

Composing HTML documents with hwriter

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Abstract

HTML documents are structured documents made of diverse elements such as paragraphs, sections, columns, figures and tables organized in a hierarchical layout. The structure of an HTML document is represented by a tree where nodes contain the formatting information and leaves the data to be presented (text, numbers, images).

There are several tools for exporting data from R into HTML documents. The package **R2HTML** is able to render a large diversity of R objects in HTML but does not support combining them efficiently in a structured layout and has a complex syntax. On the other hand, the package **xtable** can render R matrices with simple commands but cannot combine HTML elements and lacks formatting options.

The package **hwriter** allows rendering R objects in HTML and combining resulting elements in a structured layout. It uses a simple syntax, supports extensive formatting options (CSS, Javascript) and takes full advantage of the ellipsis '...' argument and R vector recycling rules. Comprehensive documentation and examples of **hwriter** are generated by running the command `example(hwriter)`, which creates the package web page located at <http://www.ebi.ac.uk/~gpau/hwriter>.

Examples

```
> cap=hwrite(c('Plantae', 'Monocot', 'Iris'),  
  bgcolor='grey')  
> print(cap)
```

```
<table border="1"><tr><td bgcolor="grey">  
Plantae</td><td bgcolor="grey">Monocots  
</td><td bgcolor="grey">Iris</td></tr>  
</table>
```

```
> img=hwriteImage('iris3.jpg')  
> hwrite(c(img,cap), 'doc.html', dim=c(2,1))
```



| | | |
|---------|----------|------|
| Plantae | Monocots | Iris |
|---------|----------|------|

```
> p=openPage('doc.html')  
> hwrite('Iris flowers', p, br=T)  
> hwriteImage(c('iris1.jpg', 'iris3.jpg'), p)  
> hwrite(iris[1:2, 1:2], p,  
  row.bgcolor='#e3dcee')  
> closePage(p)
```

Iris flowers



| | Sepal.Length | Sepal.Width |
|---|--------------|-------------|
| 1 | 5.1 | 3.5 |
| 2 | 4.9 | 3 |