

# WARNING

The lighting effects used in parts of this presentation contains flashing and flickering which may cause problems for viewers who have photosensitive epilepsy

# L<sup>A</sup>T<sub>E</sub>X and Postscript

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## Why?

- Because Postscript produces the best printout
- Bitmaps (.jpg, .tiff, .giff) can also be included in the L<sup>A</sup>T<sub>E</sub>X document. Not today.

## What package should we use?

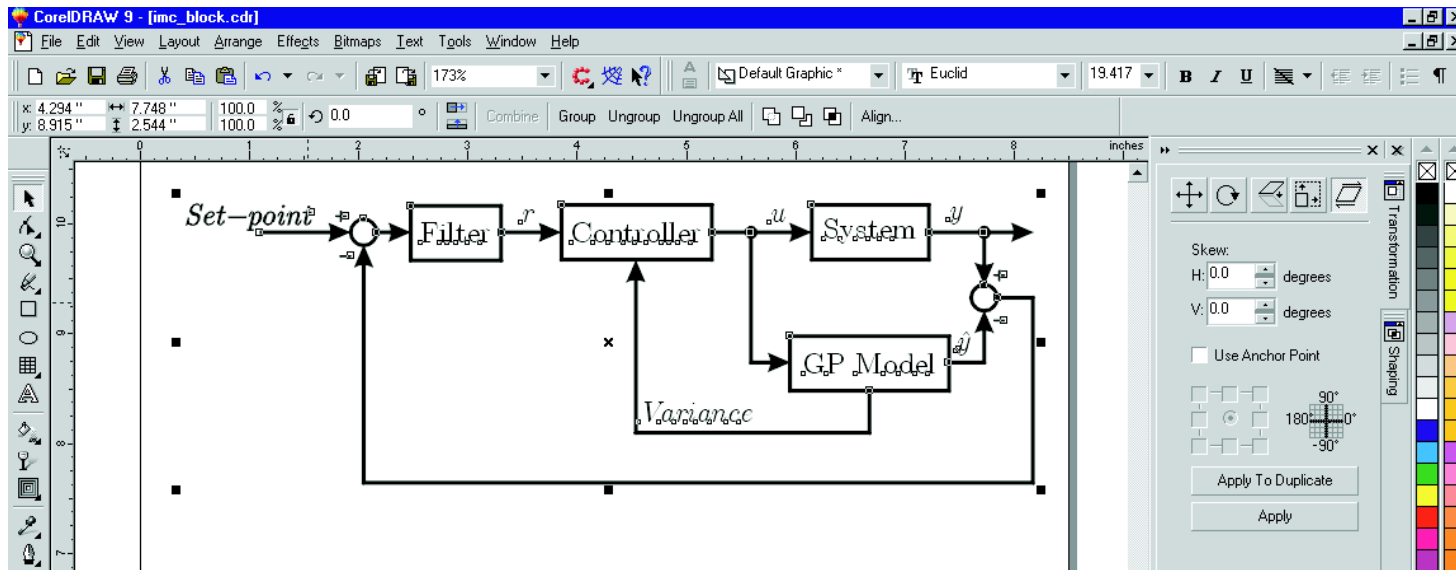
Doesn't really matter, as long as it produces postscript output. I would suggest:

- CorelDRAW for block diagrams.
- Matlab for graphs, charts, ...

