



Custom Visual: Matrix

Microsoft PowerBI

Confidential

Matrix: Basic

01

Hours 

Steps

12:00 AM – 1:00 AM CST

26

8:00 AM – 9:00 AM CST

125

10:00 AM – 11:00 AM CST

300

2:00 PM – 3:00 PM CST

303

8:00 PM – 9:00 PM CST

405

Date & Time

Heart Rate

Sat, Oct 16, 2021

54 – 165

12:59:45 AM CST

54

01:55:30 AM CST

60

02:55:45 AM CST

58

03:45:55 AM CST

56

03:46:56 AM CST





57



Note: Need the ability to make row a measure with a grouping (e.g., episode ID)



Matrix: Expansion

02

Date & Time 	Steps 
 Fri, Oct 15, 2021	3,000
 Sat, Oct 16, 2021	3,000
12:05 AM – 12:06 AM CST	26
12:28 AM – 12:38 AM CST	125
12:42 AM – 12:55 AM CST	300
8:42 AM – 8:55 AM CST	303
1:00 PM – 1:05 PM CST	405





Date & Time	Heart Rate (bpm)
 Fri, Oct 15, 2021	50 – 150
 Sat, Oct 16, 2021	55 – 165
12:59:45 AM CST	54
01:55:30 AM CST	60
02:55:45 AM CST	58
03:45:55 AM CST	56
03:46:56 AM CST	57







Note: Ability to choose icon for expansion (i.e., +/-, up / down arrow)



Matrix: Full Expansion

03

 Date & Time 	Kilocalories (kcal)
 Fri, Oct 15, 2021	3,000
 Sat, Oct 16, 2021	3,000
12:05 PM CST Turkey Sandwich with Cheddar Cheese and Lettuce 1 serving	200
12:10 PM CST Fruit Smoothie 8 Fl. Oz.	125
03:10 PM CST Pretzel Chips 20 Chips	100
03:10 PM CST Plain Hummus 5 Oz.	100




 Date & Time 	Kilocalories (kcal)
 Fri, Oct 15, 2021	3,000
 Sat, Oct 16, 2021	3,000
 12:00 PM – 01:00 PM CST	325
12:05 PM CST Turkey Sandwich with Cheddar Cheese and Lettuce 1 serving	200
12:10 PM CST Fruit Smoothie 8 Fl. Oz.	125
 03:00 PM – 04:00 PM CST	200

Note: Need ability to make the entire left column control expansion and only value(s) leads to selection



Matrix: Merge Columns

04

Date 	Blood Pressure (mmHg)
 Fri, Oct 15, 2021	120-115 / 80-75
 Sat, Oct 16, 2021	120-110 / 80-70
12:59:45 AM CST	120 / 80
01:55:30 AM CST	110 / 75
02:55:45 AM CST	111 / 78
03:45:55 AM CST	120 / 80
03:46:56 AM CST	115 / 70


Note: Ability to choose delimiter between columns – use column 1 label for the column



Matrix: Add Columns

05

Option 1: Value First

Date 	Kilocalories (kcal)			
	Morning	Afternoon	Evening	Total
Fri, Oct 15, 2021	300	400	500	1,200
Sat, Oct 16, 2021	250	500	600	1,350
Sun, Oct 17, 2021	300	400	500	1,200
Mon, Oct 18, 2021	250	500	600	1,350
Tue, Oct 19, 2021	300	400	500	1,200
Wed, Oct 20, 2021	250	500	600	1,350
Thu, Oct 21, 2021	300	400	500	1,200


Note: Ability to choose if the value or column is first in the hierarchy



Matrix: Add Columns

06

Option 2: Column Group First

Date 	Morning		Afternoon		Total	
	Calories	Protein	Calories	Protein	Calories	Protein
Fri, Oct 15, 2021	300	50	500	50	800	100
Sat, Oct 16, 2021	250	40	600	60	850	100
Sun, Oct 17, 2021	300	50	500	50	800	100
Mon, Oct 18, 2021	250	40	600	60	850	100
Tue, Oct 19, 2021	300	50	500	50	800	100
Wed, Oct 20, 2021	250	40	600	60	850	100
Thu, Oct 21, 2021	300	50	500	50	800	100

Note: Ability to choose if the value or column is first in the hierarchy



Matrix: Row Highlighting

07

Option 1: Summary Header Highlighted

Date	Steps
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
12:05 AM – 12:06 AM CST	26
12:28 AM – 12:38 AM CST	125
12:42 AM – 12:55 AM CST	300
8:42 AM – 8:55 AM CST	303
1:00 PM – 1:05 PM CST	405

