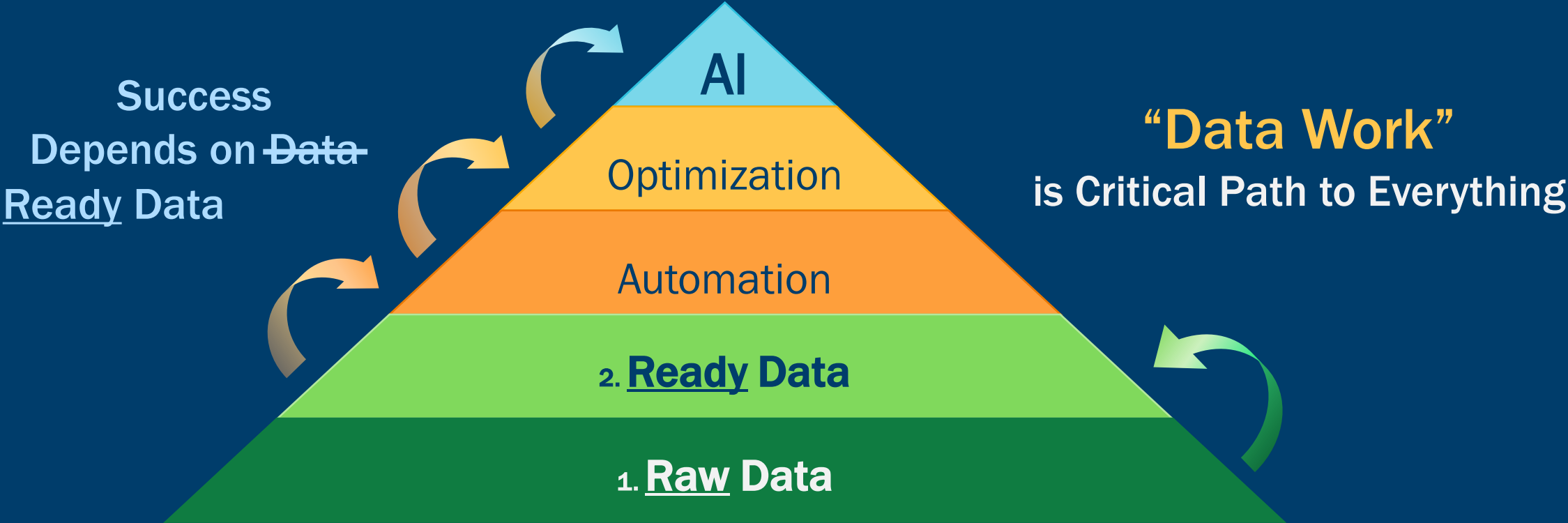




Automate Data Work with AI

Data is the Perfect Place to Start

Modern Distribution is Data Dependent



“Wrangling” Data is Hard Work

Transactional Data



Master & Meta-Data



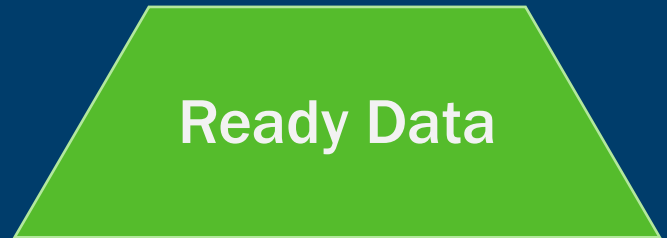
- eComm Product Content
- Match/Dedupe
- Cost Update Automation
- Analytics
- ...

