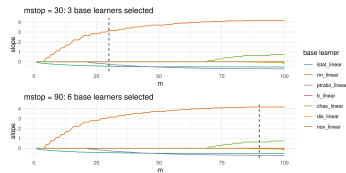


# Introduction to Debugging Lectures

## Demo Lecture

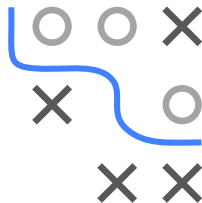
## Layout Macro Testing With Cannibalized Content



### Learning goals

- Test layout
- Fix stuff
- Go home

# DEMO SLIDES



This is a demo lecture chunk.

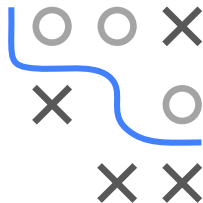
It is recommended to view these slides as PDF and LaTeX code side by side

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

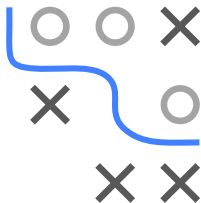
- Example itemize content for centered columns
- Second itemize item

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%

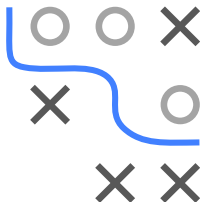
### 3 COLUMNS

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

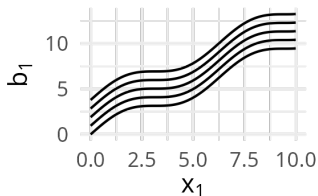
second  
column with  
20% width

third column with remaining width

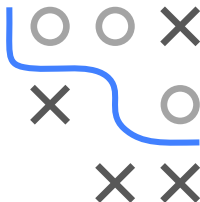
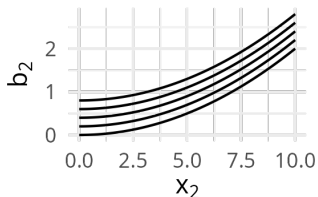
# TWOBYTWO 2×2 LAYOUT / QUADRANTS

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

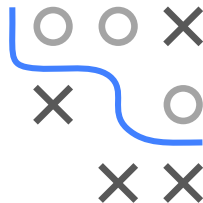
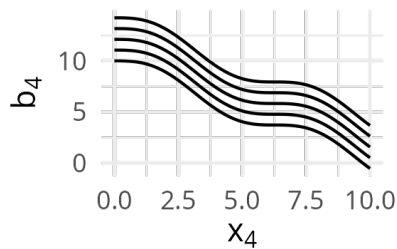
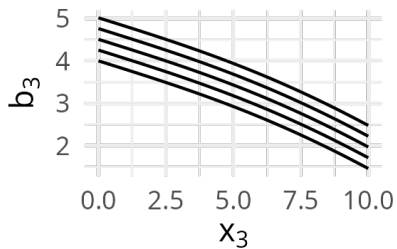
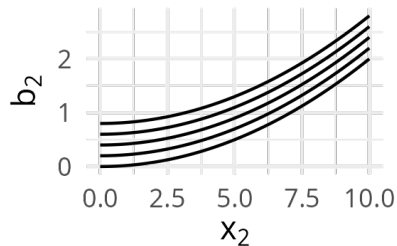
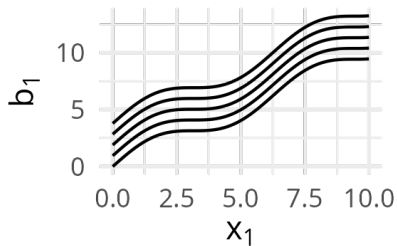
- Example top left...
- ...quadrant content
- Next to a figure



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



## 2×2 LAYOUT: ALL IMAGES





# ITEMIZE WRAPPERS

Presets from `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

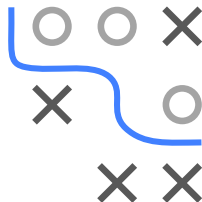
- **Uses environment**

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

# ITEMIZE AND ITEMIZEL

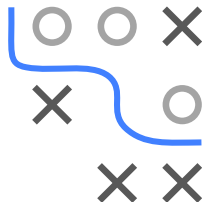
- **Default itemize** with `itemizeM`
- `itemsep` is unmodified
- Another thing
- Words
- A fourth thing to show
- Just filling space here
- Hello there

- **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 environment 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:

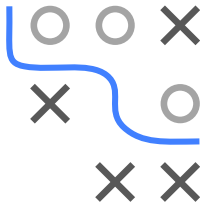
- Large font + wide spacing
- Makes content stand out
- Ideal for takeaways

