

# Visual Advanced Production Scheduler (VAPS) for Microsoft Dynamics 365 Business Central

Our mission is to empower every SMB organization to gain operational agility with visual scheduling.



# Day-to-day challenges Microsoft Dynamics 365 Business Central does not help with.



I need to squeeze in a rush job. What is the impact on the overall schedule?



My machine broke. I need to reschedule everything and make sure important jobs are still done in time.



I don't know what impacts my throughput. How can I easily spot bottlenecks?

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# 3 functions that make your shop run smoother



Drag & drop scheduling with finite capacities



Schedule with alternative machine centers and production coefficients



Schedule based on material availability

Let's drill down.

## VAPS – enhancements to standard Business Central

- Finite capacity scheduler
- Scheduling tools to support certain scheduling tasks
- Alternative machine centers incl. production coefficients
- Material availability information while scheduling
- Build & maintain various production schedule simulations
- Pin/freeze operations
- Color schemes to support different scheduling aspects
- ...



# VAPS BENEFITS.

Run your shop smoother with Dynamics  
365 Business Central and the VAPS!

## 1. FASTER & BETTER DECISIONS

See the schedule at one glance.

Understand dependencies.

Make decisions fast – based on what you see  
and understand.

## 2. HAPPIER CLIENTS

Manage your schedule.

Understand workload & timelines.

