

21. April 2026

Automate Manual Spreadsheet Work with KNIME



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Spreadsheet pros and cons

Pros

- Familiar, used everywhere
- Quick setup, easy for small tasks
- No coding needed

Cons

- Hard to scale
- Mix data with operations
- Limited automation
- Weak collaboration
- Version chaos

G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
InvoiceId	payment date	due date	days due	status	manager	manager email	company name							
IN-02.0	?	27.03.26	13,00	pending	Britni	britni@provider.co	Company Ed							
IN-02.106	?	10.04.26	-1,00	pending	Jaket	jaket@provider.cor	Company Ai							
IN-02.125	?	16.02.26	52,00	overdue	Jaket	jaket@provider.cor	Company Ar							
IN-02.13	?	30.04.26	-21,00	pending	Lyndsey	lyndsey@provider.c	Company Bs							
IN-02.133	?	21.04.26	-12,00	pending	Britni	britni@provider.co	Company Fg							
IN-02.136	?	17.04.26	-8,00	pending	Cristie	cristie@provider.ci	Company W							
IN-02.137	?	17.04.26	-8,00	pending	Trudy	trudy@provider.coi	Company Cs							
IN-02.139	?	25.01.26	74,00	overdue	Jerrod	jerrod@provider.cc	Company Bi							
IN-02.163	?	24.02.26	44,00	overdue	Phil	phil@provider.com	Company Dv							
IN-02.173	29.09.25	11.02.26	57,00	paid	Jerrod	jerrod@provider.cc	Company Ak							
IN-02.181	?	26.03.26	14,00	pending	Cristie	cristie@provider.ci	Company Fs							
IN-02.185	?	21.05.26	-42,00	pending	Felix	felix@provider.cor	Company Fj							
IN-02.189	?	23.04.26	-14,00	pending	Phil	phil@provider.com	Company Bw							
IN-02.190	?	04.04.26	5,00	pending	Cristie	cristie@provider.ci	Company Ex							
IN-02.196	?	11.03.26	29,00	pending	Jerrod	jerrod@provider.cc	Company Ad							
IN-02.198	?	01.07.26	-83,00	pending	Trudy	trudy@provider.coi	Company Ba							
IN-02.20	?	10.04.26	-1,00	pending	Lyndsey	lyndsey@provider.c	Company X							
IN-02.201	?	27.04.26	-18,00	pending	William	william@provider.c	Company Dy							
IN-02.205	?	01.05.26	-22,00	pending	Jerrod	jerrod@provider.cc	Company Bi							
IN-02.211	?	20.02.26	48,00	overdue	Cristie	cristie@provider.ci	Company Ec							
IN-02.214	?	13.01.26	86,00	overdue	Jerrod	jerrod@provider.cc	Company Cb							
IN-02.220	?	13.05.26	-34,00	pending	Phil	phil@provider.com	Company Cx							
IN-02.229	?	17.03.26	23,00	pending	Trudy	trudy@provider.coi	Company P							
IN-02.234	?	26.12.25	104,00	overdue	Britni	britni@provider.co	Company Dz							
IN-02.238	?	12.03.26	28,00	pending	William	william@provider.c	Company Es							
IN-02.239	?	20.04.26	-11,00	pending	Phil	phil@provider.com	Company Cc							
IN-02.244	?	11.03.26	29,00	pending	Trudy	trudy@provider.coi	Company Cr							
IN-02.247	?	25.04.26	-16,00	pending	William	william@provider.c	Company Ax							
IN-02.251	?	01.05.26	-22,00	pending	Britni	britni@provider.co	Company Ea							
IN-02.255	?	12.05.26	-33,00	pending	Jerrod	jerrod@provider.cc	Company O							
IN-02.262	?	24.03.26	16,00	pending	Britni	britni@provider.co	Company Ed							
IN-02.269	?	02.05.26	-23,00	pending	Lyndsey	lyndsey@provider.c	Company N							
IN-02.276	?	26.03.26	14,00	pending	William	william@provider.c	Company Ci							
IN-02.28	?	08.03.26	32,00	overdue	Felix	felix@provider.com	Company Cq							
IN-02.282	?	21.03.26	19,00	pending	Phil	phil@provider.com	Company Bw							
IN-02.284	?	05.04.26	4,00	pending	Jaket	jaket@provider.cor	Company Dd							
IN-02.286	?	13.02.26	55,00	overdue	Jaket	jaket@provider.cor	Company Ck							
IN-02.289	29.08.25	05.02.26	63,00	paid	Lyndsey	lyndsey@provider.c	Company N							