Supplier Files

3rd Party Data



Multiple Systems & Departments



Leading Distributors Automating Data Work



- Client & catalog data work
- Auto-validate automation



- Auto-Classification & Standardization



- ERP prod data to eComm ready



- ERP product standardzn



- 3 Automation Solutions:
Price books, Rebates, Cost files



- Classification
- eComm Titles & Descriptions
- Match/Dedupe



- Hierarchy matching

Fencing Distributor

- Item standardzn & matching



- Product standardization
- Match/Dedupe



- Supplier Cost Automation

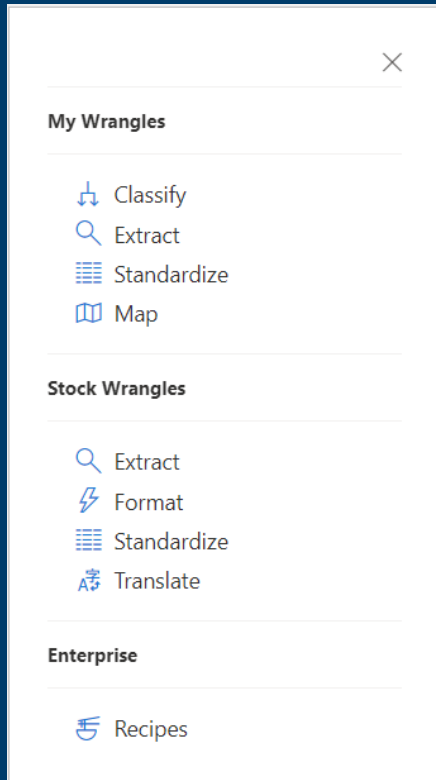


- eComm standzn & enrichment

International JanSan

- eComm standzn & enrichment

Wrangles Platform: Core Capabilities



Wrangles

- Simple data transformations
- Semantic & structural (60+)
- Create and update in Excel (DIY)
- Classify, Extract, Standardize, Map, Format, Translate, ...
- Advanced (Bespoke) Wrangles leverage AI and Python
- *There's a Wrangle for That!*

Recipes

- Automation scripts (series of Wrangles)
- Read, Wrangles, Write (& Run)
- From/To Excel, apps, APIs, databases, ...
- Low-code authoring in Excel or Python IDE (yaml)
- Run from Excel or with Cloud automation
- Scalable, callable, extensible

AI-Powered Platform Capabilities

- **Product Auto-Classification** – categorize items into your taxonomy / hierarchies
- **AI-powered DIY Wrangles** – configurable prompts and OpenAI API to Extract & Standardize
- **Product Description Writing** – generate online descriptions & features from raw product info
- **Semantic Product Matching** – find similar / related products easily at scale
- **Product Research Agent** – unattended web search returning rich product content
- **Language Translation** – accurate translation from / to ~ 30 languages
- **Schema Mapping** – AI suggests which columns map to which
- **Marvin the Recipe Writer (beta)** – chat interface where AI writes Recipes for you