Make reliable delivery time commitments  
and deliver as promised.

## 3. BETTER USE OF RESOURCES

See the resource load at one glance.

Understand capacity & bottlenecks.

Maximize the throughput by reducing idle  
times on your bottleneck resources.

# You are in good company



**James Crowter**

Managing Director & Microsoft Dynamics MVP  
Technology Management (UK)

“When production planning in Business Central, VAPS is an invaluable tool that **helps make the right decisions quicker**. We **couldn't imagine using Business Central's manufacturing without it**, we recommend it to all our clients knowing it **changes the game** for their productivity and flexibility. “



**Olivier Christiaens**

Owner  
Christiaens (BE)

“Given our decades-long and hands-on experience with production companies, we were in need of **reliable production planning software** closely related to their workplace. We have chosen VAPS, because it is **seamlessly filling out the planning-related gaps** within Dynamics 365 Business Central. “



# Let's sum it up.

## Why production scheduling?

- Provides transparent answer to: „when to produce which operation on which work/machine center“.
- Delivers operational agility
  - Faster, more reliable decisions
  - Higher delivery time commitments
  - Better resource utilization
  - Optimization of throughput

## But why visual?

- Keeps the user in the driver's seat.
- Easy to understand → gains the users' trust
- Simple to implement; rapid to learn

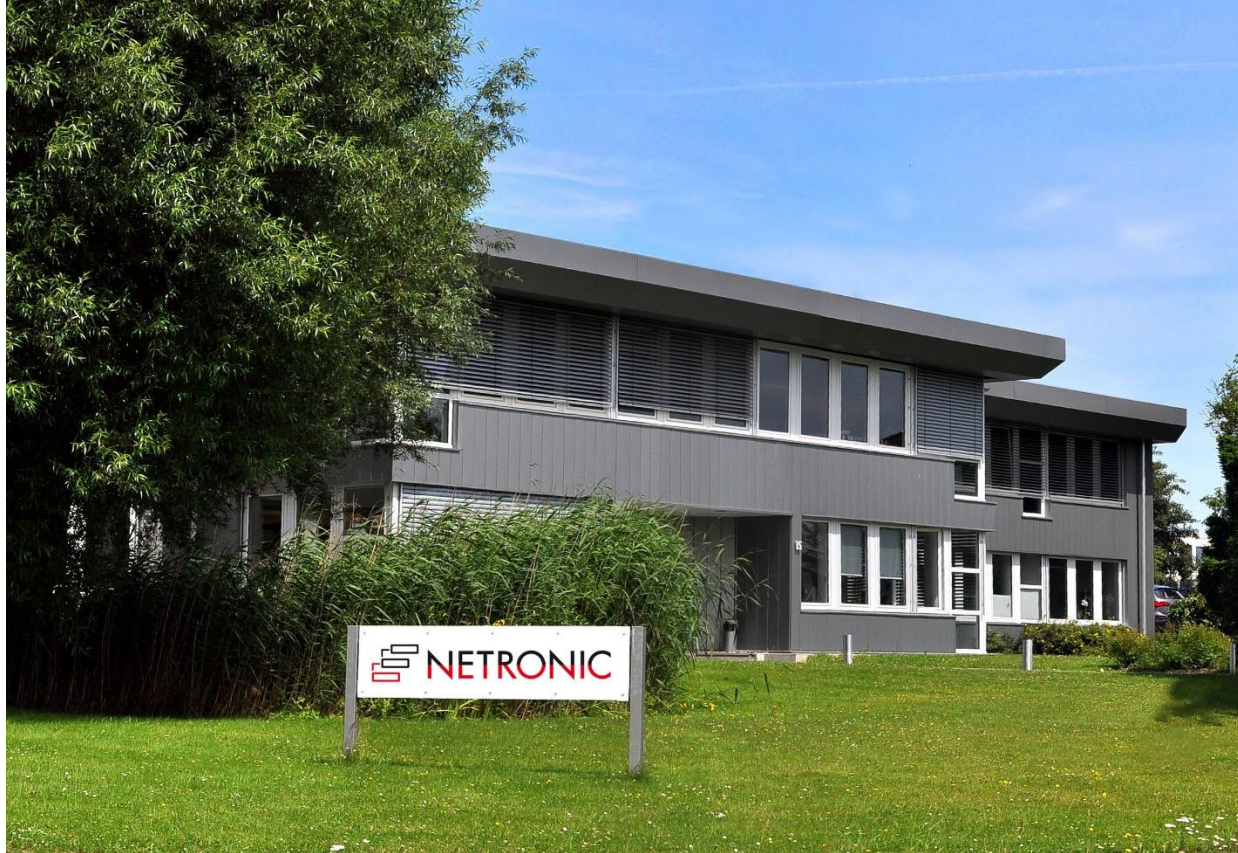
## And why advanced?

