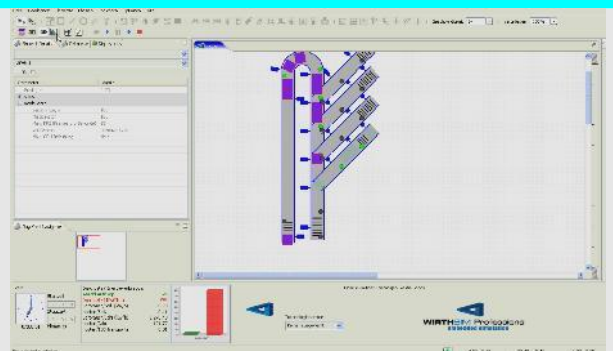
**Foerdertechnik Nr. 12 Ziellimitierungen  
Verteiler.avi**



**Foerdertechnik Nr. 21 Vorfahrtsregeln.avi**

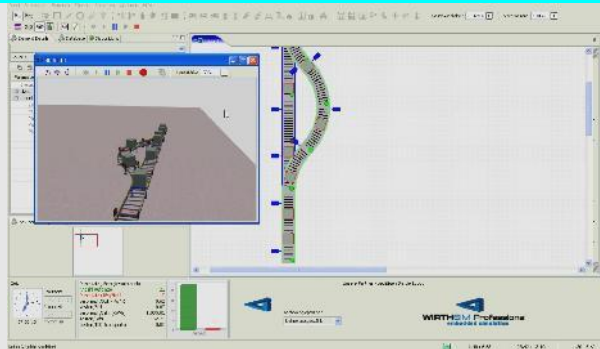


**Popup Ausschleuser Nr.1**

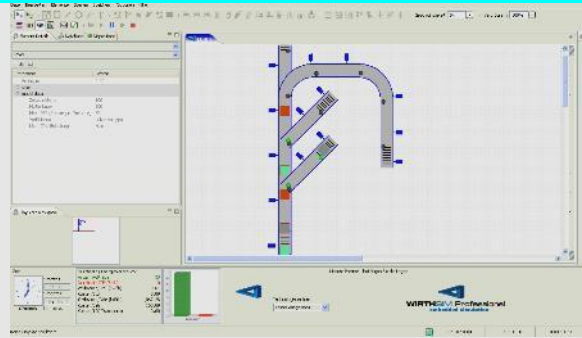




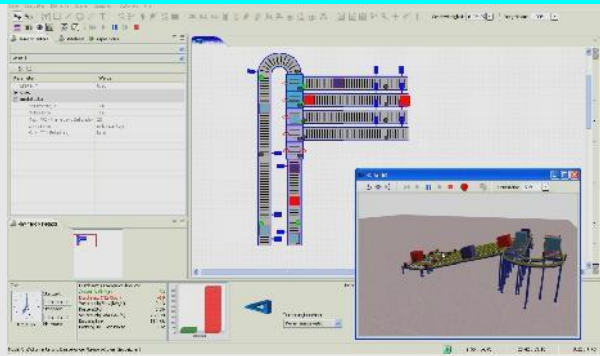
### Popup Ausschleuser Nr.2.avi



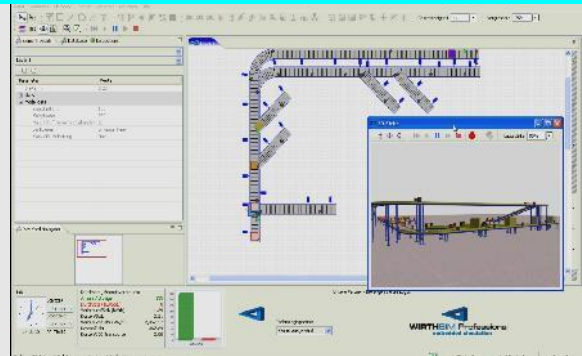
### Popup Ausschleuser Nr.3.avi



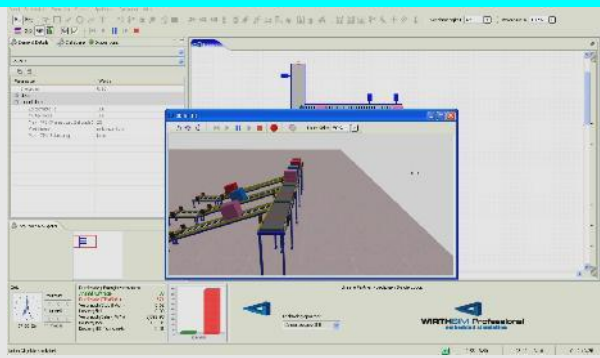
### Popup Ausschleuser Nr.4.avi



### Prozentuale Verteiler zu mehreren Zielen.avi



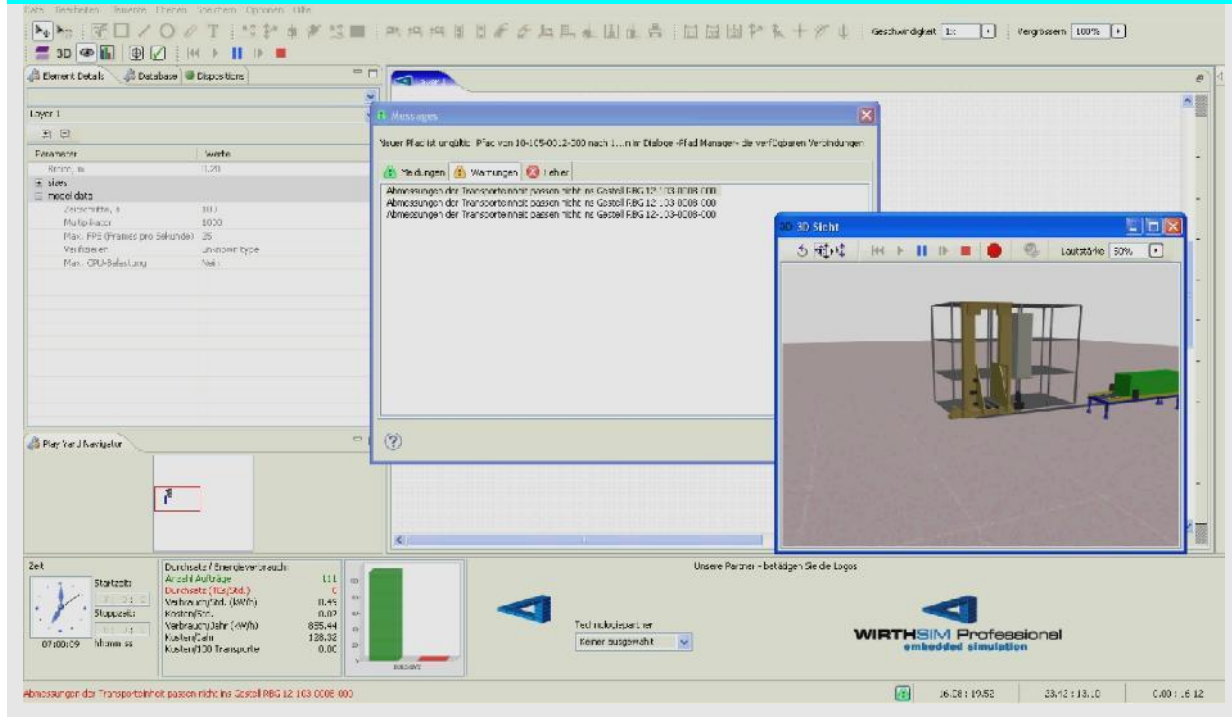
### Sorter.avi



## 4 WirthSim Fehlermeldungen

MovieDoc zeigt hier Probleme im Zusammenhang mit der Erstellung von Layouts auf.