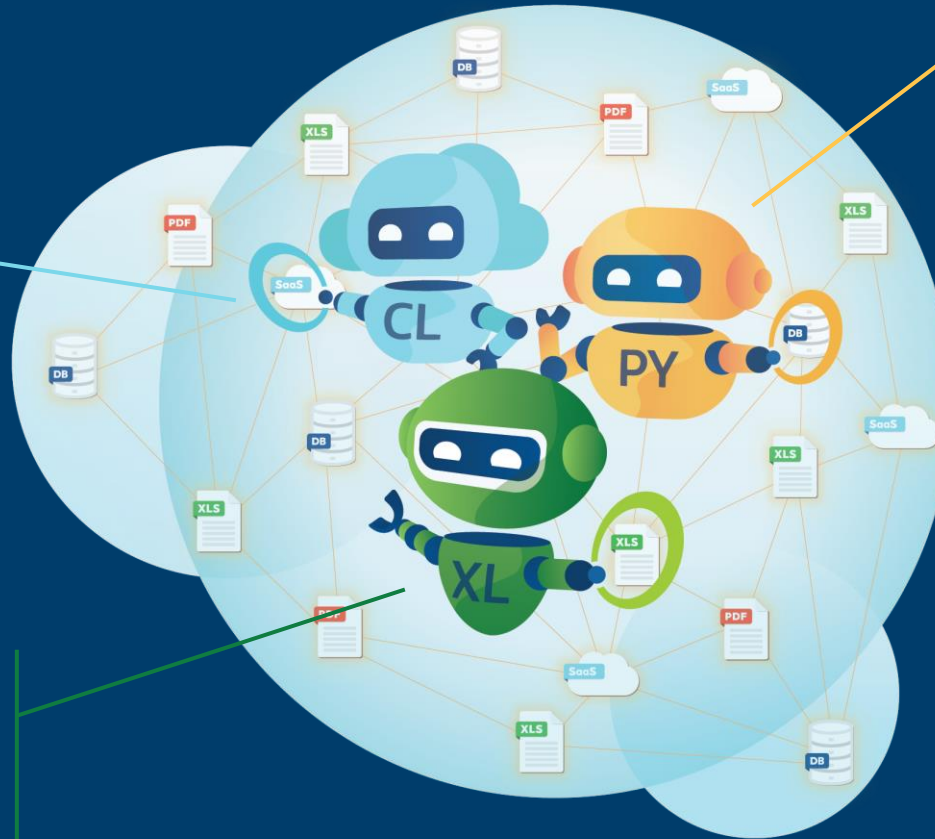
Wrangles Platform

WranglesCL

- Cloud hosting (AWS)
- Elastic compute
- Full automation using Github Actions

WranglesXL

- Core SaaS Product
- Excel is business UI (add-in)
- AI-Powered Wrangles & Recipes
 - No Formulas
 - Sharable content



WranglesPY

- Platform core (Python)
- Primary developer interface
- Easily extensible
- Open Source (Apache)

Bespoke Wrangles

- Custom AI / ML models
- Trained with customer & WrWx reference data
- SaaS license includes ongoing updates

Automated Data Work is a Game Changer

Manual → Data Treadmill

- Lost Sales: incomplete eComm content
- Margin Leakage: slow cost updates
- Poor Productivity: inefficient search, onboarding

Automated → Rich, Reliable Data Feeds

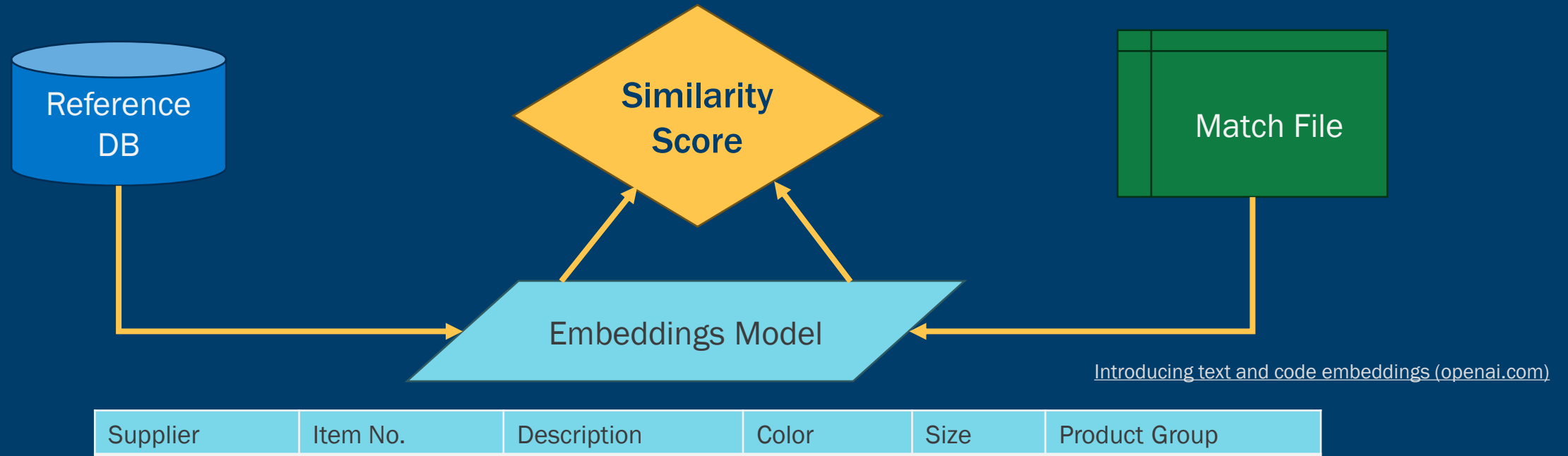
- eComm Growth: complete, standardized content
- Price Optimization: rapid updates, timely analysis
- Accurate & Streamlined: teams do strategic work



