02 Highlight Cells by Value Thresholding

Purpose

Highlight cells in a specified cell range on a worksheet containing complex formatting and other data. For highlighting, use one of three colors to indicate cell value (orange:low, gold:medium, rose:high).



Workflow

In this example we color-highlight cells by their value, in the cell range E12:I19 on the **Data** worksheet in the file data/ DMPK RN-943712.xlsx.

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2	Table 1. Metabolic	Stability o	f Test Compounds	in Human Hepatocytes						
3	Compound ID	Species	in vitro t _{1/2} (min)	in vitro Cl., (uL/min/10 ⁶ cells)						_
4	control	Human	634.85	651.45						
5		Mouse	240.17	215.09						
5	SI3000001-1	Human	511.42	171.43						
7		Mouse	oo*	0.00*						
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0	Table 2. Remaining	g Percentag	ge of Test Compou	nds in Human Hepatocytes	Demololue Demotered	Description Description	Demolulue Demonstration	Demolulue Demonstration	Demolation Demonstra	
1	Compound ID	Species	Assay Format	of 0 min (%)	of 15 min (%)	of 30 min (%)	of 60 min (%)	of 90 min (%)	of 120 min (%)	ge
2	control	Human	Tested Sample	100.00	65.30	46.43	71.42	58.14	43.52	
3		Human	Negative Control	100.00	35.70	70.76	69.11	78.04	64.94	
4		Mouse	Tested Sample	100.00	75.84	10.13	65.01	75.65	39.66	
5		Mouse	Negative Control	100.00	83.65	68.76	35.42	33.35	94.08	
5	SI3000001-1	Human	Tested Sample	100.00	31.87	29.01	42.04	32.15	96.12	
7		Human	Tostod Samela	100.00	46.98	85.68	52.09	21.08	66.78	
5 0		Mause	Negetive Centrel	100.00	05.01	40.97	95.73	25.32	45.25	_
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Before reading any data we make a copy of the input file in the job directory. The original input file is shared by all users of the exercise: creating a copy ensures that the original file is not modified.

Now we start reading from our copy of the file. The values are put into the property "value". We threshold them into 70-80, 80-90, and >90 bins. Each set of data records is then sent into the Cell Highlight component with one of three colors: orange, gold, or rose. The Cell Highlight component works on one cell at a time in a run-to-completion subprotocol. Our copy of the original file is modified repeatedly.

At the end of the protocol we bring up a browser window with download links to the original and result files for comparison.

Excel Automation examples

Results

Here is the result of the protocol.



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4 control Human 634.85 One of 651.45 5 Mouse 240.17 215.09 1 <td>3</td> <td>Compound ID</td> <td>D Species</td> <td>in vitro t_{1/2} (min)</td> <td>in vitro Cl., (uL/min/10⁶ cells)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	3	Compound ID	D Species	in vitro t _{1/2} (min)	in vitro Cl., (uL/min/10 ⁶ cells)						
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8 9 7 10 Table 2. Remaining Percentage Remaining Percentage <th< td=""><td>7</td><td></td><td>Mouse</td><td>oo*</td><td>0.00*</td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	7		Mouse	oo*	0.00*						
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