

## Building a Best Customer Profile – RFM Analysis with Excel

This is the first of two supplements to the “Building a best customer profile” article in our latest catalog. It outlines the RFM process in greater detail, including directions on completing the process using Microsoft Excel.

**Step 1:** Make three copies of a list of your customer base. You can do this in three separate files, or on three worksheets in the same Excel workbook. Make sure to include the header “Company Name”.

On one list, indicate each customer’s recency of purchase (R) using the time period that makes sense for your business. In this sample, R equals the number of months since the customer’s last purchase, with 0 meaning a purchase this month:

	A	B
1	<b>Company Name</b>	<b>Months Since Last Purchase</b>
2	Altech Precision Inc	5
3	Alvord-Polk Tool Co Inc	12
4	Applied Machine Technology Inc	0
5	Armont Industries Inc	3
6	Auto-Tap Inc	6
7	B & D Screw Machine Products	1
8	B & G Tool Co	5
9	B&G Precision Machining & Mfg	8
10	Buckeye Manufacturing Co	9
11	Cleveland Valve & Gage Co	9
12	D S M Manufacturing Co Inc	8
13	G & K Machine	4

Indicate each customer’s frequency of purchase (F) on the second list. While you can use whatever time period you’d like, we’ve used the # of purchases over one year:

	A	B
1	<b>Company Name</b>	<b>Number of Purchases in the Last Year</b>
2	Altech Precision Inc	4
3	Alvord-Polk Tool Co Inc	4
4	Applied Machine Technology Inc	6
5	Armont Industries Inc	5
6	Auto-Tap Inc	4
7	B & D Screw Machine Products	4
8	B & G Tool Co	6
9	B&G Precision Machining & Mfg	4
10	Buckeye Manufacturing Co	6
11	Cleveland Valve & Gage Co	6
12	D S M Manufacturing Co Inc	5
13	G & K Machine	3

List the monetary value (M) of each account on the third list. This sample shows total dollar value of purchases over the past year, but – again – use the measurement that makes the most sense for your business:

	A	B
1	<b>Company Name</b>	<b>Total Dollars Spent in the Last Year</b>
2	Altech Precision Inc	100
3	Alvord-Polk Tool Co Inc	100
4	Applied Machine Technology Inc	50
5	Armont Industries Inc	500
6	Auto-Tap Inc	150
7	B & D Screw Machine Products	450
8	B & G Tool Co	25
9	B&G Precision Machining & Mfg	200
10	Buckeye Manufacturing Co	200
11	Cleveland Valve & Gage Co	300
12	D S M Manufacturing Co Inc	75
13	G & K Machine	550

**Step 2:** Use Excel to sort each list (R, F, and M) from most valuable to least valuable on each of the three factors. The recency sample is below:

	A	B
1	<b>Company Name</b>	<b>Months Since Last Purchase</b>
2	Applied Machine Technology Inc	0
3	Industrial Grinders Co Inc	0
4	Park-Ohio Holdings Corp	0
5	B & D Screw Machine Products	1
6	Midwest Ultrasonics Inc	2
7	K & G Machine Co	2
8	Armont Industries Inc	3
9	P La Rocco Manufacturing Inc	3
10	Vexor Custom Woodworking Tools	3
11	Z & Z Manufacturing Inc	3
12	G & K Machine	4

Once you've sorted each list, you'll assign a numerical score that indicates each company's performance on each list. The top 20% of each list should get a '5', the next 20% a '4' and so on, with the last 20% on each receiving a '1'. This is shown below using the Recency list:

	A	B	C
1	Company Name	Months Since Last Purchase	R Score
2	Applied Machine Technology Inc	0	5
3	Industrial Grinders Co Inc	0	5
4	Park-Ohio Holdings Corp	0	5
5	B & D Screw Machine Products	1	5
6	Midwest Ultrasonics Inc	2	5
7	K & G Machine Co	2	5
8	Armont Industries Inc	3	4
9	P La Rocco Manufacturing Inc	3	4
10	Vexor Custom Woodworking Tools	3	4
11	Z & Z Manufacturing Inc	3	4
12	G & K Machine	4	4
13	U S Electrical Tool Inc	4	4
14	Altech Precision Inc	5	3
15	B & G Tool Co	5	3
16	Thorfinnson Brown Drilling	5	3
17	Weiser Engineering Inc	5	3
18	Auto-Tap Inc	6	3
19	Gem Industries	6	3
20	Monroe Tool & Manufacturing Co	7	2
21	Morse Precision Automatics Co	7	2
22	B&G Precision Machining & Mfg	8	2
23	D S M Manufacturing Co Inc	8	2
24	Superior Bar Products Inc	8	2
25	Zip Tool & Die Co Inc	8	2
26	Cleveland Valve & Gage Co	9	1
27	Buckeye Manufacturing Co	9	1
28	One Source Manufacturing Inc	10	1
29	Alvord-Polk Tool Co Inc	12	1
30	Ohio Components	13	1
31	Kasto-Racine Inc	14	1

Repeat this process with the remaining two lists.

**Step 3:** Calculate the total value for each customer. Go back to your three scored lists and sort them each by company name. Copy the Company Name and R Score columns from the Recency list and paste the two columns into a new file or worksheet. Next, copy the F Score column from the Frequency list and paste it next to the R Score column on the new list. Since both scores were sorted by company name, the new column of F Scores should match the corresponding company names. Do the same with the M Score column on the Monetary list.

	A	B	C	D
1	Company Name	R Score +	F Score +	M Score =
2	Altech Precision Inc	3	3	2
3	Alvord-Polk Tool Co Inc	1	3	2
4	Applied Machine Technology Inc	5	5	1
5	Armstrong Industries Inc	4	4	5
6	Auto-Tap Inc	3	3	3
7	B & D Screw Machine Products	5	3	5
8	B & G Tool Co	3	5	1
9	B&G Precision Machining & Mfg	2	3	3
10	Buckeye Manufacturing Co	1	5	3
11	Cleveland Valve & Gage Co	1	5	4
12	D S M Manufacturing Co Inc	2	4	2
13	G & K Machine	4	2	5
14	Gem Industries	3	2	4

Now use Excel to add the scores for each customer. Label the empty column "Total Value". Click on the first cell underneath the header and enter the following formula (please note the 'B2', 'C2', and 'D2' values correspond to the cells in our sample):

=SUM(B2,C2,D2)

	A	B	C	D	E
1	Company Name	R Score +	F Score +	M Score =	Total Value
2	Altech Precision Inc	3	3	2	=SUM(B2,C2,D2)
3	Alvord-Polk Tool Co Inc	1	3	2	
4	Applied Machine Technology Inc	5	5	1	

Press 'Enter' and Excel will add the R, F and M scores for your first company.

	A	B	C	D	E
1	Company Name	R Score +	F Score +	M Score =	Total Value
2	Altech Precision Inc	3	3	2	8
3	Alvord-Polk Tool Co Inc	1	3	2	
4	Applied Machine Technology Inc	5	5	1	
5	Armstrong Industries Inc	4	4	5	

To repeat this process for the rest of the companies on your list, click on the cell containing the formula you just entered. Move your mouse cursor to the lower right corner of the cell.

	A	B	C	D	E
1	Company Name	R Score +	F Score +	M Score =	Total Value
2	Altech Precision Inc	3	3	2	8
3	Alvord-Polk Tool Co Inc	1	3	2	
4	Applied Machine Technology Inc	5	5	1	
5	Armont Industries Inc	4	4	5	

When a solid black plus sign is displayed, click and drag your mouse down until you've highlighted all of the rows you want to add.

