

Beamer Tutorial

CS 213: Software Systems Laboratory

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- 8 Code

Section 1

Overlays Examples

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\pause

- Beamer is a wonderful class
- One can make animations
- One uses the **\pause** command, for example
- in order to bring in important ideas

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\item<n->

- appears from slide 2 on
- appears from slide 3 on
- appears from slide 4 on
- appears from slide 5 on

\item<n->

- appears from slide 2 on
- appears from slide 3 on
- appears from slide 4 on
- appears from slide 5 on

\item<n->

- appears from slide 2 on
- appears from slide 3 on
- appears from slide 4 on
- appears from slide 5 on

\item<n->

- appears from slide 2 on
- appears from slide 3 on
- appears from slide 4 on
- appears from slide 5 on

\item<n->

- appears from slide 2 on
- appears from slide 3 on
- appears from slide 4 on
- appears from slide 5 on

`\item< n-m>` and `\item< p>`

- appears from slide 2 on
- appears from slide 2 to slide 4
- appears on slide 4
- appears from slide 3 on

`\item< n-m>` and `\item< p>`

- appears from slide 2 on
- appears from slide 2 to slide 4
- appears on slide 4
- appears from slide 3 on

`\item< n-m>` and `\item< p>`

- appears from slide 2 on
- appears from slide 2 to slide 4
- appears on slide 4
- appears from slide 3 on

`\item< n-m>` and `\item< p>`

- appears from slide 2 on
- appears from slide 2 to slide 4
- appears on slide 4
- appears from slide 3 on



- L
- A
- T
- E
- X



- L
- A
- T
- E
- X



- L
- A
- T
- E
- X



- L
- A
- T
- E
- X



- L
- A
- T
- E
- X

\onslide

Which president said, “Most folks are about as happy as they make up their minds to be”?

- ☐ A James Madison
- ☐ B Harry Truman
- ☐ C Abraham Lincoln
- ☐ D Calvin Coolidge

Hints:

James Madison ate broccoli.

Harry Truman drank milk.

Abe Lincoln raised bees.

And Cal Coolidge grew silk.

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\onslide

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Replace

\only



Replace

\only

appear from slide 2 on

\only

appear from slide 2 on
appears from 3 to slide 4
appears from slide 3 on

\only

appear from slide 2 on
appears from 3 to slide 4
appears on slide 4
appears from slide 3 on

\uncover

appear from slide 2 on

appears from 3 to slide 4

appears on slide 4

appears from slide 3 on

appear from slide 2 on

appears from 3 to slide 4

appears on slide 4

appears from slide 3 on

appear from slide 2 on
appears from 3 to slide 4
appears on slide 4
appears from slide 3 on

appear from slide 2 on
appears from 3 to slide 4
appears on slide 4
appears from slide 3 on

\only vs. \uncover

- (only) Language used by Beamer: LTEX
- (uncover) Language used by Beamer: LATEX

`\only` vs. `\uncover`

(only) Language used by Beamer: LATEX

(uncover) Language used by Beamer: LATEX

\invisible

This text will be invisible on slide 2, but not on others slides

This text is always visible

Beamer is super powerful

\invisible

This text is always visible
Beamer is **super** powerful

\invisible

This text will be invisible on slide 2, but not on others slides

This text is always visible

Beamer is super powerful

\invisible

This text will be invisible on slide 2, but not on others slides
This text is always visible
Beamer is super powerful

Replace

\alt

I am not on slide 3

\alt

I am not on slide 3
appears from slide 2 on

\alt

I am on slide 3
appears from slide 2 on
appears from slide 3 to slide 4

appears from slide 3 on

\alt

I am not on slide 3
appears from slide 2 on
appears from slide 3 to slide 4
appears on slide 4
appears from slide 3 on

Replace

\temporal

I am on slide 1-2

\temporal

I am on slide 1-2
appears from slide 2 on

\temporal

I am on slide 3
appears from slide 2 on
appears from slide 3 to slide 4

appears from slide 3 onwards



\temporal

I am on slide 4
appears from slide 2 on
appears from slide 3 to slide 4
appears on slide 4
appears from slide 3 onwards

This text is red

```
\alert
```

This text is red

This text is red

<+ - | alert @ + >

- Robert De Niro
- Brian De Palma
- Gerard Depardieu
- Tux

$$\langle + - | \text{alert} @ + \rangle$$

- Robert De Niro
- Brian De Palma
- Gerard Depardieu
- Tux

$$\langle + - | \text{alert} @ + \rangle$$

- Robert De Niro
- Brian De Palma
- Gerard Depardieu
- Tux

Blue color

\color with overlay specifications

Some colors ...