Option 2: Banded Rows

Date	Heart Rate
+ Fri, Oct 15, 2021	50 – 150
- Sat, Oct 16, 2021	55 – 165
12:59:45 AM CST	54
01:55:30 AM CST	60
02:55:45 AM CST	58
03:45:55 AM CST	56
03:46:56 AM CST	57



Matrix: Column Header Format

08



Date & Time	Steps
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
12:05 AM – 12:06 AM CST	26
12:28 AM – 12:38 AM CST	125
12:42 AM – 12:55 AM CST	300
8:42 AM – 8:55 AM CST	303
1:00 PM – 1:05 PM CST	405

	Heart Rate
+ Fri, Oct 15, 2021	50 – 150
- Sat, Oct 16, 2021	55 – 165
12:59:45 AM CST	54
01:55:30 AM CST	60
02:55:45 AM CST	58
03:45:55 AM CST	56
03:46:56 AM CST	57



Matrix: Row Header Format

09

	Steps
 Fri, Oct 15, 2021	3,000
 Sat, Oct 16, 2021	3,000
12:05 AM – 12:06 AM CST	26
12:28 AM – 12:38 AM CST	125
12:42 AM – 12:55 AM CST	300
8:42 AM – 8:55 AM CST	303
1:00 PM – 1:05 PM CST	405

Date & Time	Heart Rate
Fri, Oct 15, 2021	50 – 150
Sat, Oct 16, 2021	55 – 165
12:59:45 AM CST	54
01:55:30 AM CST	60
02:55:45 AM CST	58
03:45:55 AM CST	56
03:46:56 AM CST	57



Interaction: Selected

10

Date	Steps
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
12:05 AM – 12:06 AM CST	26
12:28 AM – 12:38 AM CST	125
12:42 AM – 12:55 AM CST	300
8:42 AM – 8:55 AM CST	303
1:00 PM – 1:05 PM CST	405

Date	Heart Rate
+ Fri, Oct 16, 2021	50 – 150
- Sat, Oct 15, 2021	55 – 165
12:59:45 AM CST	54
01:55:30 AM CST	60
02:55:45 AM CST	58
03:45:55 AM CST	56
03:46:56 AM CST	57

Note: Ability for selected row to go to the top of the matrix based on settings



Interaction: Selected

11

Date	Steps
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
12:05 AM – 12:06 AM CST	26
12:28 AM – 12:38 AM CST	125
12:42 AM – 12:55 AM CST	300
8:42 AM – 8:55 AM CST	303
1:00 PM – 1:05 PM CST	405

Date	Heart Rate
+ Fri, Oct 16, 2021	50 – 150
- Sat, Oct 15, 2021	55 – 165
12:59:45 AM CST	54
01:55:30 AM CST	60
02:55:45 AM CST	58
03:45:55 AM CST	56
03:46:56 AM CST	57

Note: Ability for selected row to go to the top of the matrix based on settings



Interaction: Control Zones

12

Expand / Collapse All Zone

Expand / Collapse Row Zone

"Sort by" Zone

"Sort by" Zone

Selection and Interaction Zone

+ Date & Time	Kilocalories (kcal)
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
12:05 PM CST Turkey Sandwich with Cheddar Cheese and Lettuce 1 serving	200
12:10 PM CST Fruit Smoothie 8 Fl. Oz.	125
03:10 PM CST Pretzel Chips 20 Chips	100
03:10 PM CST Plain Hummus 5 Oz.	100



Fields

- **Row(s):** Allow Multiple Items (*Required*)
- **Group Rows By:** Allow Single Item (*Not Required*)
- **Row Details:** Allow Single Item (*Not Required*)

- **Column(s):** Allow Multiple Items (*Not Required*)
- **Value(s):** Allow Multiple Items (*Required*)
- **Unit(s):** Allow Multiple Items (*Not Required*)

Format Settings (1/3) - Standard

Title (Standard) - *Not Shown*

- **On / Off - Default: Off**
 - Title text - Default: None
 - Title heading - Default: Heading 3
 - Word wrap - Default: On
 - Font color - Default: #000000
 - Background color - Default: None
 - Alignment - Default: Left Justified
 - Text Size - Default: 12 pt
 - Bold - Default: Off
 - Italic - Default: Off
 - Underline - Default: Off
 - Font family - Default: Segoe UI Bold