Let's Do a Proof-of-Concept (PoC)

- See how Wrangles could address specific data workflows
- Hands-on experience for your team
- Build a business case & project plan
- info@wrangleworks.com

Wrangles “Semantic Matching” Process



Data Work Example: eCommerce Product Data

Raw

Ready



Item	Category	Title	Technical Data	Highlights
JS260	Jig Saw	BOSCH JS260 120-Volt Top-Handle Jigsaw,Blue,6.1 amp	Amperage 6; Bevel Angle Range 45°; Category Jig Saws; Cutting Capacity- Soft Wood 2-11/16"; Cutting Capacity-Mild Steel 0.1875; Dust Blower Yes; Dust Collection No; Height 7.0"; Hertz 60; Jig Saw Blade Type Jig Saw T-Shank; Length 9.25"; Max. Bevel Capacity (°) 45; Max. Bevel Cut 45"; No Load SPM 500-3,100; Rating 120V; Reverse No; Stroke Length (in) 0.75; Tool Level 7 - Cordless - variable speed basic +; Variable Speed Yes; Voltage 120; Weight 5.3lb; Width 3.5"; Works With Anit-Splinter Insert JA1002; Includes (1) JS260 6.0 Amp Top-Handle Jig Saw, (1) Anti-Splinter Insert (201016065), (1) T-Shank Jig Saw Blade	The Bosch JS260 Top-Handle Jig Saw provides a sturdy footplate for cut, as well as a 6.0 Amp motor and variable-speed control. The stur produces up to 3,100 strokes per minute, with a 3/4 In. stroke length speed dial controls the maximum speed, while the accelerator trigge operating speed. This jig saw is engineered with a low-vibration plu cutting accuracy and smooth operation. It has a large heavy-gauge s The JS260's multidirectional blade clamp delivers the superior grip o (but it does not accept U-shank blades). The toolless T-shank blade- makes blade insertion and removal quick. The tool has an always-on max cut-line visibility and an ambidextrous lock-on button.
GWX13-50VSP	X-LOCK Angle Grinders	5 In. X-LOCK Variable-Speed Angle Grinder with Paddle Switch	Adjustable Handle Position Yes; 13 Amps; Height 4.65"; Length 12.1"; No Load RPM 2,800-11,500; Overload Protection Yes; Rating 120V; Spindle Thread N/A; Variable Speed Yes; Voltage 120V; Weight 5.6lb; Wheel Diameter 5"; Width 5.6"; Works With Cutting Dust Extraction/Collection Hoods: 18DC-5E, GA50DC, Metal Type 1A Cutting Guard: 18CG-5E, 18GG-45E; Includes (1) GWX13-50VSP 5 In. X-LOCK Variable-Speed Angle Grinder with Paddle Switch, (1) Vibration	X-LOCK mount minimizes downtime between wheel changes; Power delivers maximum power and productivity; Tool-free changes with si release, lock-in connection. The Bosch GWX13-50VSP 5 In. X-LOCK A Variable Speed with Paddle Switch features the X-LOCK mount, offer change that's up to five times faster than conventional interfaces. T snap when mounting an X-LOCK wheel on an X-LOCK grinder. The wl
DBX4541E	X-LOCK Diamond Blades	4-1/2 In. X-LOCK Xtreme Segmented Diamond Blade	Application Reinforced concrete, brick, stone; Arbor X-LOCK, 7/8"; Cutting Depth 1-1/4"; Diameter 4-1/2"; Segment Thickness 0.075"; Tool Small Angle Grinder / X-LOCK Small Angle Grinder; Includes (1) 4 1/2 In. X-LOCK Xtreme Segmented Diamond Blade	Five-times faster wheel change, reliable mount, more durability; Opt mix for both speed and lifetime; X-LOCK diamond blades are compat arbor mounts
DBX4543S	X-LOCK Diamond Blades	4-1/2 In. X-LOCK Continuous Rim Diamond Blade	Application Ceramic tile, slate; Arbor X-LOCK, 7/8"; Cutting Depth 1-1/4"; Diameter 4-1/2"; Segment Thickness 0.063"; Tool Small Angle Grinder / X-LOCK Small Angle Grinder; Includes (1) 4 1/2 In. X-LOCK Continuous Rim Diamond Blade	Five-times faster wheel change, reliable mount, more durability; Opt mix for both speed and lifetime; X-LOCK diamond blades are compat arbor mounts
RECM12X2	Edge Metal Reciprocating Saw Blades	5 pc. 12 In. 14/18 TPI Edge Reciprocating Saw Blades for Medium Metal	Application Medium metal (1/8"-5/16"); Blade Length 12; Cut Type Medium Metal; Kerf 0.035"; Length 12.0"; Material Bi-Metal; Overall Length 12; Quantity 5	Bosch Edge Reciprocating Saw Blades start sharp, stay sharp, and w technology last up to 3X longer than standard reciprocating saw bla extreme cuts for tough construction uses, these blades deliver the b