Row Labels	Sum of value
Britni	187329
Cristie	102742
Felix	78467
Jaket	93992
Jaquelyn	60901
Jerrod	227503
Lyndsey	125894
Phil	95643
Trudy	69292
William	171312
Grand Total	1213075

Manager	Total Value
William	171,312
Trudy	69,292
Phil	95,643
Jaket	93,992
Felix	78,467
Cristie	102,742
Britni	187,329
Jaquelyn	60,901
Jerrod	227,503
Lyndsey	125,894

What is KNIME?

- A tool to make sense of your data
 - Data Analysis, Data Science, Data Engineering
 - Transformation, visualization, reporting
- Open source
- Visual programming paradigm
 - No coding required

The screenshot displays the KNIME Analytics Platform interface. The main workspace shows a workflow with several nodes: Excel Reader, Column Filter, Concatenate, Value Lookup, Row Aggregator, and Bar Chart. The workflow is designed to calculate the total volume of furniture items when moving to a new apartment.

The workflow steps are as follows:

- Excel Reader:** Read three sheets from the same Excel file containing the following information:
 - Furniture in the living room
 - Furniture in the kitchen
 - The estimated volumes of the furniture
- Column Filter:** Exclude the columns from the "Living Room" sheet.
- Concatenate:** Bring the items in the "Kitchen" and "Living Room" in one table.
- Value Lookup:** Append the values of the "Item Name" column based on their IDs.
- Row Aggregator:** For each item, Sum up volumes of the "Item Name" column. Do not aggregate. Calculate the grand total volume of all items.

The interface also shows a table with 17 rows and 2 columns:

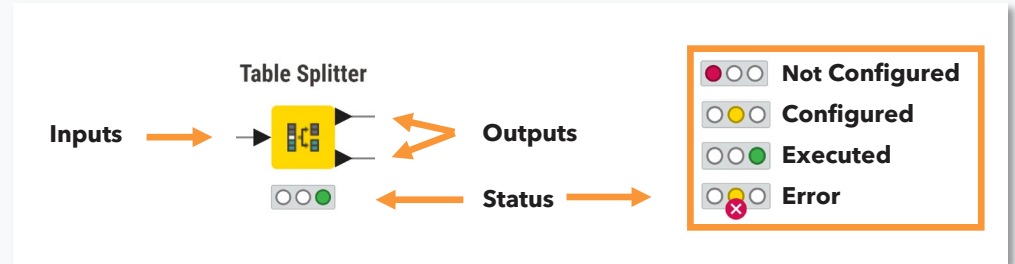
#	Item
1	Row01 Table
2	Row1 Chair
3	Row2 Cupboard
4	Row3 Side table
5	Row4 Fridge
6	Row5 Freezer
7	Row6 Oven
8	Row7 Microwave
9	Row8 Carpet
10	Row9

Two charts are displayed:

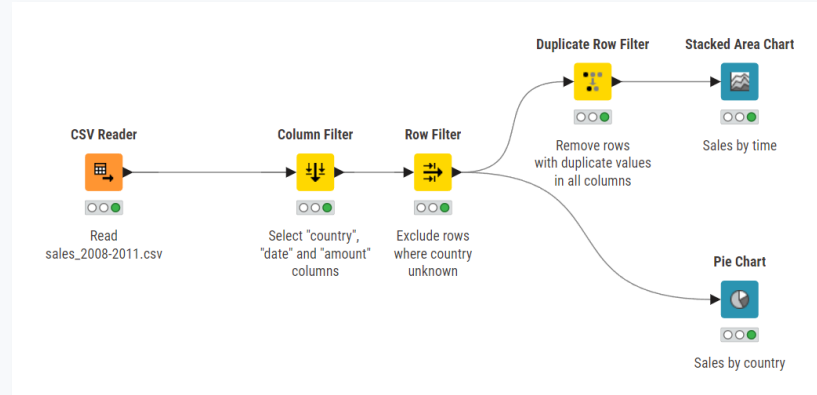
- Basket Size:** A bar chart showing the volume of furniture items in the living room (blue bars) and kitchen (green bars).
- Total Sales:** A stacked area chart showing the total volume of furniture items over time, with the living room volume in blue and the kitchen volume in green.

Nodes and Workflows

- **NODES** perform tasks on data



- Nodes are combined to create **WORKFLOWS**



Advantages of KNIME over Spreadsheets

- Visual programming
 - Explainability + documentation
 - Separate data and operations
- Reusable workflow
 - Versioning
 - Automation
 - Scalability
- On top of your data
 - Many connectors
- AI assistant

The screenshot displays the KNIME Analytics Platform interface. The main workspace shows a workflow titled "Combine Clean and Summarize Spreadsheet Data". The workflow consists of several nodes connected by arrows, representing a data processing pipeline. The nodes are:

- Excel Reader** (Read the first sheet "Kitchen" of the rooms.xlsx file)
- Excel Reader** (Read the "Living Room" sheet of the rooms.xlsx file)
- Excel Reader** (Read the "Dinner" sheet of the rooms.xlsx file)
- Column Filter** (Exclude the comments from the "Living Room" sheet)
- Column Filter** (Exclude the comments from the "Dinner" sheet)
- Column Merger** (Replace missing values in the "Total Volume" column with the value available in the "empty_0" column)
- String to Number** (Change "0ch Volume" column from string to number)
- Concatenate** (Bring the items in the "Kitchen" and "Living Room" in one table)
- Value Lookup** (Append the volumes of the listed items based on their IDs)
- Row Aggregator** (1st output part: Sum up volumes of the listed items. 2nd output part: Calculate the grand total volume of all items.)
- Bar Chart** (A Bar Chart with the amounts of single items or the height)

The workflow is divided into four main stages:

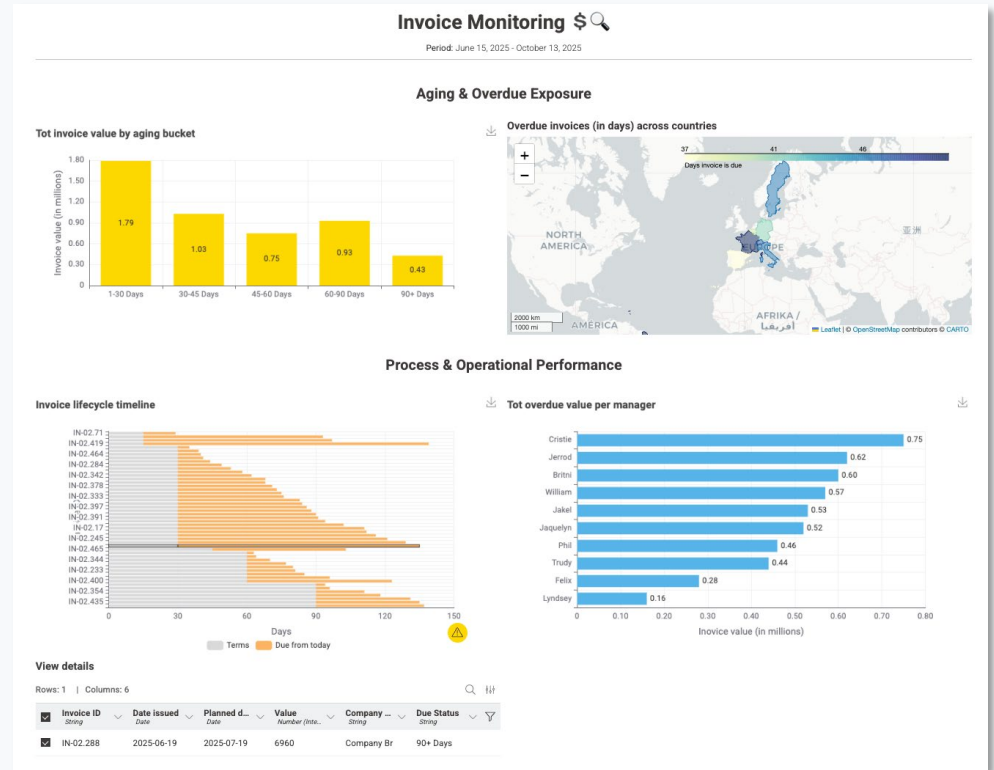
- Read three sheets from the same Excel file containing the following information:**
 - Furniture in the living room
 - Furniture in the kitchen
 - The estimated volumes of the furniture
- Clean up the data by:**
 - removing unnecessary columns
 - shifting data that was entered into a wrong column
 - changing the data type of a column
- Combine data by:**
 - concatenating rows in similar tables
 - appending values from a dictionary
- Calculate the following results:**
 - The volume by furniture type
 - The total volume of all furniture