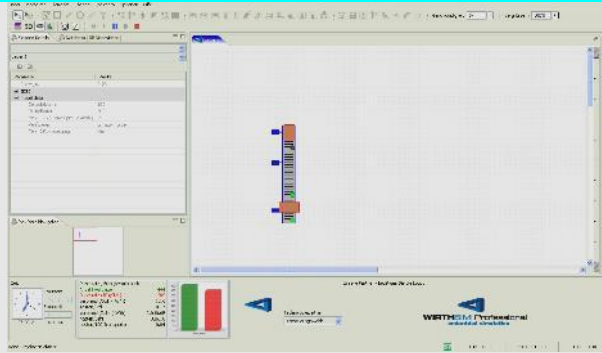
### WirthSim Fehlermeldungen.avi



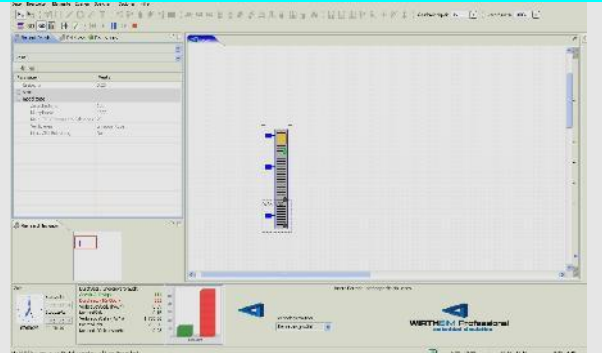
## 5 Fördertechnik

MovieDoc zeigt in diesen Filmen Fördertechnikelemente sowie deren Verwendung auf.

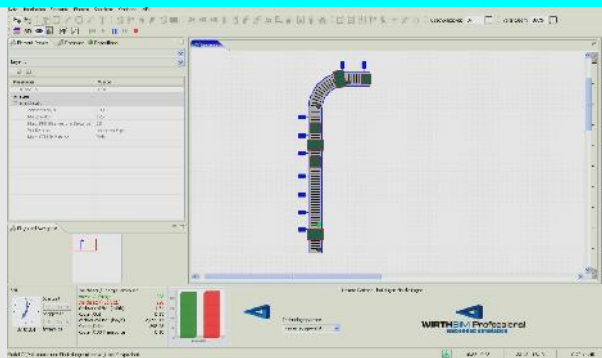
**Foerdertechnik Nr. 1 Einschleuser.avi**



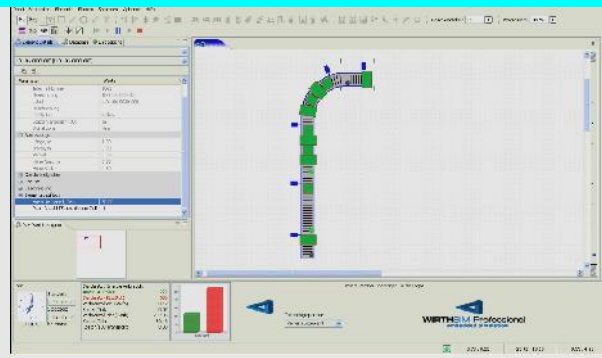
**Foerdertechnik Nr. 2 Ausschleuser – Senke.avi**



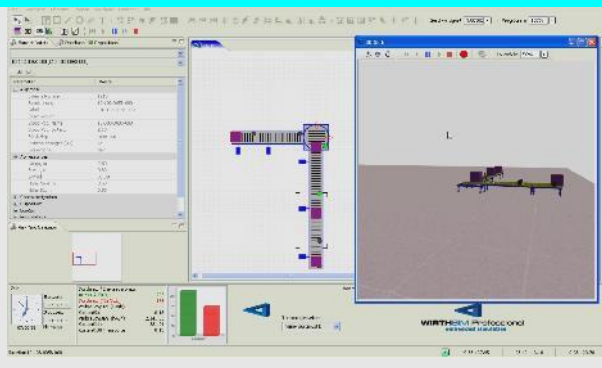
**Foerdertechnik Nr. 3 Palettenfoerderer.avi**



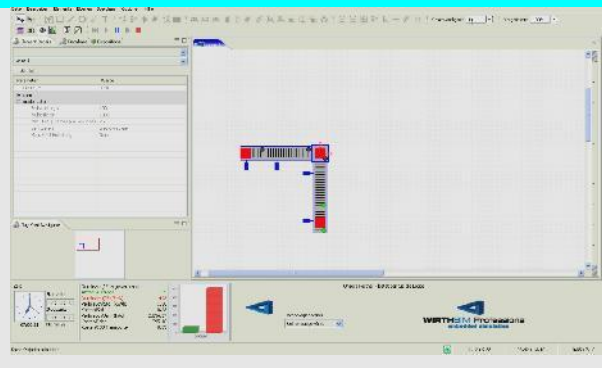
**Foerdertechnik Nr. 4 Leichtgutfoerderer.avi**



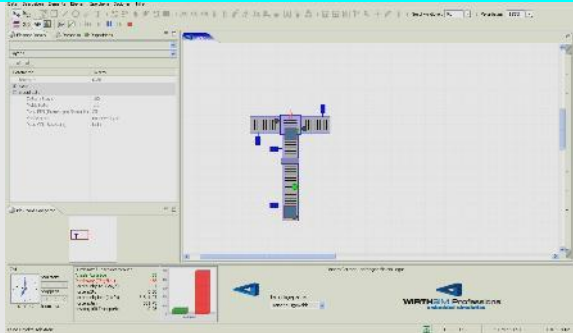
**Foerdertechnik Nr. 5 Drehtisch.avi**



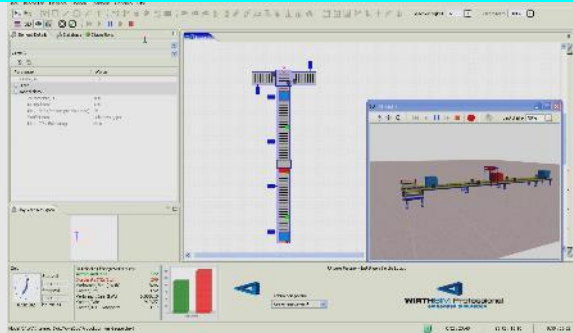
**Foerdertechnik Nr. 6 Hubumsetzer.avi**



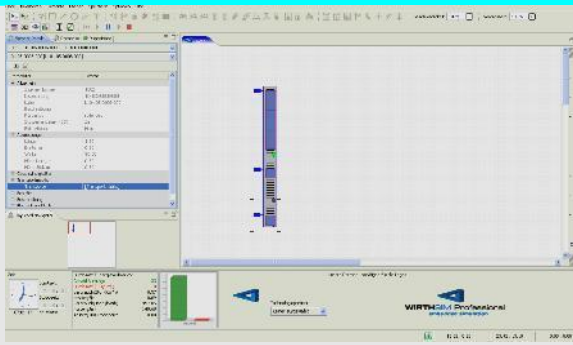
**Foerdertechnik Nr. 7 Profilkontrolle.avi**



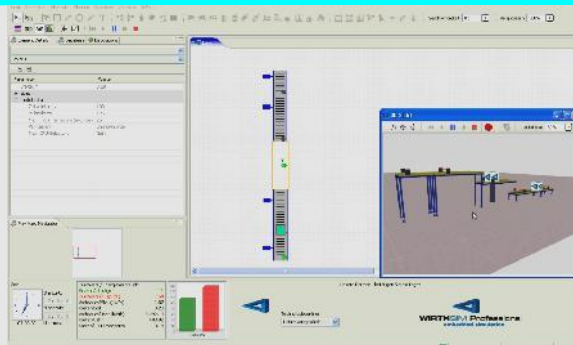
**Foerdertechnik Nr. 8 Stapler Entstapler.avi**