	A	B	C	D	E
1	Company Name	R Score +	F Score +	M Score =	Total Value
2	Altech Precision Inc	3	3	2	8
3	Alvord-Polk Tool Co Inc	1	3	2	
4	Applied Machine Technology Inc	5	5	1	
5	Armont Industries Inc	4	4	5	
6	Auto-Tap Inc	3	3	3	
7	B & D Screw Machine Products	5	3	5	
8	B & G Tool Co	3	5	1	
9	B&G Precision Machining & Mfg	2	3	3	
10	Buckeye Manufacturing Co	1	5	3	
11	Cleveland Valve & Gage Co	1	5	4	
12	D S M Manufacturing Co Inc	2	4	2	
13	G & K Machine	4	2	5	
14	Gem Industries	3	2	4	
15	Industrial Grinders Co Inc	5	2	3	
16	K & G Machine Co	5	5	1	
17	Kasto-Racine Inc	1	1	1	
18	Midwest Ultrasonics Inc	5	4	4	
19	Monroe Tool & Manufacturing Co	2	5	4	
20	Morse Precision Automatics Co	2	4	5	
21	Ohio Components	1	1	1	
22	One Source Manufacturing Inc	1	4	3	
23	P La Rocco Manufacturing Inc	4	2	1	
24	Park-Ohio Holdings Corp	5	2	4	
25	Superior Bar Products Inc	2	2	5	
26	Thorfinnson Brown Drilling	3	1	3	
27	U S Electrical Tool Inc	4	1	2	
28	Vexor Custom Woodworking Tools	4	4	2	
29	Weiser Engineering Inc	3	3	5	
30	Z & Z Manufacturing Inc	4	1	4	
31	Zip Tool & Die Co Inc	2	1	2	
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Release your mouse button, and Excel will add the R, F, and M values for each company on your list.

	A	B	C	D	E
1	Company Name	R Score +	F Score +	M Score =	Total Value
2	Altech Precision Inc	3	3	2	8
3	Alvord-Polk Tool Co Inc	1	3	2	6
4	Applied Machine Technology Inc	5	5	1	11
5	Armont Industries Inc	4	4	5	13
6	Auto-Tap Inc	3	3	3	9
7	B & D Screw Machine Products	5	3	5	13
8	B & G Tool Co	3	5	1	9
9	B&G Precision Machining & Mfg	2	3	3	8
10	Buckeye Manufacturing Co	1	5	3	9
11	Cleveland Valve & Gage Co	1	5	4	10
12	D S M Manufacturing Co Inc	2	4	2	8
13	G & K Machine	4	2	5	11
14	Gem Industries	3	2	4	9
15	Industrial Grinders Co Inc	5	2	3	10
16	K & G Machine Co	5	5	1	11
17	Kasto-Racine Inc	1	1	1	3
18	Midwest Ultrasonics Inc	5	4	4	13
19	Monroe Tool & Manufacturing Co	2	5	4	11
20	Morse Precision Automatics Co	2	4	5	11
21	Ohio Components	1	1	1	3
22	One Source Manufacturing Inc	1	4	3	8
23	P La Rocco Manufacturing Inc	4	2	1	7
24	Park-Ohio Holdings Corp	5	2	4	11
25	Superior Bar Products Inc	2	2	5	9
26	Thorfinnson Brown Drilling	3	1	3	7
27	U S Electrical Tool Inc	4	1	2	7
28	Vexor Custom Woodworking Tools	4	4	2	10
29	Weiser Engineering Inc	3	3	5	11
30	Z & Z Manufacturing Inc	4	1	4	9
31	Zip Tool & Die Co Inc	2	1	2	5
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Now sort your customer list by descending total value. The customers at the top – the ones with the highest scores – are your best.

	A	B	C	D	E
1	Company Name	R Score +	F Score +	M Score =	Total Value
2	Armont Industries Inc	4	4	5	13
3	B & D Screw Machine Products	5	3	5	13
4	Midwest Ultrasonics Inc	5	4	4	13
5	Applied Machine Technology Inc	5	5	1	11