## How to... CorelDRAW

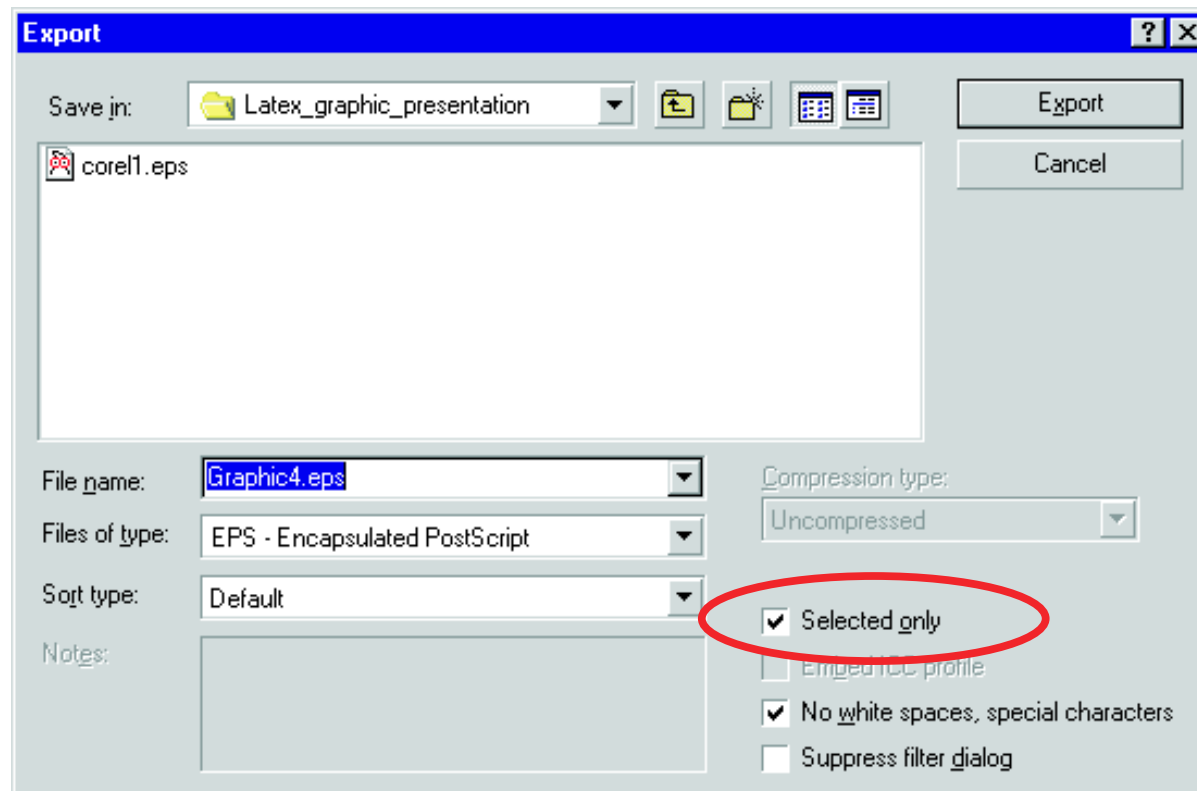
- Draw your block diagram.
- To make it look good, use the same (similar) font for your labels as the font in your document. The most similar font to L<sup>A</sup>T<sub>E</sub>Xfont in CorelDRAW is *Euclid*
- **Select** your artwork

