

# Print Layout

## ▼ Introduction

In Maple 2022, you can now work in print layout mode. This mode shows you the current worksheet as it appears for printing, enabling you to see the page boundaries as you author the worksheet.

To turn on print layout mode, do one of the following:

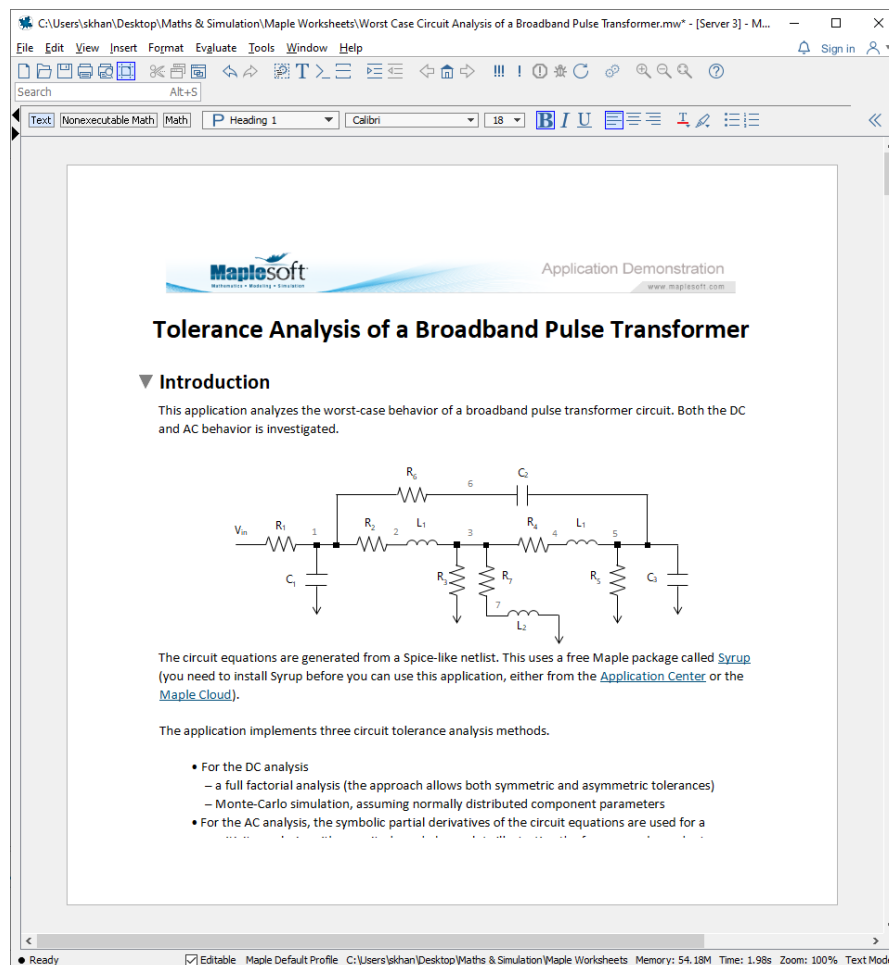
- From the main toolbar, click the Toggle Print Layout Mode icon (.
- From the **File** menu, select **Print Layout Mode**.
- Use the keyboard shortcut

**Ctrl + Shift + L** (Windows and Linux)

**Command + Shift + L** (Mac)

## ▼ Edit the document exactly how it will be printed

You can enter and edit math, text, images and more in Print Layout mode. What you see represents what you get when you print or export the worksheet to a PDF.



