

Seminar demonstration files

Overlays (I)

Denis Girou

June 2002

With Acroread, **CTRL-L** switch
between full screen and window mode

1 – Introduction	3
2 – Cumulative overlays	8
3 – Cumulative overlays with PSTricks nodes	16
4 – Progressive overlays	17
5 – Progressive overlays with PSTricks nodes	18
6 – External files inclusion	19

1 – Introduction

- ➡ **Overlays** are a key feature for interactive screen presentations
- ➡ **Seminar** implement since it beginning a powerful mechanism for the management of overlays (in fact, it is only an encapsulation of the general PSTricks mechanism for overlays, implemented in the PostScript language – but such a mechanism is really useful only for slides!)
- ➡ It was written to be able to generate several plastic slides which will be superimposed on a projector. Nevertheless, exactly the same mechanism work too for screen oriented presentations.
- ➡ The overlays also allow to compose **animated graphics**, if the PDF file viewer allow to show the slides automatically (as Acrobat Reader does) – see [sem-dem6.pdf](#)
- ➡ The only change that we made concern the total number of overlays allowed on the same slide: we increase the limit from 10, which is clearly not enough for screen presentations, and specially for animated graphics, to 676 (26^2)

- ☞ The key point is to have special macros for the two kinds of overlays which are important: **cumulative** and **progressive** ones:
- ⇒ `\SeminarCumulativeOverlays` will define cumulative overlays, with each new one added to the preceding (due to the PSTricks implementation of overlays^a, this way doesn't allow to use nodes inside the overlays: rather use the `\SeminarAltCumulativeOverlays` macro in these cases),
 - ⇒ `\SeminarProgressiveOverlays` will define progressive overlays, where the first slide is kept but each new one will replace the preceding (for the same reason, we must rather use the `\SeminarAltProgressiveOverlays` if PSTricks nodes are used inside the overlays),
 - ⇒ It is possible (but not very user friendly...) to program other behavior, if needed, and to keep some overlays permanently when they have appeared, but not the following ones. For this, you must redefine the PSTricks `\pst@initoverlay` macro. See the example of the moving objects in a table in the **animated graphics** demonstration file (you must obviously look at the source code).

^aFor technical explanations, see the pages 243–244 in Timothy VAN ZANDT and Denis GIROU, Inside PSTricks, TUGboat, Volume 15, Number 3, September 1994, pages 239–246, available on <http://www.tug.org/TUGboat/Articles/tb15-3/tb44tvz.ps>

- ➡ We also add a simple macro `\SeminarNextOverlay` macro, which is only the usage of the standard `overlay` environment, with an automatic management of the counter
- ➡ We can show the pieces of a slice in any order, just numbering accordingly the overlays, (see the example on slide 9), but this is also easy, for instance, to use the simple macro `\SeminarItemInOverlay` which redefine the `\item` macro of the various lists environments, to automatically have each one on the next overlay (see the example on slide 10)

- ☞ As usual with (L^A)T_EX, take care to **spurious blanks**, which are one of the most common pitfalls in some circumstances. Always end the `overlay` environments with a percent sign, `%`, to not introduce an unwanted blank and change the position of the material formatted in the next overlays:

```
1  \begin{overlay}{3}
2  ...
3  \end{overlay}%
4
5  ...
6
7  {\overlay{6}%
8   ...}%
9
10 ...
11
12 \SeminarNextOverlay{...}%
```

- ☞ To show not only the slide number but also the overlay number, use the `page` counter rather than the `slide` one (see the example on slide 10 in the PDF file):

```
1 \fancyhead[R]{\thepage}
```

- ➡ Obviously, we can also play with the transitions seen elsewhere ([sem-dem2.pdf](#)) when showing the overlays
- ➡ Another important point is of course to suppress all the overlay mechanism for the paper version (this is what the `\SeminarPaperVersion` macro does, just inhibiting them with the `\overlaysfalse` macro)
- ➡ From the usage point of view, the important thing is to define the overlays **inside** a slide and not as several consecutive slides. Specially, this will allowed to generate a coherent paper version without trouble: as overlays are deactivated in the paper versions, we will simply got the cumulative result. For progressive overlays, this will be the same. But if we want to have, in the paper versions, only one state, we have to introduce a test. See examples in the demonstration file for animated graphics (which are based on overlays) on [sem-dem6.pdf](#)
- ➡ In some cases, it is not realistic to generate the overlays inside the same slide. A such special case occur when we want to build an animated graphic with a lot of external files. This would be prohibitive, in compilation time and/or size of the resulting file. For an illustration of such problem, see too the file [sem-dem6.pdf](#)

2 – Cumulative overlays

End of slide

2 – Cumulative overlays

How to solve this problem?

End of slide

2 – Cumulative overlays

How to solve this problem?

☞ First, keep quiet

End of slide

2 – Cumulative overlays

How to solve this problem?

- ☞ First, keep quiet
- ☞ Second, analyze carefully

the situation:

End of slide

2 – Cumulative overlays

How to solve this problem?

- ☞ First, keep quiet
- ☞ Second, analyze carefully (I repeat
carefully) the situation:
 - ⇒ what do you want yourself?
 - ⇒ what are the interests of other people involved?

End of slide

2 – Cumulative overlays

How to solve this problem?

- ☞ First, keep quiet
- ☞ Second, analyze carefully (I repeat –again and again and again and again and again and again and again and again– carefully) the situation:
 - ⇒ what do you want yourself?
 - ⇒ what are the interests of other people involved?

End of slide

2 – Cumulative overlays

How to solve this problem?

- ☞ First, keep quiet
- ☞ Second, analyze carefully (I repeat –again and again and again and again and again and again and again and again– carefully) the situation:
 - ⇒ what do you want yourself?
 - ⇒ what are the interests of other people involved?
- ☞ Generally, just choose to do nothing...

End of slide

RESULTS

The winner is:

The second is:

The third is:

End of slide

RESULTS

The winner is:

The second is:

The third is: **Mary**

End of slide

RESULTS

The winner is:

The second is: **Jane**

The third is: **Mary**

End of slide

RESULTS

The winner is: **Caroline**

The second is: **Jane**

The third is: **Mary**

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▶ Jean RACINE:

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▣▣▣▶ Jean RACINE:

→ *Andromaque* (1667),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣► Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣► Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▣▣▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),
- *Phèdre* (1677).

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣► Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),
- *Phèdre* (1677).

▣► Pierre CORNEILLE:

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),
- *Phèdre* (1677).

▣▶ Pierre CORNEILLE:

- *Le Cid* (1637),

End of slide

Using the \SeminarItemInOverlay macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▣▣▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),
- *Phèdre* (1677).

▣▣▣▣▶ Pierre CORNEILLE:

- *Le Cid* (1637),
- *Horace* (1640),

End of slide

Using the \SeminarItemInOverlay macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▣▣▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),
- *Phèdre* (1677).

▣▣▣▣▶ Pierre CORNEILLE:

- *Le Cid* (1637),
- *Horace* (1640),
- *Cinna* (1641),

End of slide

Using the `\SeminarItemInOverlay` macro as explained earlier, we can have each entry of the lists in its own overlay.

▣▣▣▣▶ Jean RACINE:

- *Andromaque* (1667),
- *Les Plaideurs* (1668),
- *Britannicus* (1669),
- *Bérénice* (1670),
- *Bajazet* (1672),
- *Mithridate* (1673),
- *Iphigénie* (1674),
- *Phèdre* (1677).

▣▣▣▣▶ Pierre CORNEILLE:

- *Le Cid* (1637),
- *Horace* (1640),
- *Cinna* (1641),
- etc.

End of slide

A formula for \prod from Leonhard Euler

\prod

End of slide

A formula for \prod from Leonhard Euler

$$\prod =$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6}$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6} \times \sqrt{\quad}$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6} \times \sqrt{1}$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6} \times \sqrt{1 + \frac{1}{4}}$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6} \times \sqrt{1 + \frac{1}{4} + \frac{1}{9}}$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6} \times \sqrt{1 + \frac{1}{4} + \frac{1}{9} + \frac{1}{16}}$$

End of slide

A formula for Π from Leonhard Euler

$$\Pi = \sqrt{6} \times \sqrt{1 + \frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \dots}$$

End of slide

A formula for Π from Leonhard Euler

$$\begin{aligned}\Pi &= \sqrt{6} \times \sqrt{1 + \frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \dots} \\ &= \end{aligned}$$

End of slide

A formula for Π from Leonhard Euler

$$\begin{aligned}\Pi &= \sqrt{6} \times \sqrt{1 + \frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \dots} \\ &= \left(6 \sum_{n=1}^{\infty} \frac{1}{n^2} \right)^{\frac{1}{2}}\end{aligned}$$

End of slide

Table 1: Results of the year

1st Quarter		
2nd Quarter		
3rd Quarter		
4th Quarter		

End of slide

Table 1: Results of the year

1st Quarter	723	
2nd Quarter		
3rd Quarter		
4th Quarter		

End of slide

Table 1: Results of the year

1st Quarter	723	
2nd Quarter	819	+ 13.3 %
3rd Quarter		
4th Quarter		

End of slide

Table 1: Results of the year

1st Quarter	723	
2nd Quarter	819	+ 13.3 %
3rd Quarter	687	– 16.1 %
4th Quarter		

End of slide

Table 1: Results of the year

1st Quarter	723	
2nd Quarter	819	+ 13.3 %
3rd Quarter	687	– 16.1 %
4th Quarter	894	+ 30.1 %

