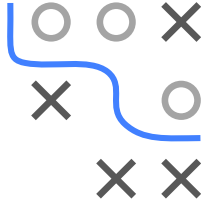
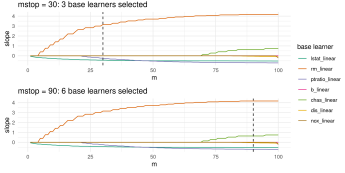
Introduction to Debugging Lectures



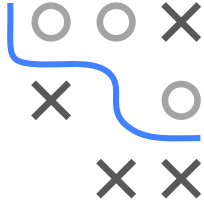
Demo Lecture
Layout Macro Testing With Cannibalized Content



Learning goals

- Test layout
- Fix stuff
- Go home

DEMO SLIDES

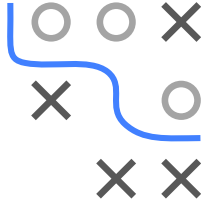


This is a demo lecture chunk.
It is recommended to view these slides as PDF and LaTeX code side by side
Refer to the `slds-lmu/lecture_debug` repository for the source and PDF:

- ▸ Compiled PDF
- ▸ LaTeX source

\SPLITV(TCB)(TCB)

- `\splitVCC` creates two centered columns
- `\splitVTT` creates two top-aligned columns
- `\splitVBB` for bottom-aligned columns



Left column these two columns should both be top-aligned with their unequal content lengths

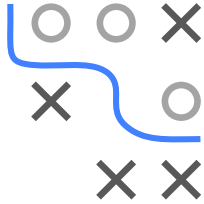
Right column Lorem ipsum dolor sit amet, consectetur adipiscing elit

- Example itemize content for centered columns
- Second itemize item

Lorem ipsum dolor sit amet, consectetur adipiscing elit

\SPLITV WITH UNEQUAL SIZES

You only need to specify the width of the first column:



`\splitVTT[0.75]{left content}{right content}` creates a column with 75% width and the second column will fill the remaining space:

First column with 75% of the text width on the slide

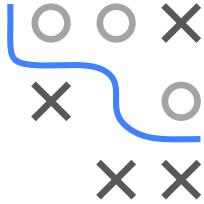
Second column with rest

Tiny column

Second column with a lot of room for activities

TWO COLUMNS, MINIMAL ADJUSTMENTS

Compact version if you do not want to use the full slide width: `\splitVCompact{0.2}{0.2}` only takes up 20% of the slide width in each column for a total of 40% with a minimal horizontal spacer:

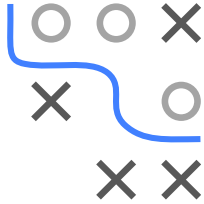


First column with 20%

Second column with 20%

3 COLUMNS

Using `\splitVThree{Left}{Middle}{Right}` for 3 equally sized columns:



First column content is here

Second column content is here as well

And also a third column is here just in case

Then there is `\splitVThreeCustom` for three columns of arbitrary widths, where the width of the third column can also be inferred from the first two

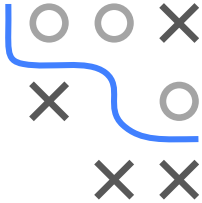
first column with 20% width

second column with 20% width

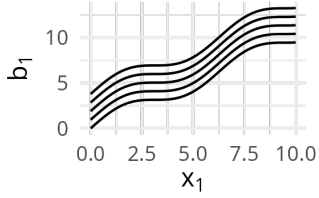
third column with remaining width

TWOBYTWO 2×2 LAYOUT / QUADRANTS

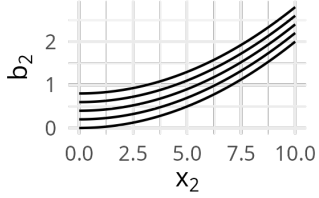
Use `\twobytwo{top left}{top right}{bottom left}{bottom right}` for horizontally aligned quadrants



