

如何将 R 语言中的表格数据输出为 Excel 文件

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平台的开放性使得 R 语言具有了丰富的运算功能，使得一些表格数据不能在 Excel 中实现的运算（或是较为繁琐的运算）可以在导入 R 语言之后得到快速而容易的实现。然后，R 语言平台本身对于表格的交互性查看和编辑都不是很方便。因此，倘若把两者结合起来就完美至极了，其它的博文我们大致提了一下如何从表格中导入数据，例如“[怎样用 R 语言处理表格导入数据中的缺省值](http://bbs.sciencenet.cn/home.php?mod=space&uid=508298&do=blog&id=548225)”
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所以，本文只是简单的介绍怎样将在 R 语言平台上生成的或是编辑过得表格数据保存为 Excel 文件。

实例一，将 R 平台上生成的数据保存为 Excel 文件

>	<code>nx <- c(rnorm(10))</code>	随机生成一个包含 10 个正态分布数据的向量（一维表格）
>	<code>nx</code>	查看向量
	<pre>[1] 0.436219296 -0.003864687 1.666923704 -0.755768282 1.070840200 [6] 0.943247037 0.861156081 -1.083567875 -1.137469924 0.303574238</pre>	查看结果
>	<code>write.csv(nx, file="D:/bear.csv")</code>	将向量保存到表格 bear.csv 中
		结果

实例二，将编辑、运算过后的数据导出为 Excel 表格文件

实例一是一个简单的输出操作，旨在让读者掌握输出操作的精髓所在。下面我通过一个稍稍复杂的例子来演示在 R 语言平台和 Excel 表格之间自由交流数据的魅力所在。

>	<code>data<-read.csv("D:\\ziliao\\zhuanye\\R bear\\bearf.csv")</code>	读入表格，存在 data 向量中
>	<code>data</code>	查看向量

	F1.Hz.	F2.Hz.	F3.Hz.	F4.Hz.	F5.Hz.	二维向量的查看结果，6 列、42 行
F6.Hz.						
1	3431.654	4596.179	9642.441	12348.066	3838.552	
	7498.416					
2	3461.062	4524.386	10666.409	11647.196	4754.872	
	7498.416					
3	3411.314	4415.518	10666.409	11166.294	4773.052	
	7498.416					
4	3605.767	3838.552	10666.409	10008.806	4676.657	
	7498.416					
5	3445.936	4754.872	10666.409	9935.201	4813.661	
	7498.416					
6	3500.930	4773.052	10666.409	10051.817	4686.464	
	7498.416					
7	3518.311	4676.657	10666.409	10441.247	4792.689	
	9506.292					
8	3536.907	4813.661	7736.680	11894.051	4739.644	
	8709.927					
9	3545.723	4686.464	8599.928	12063.672	4861.783	
	7913.562					
10	3553.186	4792.689	10824.886	11938.194	4813.760	
	7117.197					
11	3552.418	4739.644	10015.512	11809.212	4819.385	
	8208.955					
12	3553.105	4861.783	11534.382	12513.075	4688.018	
	8278.993					
13	3554.377	4813.760	9760.246	11382.993	4666.107	
	8349.031					
14	3539.068	4819.385	7407.902	11420.825	4788.276	
	8419.069					
15	3514.625	4688.018	7117.997	11035.042	4794.959	
	8489.106					
16	3534.030	4666.107	8525.595	11722.272	4794.926	
	8559.144					
17	3521.814	4788.276	8525.595	10939.196	4819.187	
	8629.182					
18	3588.896	4794.959	8525.595	10921.920	4789.445	
	8699.220					
19	3615.696	4794.926	8525.595	11512.921	4786.146	
	8769.257					
20	3595.440	4819.187	7539.253	11756.123	4787.794	
	8839.295					
21	3595.121	4789.445	6696.898	12120.326	4810.097	
	8909.333					

	22 3596.052 4786.146 6662.958 12316.042 4784.533 8979.371 23 3603.943 4787.794 7415.122 12355.483 4882.977 9049.409 24 3614.603 4810.097 6935.103 11976.211 4896.201 9119.446 25 3605.269 4784.533 7498.416 11756.809 4909.424 9189.484 26 3594.244 4801.659 7498.416 11148.864 4922.647 9259.522 27 3557.889 4777.278 7498.416 11530.219 4935.870 9329.560 28 3533.653 4769.104 7498.416 11038.150 4949.094 9399.597 29 3524.953 4801.545 7498.416 10680.637 4962.317 9469.635 30 3583.689 4746.466 7498.416 10477.168 4975.540 9539.673 31 3601.696 4735.630 7498.416 10999.146 4988.764 9609.711 32 3583.889 4735.707 7498.416 10841.006 5001.987 9679.749 33 3531.654 4684.883 7498.416 10726.529 5015.210 9749.786 34 3524.498 4719.818 7498.416 11226.458 5028.433 9819.824 35 3590.700 4794.351 9506.292 11493.798 5041.657 9889.862 36 3533.200 4741.003 8709.927 12484.489 5054.880 9959.900 37 3508.570 4735.610 7913.562 11674.365 5068.103 10029.938 38 3544.007 4699.263 7117.197 11521.220 5081.327 10099.975 39 3652.210 4622.555 6320.832 12220.909 5094.550 10170.013 40 3657.347 4356.328 9531.433 13190.689 5107.773 10240.051 41 3707.543 4240.136 10560.521 13190.689 5120.996 10310.089 42 3553.006 4480.197 11589.609 10394.072 5134.220 10380.126 >	
	data <- data/100+50	对表格中所有的单元格数据都

