Composing HTML documents with hwriter
Gregoire Pau¹, Wolfgang Huber¹

1. EMBL/European Bioinformatics Institute, Genome Campus, Cambridge, UK
* Contact author: gregoire.pau@ebi.ac.uk

Keywords: HTML, reporting, CSS.

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

```r
> 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))
```

---

```r
> 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)
```

---

```
<table>
<thead>
<tr>
<th>Sepal.Length</th>
<th>Sepal.Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.5</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
```

Iris flowers

---

Plantae Monocots Iris