End of slide

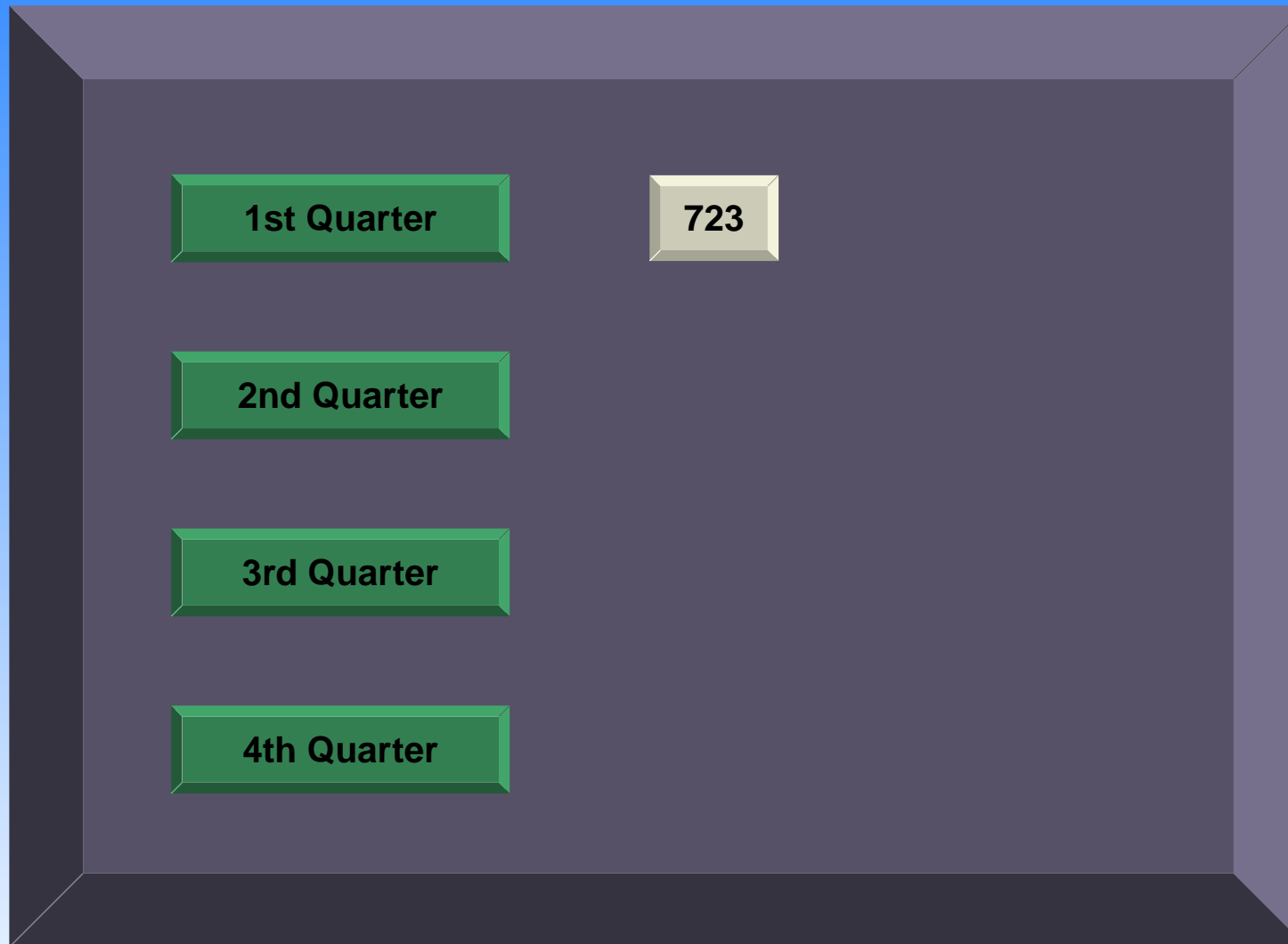
Table 2: Results of the year



1st Quarter
2nd Quarter
3rd Quarter
4th Quarter

End of slide

Table 2: Results of the year



1st Quarter	723
2nd Quarter	
3rd Quarter	
4th Quarter	

End of slide

Table 2: Results of the year

1st Quarter	723	
2nd Quarter	819	+ 13 %
3rd Quarter		
4th Quarter		

End of slide

Table 2: Results of the year

1st Quarter	723	
2nd Quarter	819	+ 13 %
3rd Quarter	687	- 16.1 %
4th Quarter		

End of slide

Table 2: Results of the year

1st Quarter	723	
2nd Quarter	819	+ 13 %
3rd Quarter	687	- 16.1 %
4th Quarter	894	+ 30.1 %