Shadow (Standard) - *Not Shown*

- **On / Off - Default: Off**
 - Color - Default: #000000
 - Shadow position - Default: Outside (*Options: Outside, Inside*)
 - Present - Default: Bottom right (*Options: Bottom right, Bottom, Bottom left, Right, Center, Left, Top right, Top, Top left, Custom*)
 - Size - Default: 3 px
 - Blur - Default: 10 px
 - Angle - Default: 45 deg
 - Distance - Default: 10 px
 - Transparency - Default: 70%

+ Date & Time	Kilocalories (kcal)
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
- 12:00 PM - 01:00 PM CST	325
12:05 PM CST Turkey Sandwich with Cheddar Cheese and Lettuce 1 serving	200
12:10 PM CST Fruit Smoothie 8 Fl. Oz.	125
+ 03:00 PM - 04:00 PM CST	200

Border (Standard)

- **On / Off - Default: Off**
 - Color - Default: #ffffff
 - Radius - Default: 10 px

Background (Standard)

- **On / Off - Default: Off**
 - Color - Default: #ffffff
 - Transparency - Default: 0%

Note: Order of data in the fields determines order in the Matrix

General (Standard)

- Responsive - Default: On
- X Position - Default: 0
- Y Position - Default: 0
- Width - Default: 100 px
- Height - Default: 100 px
- Maintain layer order - Default: On
- Alt text - Default: None

Visual Header (Standard) - *Not Shown*

- **On / Off - Default: Off**
 - Background color - Default: #ffffff
 - Border - Default: #ffffff
 - Transparency - Default: 0%
 - Icon color - #000000
 - Visual information icon - Default: On
 - Visual warning icon - Default: On
 - Visual error icon - Default: On
 - Drill on dropdown - Default: On
 - Drill up icon - Default: On
 - Drill down icon - Default: On
 - Show next level icon - Default: On
 - Expand to next level icon - Default: On
 - Pin icon - Default: On
 - Focus mode icon - Default: On
 - Filter icon - Default: On
 - See data layout icon - Default: On
 - More options icon - Default: On
 - Visual header tooltip icon - Default: On
 - Comment button - Default: On
 - Personalize visual - Default: On
 - Copy icon - Default: On



Fields & Format (2/3)

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Format Settings (2/3) - Custom

Row

- Row Levels (*Dropdown based on Row Levels*)
 - Row Height – Default: Auto
 - Row Padding – Default: 2 px
 - Fill color – Default: None
 - Fill opacity – Default: 100%
 - Banded fill – Default: Off
 - Banded fill color – Default: None
 - Banded fill opacity – Default: 100%
 - Outline color – Default: #3f464b
 - Outline thickness – Default: 2 px
 - Outline left – Default: Off
 - Outline right – Default: Off
 - Outline top – Default: Off
 - Outline bottom – Default: On
 - Outline radius top-left – Default: 0 px
 - Outline radius top-right – Default: 0 px
 - Outline radius bottom-left – Default: 0 px
 - Outline radius bottom-right – Default: 0 px
 - Font family – Default: Segoe UI Bold
 - Font size – Default: 12 pt
 - Font color – Default: #000000
 - Font bold – Default: Off
 - Font italic – Default: Off
 - Font underline – Default: Off
 - Word wrap – Default: On
 - Position – Default: Left (*Options: Left, Center, Right*)
 - Step indentation: Default: 0 px
 - Expand / collapse – Default: On
 - Expand / collapse icon – Default: chevron (*Options: +/-, chevron*)
 - Expand / collapse icon color – Default: #ffffff
 - Expand / collapse fill color – Default #000000
 - Expand / collapse outline color - #000000
 - Expand / collapse outline thickness – 0 px
 - Expand / collapse outline radius – 2 px

+ Date & Time	Kilocalories (kcal)
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
- 12:00 PM – 01:00 PM CST	325
12:05 PM CST Turkey Sandwich with Cheddar Cheese and Lettuce 1 serving	200
12:10 PM CST Fruit Smoothie 8 Fl. Oz.	125
+ 03:00 PM – 04:00 PM CST	200

Row Continue

- Row details – Default: Off
- Row details font family – Default: Segoe UI Bold
- Row details font size – Default: 12 pt
- Row details font color – Default: #000000
- Row details font bold – Default: Off
- Row details font italic – Default: Off
- Row details font underline – Default: Off
- Row details word wrap – Default: On
- Row details position – Default: Left (*Options: Left, Center, Right*)
- Row details step indentation: Default: 0 px