Green color

Yellow color !!!

Red color

Blue color

\color with overlay specifications

Some colors ...

Green color

Yellow color !!!

Red color

Blue color

Blue color

`http://www.iitdh.ac.in`

IIT Dharwad

The link will point to this frame

\hyperlink{...} and Buttons

▶ Go to button

▶▶ Skip button

◀ Return

Block title

This is a block in blue

Alert-block title

This is a block in red

Example-block title

This is a block in green

Left column 1

This text is part of the first column.

Left column 2

This text is part of the first column.

Right column



॥ सा विद्या या विमुक्तये ॥

भारतीय प्रौद्योगिकी संस्थान धारवाड

Indian Institute of Technology Dharwad

Example Block

The text goes here..

Dynamic Horizontal display (`\pause<n->`)

Class	A	B	C	D
X	1	2	3	4
Y	3	4	5	6
Z	5	6	7	8

Dynamic Horizontal display (`\pause<n->`)

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Dynamic Horizontal display (`\pause<n->`)

Class	A	B	C	D
X	1	2	3	4
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Z	5	6	7	8

Dynamic Vertical display (\onslide<n->)

Class	A	B	C	D
X	1	2	3	4
Y	3	4	5	6
Z	5	6	7	8

Dynamic Vertical display (\onslide<n->)

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Dynamic Vertical display (\onslide<n->)

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Z	5	6	7	8

Dynamic Vertical display (\onslide<n->)

Class	A	B	C	D
X	1	2	3	4
Y	3	4	5	6
Z	5	6	7	8

\transdissolve

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

\transblindshorizontal

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

\transblindsvertical

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

\transboxin

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta vehicula.

\transboxout

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

\transduration

Etiam euismod. Fusce facilisis lacinia dui. Suspendisse potenti. In mi erat, cursus id, nonummy sed, ullamcorper eget, sapien. Praesent pretium, magna in eleifend egestas, pede pede pretium lorem, quis consectetur tortor sapien facilisis magna. Mauris quis magna varius nulla scelerisque imperdiet. Aliquam non quam. Aliquam porttitor quam a lacus. Praesent vel arcu ut tortor cursus volutpat. In vitae pede quis diam bibendum placerat. Fusce elementum convallis neque. Sed dolor orci, scelerisque ac, dapibus nec, ultricies ut, mi. Duis nec dui quis leo sagittis commodo.

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Sed feugiat. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Ut pellentesque augue sed urna. Vestibulum diam eros, fringilla et, consectetur eu, nonummy id, sapien. Nullam at lectus. In sagittis ultrices mauris. Curabitur malesuada erat sit amet massa. Fusce blandit. Aliquam erat volutpat. Aliquam euismod. Aenean vel lectus. Nunc imperdiet justo nec dolor.