End of slide

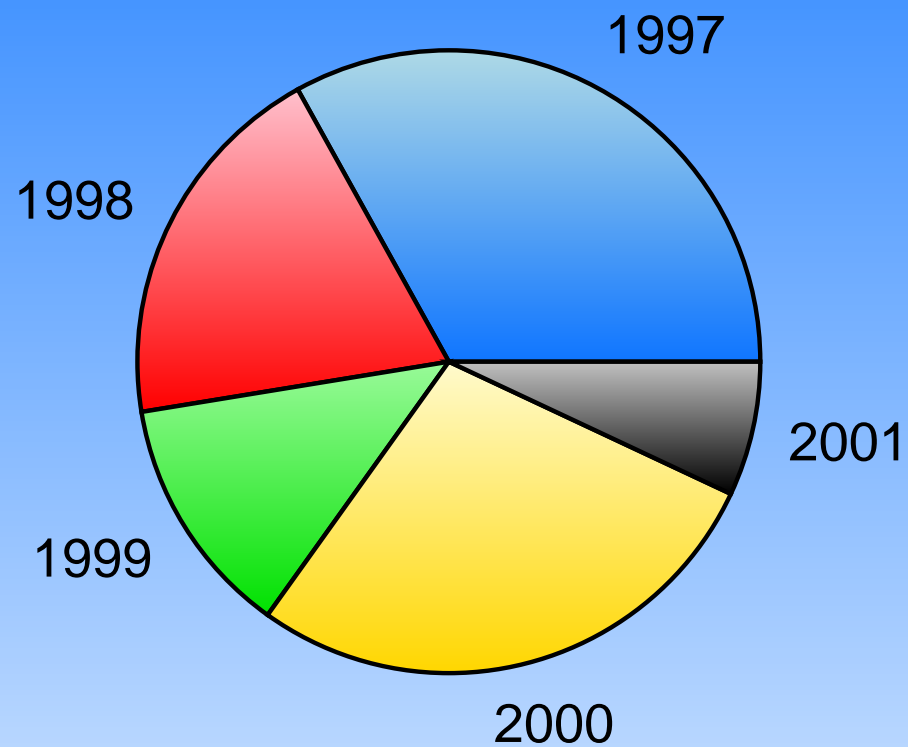


Figure 1: Results of the last five years

End of slide

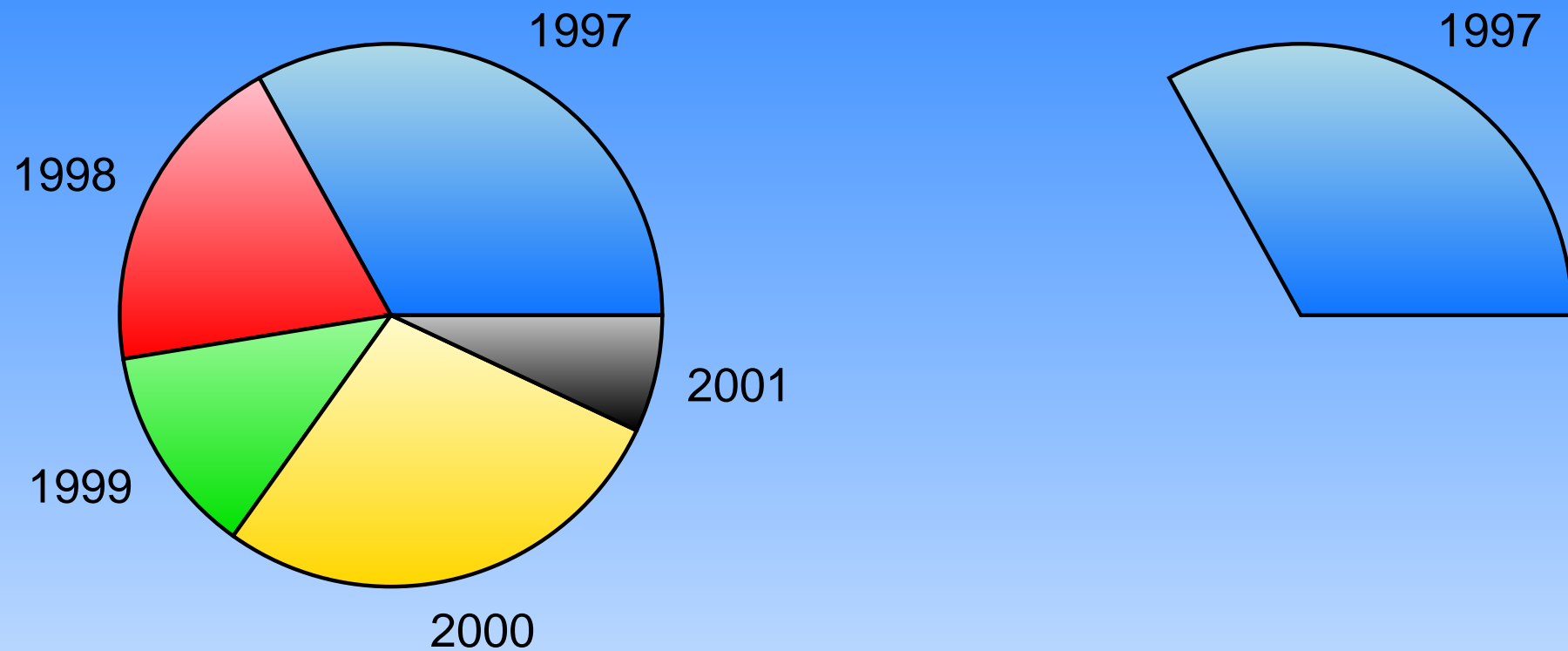


Figure 1: Results of the last five years

End of slide

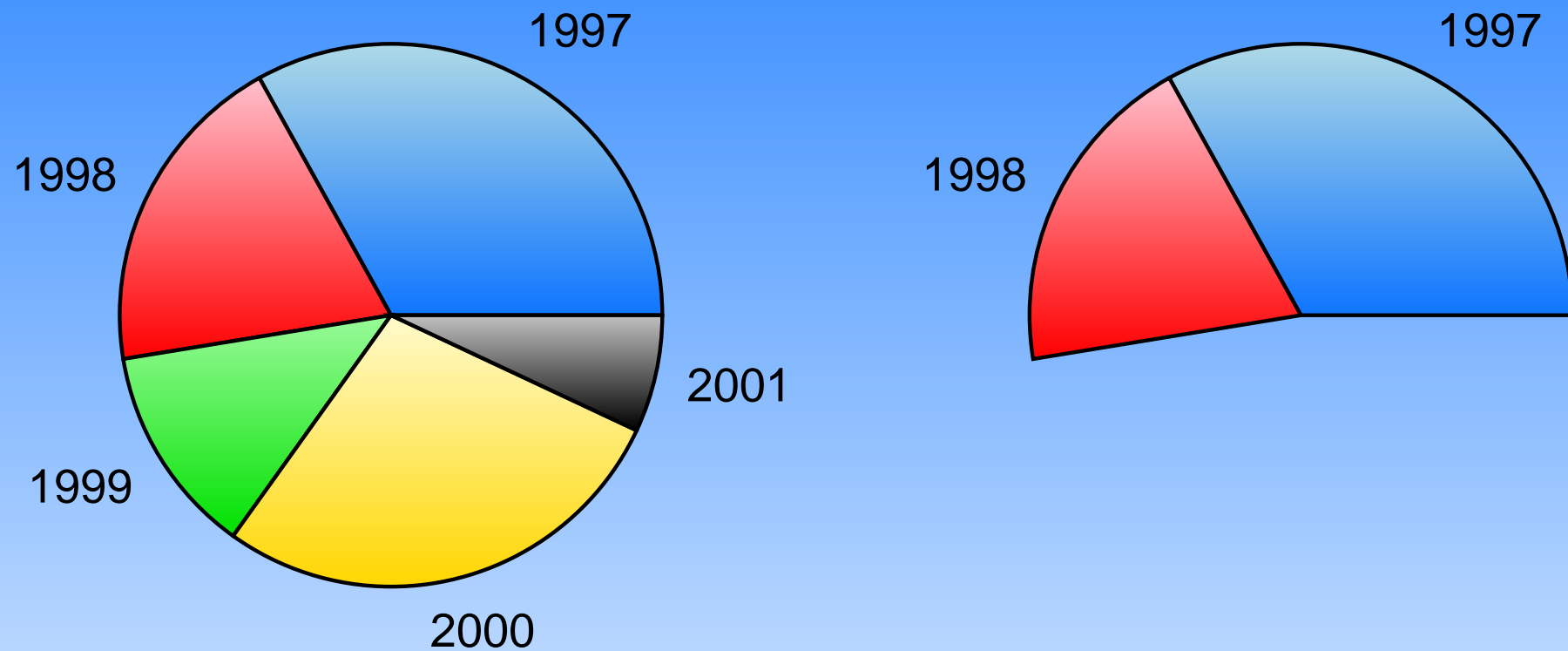


Figure 1: Results of the last five years

End of slide

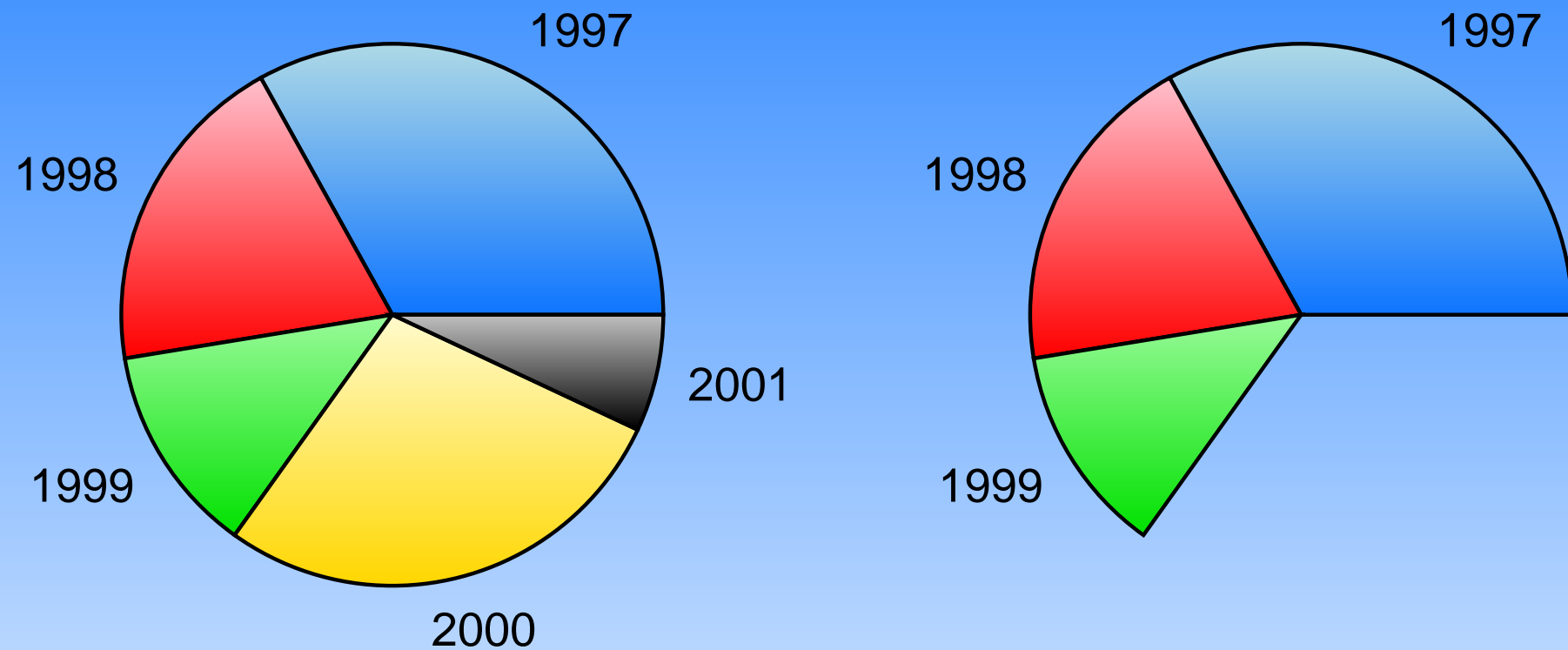


Figure 1: Results of the last five years

End of slide

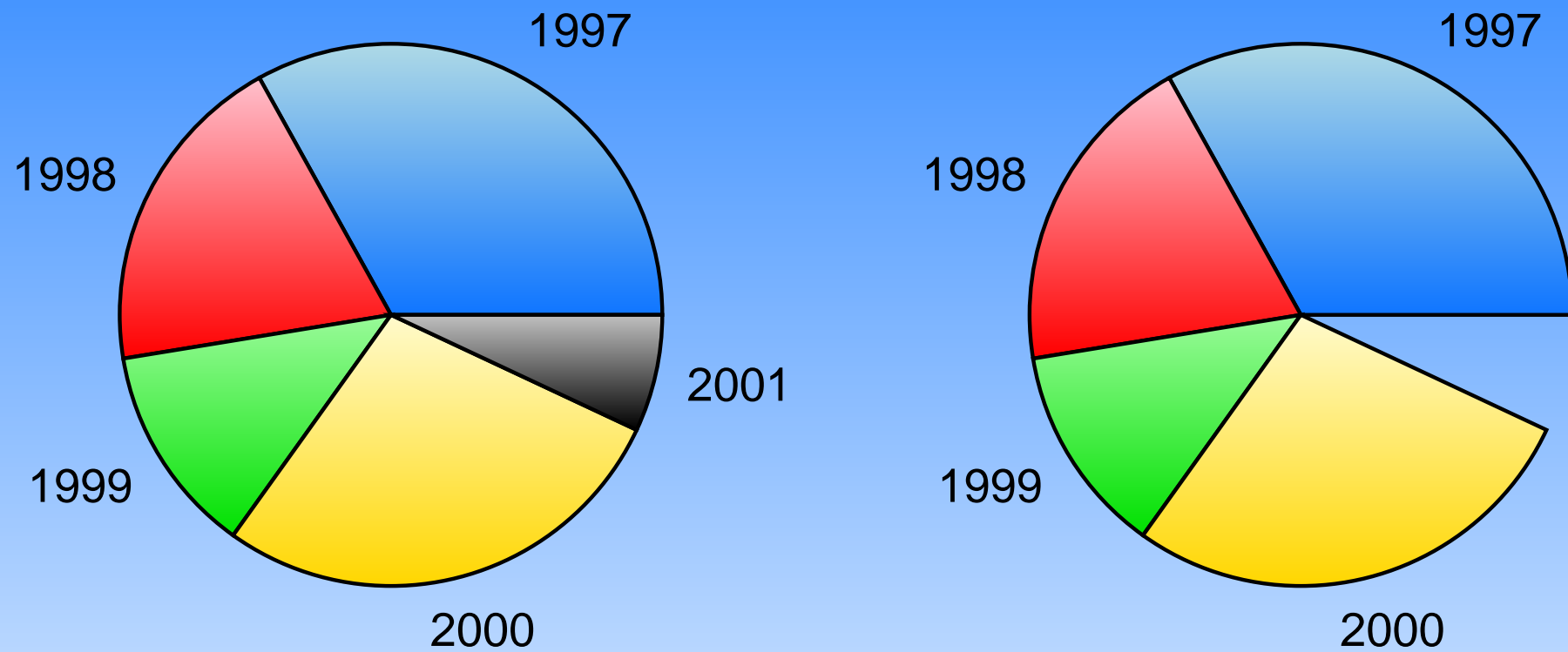


Figure 1: Results of the last five years

End of slide

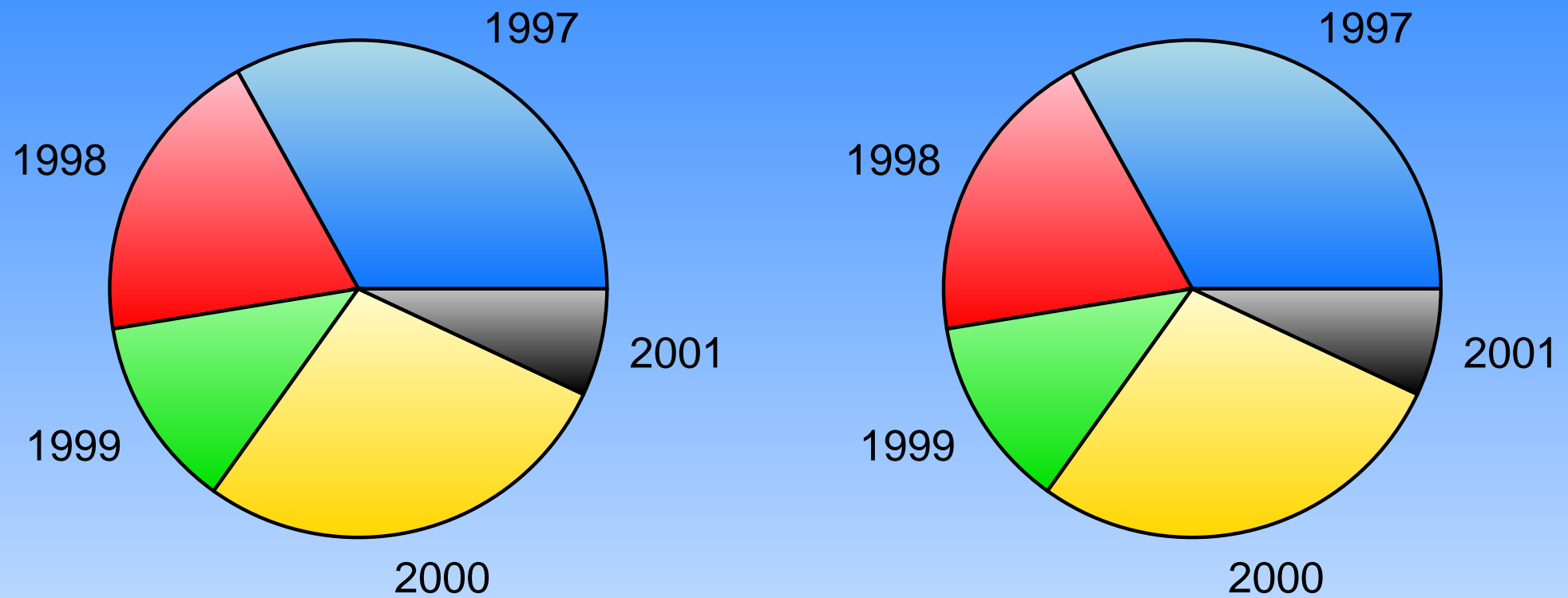