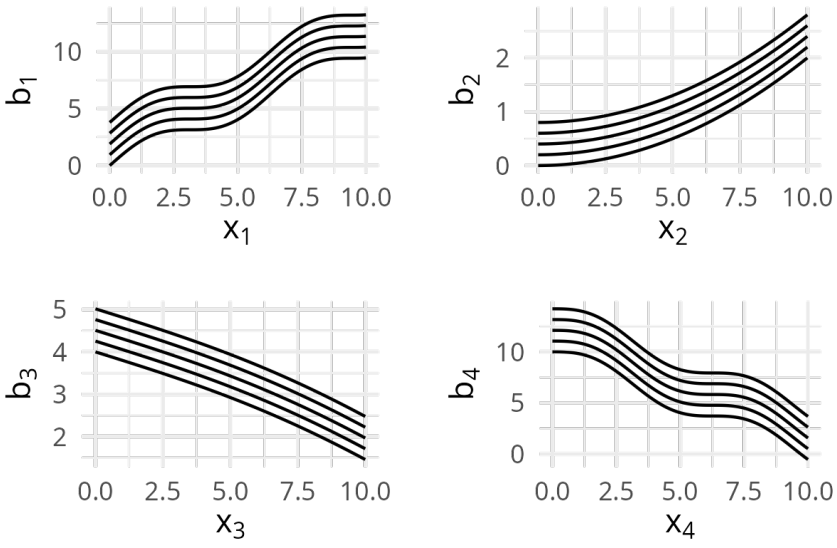
- Example top left...
- ...quadrant content
- Next to a figure

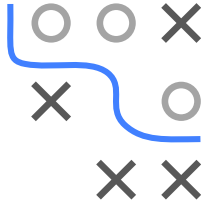


- Bottom left...
- ...quadrant content



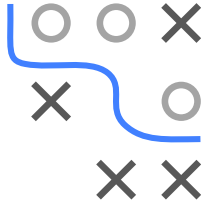
2×2 LAYOUT: ALL IMAGES





ITEMIZE WRAPPERS

Presets fro `itemize` with different vertical spacings (`itemsep`). The default value for `itemsep` is apparently `2pt`. Use `\the \itemsep` to find out the current value.



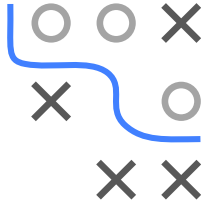
- **Default itemize**
- itemsep is unmodified
- Another thing
- Words
- A fourth thing to show
- Just filling space here
- Hello there

- **Uses environment** `itemizeS`
- itemsep is: -2.0pt
- Another thing
- Words
- A fourth thing to show
- Just filling space here
- Hello there

ITEMIZEM AND ITEMIZEL

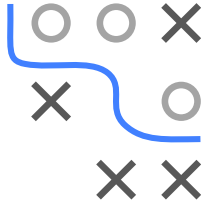
- **Default itemize** with `itemizeM`
- itemsep is unmodified
- Another thing
- Words
- A fourth thing to show
- Just filling space here
- Hello there

- **Uses environment** `itemizeL`
- itemsep is: 15.0pt
- Another thing
- Words
- A fourth thing to show
- Just filling space here
- Hello there



ITEMIZEF FOR VERTICAL FILLING

- **Uses environment** `itemizeF`



- itemsep is: 10.07397pt plus 1.0fill
- Automatically uses all vertical space
- Depends on containing enviornment though!

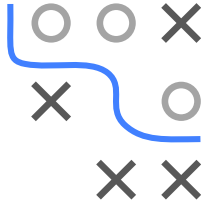
ITEMIZE SPACING AND FONT SIZE CONTROL

itemizeS with small text

- Small font + compact spacing
- Use for detailed lists
- When every line matters

itemizeL with large text:

- Large font + wide spacing
- Makes content stand out
- Ideal for takeaways



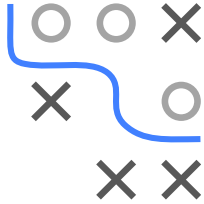
itemizeM with default text:

- Default sizing and spacing works best for most content
- Provides good readability and balanced slide appearance

itemizeM with footnotesize text:

- Default sizing and spacing works best for most content
- Provides good readability and balanced slide appearance

REFERENCE BUTTONS ▸ Author 2025



- Use `\furtherreading` with citation key:
  - Example: ▸ Author 2025
  - Basically same as old citelink / citebutton
- Use `\sourceref` with URL:
  - Direct URL: ▸ Click for source
  - URL with www: ▸ Click for source
- Or use `\sourceref` with citation key:
  - Example: ▸ Click for source
  - Another example: ▸ Click for source
  - Uses the url field in bib file for link:

The buttons have different background colors:

- Light blue background for further reading
- Light orange/peach background for source references

IMAGE TAKING THE FULL SLIDE WIDTH

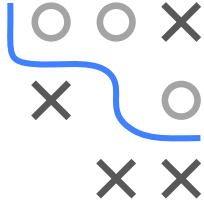
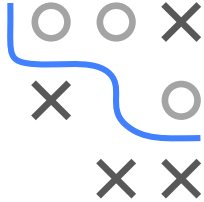
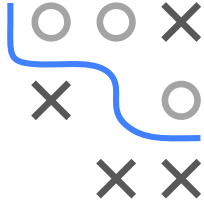