# How to... CorelDRAW



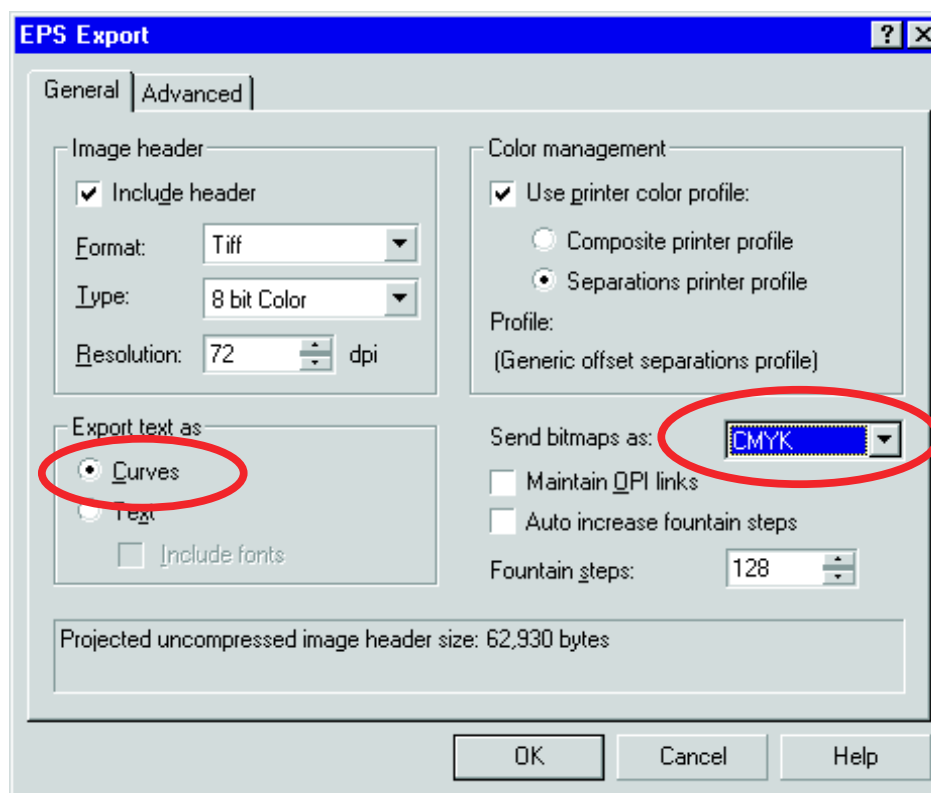
# How to... CorelDRAW

- Go to File\Export... and click *Select Only* box



# How to... CorelDRAW

- Select *Export Text as Curves* and *Send bitmaps as CMYK*



## How to... CorelDRAW

L<sup>A</sup>T<sub>E</sub>X code:

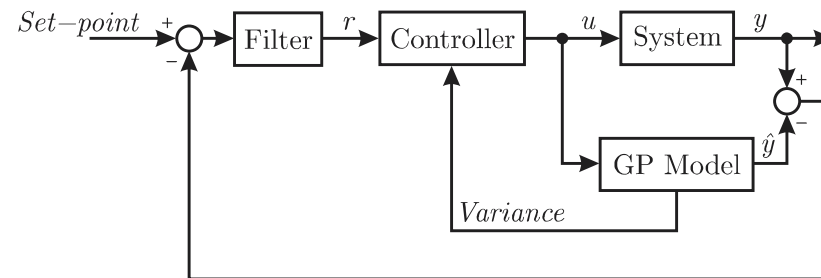
Block diagram can be seen in Fig.~\ref{fig:block}.

```
\begin{figure}[htb]
  \centerline{\includegraphics[width=\linewidth]{block.eps}}
  \caption{IMC Block diagram.}
  \label{fig:block}
\end{figure}
```

produces:

# How to... CorelDRAW

schedule variable. In this paper, the variance constraint is set to be a constant value. Block diagram can be seen in Fig. 7.



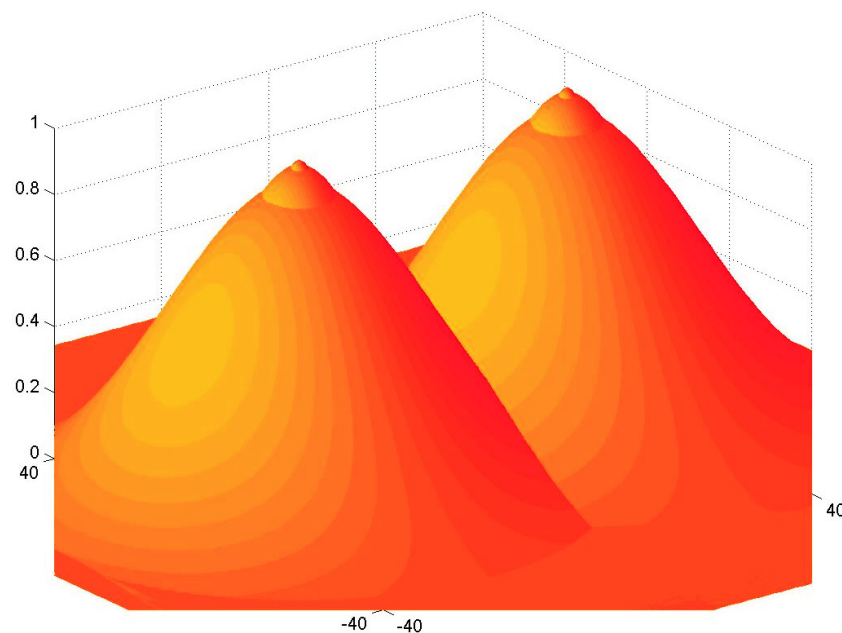
**Fig. 7:** IMC Block diagram.