Figure 1: Results of the last five years

End of slide

Viewership Distribution of the Big Three

Age (years)

Figure 2: Main American TV channels

End of slide

Viewership Distribution of the Big Three

Age (years)

NBC

CBS

ABC

Figure 2: Main American TV channels

End of slide

Viewership Distribution of the Big Three

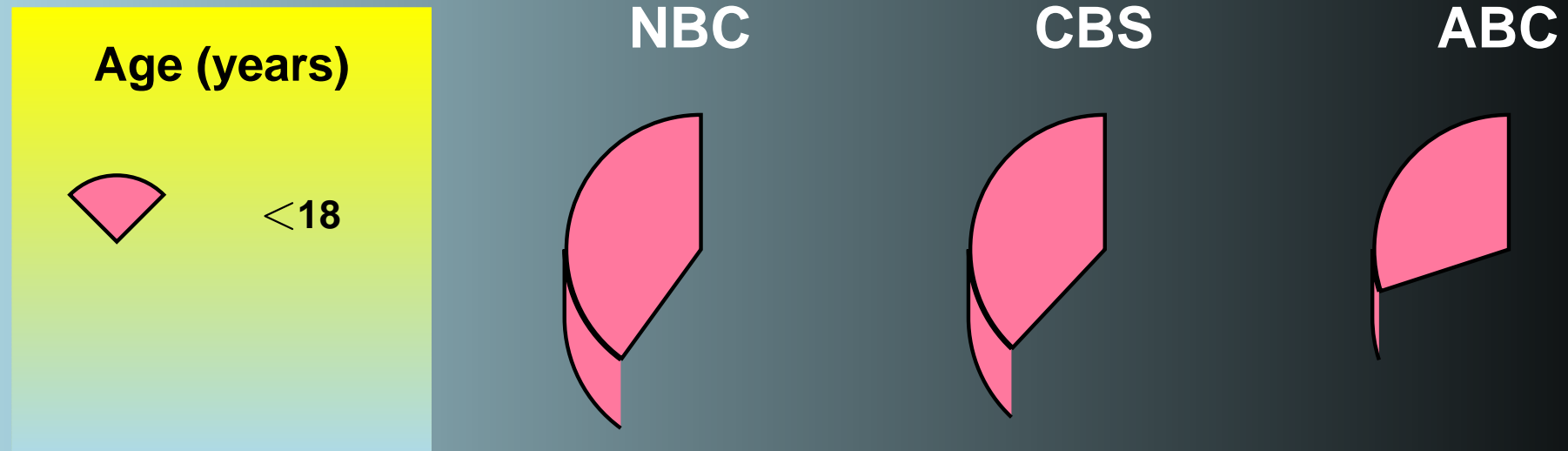
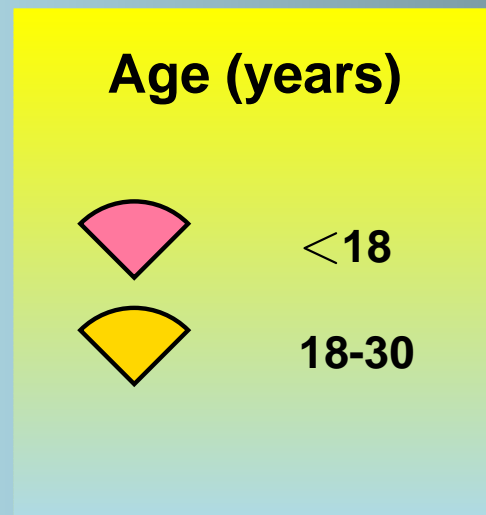


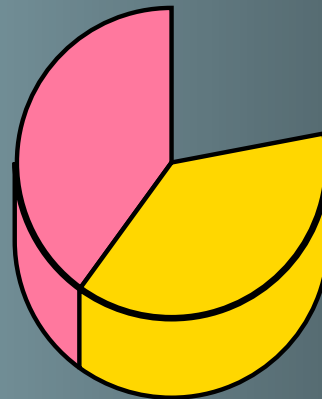
Figure 2: Main American TV channels

End of slide

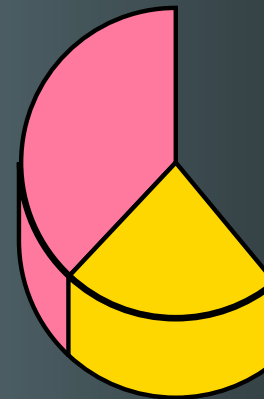
Viewership Distribution of the Big Three