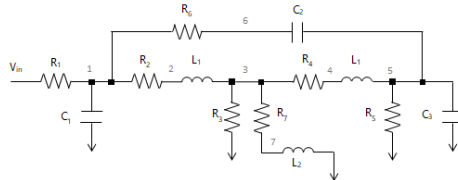
The screenshot displays the Maple 2022 interface in Print Layout mode. The window title is "C:\Users\skhan\Desktop\Maths & Simulation\Maple Worksheets\Worst Case Circuit Analysis of a Broadband Pulse Transformer.mw\* - [Server 3] - M...". The menu bar includes File, Edit, View, Insert, Format, Evaluate, Tools, Window, and Help. The toolbar shows various editing and navigation icons. The document content is as follows:

**Maplesoft** Application Demonstration  
www.maplesoft.com

### Tolerance Analysis of a Broadband Pulse Transformer

#### ▼ Introduction

This application analyzes the worst-case behavior of a broadband pulse transformer circuit. Both the DC and AC behavior is investigated.



The circuit diagram shows an input voltage  $V_{in}$  connected to a series resistor  $R_1$ . This is followed by a node labeled '1' with a capacitor  $C_1$  connected to ground. The circuit continues through a series resistor  $R_2$  and inductor  $L_1$  to node '2'. From node '2', the circuit splits into two parallel branches: one with a resistor  $R_3$  to ground, and another with a resistor  $R_4$  in series with an inductor  $L_2$  to ground. The main path continues through a series resistor  $R_5$  and inductor  $L_1$  to node '5'. From node '5', the circuit splits into two parallel branches: one with a resistor  $R_6$  in series with a capacitor  $C_2$  to ground, and another with a resistor  $R_7$  to ground. The main path continues through a series resistor  $R_8$  and capacitor  $C_3$  to ground. The output is taken from node '6'.

The circuit equations are generated from a Spice-like netlist. This uses a free Maple package called [Syrup](#) (you need to install Syrup before you can use this application, either from the [Application Center](#) or the [Maple Cloud](#)).

The application implements three circuit tolerance analysis methods.

- For the DC analysis
  - a full factorial analysis (the approach allows both symmetric and asymmetric tolerances)
  - Monte-Carlo simulation, assuming normally distributed component parameters
- For the AC analysis, the symbolic partial derivatives of the circuit equations are used for a

At the bottom of the window, the status bar shows: Ready, Editable, Maple Default Profile, C:\Users\skhan\Desktop\Maths & Simulation\Maple Worksheets, Memory: 54.18M, Time: 1.98s, Zoom: 100%, Text Mode.

## ▼ Create Well-Proportioned Tables and Plots

Interactively change the size of plots and tables to create aesthetically-proportioned documents. Set page breaks so that content does not unnecessarily extend over page boundaries.

The screenshot displays a Maple worksheet titled "Worst Case Circuit Analysis of a Broadband Pulse Transformer.mw". The main content includes a table for "Circuit Tolerance Analysis", a section for "Worst Case Circuit Analysis with Monte-Carlo Simulation", and a "Statistical Analysis" section. The statistical analysis shows the minimum and maximum voltages and a histogram of the voltage distribution.

Type	Circuit Tolerance Analysis						
	Extreme Voltage (V)	At Parameter Values					
		R1 ( $\Omega$ )	R2 ( $\Omega$ )	R3 ( $\Omega$ )	R4 ( $\Omega$ )	R5 ( $\Omega$ )	R7 ( $\Omega$ )
Minimum	0.77	10.20	1.530	19600.00	1.530	980.00	.98
Maximum	0.83	9.80	1.470	20400.00	1.470	1020.00	1.02

► Worst Case Circuit Analysis with Monte-Carlo Simulation

▼ Statistical Analysis

Hence the minimum and maximum voltages are:

```
> min(v5_mc); max(v5_mc)
```

0.727593019835887  
0.862989341375894 (3.4.1)

> Statistics-Histogram(v5\_mc)

The histogram shows the distribution of the voltage variable v5\_mc. The x-axis ranges from 0.74 to 0.86, and the y-axis shows frequency from 0 to 20. The distribution is roughly bell-shaped and centered around 0.80.

Ready Editable Maple Default Profile C:\Users\skhan\Desktop\Maths & Simulation\Maple Worksheets Memory: 54.18M Time: 1.98s Zoom: 100% Math Mode