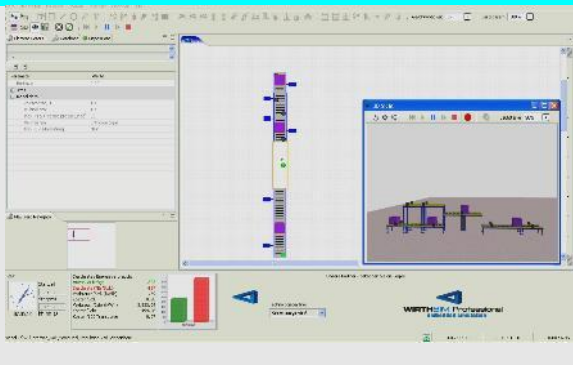
**Foerdertechnik Nr. 9 Ausschleuser\_Dock.avi**



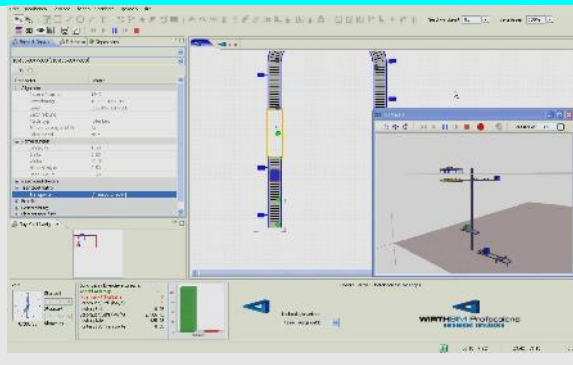
**Foerdertechnik Nr. 21 Heber.avi**



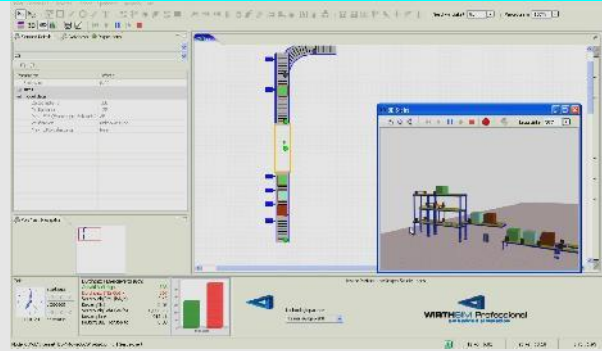
**Foerdertechnik Nr. 22 Heber mit oposit  
Aufnahmepunkten.avi**



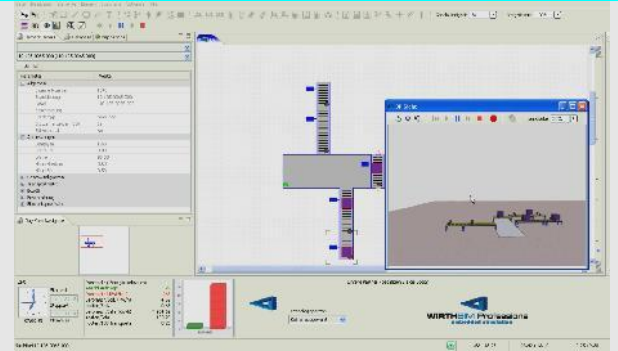
**Foerdertechnik Nr. 23 Heber ueber zwei  
Stockwerke.avi**



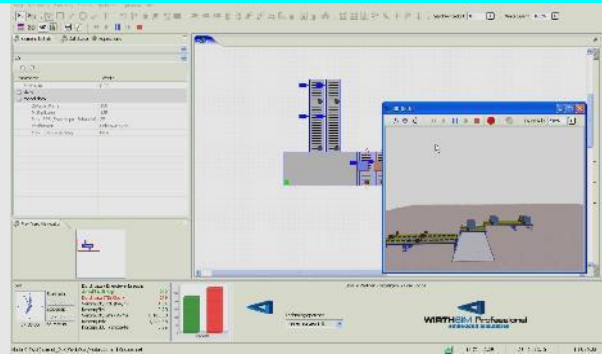
**Foerdertechnik Nr. 24 Heber mit drei Transporteinheiten.avi**



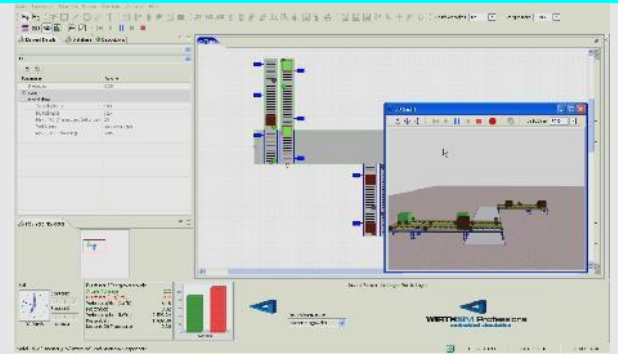
**Foerdertechnik Nr. 31 Verschiebewagen ein Foerdereer.avi**



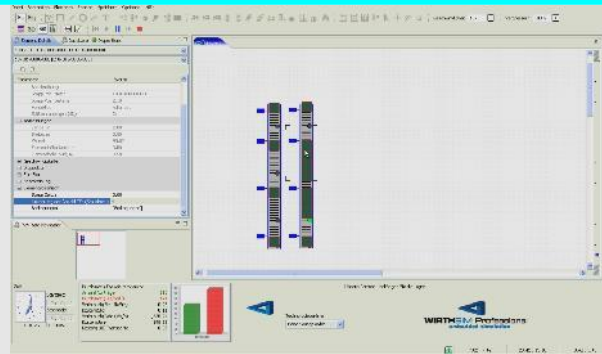
**Foerdertechnik Nr. 32 Verschiebewagen zwei Foerdereer.avi**



**Foerdertechnik Nr. 33 Verschiebewagen zwei Foerdereer bi-direktional.avi**



**Foerdertechnik Nr. 40 Vergleich Paletten - Leichtgutfoerdereer**

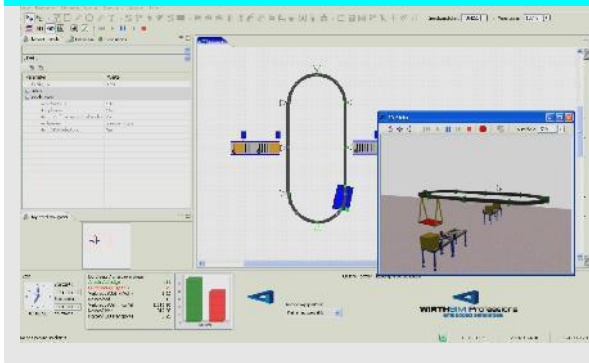


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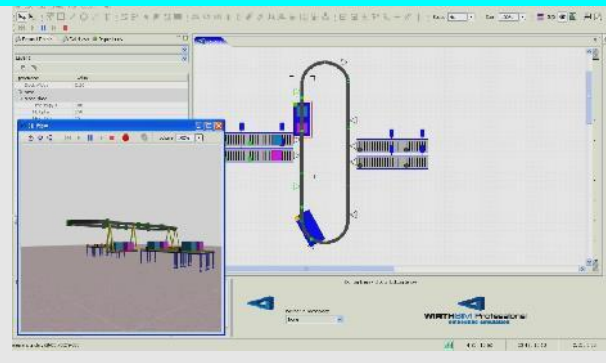
## 6 Elektrohängebahnen

MovieDoc zeigt in diesen Filmen den Einsatz von Elektrohängebahnen sowie deren Verwendung auf.