PRODUCT NAVIGATION

Attributes

Completeness

Data Quality Insights

History

PRODUCT INFOS

UUID
80454de5-e0a7-4823-b927-3d9c93306319

FAMILY
[Power_Tools]

STATUS
Enabled

CREATED
09/14/2023 09:39 PM by dev

LAST UPDATE
09/15/2023 09:57 PM by dev

GROUPS
[BOSCH]



PRODUCTS / JS260

JS260

Channel: Ecommerce Locale: English

Quality score: IN PROGRESS Completeness: 100%

ITEM

Title
BOSCH Jig Saw (Top, 6A)

SKU
JS260

Item Type
Jig Saw

ATTRIBUTES

Voltage
120 Volt

Stroke Length
0.75 Inch

Cutting Capacity
Soft Wood 2-11/16", Mild Steel 0.1875

Strokes Per Minute
3,100

Current
6 ampere

PROPERTIES

Power Source
Corded

Classify Wrangle: Using AI to Categorize at Scale

The screenshot displays the WrangleWorks interface with a data table and a control panel. The table has the following columns: Item, Category, Your Taxonomy, Title, and Technical Data. The data rows are as follows:

Item	Category	Your Taxonomy	Title	Technical Data
DBX4541E	X-LOCK Diamond Blades	Tools >> Power Tools >> BLADE, RECIPROCATING SAW 0.636	4-1/2 In. X-LOCK Xtreme Segmented Diamond Blade	Application Reinforced concrete, brick, 1-1/4"; Diameter 4-1/2"; Segment Thick X-LOCK Small Angle Grinder; Includes (1) Diamond Blade
DBX4543S	X-LOCK Diamond Blades	Tools >> Power Tools >> BLADE, RECIPROCATING SAW 0.636	4-1/2 In. X-LOCK Continuous Rim Diamond Blade	Application Ceramic tile, slate; Arbor X Diameter 4-1/2"; Segment Thickness 0.0 Small Angle Grinder; Includes (1) 4 1/2 Blade
GWX13-50VSP	X-LOCK Angle Grinders	Tools >> Power Tools >> GRINDER, ANGLE 0.871	5 In. X-LOCK Variable-Speed Angle Grinder with Paddle Switch	Adjustable Handle Position Yes; 13 Am RPM 2,800-11,500; Overload Protection Variable Speed Yes; Voltage 120V; Wei 5.6"; Works With Cutting Dust Extracti Metal Type 1A Cutting Guard: 18CG-5E In. X-LOCK Variable-Speed Angle Grind Control Auxiliary Handle, (1) Wheel Gu
JS260	Jig Saw	Tools >> Power Tools >> SAW, JIG 0.462	BOSCH JS260 120-Volt Top-Handle Jigsaw,Blue,6.1 amp	Amperage 6; Bevel Angle Range 45"; C Wood 2-11/16"; Cutting Capacity-Mild Collection No; Height 7.0"; Hertz 60; Jig 9.25"; Max. Bevel Capacity (°) 45; Max. Rating 120V; Reverse No; Stroke Length variable speed basic +; Variable Speed 3.5"; Works With Anit-Splinter Insert JA Handle Jig Saw, (1) Anti-Splinter Insert
RECM12X2	Edge Metal Reciprocating Saw Blades	Tools >> Power Tools >> BLADE, RECIPROCATING SAW 0.864	5 pc. 12 In. 14/18 TPI Edge Reciprocating Saw Blades for Medium Metal	Application Medium metal (1/8"-5/16" Metal; Kerf 0.035"; Length 12.0"; Mate 5

The left-hand control panel includes a search bar with 'taxo' entered, a 'Run the Wrangle' button circled in orange, and a 'Your Taxonomy' section with 'Bespoke' and 'ISA23' selected.

Extract Wrangle: Using AI to Standardize Attributes

The screenshot shows the WranglesXL (Dev) interface with a table of product data. The 'AI Extract 2.0' wrangle is selected, and its output is shown in column E. A green arrow points from the wrangle name to the resulting JSON output.