Constrained nonlinear programming with random restarts was used to optimise the control effort. In this

## How to... Matlab

- Create your plot in Matlab
- Type: `print -deps2 -loose -tiff gauss_bells.eps`

# How to... Matlab



- To include the figure in the L<sup>A</sup>T<sub>E</sub>X document use the same code as shown before.

## Matlab — *Expert mode*

- To make graph look good, the same font as in document should be used in the axis.
- The axis font should be 80% of the text size in the document
- Figure properties can be changed in Matlab

## Matlab — *Expert mode*

```
props = {'Units', 'FontSize', 'FontName', ...  
        'FontWeight', 'LineWidth', 'Layer'}
```

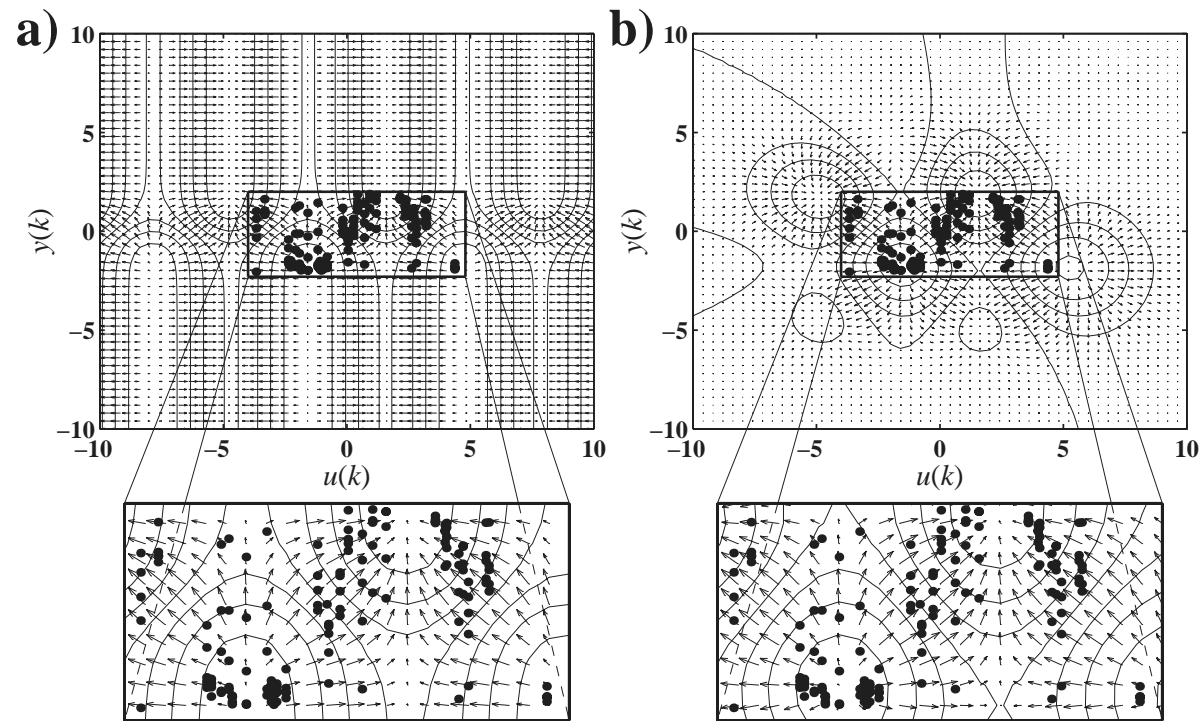
```
vals = {'centimeters', [12], 'NewCenturySchlbk', ...  
       'light',         [1],          'top'}
```

```
set(gcf, 'CurrentAxes', h1)
```

```
set(h1, props, vals)
```

# Matlab — *Expert mode*

Example plot:



# Matlab — *Expert mode*

Matlab template file will be available soon at:

`http://rennes.ucc.ie/~gregorg/latex/`

Thank you