Multiline Equation

$$2x^2 + 3(x - 1)(x - 2) = 2x^2 + 3(x^2 - 3x + 2) \quad (1)$$

$$= 2x^2 + 3x^2 - 9x + 6 \quad (2)$$

$$= 5x^2 - 9x + 6 \quad (3)$$

Multiline Equation

$$2x^2 + 3(x - 1)(x - 2) = 2x^2 + 3(x^2 - 3x + 2) \quad (1)$$

$$= 2x^2 + 3x^2 - 9x + 6 \quad (2)$$

$$= 5x^2 - 9x + 6 \quad (3)$$

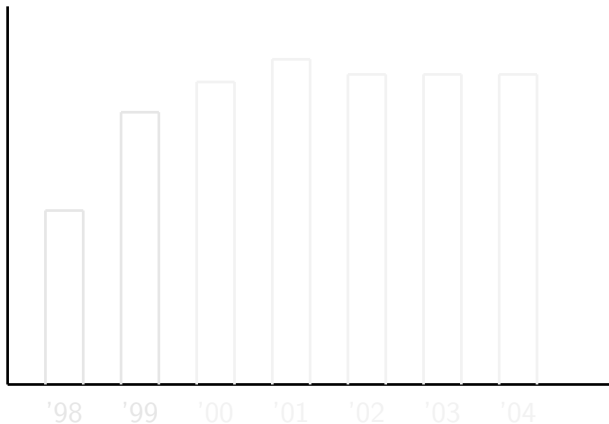
Multiline Equation

$$2x^2 + 3(x - 1)(x - 2) = 2x^2 + 3(x^2 - 3x + 2) \quad (1)$$

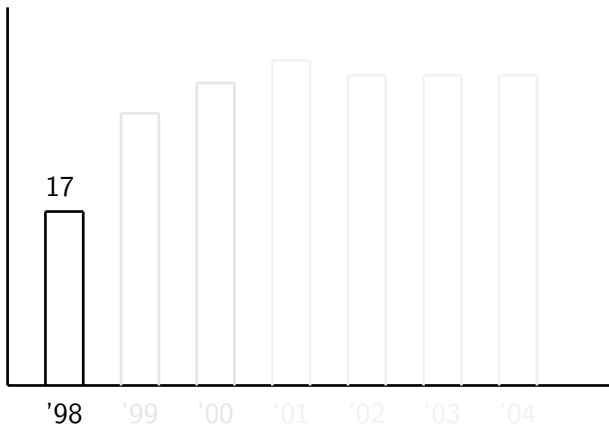
$$= 2x^2 + 3x^2 - 9x + 6 \quad (2)$$

$$= 5x^2 - 9x + 6 \quad (3)$$

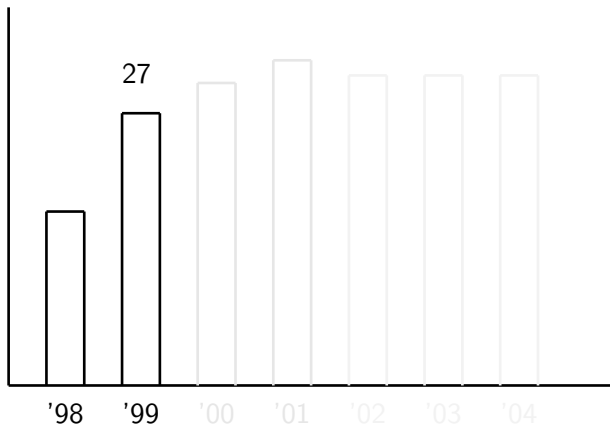
Incremental bar plot



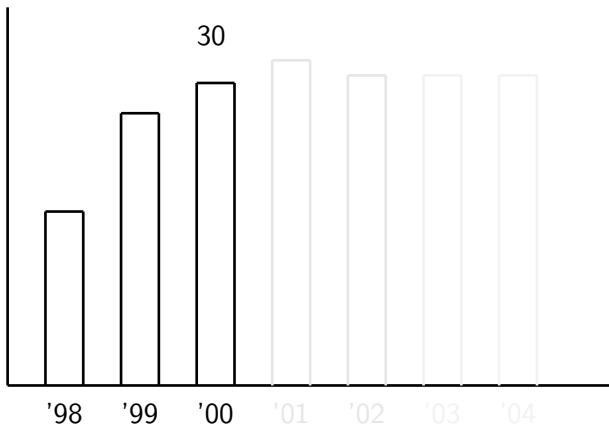
Incremental bar plot



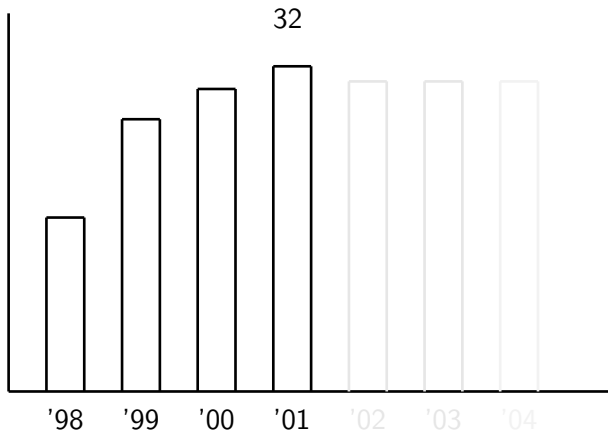
Incremental bar plot



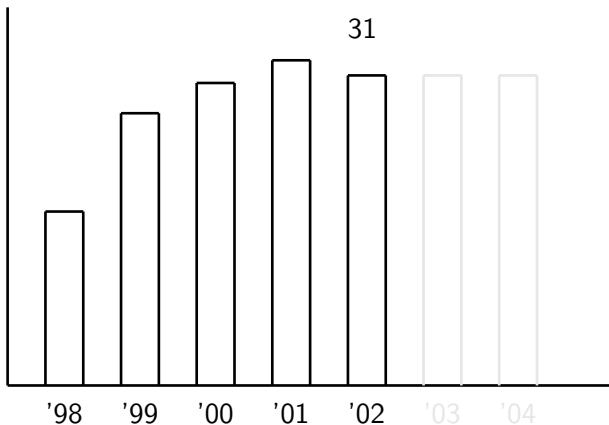