NBC



CBS



ABC

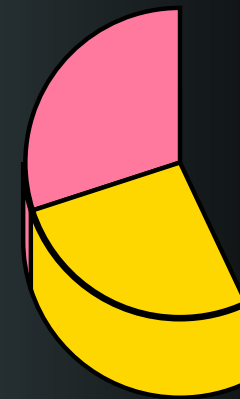


Figure 2: Main American TV channels

End of slide

Viewership Distribution of the Big Three

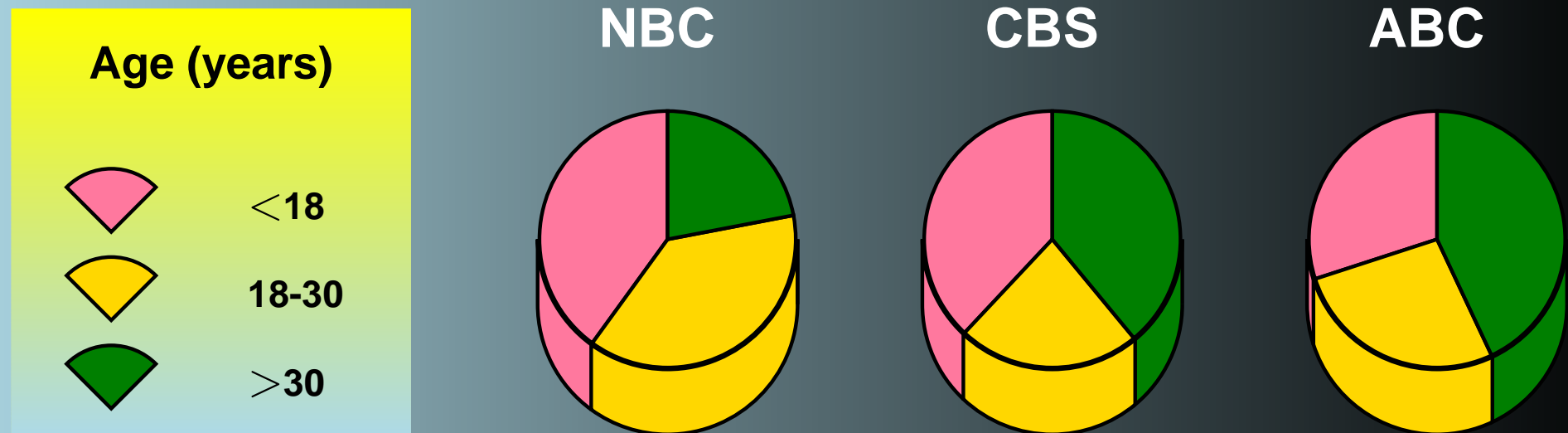


Figure 2: Main American TV channels

End of slide

3 – Cumulative overlays with PSTricks nodes



Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

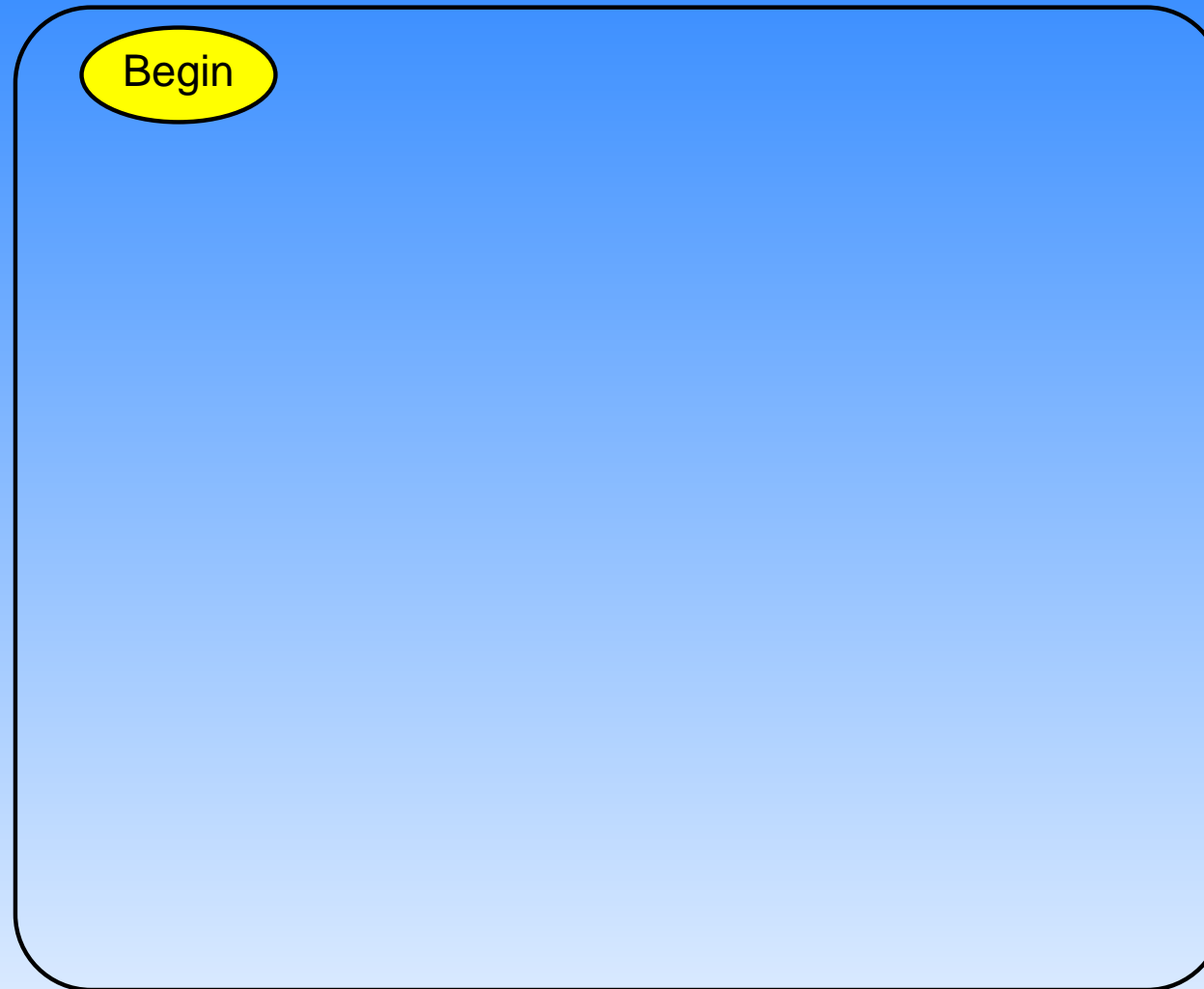


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

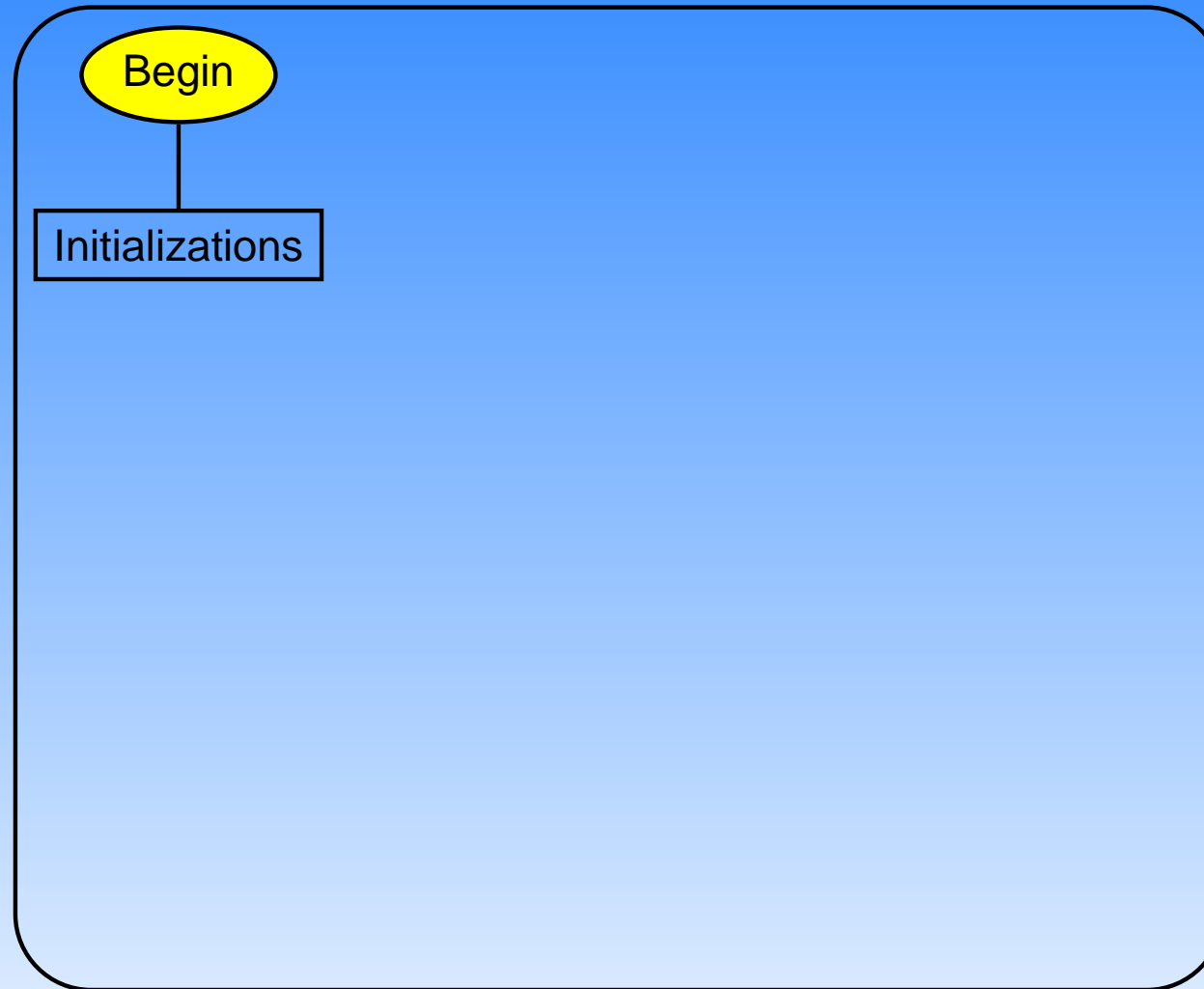


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

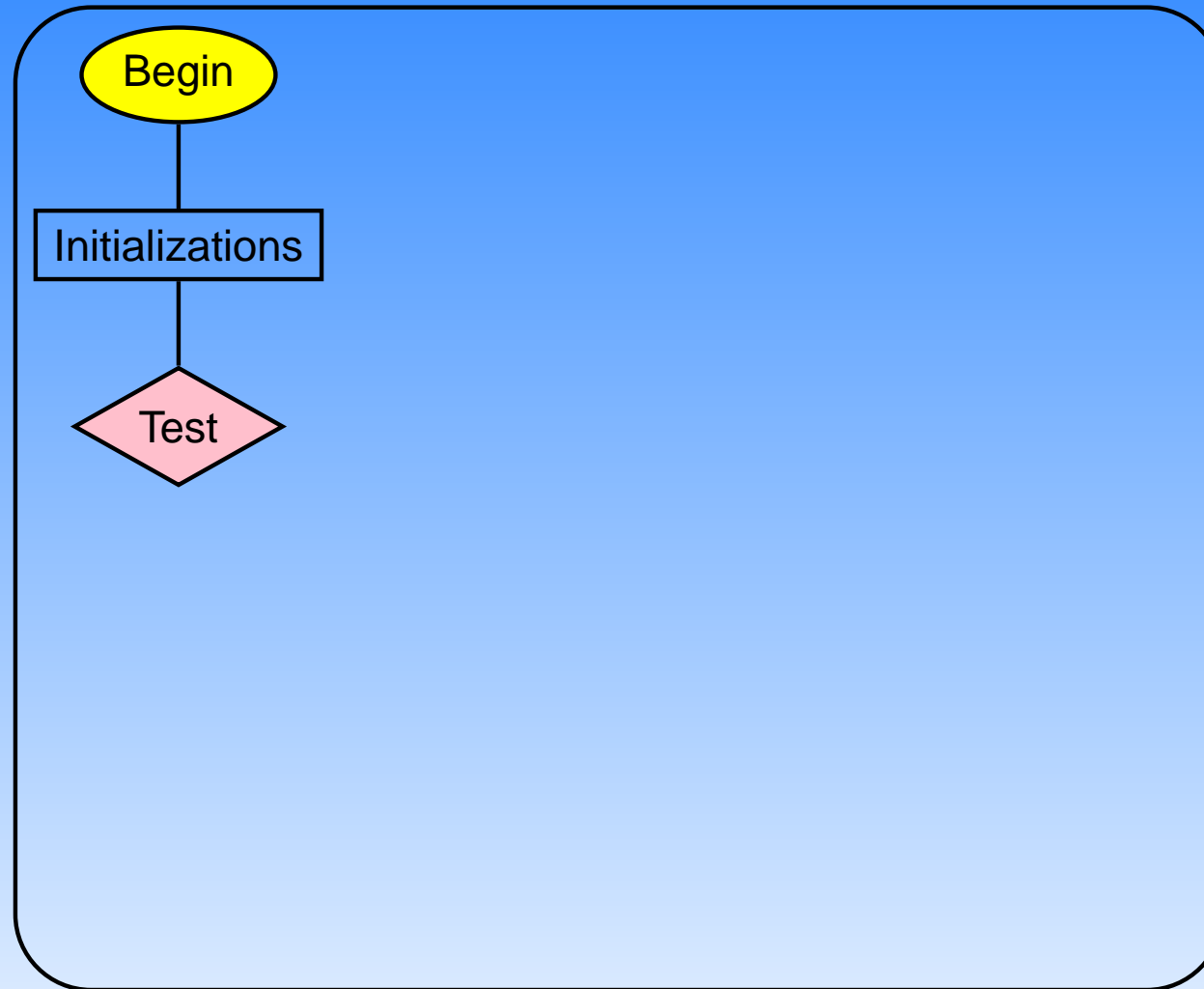