## 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



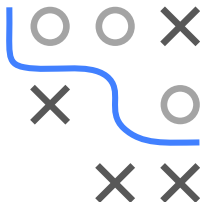
# REFERENCE BUTTONS

▶ Author 2025

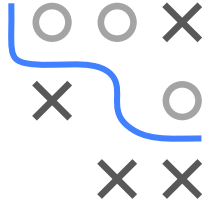
- Use `\furtherreading` with citation key:
  - Example: ▶ Author 2025
  - Basically same as old citelink / citebutton
- Use `\sourceref` with URL:
  - Direct URL: ▶ Click for source
  - URL with www: ▶ Click for source
- Or use `\sourceref` with citation key:
  - Example: ▶ Click for source
  - Another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

The buttons have different background colors:

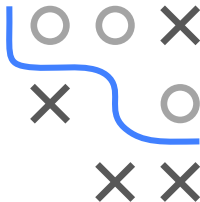
- Light blue background for further reading
- Light orange/peach background for source references



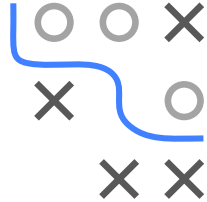
# IMAGE TAKING THE FULL SLIDE WIDTH



# IMAGE USING HALF THE AVAILABLE WIDTH

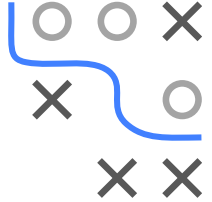


# CENTERED IMAGE USING HALF THE AVAILABLE WIDTH

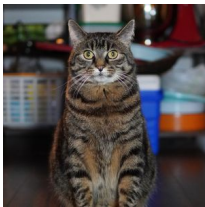




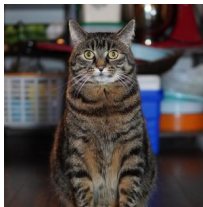
# FULL WIDTH CENTERED IMAGE WITH CITEKEY ATTRIBUTION



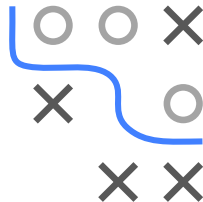
# IMAGES ATTRIBUTION CAN BE URL OR CITEKEY



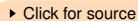
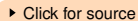
► [Click for source](#)



► [Click for source](#)

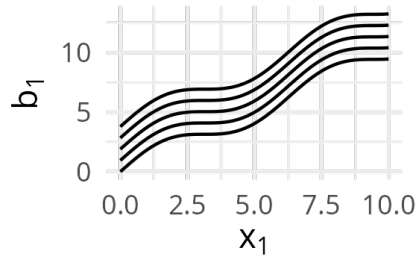


A 3x3 grid with a blue path starting at the top-left cell (0,0) and ending at the bottom-right cell (2,2). The path is composed of three segments: a horizontal segment from (0,0) to (0,1), a vertical segment from (0,1) to (1,1), and a horizontal segment from (1,1) to (2,1). The cells (0,1), (1,0), (1,1), and (2,1) are marked with 'X', while the other cells are empty.

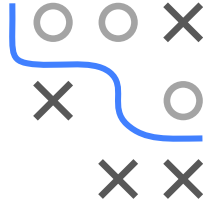


# IMAGES WITHIN ITEMIZE

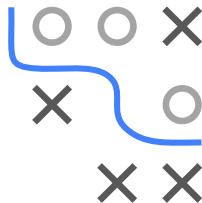
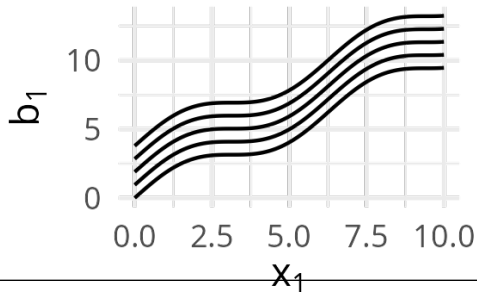
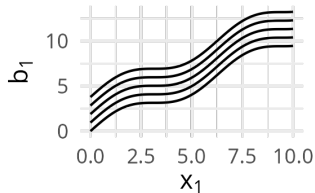
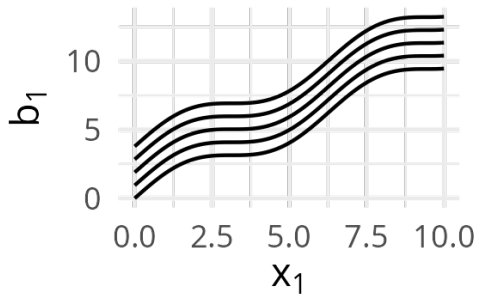
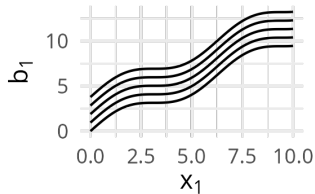
- Foo bar
- Plubber