**Elektrohaengebahn.avi**



**Elektrohaengebahn EHB mit zwei Ladungstraegern.avi**

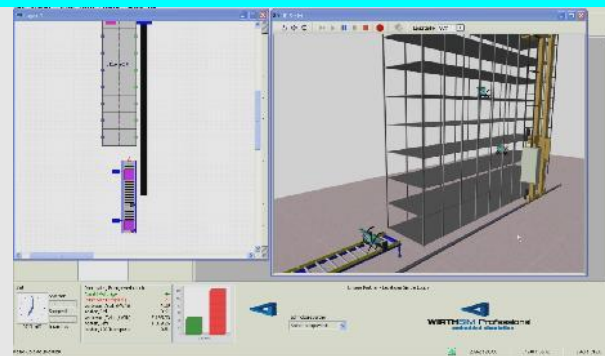


## 7 Lagertechnik

MovieDoc zeigt in diesen Filmen die Handhabung von Regalbediengeräten, Kurvengängern und Shuttles auf.

### 7.1 Gassengebundene Regalbediengeräte

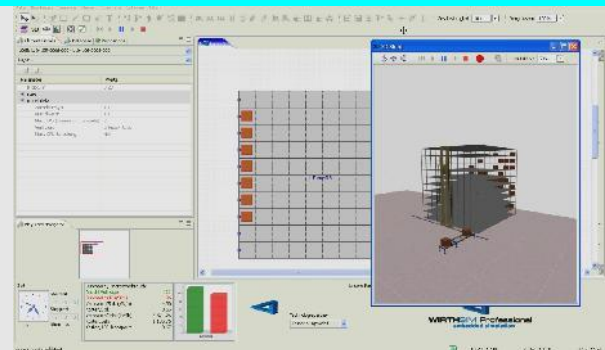
Hochregallager Nr.1 Basis.avi



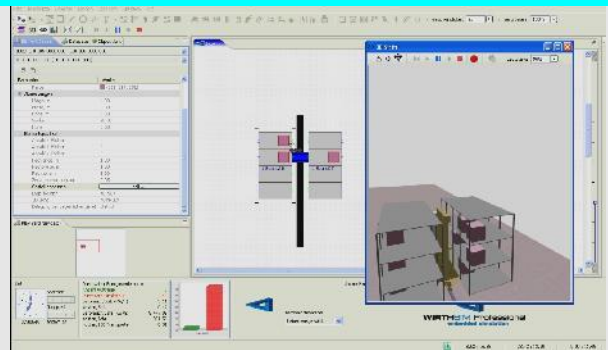
Hochregallager Nr.2 Basis.avi



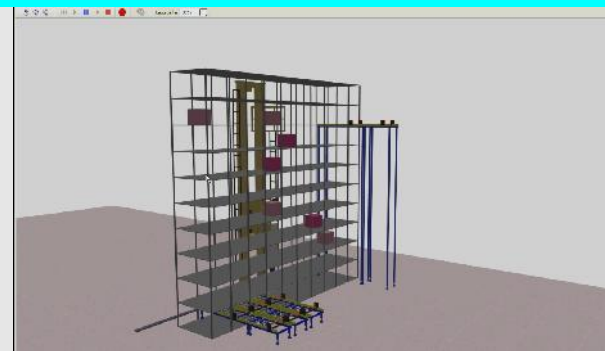
Hochregallager Nr.3 Gestell mehrfach tief.avi



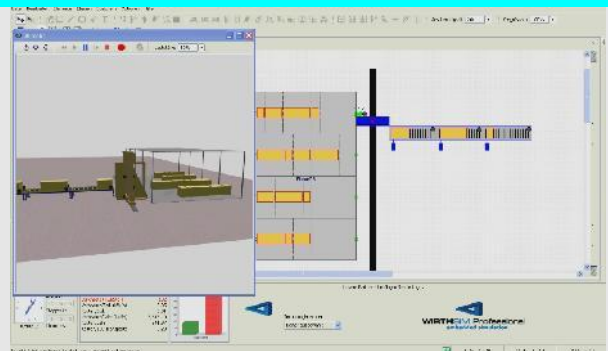
Hochregallager Nr.4 Umlagerungen.avi



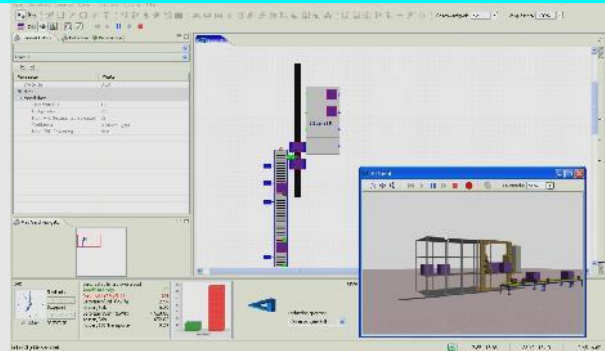
Hochregallager Nr.5 Schwerkraftfoerder.avi



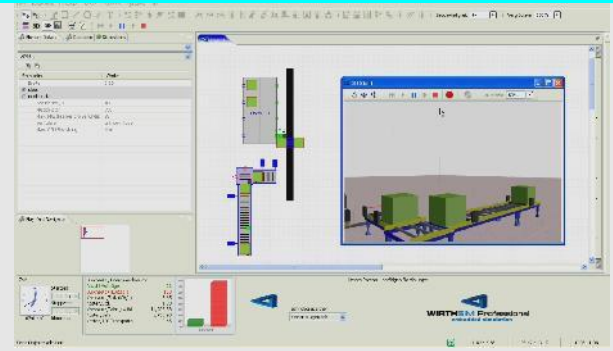
Hochregallager Nr.6 Dynamische Gestelle.avi



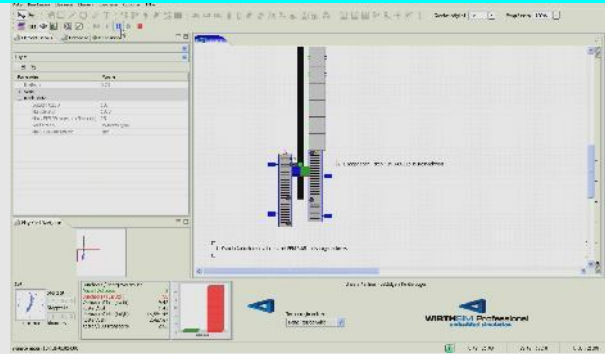
### Hochregallager Nr.7 Zwei Aufnahmemittel.avi



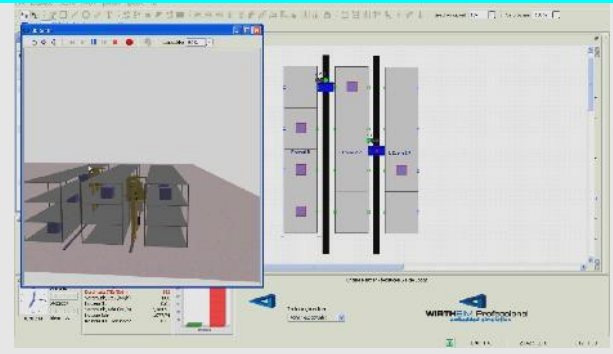
### Hochregallager Nr.8 Ein Aufnahmemittel mit zwei TES.avi