Incremental bar plot



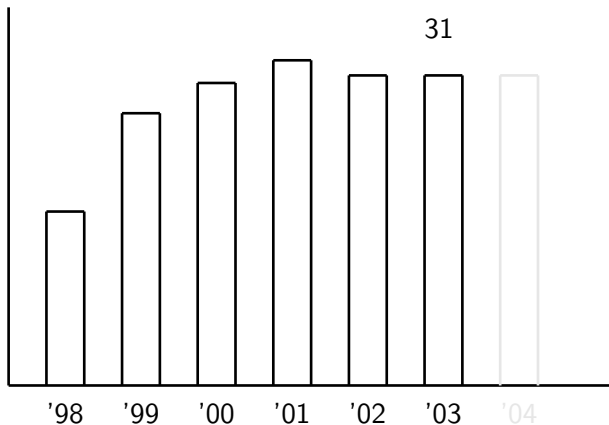
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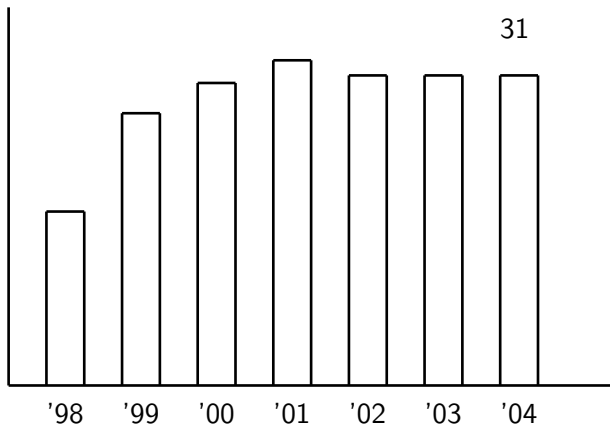
Incremental bar plot



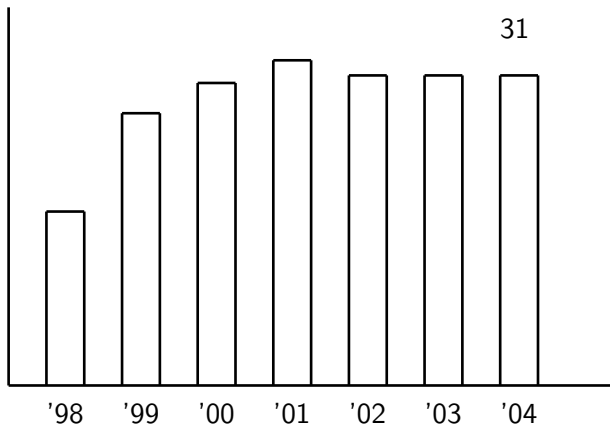
Incremental bar plot



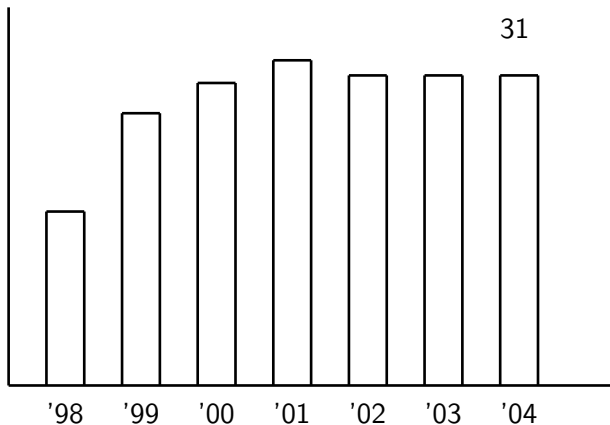
Incremental bar plot



Incremental bar plot



Incremental bar plot



An Algorithm For Finding Primes Numbers.

```
int main (void)
{
    std::vector<bool> is_prime (100, true);
    for (int i = 2; i < 100; i++)
        if (is_prime[i])
        {
            std::cout << i << " ";
            for (int j = i; j < 100;
                 is_prime [j] = false, j+=i);
        }
    return 0;
}
```

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Note the use of `std::`.