	C	D	E
1	Title	Technical Data	AI Extract 2.0
2	4-1/2 In. X-LOCK Xtreme Segmented Diamond Blade	Application Reinforced concrete, brick, stone; Arbor X-LOCK, 7/8"; Cutting Depth 1-1/4"; Diameter 4-1/2"; Segment Thickness 0.075"; Tool Small Angle Grinder / X-LOCK Small Angle Grinder; Includes (1) 4 1/2 In. X-LOCK Xtreme Segmented Diamond Blade	{ "item type": "saw blade", "blade diameter": "4-1/2 in", "application": "Reinforced concrete, brick, stone", "works with": "Small Angle Grinder / X-LOCK Small Angle Grinder", "includes": "(1) 4 1/2 In. X-LOCK Xtreme Segmented Diamond Blade", "cutting depth": "1-1/4 in", "segment thickness": "0.075 in" }
3	4-1/2 In. X-LOCK Continuous Rim Diamond Blade	Application Ceramic tile, slate; Arbor X-LOCK, 7/8"; Cutting Depth 1-1/4"; Diameter 4-1/2"; Segment Thickness 0.063"; Tool Small Angle Grinder / X-LOCK Small Angle Grinder; Includes (1) 4 1/2 In. X-LOCK Continuous Rim Diamond Blade	{ "item type": "saw blade", "blade diameter": "4-1/2 in", "application": "Ceramic tile, slate", "works with": "Small Angle Grinder / X-LOCK Small Angle Grinder", "includes": "(1) 4 1/2 In. X-LOCK Continuous Rim Diamond Blade", "cutting depth": "1-1/4 in", "segment thickness": "0.063 in" }
4	5 In. X-LOCK Variable-Speed Angle Grinder with Paddle Switch	Adjustable Handle Position Yes; 13 Amps; Height 4.65"; Length 12.1"; No Load RPM 2,800-11,500; Overload Protection Yes; Rating 120V; Spindle Thread N/A; Variable Speed Yes; Voltage 120V; Weight 5.6lb; Wheel Diameter 5"; Width 5.6"; Works With Cutting Dust Extraction/Collection Hoods: 18DC-5E, GA50DC, Metal Type 1A Cutting Guard: 18CG-5E, 18GG-45E; Includes (1) GWX13-50VSP 5 In. X-LOCK Variable-Speed Angle Grinder with Paddle Switch, (1) Vibration Control Auxiliary Handle, (1) Wheel Guard	{ "item type": "grinder", "current": "13 Amps", "power source": "corded", "blade diameter": "5 in", "works with": "Cutting Dust Extraction/Collection Hoods: 18DC-5E, GA50DC, Metal Type 1A Cutting Guard: 18CG-5E, 18GG-45E", "includes": "(1) GWX13-50VSP 5 In. X-LOCK Variable-Speed Angle Grinder with Paddle Switch, (1) Vibration Control Auxiliary Handle, (1) Wheel Guard", "strokes per minute": "N/A", "handle type": "adjustable", "height": "4.65 in", "length": "12.1 in", "variable speed": "Yes", "voltage": "120V", "weight": "5.6 lb" }