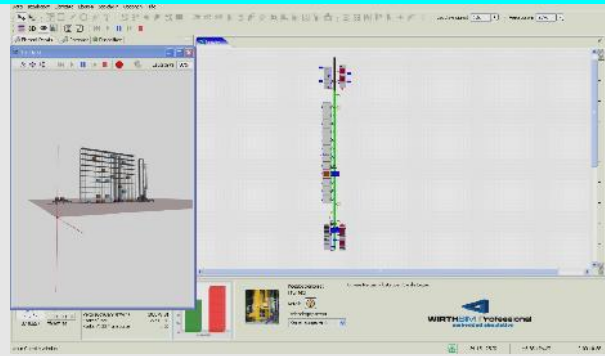
### Hochregallager Nr.9 FEM 9.851 Leistungsnachweis.avi



### Hochregallager Nr.10 Umlagerungen ueber Gestell.avi



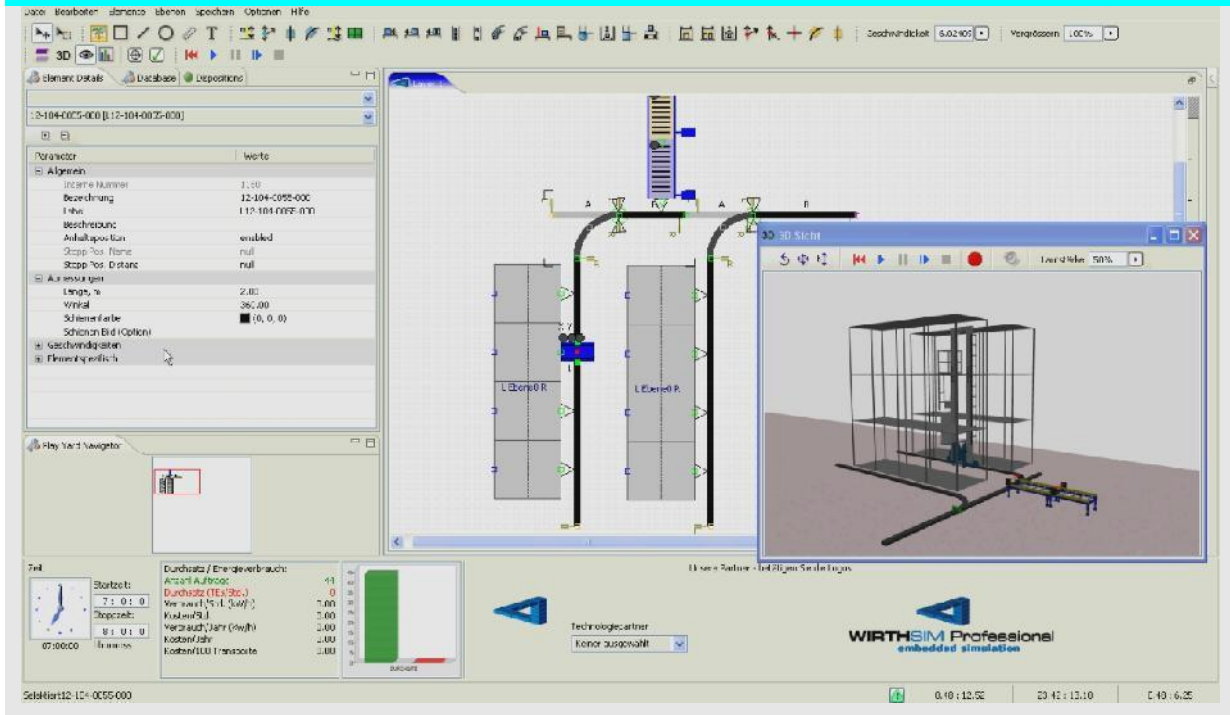
### Hochregallager Nr.11 Zwei RBGs in einer Gasse.avi





## 7.2 Kurven Regalbediengeräte

### HRL\_Kurven Regalbediengerate.avi



## 7.3 Shuttle System

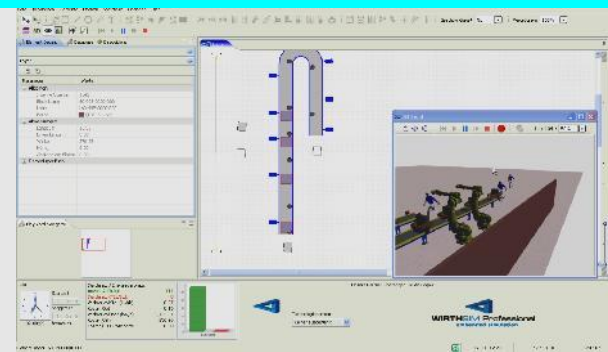
### Shuttle.avi



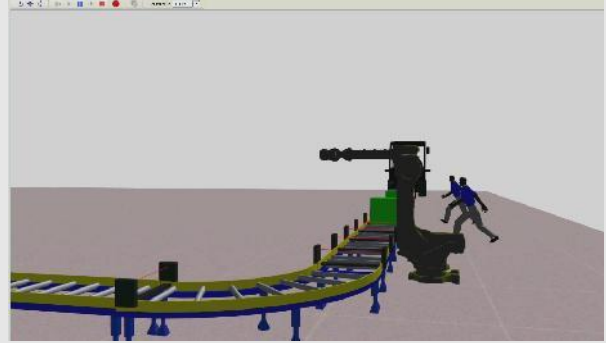
## 8 Produktion

MovieDoc zeigt in diesen Filmen die Handhabung von Layouts im Umfeld der Produktion.

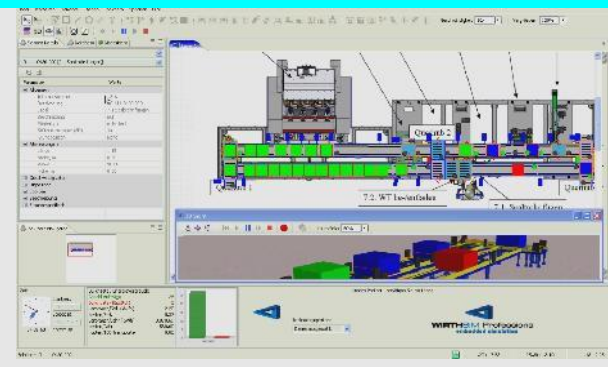
**Produktion Nr.1 mit Roboter.avi**



**Produktion Nr.2 mit Roboter und variablen Zeiten – Bedingungen.avi**



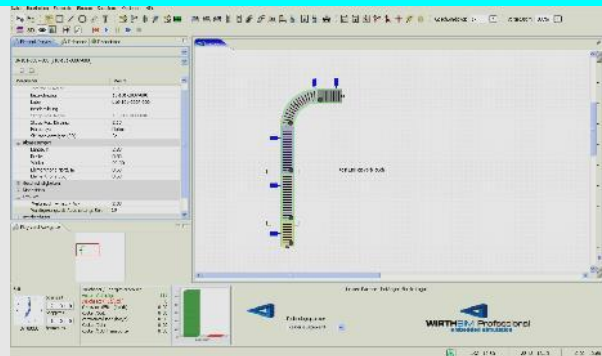
**Produktion Nr.3 Kundenbeispiel.avi**



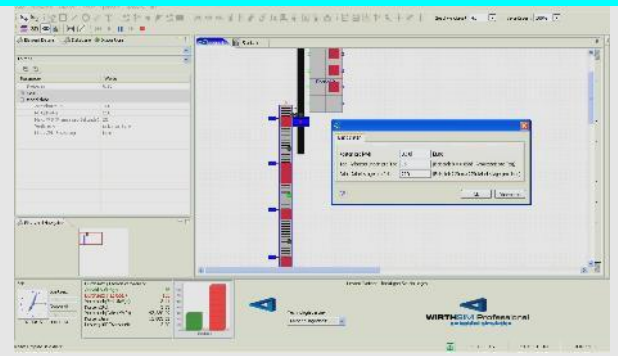
## 9 WirthSim EcoSim / Energiespitzen - Verbrauch

Energieeffiziente Logistikplanung.

