# Format Results with displaytable

A time consuming aspect of using Matlab for routine homework solution is formatting tablular results for display. The function `displaytable.m` saves time by allowng you to easily format and label numerical results for display, or for export to a spreadsheet, a document, or html.

`displaytable` is used in many of the following Matlab scripts.

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## Downloading and Installing

`displaytable.m` can be viewed and downloaded from https://gist.github.com/jckantor/8436117. Move to your Matlab directory and it is ready to use.

## Examples

1. Display a simple table

```
A = magic(4);
displaytable(A);
```

```
16   2   3  13
 5  11  10   8
 9   7   6  12
 4  14  15   1
```

2. Annotate a simple result

```
displaytable(pi,'Pi = ');
```

```
Pi =   3.1416
```

3. Display a table with row and column headings

```
displaytable(A,'Row','Col')
```

```
        Col(1)  Col(2)  Col(3)  Col(4)
Row(1)      16       2       3      13
Row(2)       5      11      10       8
```

```
Row(3)       9       7       6      12
Row(4)       4      14      15       1
```

4. Create a table of molecular weights

```
s = {'CH4','C2H6','C3H8'}';
mw = [16.04; 30.07; 44.1];
displaytable(mw,s,'Mol. Wt.');
```

```
      Mol. Wt.
CH4      16.04
C2H6     30.07
C3H8      44.1
```

5. Format a stream table.

```
strms = {'Feed','Rctr. Eff.','Recycle','Purge','Product'};
comps = {'Ethylene','O2','N2','EO'};
flows = 1000*rand(4,5);
displaytable(flows,comps,strms);
```

```
               Feed  Rctr. Eff.     Recycle       Purge     Product
Ethylene      183.91      902.72      337.72      780.25      96.455
O2            239.95      944.79      900.05      389.74      131.97
N2            417.27      490.86      369.25      241.69      942.05
EO            49.654      489.25       111.2      403.91      956.13
```

6. Format a table of molecular weights to include in a web page.

```
displaytable(mw,s,'Mol. Wt.','','html');
```

```
<table border=0 cellpadding=4 cellspacing=4>
  <tr bgcolor="#EFEFEF">
    <td align="left"> </td>
    <th align="center">Mol. Wt.</th>
  </tr>
  <tr bgcolor="#EFEFEF">
    <td align="left">CH4</td>
    <td align="right">   16.04</td>
  </tr>
  <tr bgcolor="#EFEFEF">
    <td align="left">C2H6</td>
    <td align="right">   30.07</td>
  </tr>
```

```
    <tr bgcolor="#EFEFEF">
      <td align="left">C3H8</td>
      <td align="right">    44.1</td>
    </tr>
  </table>
```

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