- Some manufacturers have an inherent complexity.
- Even smaller companies can have a large order volume and highly volatile processes.
- They need more than pure manual drag & drop.

Visual advanced production scheduling provides a manufacturing-specific intelligence to each visual (drag & drop) change of the schedule, while keeping the user in the driver's seat.



# We are here for you.



- 40+ years old
- 25 employees from 7 countries
- >60% of revenue from int'l clients
- Independent & privately owned
- 3 Business lines
  1. Visual scheduling extensions for Microsoft Dynamics 365 Business Central & NAV
  2. Cloud-based production scheduling for SMB make-to-order manufacturers
  3. Tools for software developers (Gantt chart controls)

Our mission is to empower every SMB organization to gain operational agility with visual scheduling.



# Let's drill down into the details

Features & Functions

# VAPS Building Blocks

Environment & integration

Scheduling logic

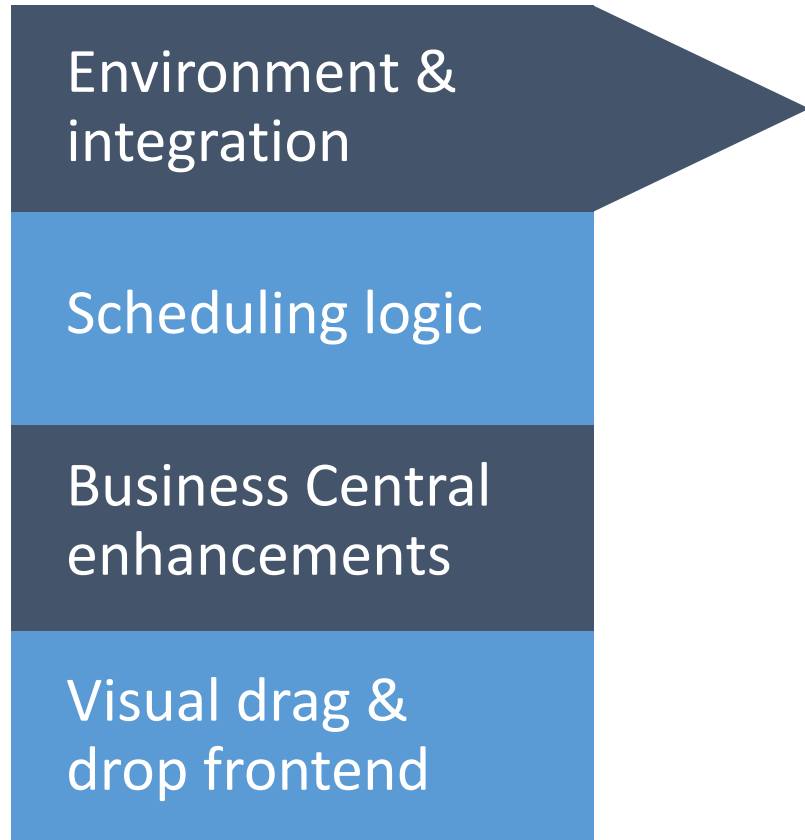
Business Central  
enhancements

Visual drag & drop frontend



# VAPS Building Blocks

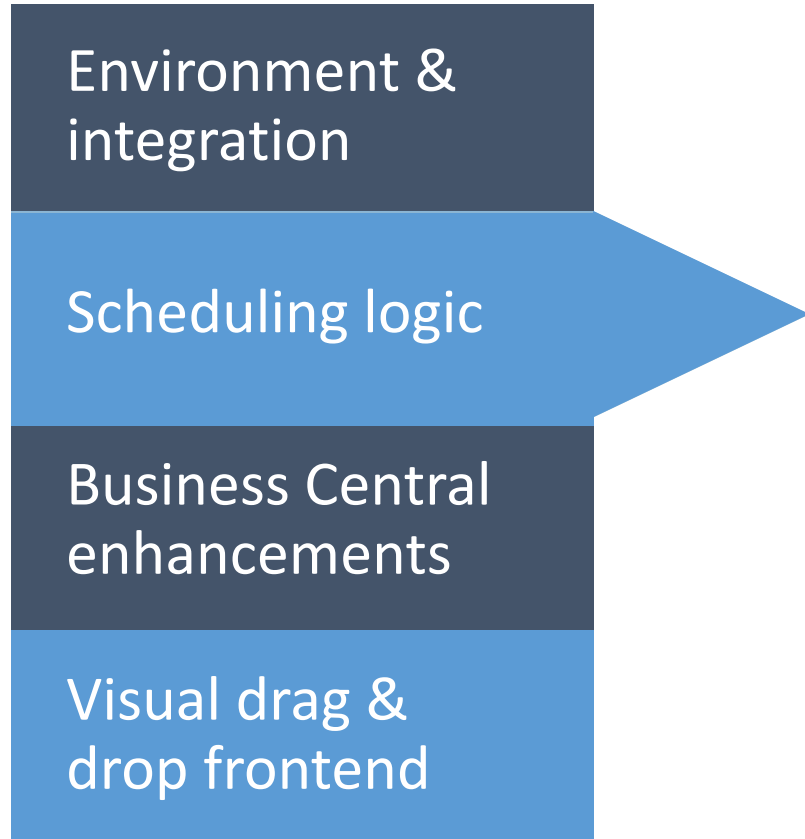
## Environment & Integration



- Targeted system
  - For Dynamics 365 Business Central only (v14 minimum)
  - Based on AL, Extension V2 and JavaScript technology
  - Optimized for the Web Client
- Integration
  - Has own data handling to allow running various simulations
  - Data handling within own BC tables
    - » Not on client side to overcome potential performance issue
    - » Not in separate database → no installation hassle