The bottom of the interface shows a table with 17 rows and 2 columns. The table data is as follows:

#	RowID	Item	Amount
1	Row0	Table	1
2	Row1	Chair	2
3	Row2	Cupboard	1
4	Row3	Side table	1
5	Row4	Fridge	1
6	Row5	Freezer	1
7	Row6	Oven	1
8	Row7	Microwave	1
9	Row8	Carpet	1
10	Row0_0		

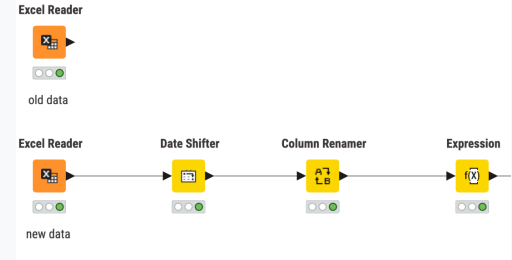
Automate invoice monitoring

- Get latest invoices
- Classify overdue
- Generate report for managers



KNIME Automations

Reusable data workflow



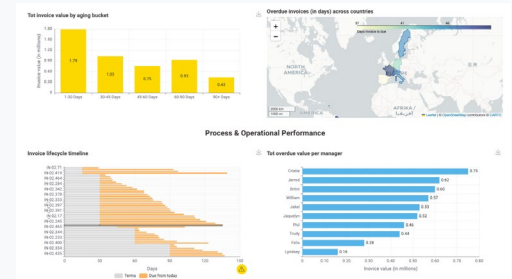
Days

1 ✓	2 ✓	3 ✓	4 ✓	5 ✓	6 ✓	7 ✓
8 ✓	9 ✓	10 ✓	11 ✓	12 ✓	13 ✓	14 ✓
15 ✓	16 ✓	17 ✓	18 ✓	19 ✓	20 ✓	21 ✓
22 ✓	23 ✓	24 ✓	25 ✓	26 ✓	27 ✓	28 ✓
29 ✓	30 ✓	31 ✓	Last day of the month ✓			