Column Header

- Row Height – Default: Auto
- Row Padding – Default: 2 px
- Column (*Dropdown based on Column Headers*)
 - Column width – Default: Auto
 - Fill color – Default: None
 - Fill opacity – Default: 100%
 - Outline color – Default: #3f464b
 - Outline thickness – Default: 2 px
 - Outline left – Default: Off
 - Outline right – Default: Off
 - Outline top – Default: Off
 - Outline bottom – Default: On
 - Outline radius top-left – Default: 0 px
 - Outline radius top-right – Default: 0 px
 - Outline radius bottom-left – Default: 0 px
 - Outline radius bottom-right – Default: 0 px
 - Font family – Default: Segoe UI Bold
 - Font size – Default: 12 pt
 - Font color – Default: #000000
 - Font bold – Default: Off
 - Font italic – Default: Off
 - Font underline – Default: Off
 - Word wrap – Default: On
 - Position – Default: Left (*Options: Left, Center, Right*)
 - Step indentation: Default: 0 px
 - Sort icon – Default: On
 - Sort icon color – Default: #000000
 - Sort icon position – Default: Right justified (*Options: Next to text, Right justified*)



Fields & Format (3/3)

15

Format Settings (3/3) - Custom

Values

- Column groups before value – Default: On
- Row Levels (*Dropdown based on Row Levels*)
 - Value aggregation – Default: Field Selection (*Options: Field Selection, Range*)
 - Fill color – Default: None
 - Fill opacity – Default: 100%
 - Banded fill – Default: Off
 - Banded fill color – Default: None
 - Banded fill opacity – Default: 100%
 - Outline color – Default: #3f464b
 - Outline thickness – Default: 2 px
 - Outline left – Default: Off
 - Outline right – Default: Off
 - Outline top – Default: Off
 - Outline bottom – Default: On
 - Outline radius top-left – Default: 0 px
 - Outline radius top-right – Default: 0 px
 - Outline radius bottom-left – Default: 0 px
 - Outline radius bottom-right – Default: 0 px
 - Font family – Default: Segoe UI Bold
 - Font size – Default: 12 pt
 - Font color – Default: #000000
 - Font bold – Default: Off
 - Font italic – Default: Off
 - Font underline – Default: Off
 - Word wrap – Default: On
 - Position – Default: Left (*Options: Left, Center, Right*)
 - Selection interaction – Default: On
 - Selection type – Default: Highlight and Move to Top (*Options: Highlight and Move to Top, Highlight Only, Move to Top Only*)
 - Selected fill color – Default: None
 - Selected fill opacity – Default: 100%
 - Selected outline – Default: On
 - Selected outline color – Default: #8c9093
 - Selected outline thickness – Default: 2 px
 - Selected outline radius – Default: 2 px

Expand / Collapse All

- On / Off – Default: Off
 - Expand / collapse icon – Default: chevron (*Options: +/-, chevron*)
 - Expand / collapse icon color – Default: #ffffff
 - Expand / collapse fill color – Default #000000
 - Expand / collapse outline color - #000000
 - Expand / collapse outline thickness – 0 px
 - Expand / collapse outline radius – 2 px

+ Date & Time	Kilocalories (kcal)
+ Fri, Oct 15, 2021	3,000
- Sat, Oct 16, 2021	3,000
- 12:00 PM – 01:00 PM CST	325
12:05 PM CST Turkey Sandwich with Cheddar Cheese and Lettuce 1 serving	200
12:10 PM CST Fruit Smoothie 8 Fl. Oz.	125
+ 03:00 PM – 04:00 PM CST	200

Units (*Not Shown*)

- On / Off – Default: On
 - Spacer – Default: On
 - Combination Units – Default: None (*Options: feet & inches, hour & minutes, hour & minutes & seconds*)
 - Font family – Default: Segoe UI Bold
 - Font size – Default: 18 pt
 - Font color – Default: #ffffff
 - Font bold – Default: Off
 - Font italic – Default: Off
 - Font underline – Default: Off

Merge Column(s)

- On / Off – Default: Off
 - First Value (*Dropdown based on Value Field*)
 - Second Value – Default: None (*Options: Other Values*)
 - Third Value – Default: None (*Options: Other Values*)
 - Merge / Aggregation Order – Default: Merge First (*Options: Merge First, Aggregate First*)
 - Delimiter – Default: On
 - Delimiter – Default: \ (*Options: Text Input*)