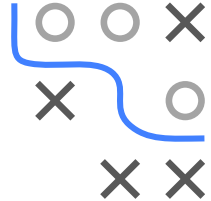
- jfowiehfgnsdlkjnfg



# IMAGES WITHIN SPLITV



# IMAGES WITHIN SPLITVCC



► [Click for source](#)

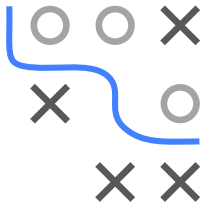


# FRAMEI ENVIRONMENT

- 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

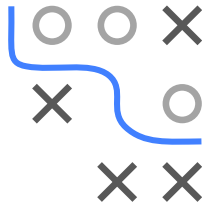


# FRAMEI ENVIRONMENT

- This is a frame consisting only of an itemize environment

- nested items

- Look, an image





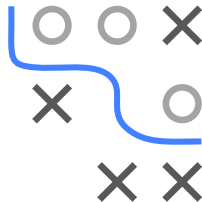
# FRAME ENVIRONMENT

- This is a frame consisting only of an itemize environment



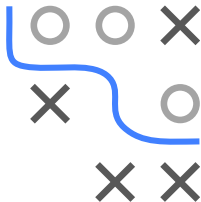
- Look, an image

- nested items



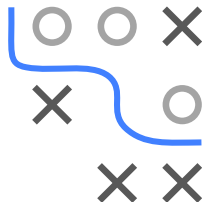
# CUSTOMIZED FRAMEI ENVIRONMENT

- 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



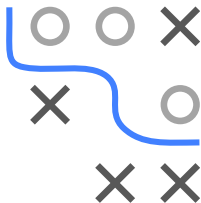
## ANOTHER FRAMEI EXAMPLE

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



# A FILLING FRAMEI EXAMPLE

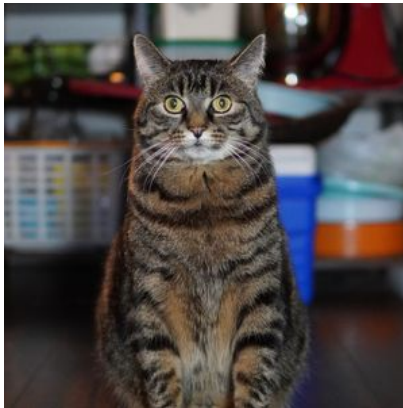
- Larger text with widest spacing
- Passed directly to the `framei` environment
- Using `[fs=large, sep=F]`
- For the glory of hypnotoad



# INTEGRATION WITH FRAMEI ENVIRONMENT

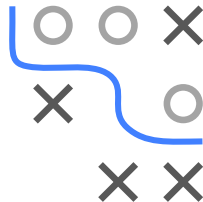
- The framei environment creates an itemize list
- We can nest splitV inside list items
- Using splitVTT within a list item:

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



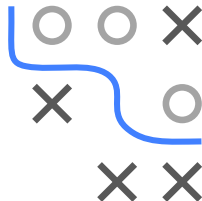
► [Click for source](#)

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



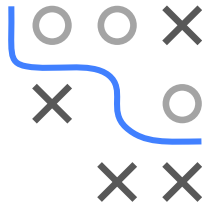
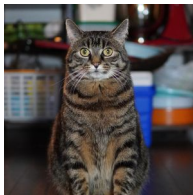
# FRAMEI WITH NESTED ITEMIZE AND FONT SIZE CONTROL

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

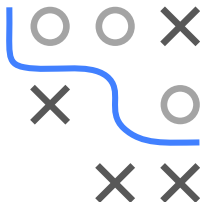


## SPLITV INSIDE REGULAR ITEMIZE

- 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



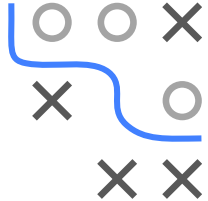
This entire frame uses the small font size.

- 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 inherit the font size as well



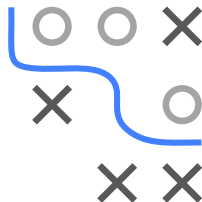
# FRAME2 WITH NESTED REGULAR ITEMIZES

- Item A
  - Subitem 1
- Item B



# VERBATIM CONTENT

- Verbatim does not work with frame1 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;  
}
```