5	BOSCH JS260 120V Top-Handle Jigsaw, Blue, 6.1 amp	Amperage 6; Bevel Angle Range 45"; Category Jig Saws; Cutting Capacity- Soft Wood 2-11/16"; Cutting Capacity-Mild Steel 0.1875; Dust Blower Yes; Dust Collection No; Height 7.0"; Hertz 60; Jig Saw Blade Type Jig Saw T-Shank; Length 9.25"; Max. Bevel Capacity (*) 45; Max. Bevel Cut 45"; No Load SPM 500-3,100; Rating 120V; Reverse No; Stroke Length (in) 0.75; Tool Level 7 - Cordless - variable speed basic +; Variable Speed Yes; Voltage 120V; Weight 5.3lb; Width 3.5"; Works With Anit-Splinter Insert JA1002; Includes (1) JS260 6.0 Amp Top-Handle Jig Saw, (1) Anti-Splinter Insert (201016065), (1) T-Shank Jig Saw Blade	{ "item type": "jig saw", "current": "6.1 amp", "power source": "corded", "works with": "Anit-Splinter Insert JA1002", "includes": "(1) JS260 6.0 Amp Top-Handle Jig Saw, (1) Anti-Splinter Insert (201016065), (1) T-Shank Jig Saw Blade", "strokes per minute": "500-3,100", "handle type": "top", "blade type": "Jig Saw T-Shank", "dust blower": "Yes", "height": "7.0\"", "length": "9.25\"", "max bevel": "45\"", "stroke length": "0.75\"", "variable speed": "Yes", "voltage": "120V", "weight": "5.3lb" }
6	5 pc. 12 In. 14/18 TPI Edge Reciprocating Saw Blades for Medium Metal	Application Medium metal (1/8"-5/16"); Blade Length 12; Cut Type Medium Metal; Kerf 0.035"; Length 12.0"; Material Bi-Metal; Overall Length 12; Quantity 5	{ "item type": "saw blade", "blade length": "12 in", "application": "Medium metal (1/8\"-5/16\")", "kerf": "0.035 in", "length": "12.0 in" }



There's a **Wrangle** for That!

Eric Hills, CEO
eric@wrangleworks.com

Training Topics

Wrangles

Stock Wrangles

Wrangle Types

DIY “Pattern Matching”
Wrangles

DIY AI Wrangles

Permissions

Map Wrangles

Data Structures

Recipes

Read / Wrangles / Write
Flow

Inputs / Outputs /
Dataframe

Connectors & Matrix
Writing

Variables & Functions

Special Recipe Wrangles
(jinja, python, pandas etc)

APIs and Secrets

Techniques

Using wrangles.io

Refining Descriptions

Map + Recipe

Reuse (Recipes from
Recipes)

Run Actions

Running in VS Code
(& other IDEs)

Automation

Cloud Solution flows

Launch from Excel

GitHub Actions