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

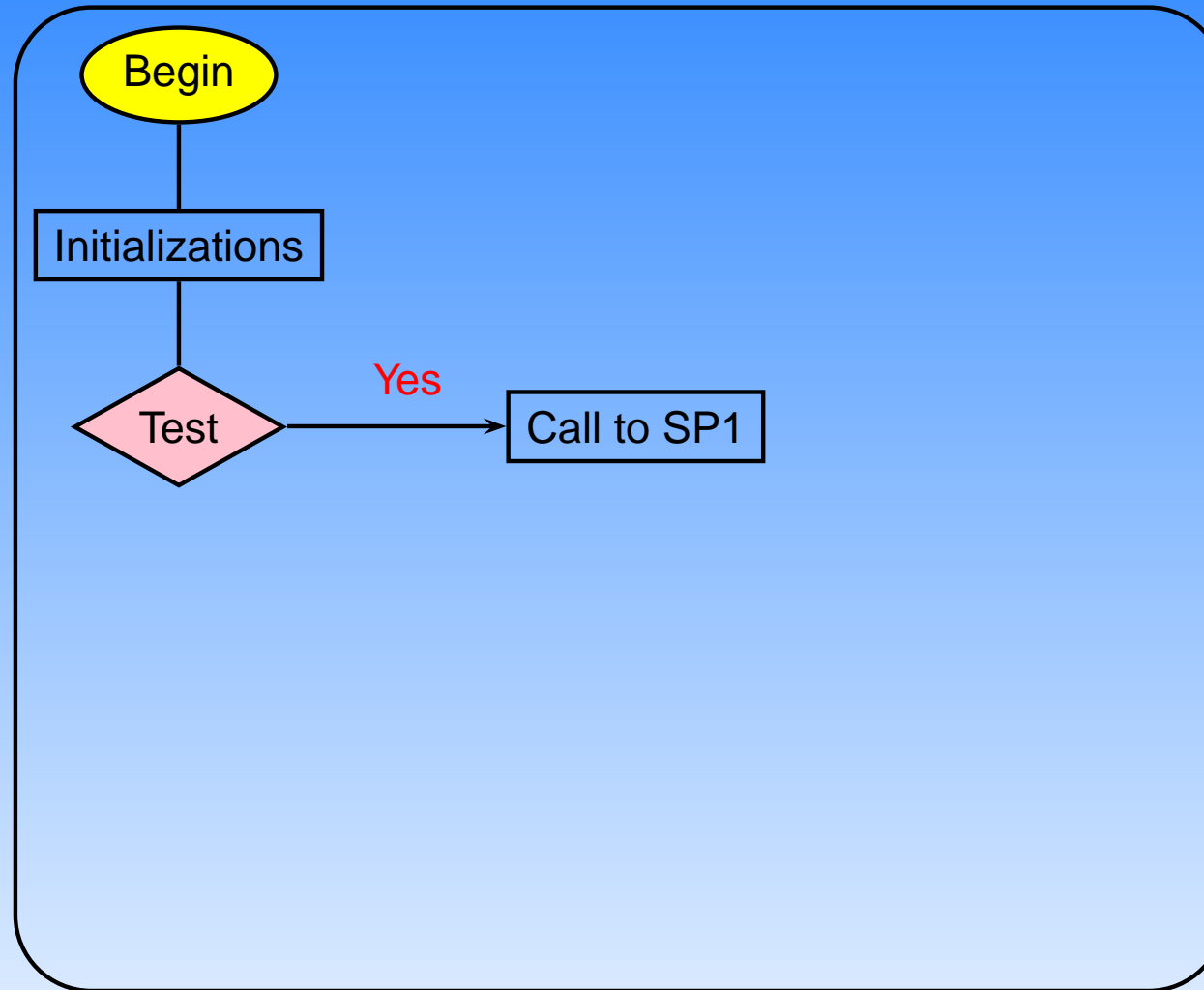


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

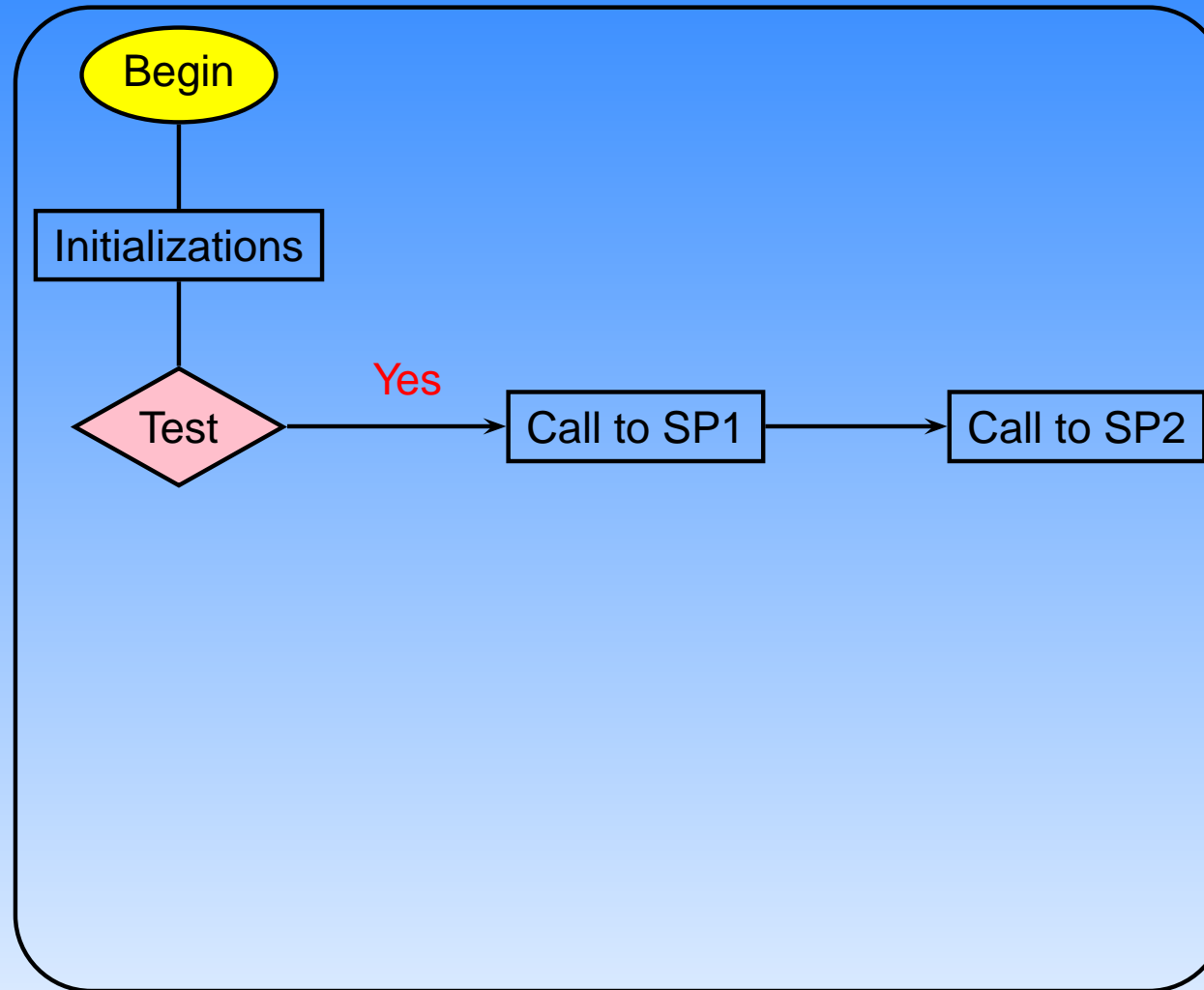


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

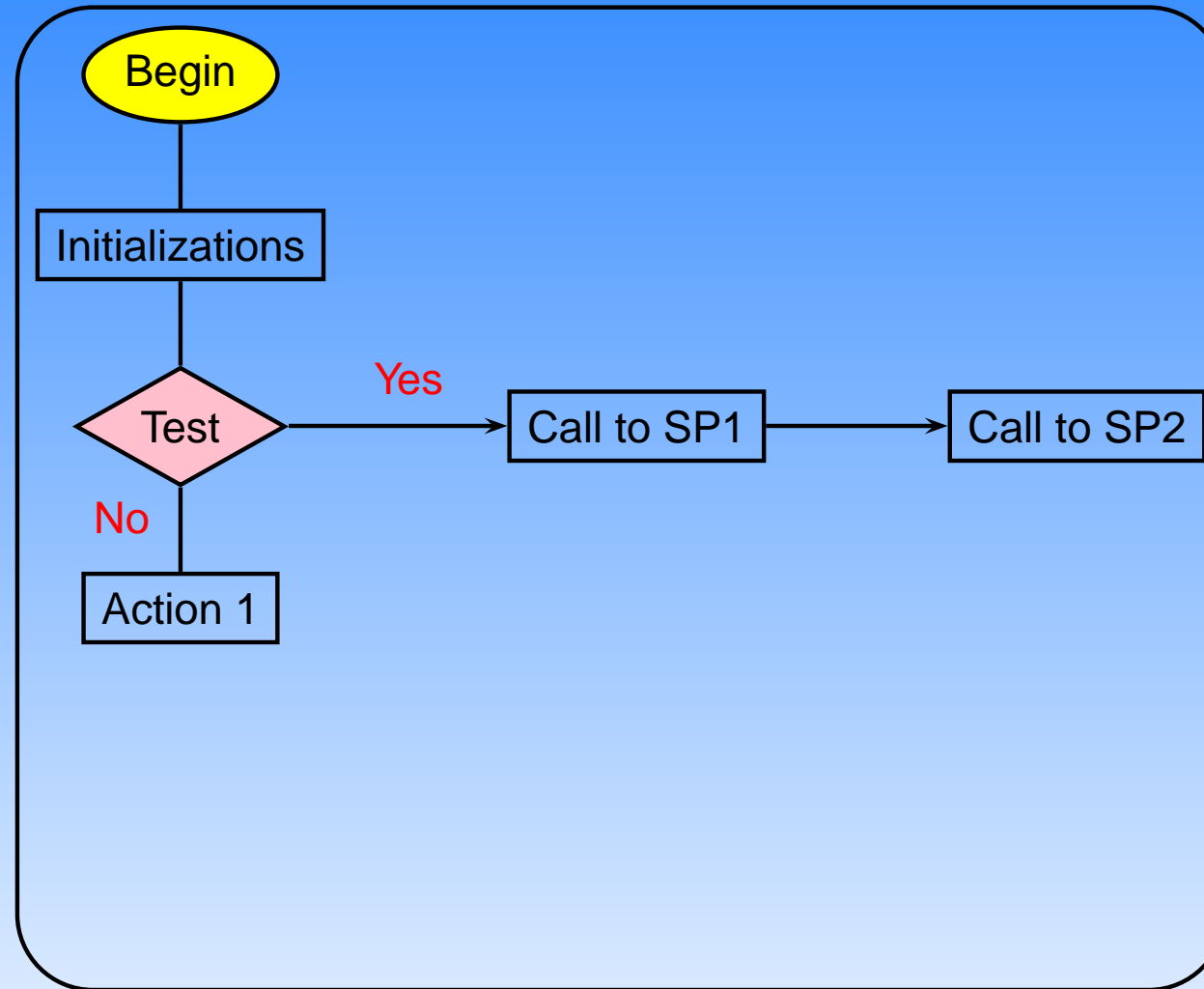


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

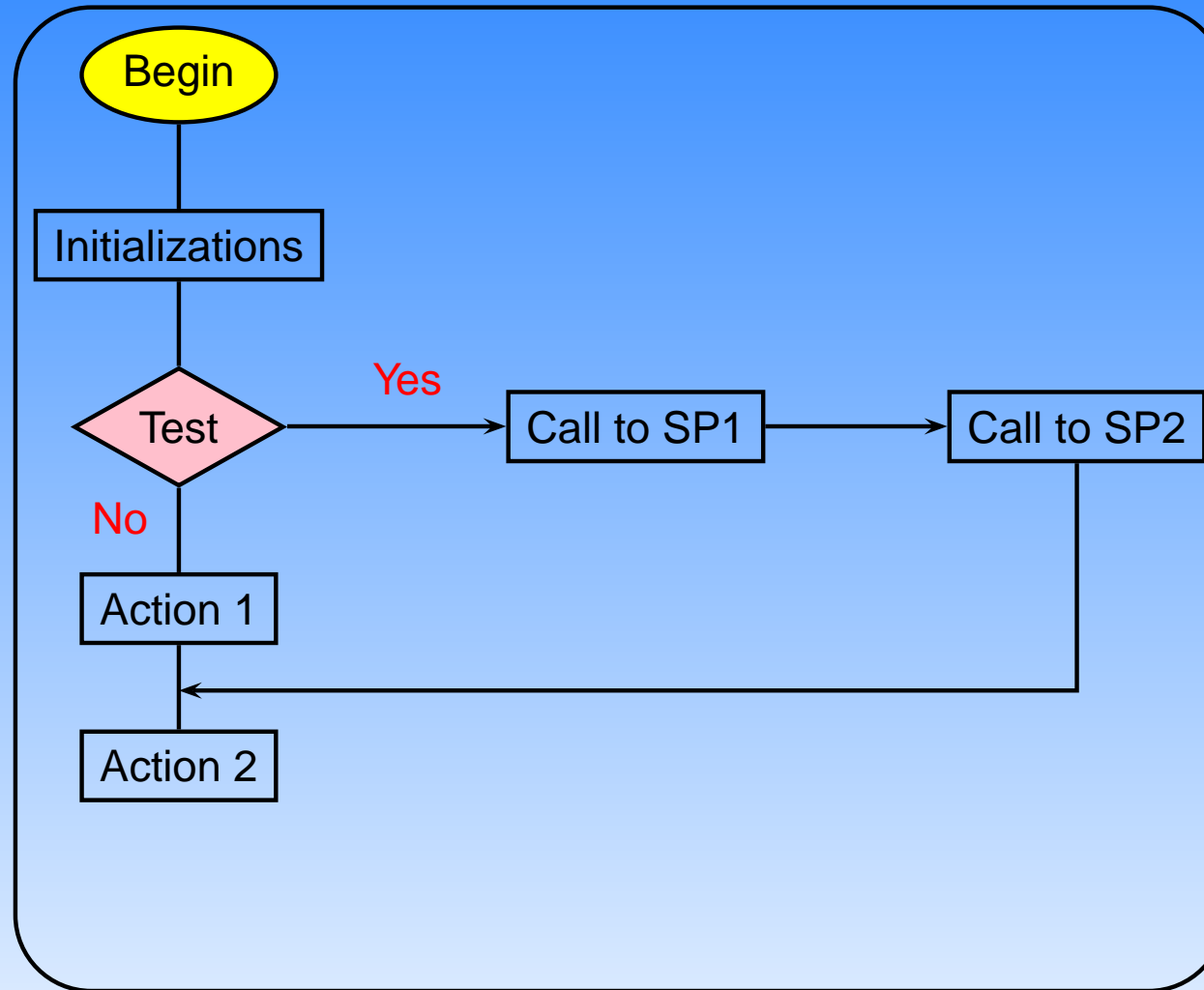


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

3 – Cumulative overlays with PSTricks nodes

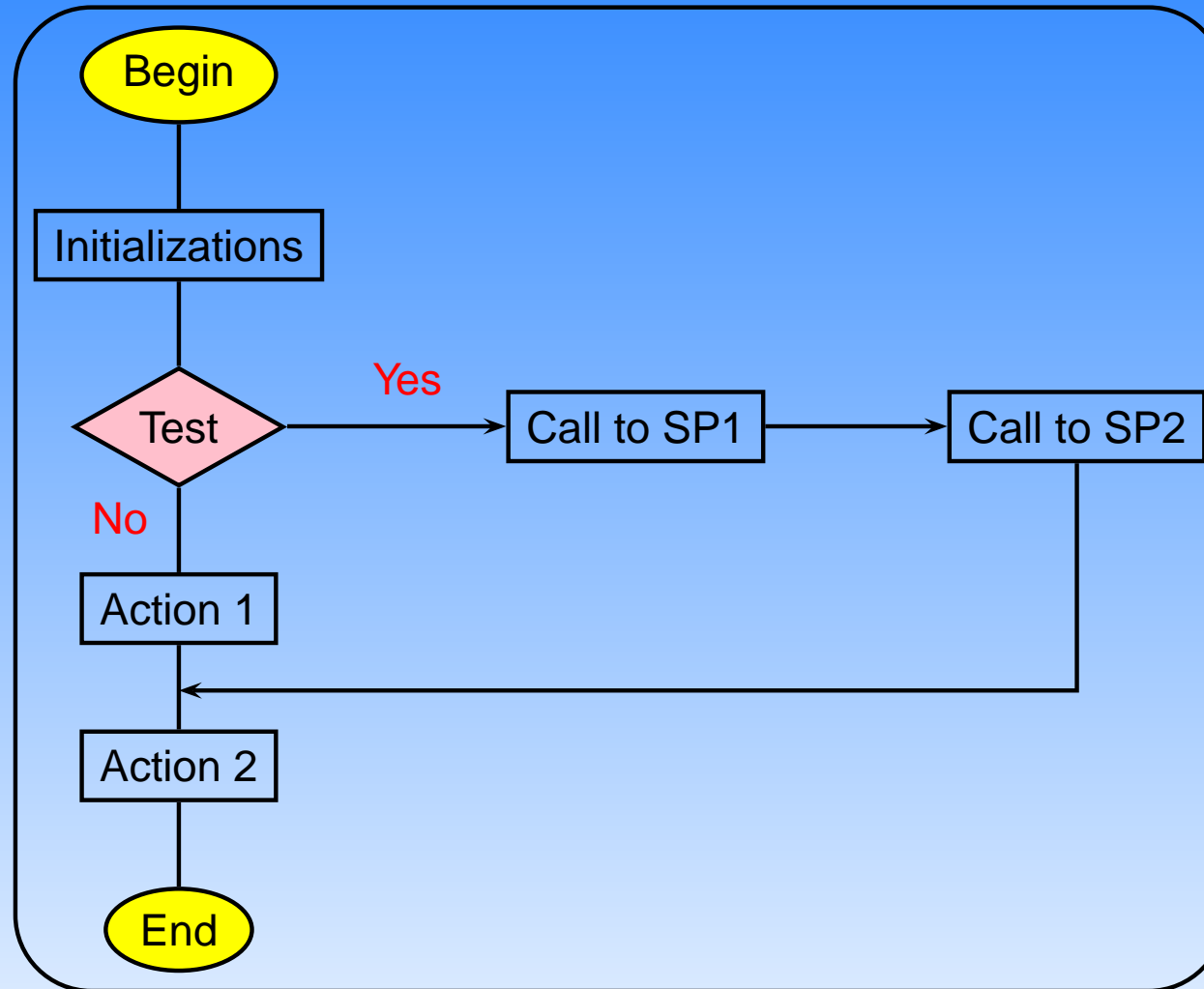


Figure 3: Flow diagram with the `psmatrix` environment

End of slide

4 – Progressive overlays

End of slide

4 – Progressive overlays

➡ Miss

End of slide

4 – Progressive overlays

➡ Dear Miss

End of slide

4 – Progressive overlays

■ Dear Catherine

End of slide

4 – Progressive overlays

■➡ My dear Catherine

End of slide

4 – Progressive overlays

➡ Darling

End of slide

4 – Progressive overlays

■▶ My sweet love

End of slide

4 – Progressive overlays

▣▣▣▣➡ My small rabbit

End of slide

4 – Progressive overlays

➡ My angry rabbit

End of slide

4 – Progressive overlays

➡ My naughty friend

End of slide

4 – Progressive overlays

➡ Farewell!