# VAPS Building Blocks

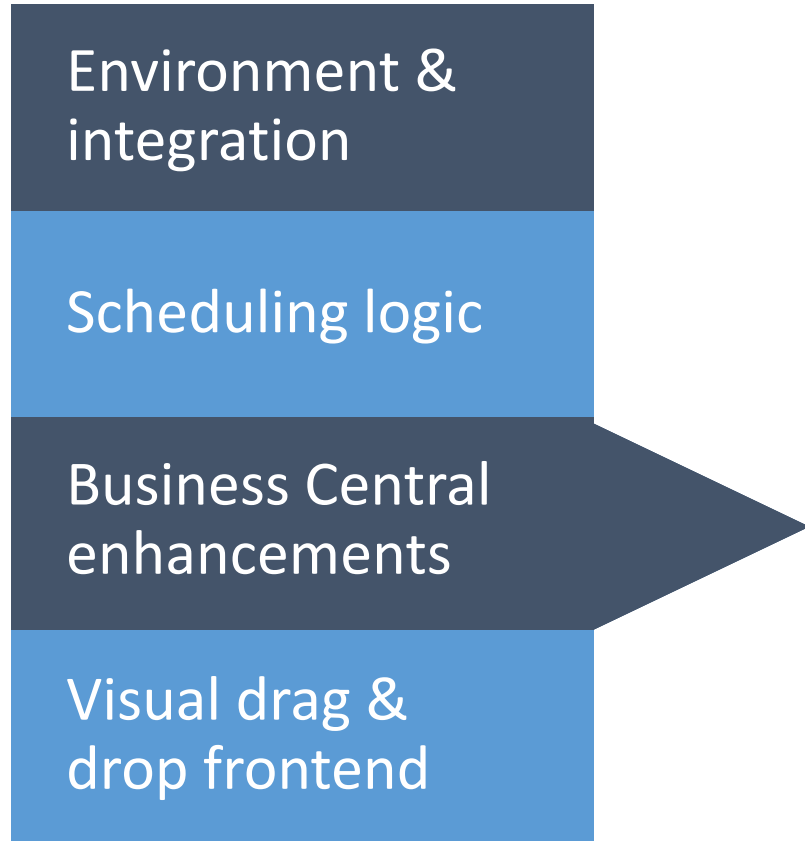
## Scheduling Logic



- Has **no** APS function (no optimized automatic scheduling of the entire schedule based on user-defined criteria)
- Manual drag & drop forward scheduling with a “finite capacity scheduler” supporting the user
  - taking care of routings, links between production order lines and links between production orders
  - avoids “over booking” of work and machine centers
  - recognizes pinned operations
- Provides (semi-)automatic scheduling tools to support dedicated scheduling tasks
  - Prioritize production orders
  - Add production orders to schedule “defensively”
  - Add production orders to schedule and find earliest free (alternative) machine centers
- Differentiates production orders that are planned by VAPS and those that “just” come from Business Central

# VAPS Building Blocks

## Business Central Enhancements

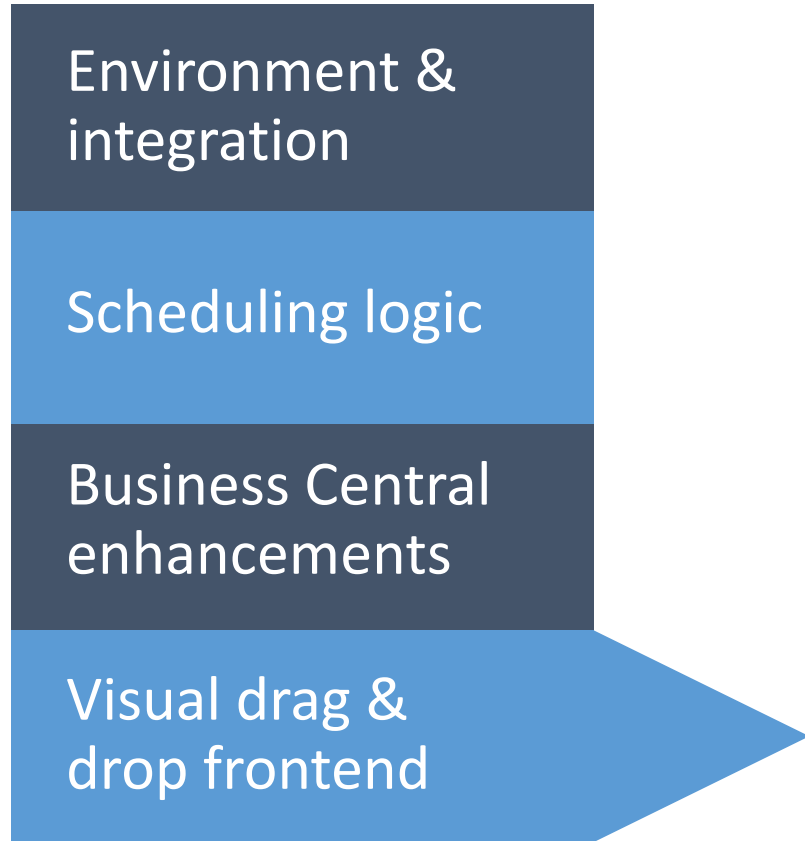


- Capability to pin operations with and without capacity utilization demand
- Capability to define alternative machine centers and production coefficients
- Capability to automatically calculate and display material availability on production order line level
- Lots of smaller enhancements to achieve a smoother scheduling experience



# VAPS Building Blocks

## Visual drag & drop frontend



- Show “not yet by VAPS” scheduled production orders
- Support user-defined color coding of bars (or offer a set of pre-defined color schemes)
- Allow to interactively define block-out or extra time (and visualize properly)
- Enhanced interaction support
  - Highlight “allowed resources”
  - Show symbols for material availability
  - Show vertical lines to indicate timeframe in which an operation can be moved