Invert selection of days

Schedule execution

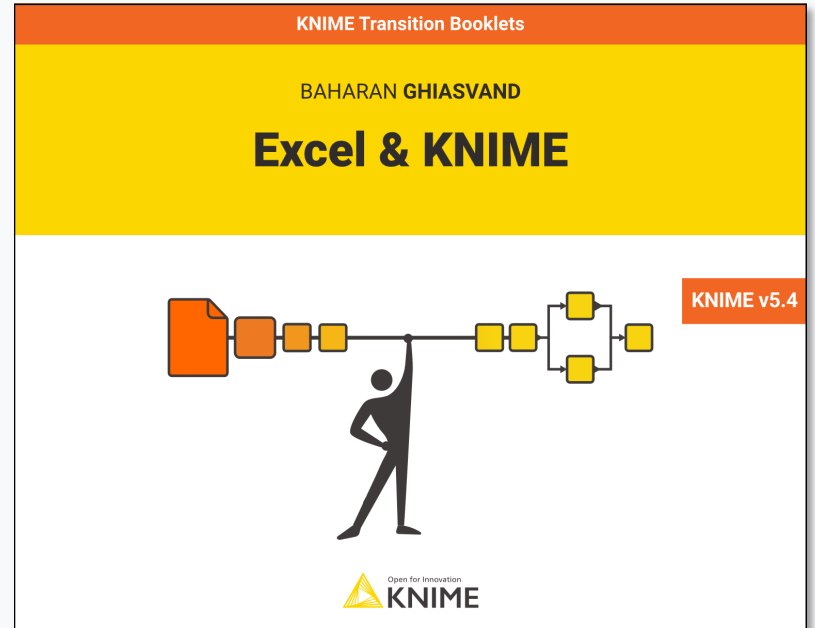
Self service data app



From Excel to KNIME Book

This guide helps you **transition from Excel to KNIME**, as it maps the most used Excel functions like vlookup and other techniques to their KNIME equivalents, taking you through the steps you'd take in Excel and showing you how they can be done in KNIME Analytics Platform.

Download the book at: knime.com/knimepress



Starter Collection

- Workflows blueprints
- List of useful nodes
- Nodes mapped to spreadsheet functions
- Explore the collection at:
<https://hub.knime.com/c/Y0m-e65xNWBFcR20>

The screenshot shows the 'Starter collection' page on the KNIME Community Hub. The breadcrumb trail is 'KNIME Community Hub > knime > Collections > Starter collection'. The page title is 'Starter collection' with a 'Collection' icon. There are filter tags for 'Spreadsheets', 'Excel', 'CSV', and 'Beginners'. The main text says: 'Discover beginner-friendly examples, familiarize yourself with essential nodes, and integrate spreadsheets to start your journey with the KNIME Analytics Platform.' A 'New to KNIME?' callout box on the right says: 'Get started with the Release of Version 5 of the KNIME Analytics Platform to use all the examples and nodes you need for an easy start!' with a 'Download >' button. Below the main text, it shows 'Jul 19, 2024', '24' likes, and a 'Share' button. The 'Workflow examples' section lists: 'Nodes for data access', 'Nodes for visualizing', 'Nodes for data transformation', and 'Cheat sheet: KNIME for spreadsheet users'. The 'Reading spreadsheets' section starts with: 'Start your data analysis journey with KNIME: A beginner's workflow list for reading in data.'


Getting Started Courses

- 30 minutes courses to get started
- Complete the knowledge check and earn a microcredential
- Enroll at <https://knime.learnupon.com/catalog>

■ Course

Open for Innovation
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Deployment
[DATA APPS]




Data Apps - Getting Started

This card features a blue 'Course' button in the top left, the KNIME logo in the top right, and the text 'Deployment [DATA APPS]' on the left. A central icon depicts a data dashboard with a line chart and a table. The bottom half of the card is a solid purple rectangle.

■ Course

Open for Innovation
KNIME

Deployment
[REST SERVICES]



REST Services - Getting Started

This card features a blue 'Course' button in the top left, the KNIME logo in the top right, and the text 'Deployment [REST SERVICES]' on the left. A central icon depicts a flow diagram with a gear. The bottom half of the card is a solid purple rectangle.

■ Course


Open for Innovation
KNIME


Deployment:
[SCHEDULE]




Scheduling and Reporting - Getting Started

This card features a blue 'Course' button in the top left, the KNIME logo in the top right, and the text 'Deployment: [SCHEDULE]' on the left. A central icon depicts a calendar and a clock. The bottom half of the card is a solid purple rectangle.

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Thank you!