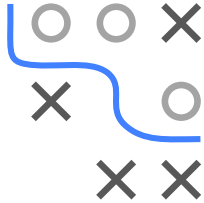
IMAGE USING HALF THE AVAILABLE WIDTH



CENTERED IMAGE USING HALF THE AVAILABLE WIDTH

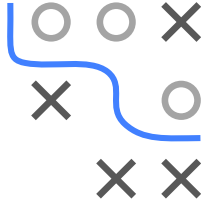


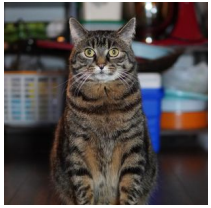
FULL WIDTH CENTERED IMAGE WITH CITEKEY ATTRIBUTION



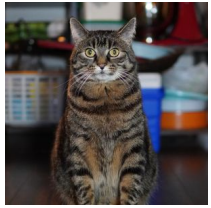
▸ Click for source

IMAGES ATTRIBUTION CAN BE URL OR CITEKEY



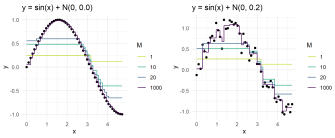


▸ Click for source

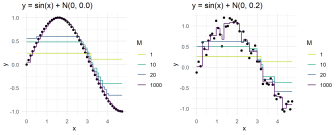


▸ Click for source

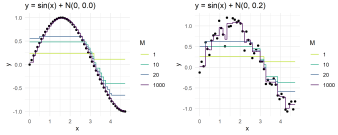
IMAGES WITH ALIGNMENT AND ATTRIBUTION



▸ Click for source



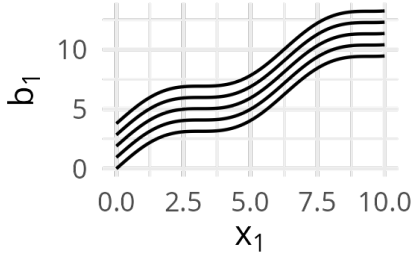
▸ Click for source

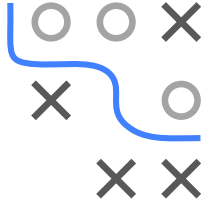


▸ Click for source

IMAGES WITHIN ITEMIZE

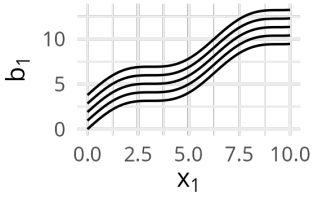
- Foo bar
- Plubber

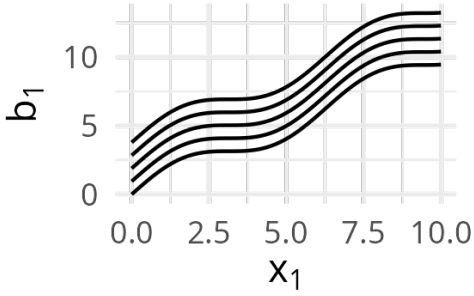


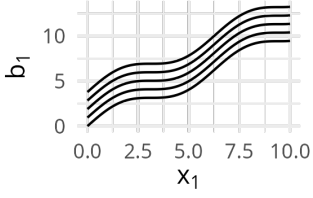


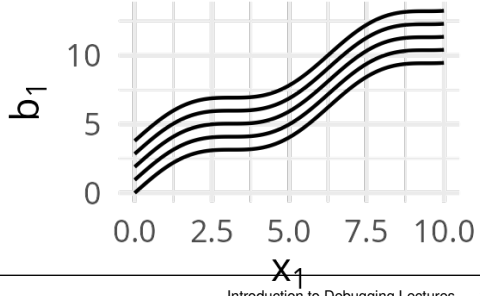
- jfowiehfgnsdlkjnfg

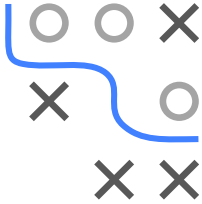
IMAGES WITHIN SPLITV



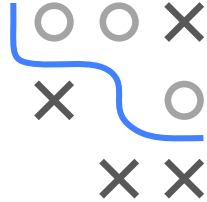






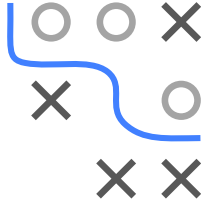


IMAGES WITHIN SPLITVCC



▸ Click for source

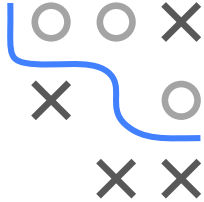
FRAMEI ENVIRONMENT



- This is a frame consisting only of an itemize environment
- Nothing else here, just itemize.
- No extra options yet for alignment or sizing in this case

