Basic Reporting with IRIS

This tutorial assumes familiarity with the material presented under `DatabaseManagement`

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Clear workspace

```
clear all;
close all;
```

The IRIS report object

The IRIS report object is a quick, easy and flexible tool for producing presentation-quality PDF reports of your results. It offers a lot of the functionality of a full typesetting system such as Latex whithout the hassle of the nasty syntax.

```
x = report.new('My report');
x.publish('my_report.pdf','maketitle',true);
```

A simple report

To be sure the above report is not very informative. The power of the IRIS report object lies in the ease with which one can present content in various forms through several top-level objects:

- table - Start new table in report.
- figure - Start new figure in report.
- matrix - Insert matrix, or numeric array, in report.
- text - Include verbatim text or LaTeX code in report.
- include - Include verbatim text or LaTeX code in report from an external file. Very convenient for structuring things.

You can get help on any of these by typing:

```
help report/object_name
```

```
range = qq(1990,1):qq(2010,4);

d = struct();
d.a = tseries(range,@rand);
d.b = cumsum(d.a);
d.c = diff(d.a);

```

```
x = report.new('My report 2');

x.table('Historic data','range',qq(2008,1):qq(2011,4));
    x.series('Series1',d.a);
    x.series('Series2',d.b);

x.figure('Plot of historic data','range',range);
    x.graph('Series1');
        x.series('Series1',d.a);

x.matrix('Correlation matrix',...
    rand(3),...
    'colnames',{'xx','yy','zz'},...
    'rownames',{'xx','yy','zz'});
x.pagebreak(); [a]

x.text()
%{
This is a fragment of text typset in \LaTeX. IRIS
makes it really easy to incorporate such fragments in reports.
\begin{equation}
E \Psi = \hat{H} \Psi
\end{equation}
%}

x.include('','my_tex.tex')

x.publish('my_report2.pdf','maketitle',true);
```

[a] As the name suggests, this forces a page break in your report.