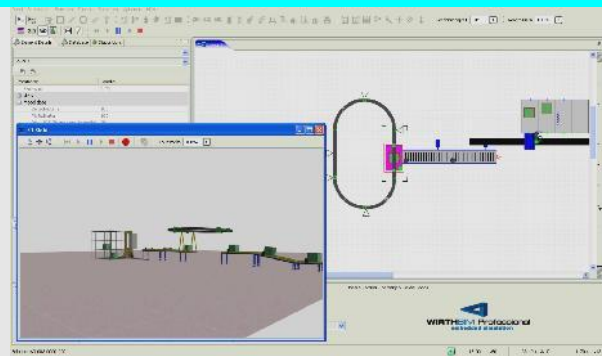
### EcoSim Nr.1 Energieverbrauch und Energiespitzen.avi



### EcoSim Nr.2 Energieverbrauch und Energiespitzen.avi



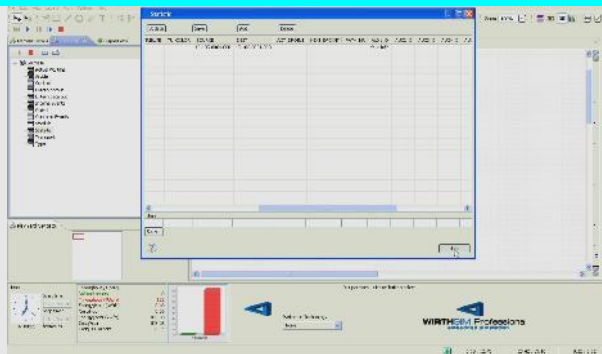
### EcoSim Nr.3 Energieverbrauch und Energiespitzen.avi



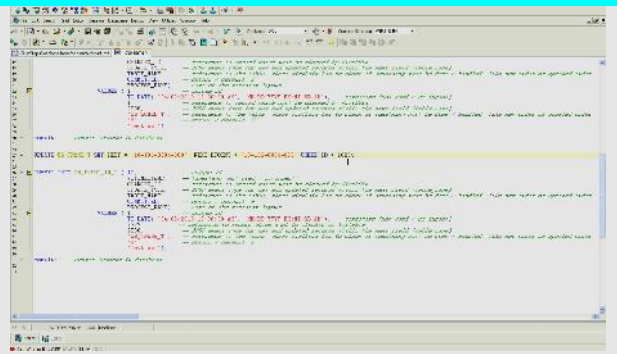
## 10 Simulation – Emulation via Datenbank Interface

MovieDoc zeigt hier die einfache Kopplung von WirthSim mit Datenbanken auf. Transportaufträge werden via einer externen Logik (LVS, MFR usw.) gesteuert.

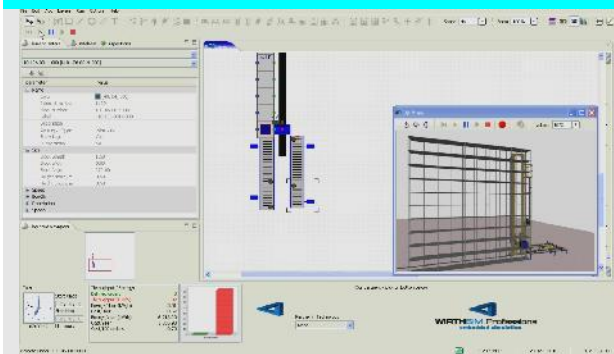
Erster Transport mit dem DB-Interface.avi