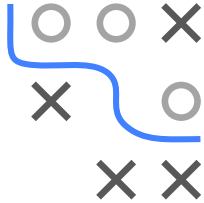
- Look, an image

FRAMEI ENVIRONMENT



- This is a frame consisting only of an itemize environment
- nested items
- Look, an image

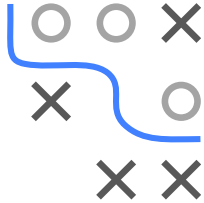
FRAMEI ENVIRONMENT



- This is a frame consisting only of an itemize environment

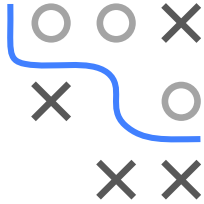
  - nested items
- Look, an image

CUSTOMIZED FRAMEI ENVIRONMENT



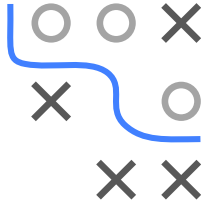
- The `framei` environment supports key-value arguments
- Font size: `fs=small` (or footnotesize, large, etc.)
- Separation: `sep=S` (or M, L, F)
- This example uses `framei[fs=small,sep=S]`
- Perfect for overview slides or detailed lists
- Makes it easy to fit more content on a single slide
- Please don't overdo it

ANOTHER FRAMEI EXAMPLE



- Larger text with wider spacing
- Passed directly to the `framei` environment
- Using `[fs=large,sep=L]`
- For emphasis and impact

A FILLING FRAMEI EXAMPLE



- Larger text with widest spacing
- Passed directly to the `framei` environment
- Using `[fs=large,sep=F]`
- For the glory of hypnotoad

INTEGRATION WITH FRAMEI ENVIRONMENT

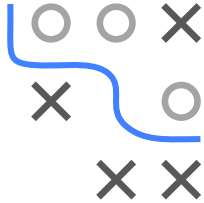
- The framei environment creates an itemize list
- We can nest splitV inside list items
- Using splitVTT within a list item:

▸ Click for source

- This continues the itemize list
- No need for a nested itemize
- The items appear properly beside the image

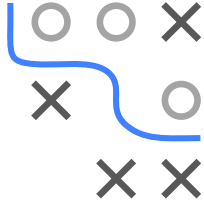
- Back to the main list
- With proper spacing between elements

FRAMEI WITH NESTED ITEMIZE AND FONT SIZE CONTROL

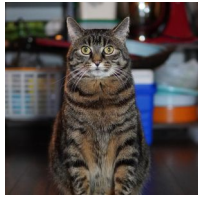


- Item A
  - itemize inherits footnotesize
- Global item
  - itemizeM overrides with tiny fontsize
- Another global item
  - itemizeM inherits footnotesize
- Item B

SPLITV INSIDE REGULAR ITEMIZE



- First regular bullet point
- Some more text in an item

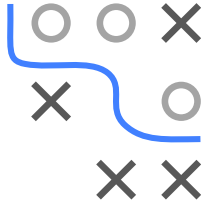


- This appears beside the image
- No need for a nested itemize environment

- Assume data is separable
- We can continue the list afterward
- Another example with top alignment:

- Top-aligned content
- In a normal itemize environment
- Final regular bullet point

FRAME2 LIKE FRAME BUT WITH FONT SIZE PARAMETER

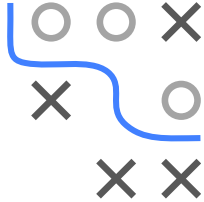


This entire frame uses the small font size.

- this regular itemize list uses the small font size
- you can nest things in here as needed

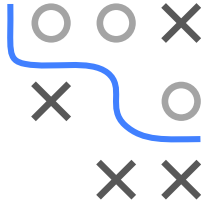
- this itemizeM list overrides the font size
- if you use itemizeM etc. they just inehrit the font size as well

FRAME2 WITH NESTED REGULAR ITEMIZES



- Item A
  - Subitem 1
- Item B

VERBATIM CONTENT



- Verbatim does not work with framei or frame2
- But you can mix itemizeL etc and verbatim
- The important thing is to use "normal" frame environment with `fragile,c`

```
#include<stdio.h>

int main() {
 printf("Hello World\n");
 return 0;
}
```