		除以 100 之后加上 50
>	data	查看运算后 data 向量
>	<div> <div>F1.Hz. F2.Hz. F3.Hz. F4.Hz. F5.Hz.</div> <div>F6.Hz.</div> <div>1 84.31654 95.96179 146.4244 173.4807 88.38552</div> <div>124.9842</div> <div>2 84.61062 95.24386 156.6641 166.4720 97.54872</div> <div>124.9842</div> <div>3 84.11314 94.15518 156.6641 161.6629 97.73052</div> <div>124.9842</div> <div>4 86.05767 88.38552 156.6641 150.0881 96.76657</div> <div>124.9842</div> <div>5 84.45936 97.54872 156.6641 149.3520 98.13661</div> <div>124.9842</div> <div>6 85.00930 97.73052 156.6641 150.5182 96.86464</div> <div>124.9842</div> <div>7 85.18311 96.76657 156.6641 154.4125 97.92689</div> <div>145.0629</div> <div>8 85.36907 98.13661 127.3668 168.9405 97.39644</div> <div>137.0993</div> <div>9 85.45723 96.86464 135.9993 170.6367 98.61783</div> <div>129.1356</div> <div>10 85.53186 97.92689 158.2489 169.3819 98.13760</div> <div>121.1720</div> <div>11 85.52418 97.39644 150.1551 168.0921 98.19385</div> <div>132.0896</div> <div>12 85.53105 98.61783 165.3438 175.1308 96.88018</div> <div>132.7899</div> <div>13 85.54377 98.13760 147.6025 163.8299 96.66107</div> <div>133.4903</div> <div>14 85.39068 98.19385 124.0790 164.2083 97.88276</div> <div>134.1907</div> <div>15 85.14625 96.88018 121.1800 160.3504 97.94959</div> <div>134.8911</div> <div>16 85.34030 96.66107 135.2559 167.2227 97.94926</div> <div>135.5914</div> <div>17 85.21814 97.88276 135.2559 159.3920 98.19187</div> <div>136.2918</div> <div>18 85.88896 97.94959 135.2559 159.2192 97.89445</div> <div>136.9922</div> <div>19 86.15696 97.94926 135.2559 165.1292 97.86146</div> <div>137.6926</div> <div>20 85.95440 98.19187 125.3925 167.5612 97.87794</div> <div>138.3930</div> </div>	看见了吧，这比在 Excel 表格中的繁琐的“公式输入”、“拖曳”、新建表格等操作容易多了

21	85.95121	97.89445	116.9690	171.2033	98.10097 139.0933
22	85.96052	97.86146	116.6296	173.1604	97.84533 139.7937
23	86.03943	97.87794	124.1512	173.5548	98.82977 140.4941
24	86.14603	98.10097	119.3510	169.7621	98.96201 141.1945
25	86.05269	97.84533	124.9842	167.5681	99.09424 141.8948
26	85.94244	98.01659	124.9842	161.4886	99.22647 142.5952
27	85.57889	97.77278	124.9842	165.3022	99.35870 143.2956
28	85.33653	97.69104	124.9842	160.3815	99.49094 143.9960
29	85.24953	98.01545	124.9842	156.8064	99.62317 144.6964
30	85.83689	97.46466	124.9842	154.7717	99.75540 145.3967
31	86.01696	97.35630	124.9842	159.9915	99.88764 146.0971
32	85.83889	97.35707	124.9842	158.4101	100.01987 146.7975
33	85.31654	96.84883	124.9842	157.2653	100.15210 147.4979
34	85.24498	97.19818	124.9842	162.2646	100.28433 148.1982
35	85.90700	97.94351	145.0629	164.9380	100.41657 148.8986
36	85.33200	97.41003	137.0993	174.8449	100.54880 149.5990
37	85.08570	97.35610	129.1356	166.7437	100.68103 150.2994
38	85.44007	96.99263	121.1720	165.2122	100.81327 150.9998
39	86.52210	96.22555	113.2083	172.2091	100.94550 151.7001
40	86.57347	93.56328	145.3143	181.9069	101.07773 152.4005
41	87.07543	92.40136	155.6052	181.9069	101.20996 153.1009
42	85.53006	94.80197	165.8961	153.9407	101.34220 153.8013

>	<code>write.csv(data, file="D:/bearf2.csv")</code>	将向量保存到表格 bearf2.csv 中（下图）

看到了这里有什么启发吗？呵呵，祝你科研愉快。