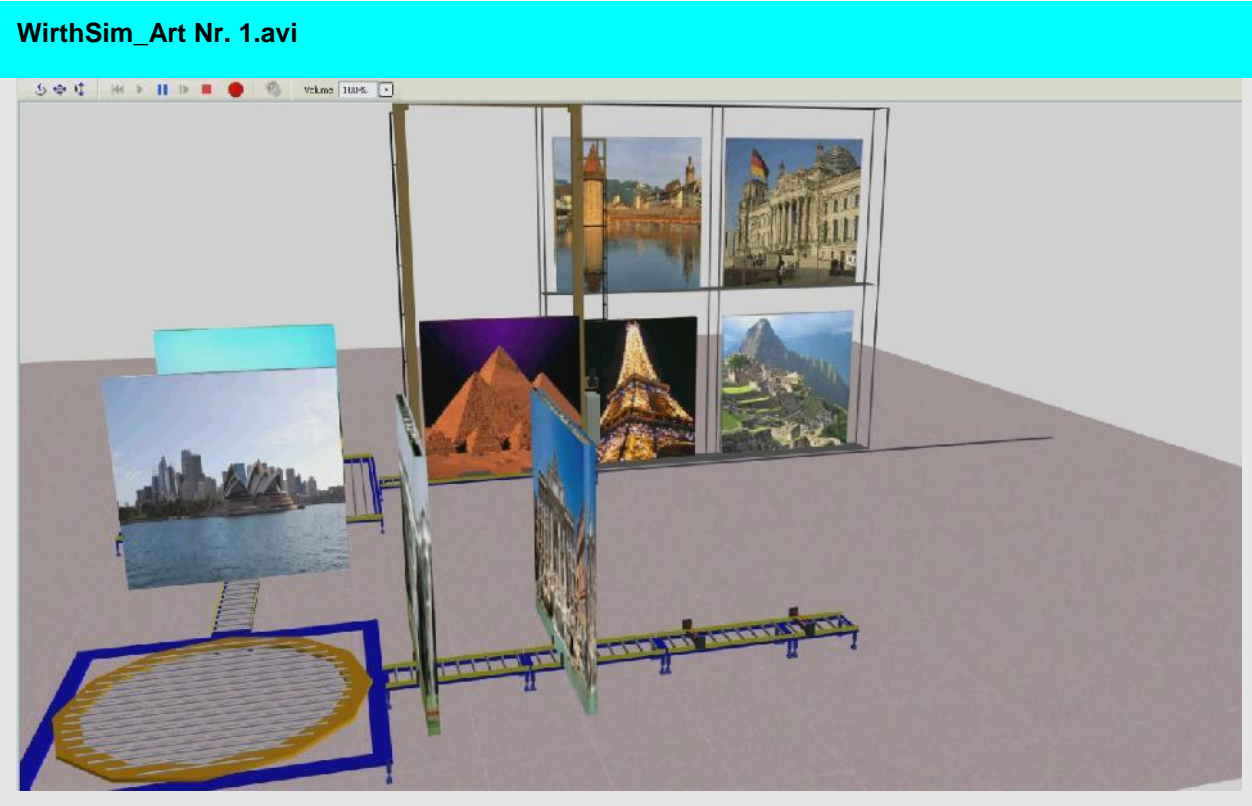
Transport nach Zwischenziel.avi



Ein- und Auslagerungen.avi

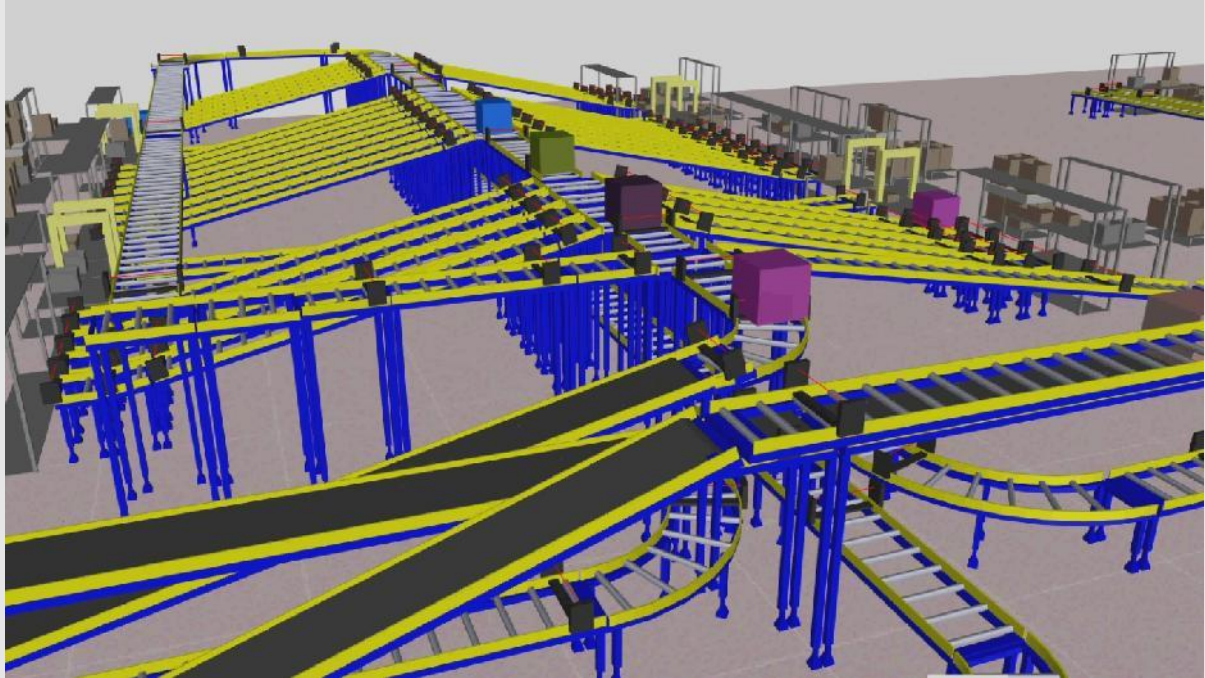


# 11 WirthSim Art

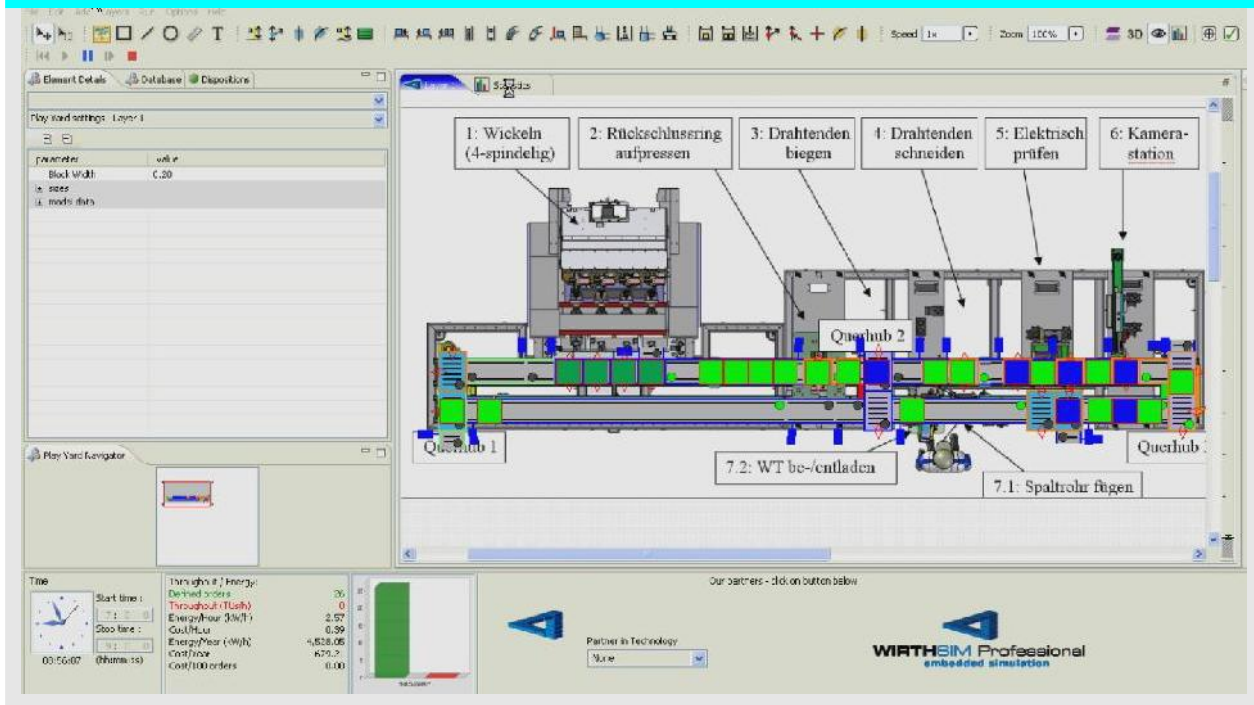


## 12 WirthSim Projekte - Systeme

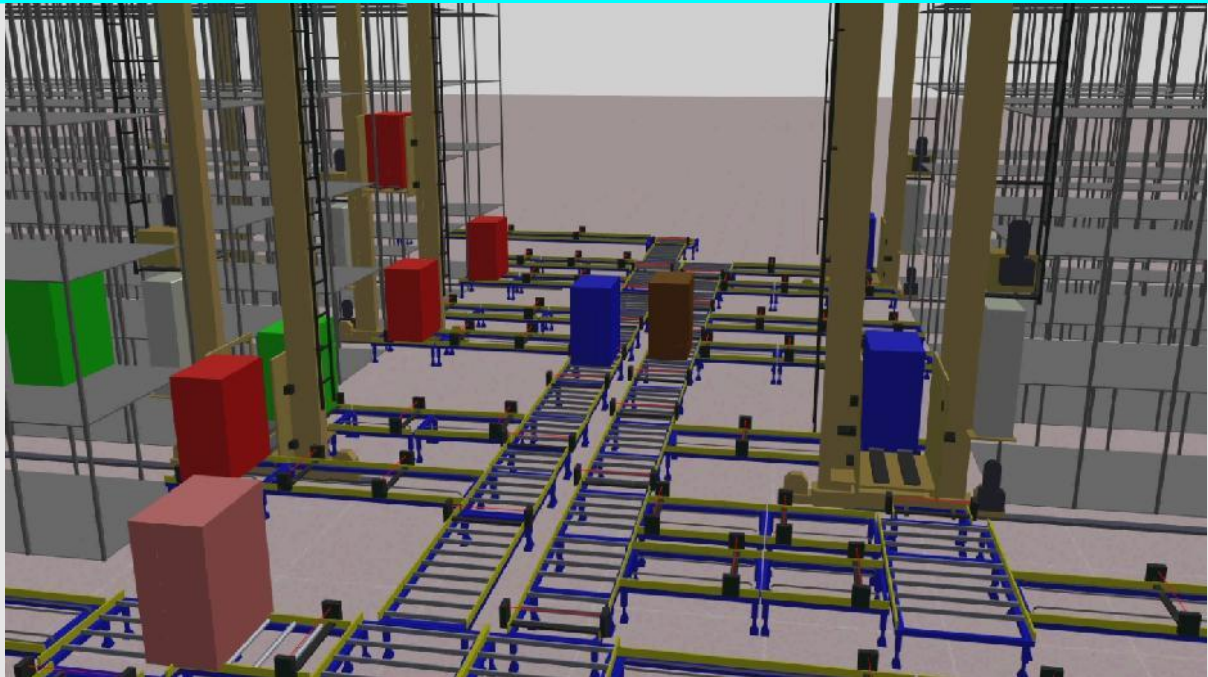
Sortersystem.avi



Produktion.avi



## Gassengebundenes Hochregallager Nr.1 – Palettensystem.avi



## Gassengebundenes Hochregallager Nr.2 – Behaltersystem.avi

The screenshot displays the WirthSim Professional embedded simulation software interface. The main window is divided into several sections:

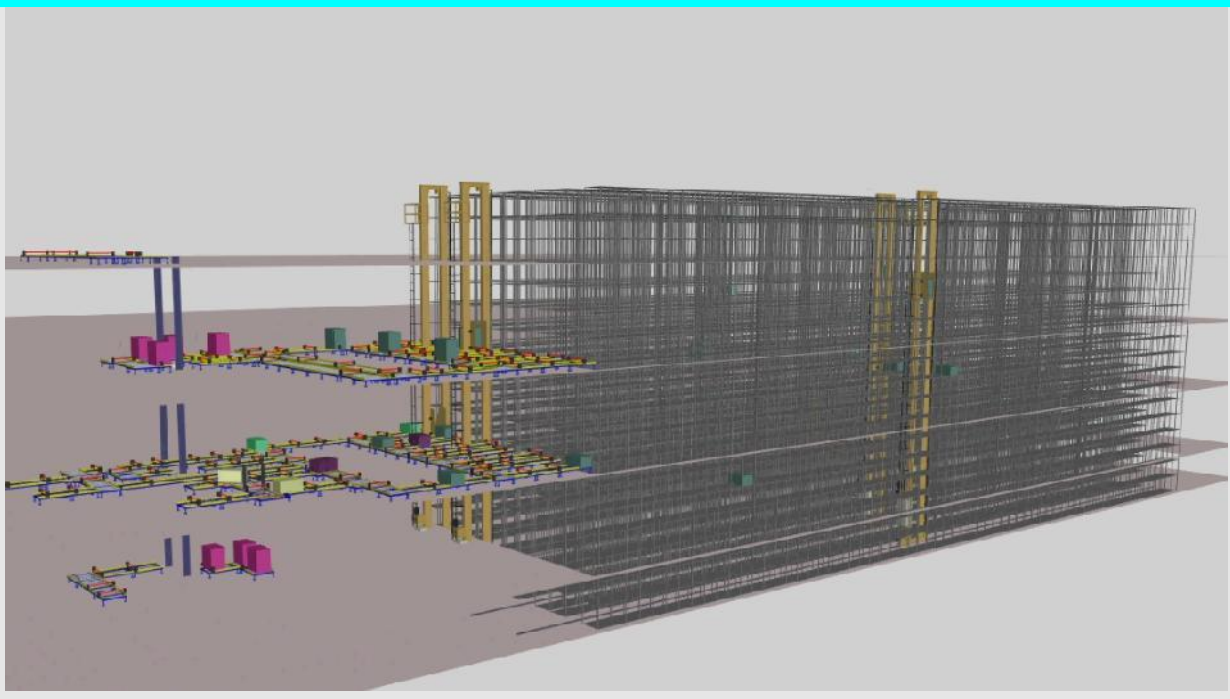
- 3D Sicht (3D View):** A small 3D window on the left shows a perspective view of the container system.
- Main Simulation Area:** A large 2D floor plan view showing a complex layout of containers, pallets, and equipment. The layout is color-coded (red, blue, yellow, green) and includes various labels and dimensions.
- Navigation and Controls:** A top toolbar with various icons for navigation and simulation control. The status bar at the top right shows "Geschwindigkeit: 3x" and "Vergrößern: 150%".
- Data and Performance:** A bottom-left panel displays simulation data:
 

Zeit		Durchsatz / Energieverbrauch:	
Startzeit:	0:01	Produktionslose	~20
Wartungszeit:	0:01	Durchsatz (T/Std)	79
Wartungszeit:	0:01	Verbrauch (kWh)	13,34
Wartungszeit:	0:01	Kosten (Std)	2,30
Wartungszeit:	0:01	Verbrauch (kWh/Std)	274,88
Wartungszeit:	0:01	Kosten (Std)	3,522
Wartungszeit:	0:01	Kosten (1000 Tonne/Std)	5,10
- Software Branding:** The WirthSim logo and "WIRTHSIM Professional embedded simulation" are visible in the bottom right corner.

### Gassengebundenes Hochregallager Nr.3 –Behaeltersystem.avi

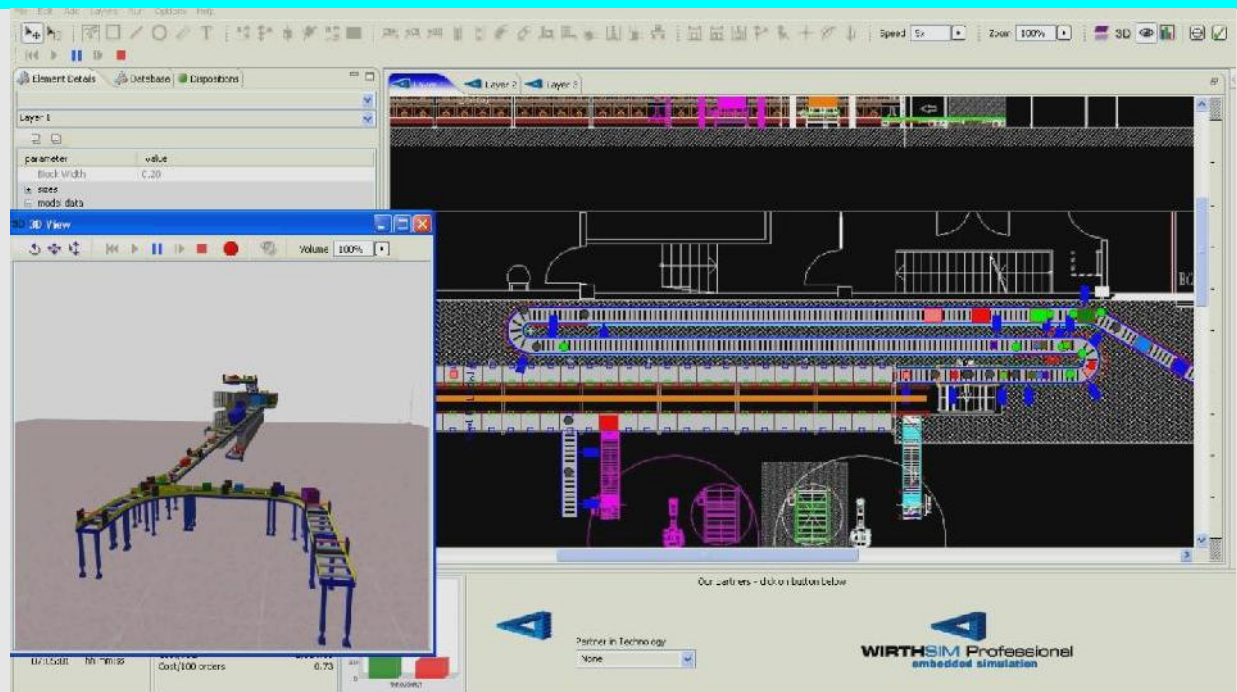


### Gassengebundenes Hochregallager Nr.4 – Palettensystem.avi





## Gassengebundenes Hochregallager Nr.5 – Shuttle.avi



## Gassengebundenes Hochregallager Nr.6 – Shuttle - EHB.avi