End of slide

5 – Progressive overlays with PSTricks nodes

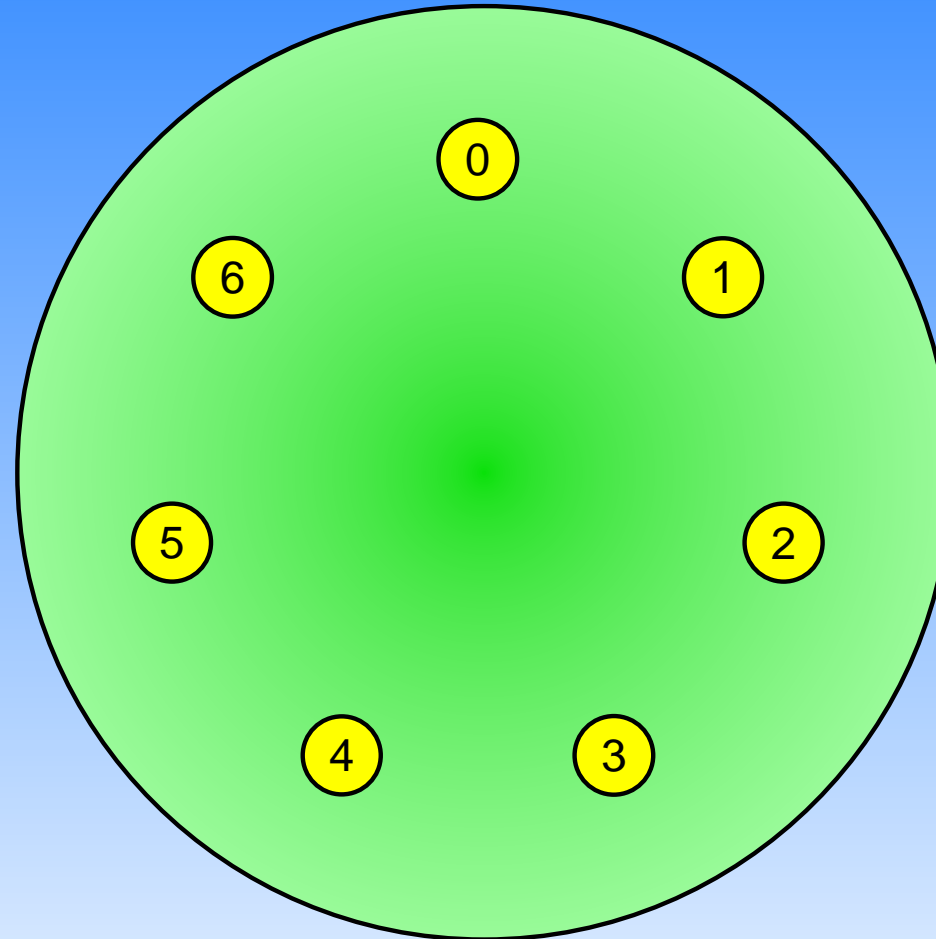


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

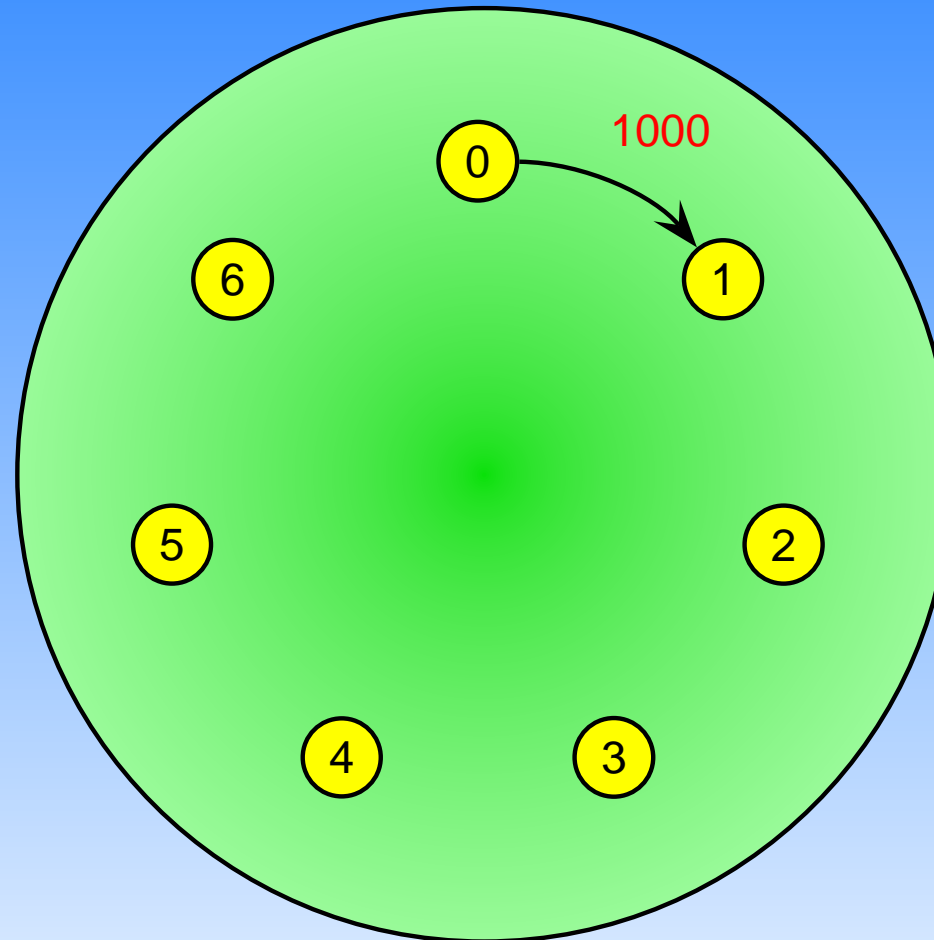


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

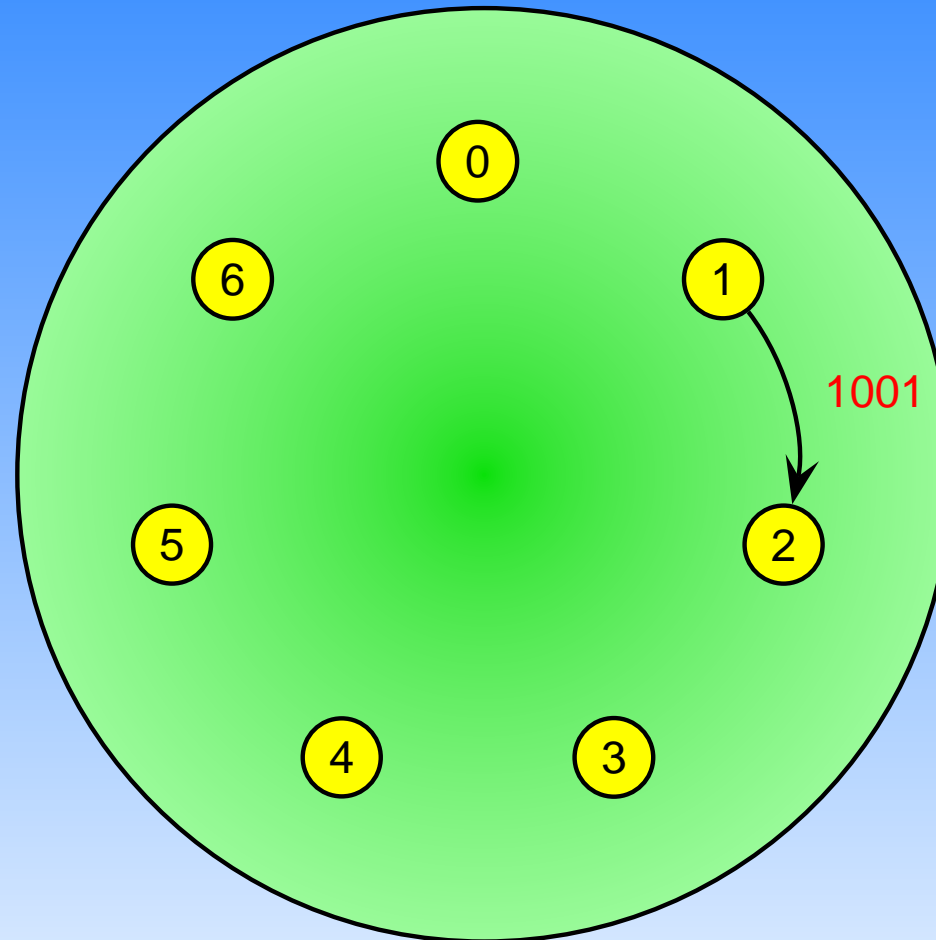


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

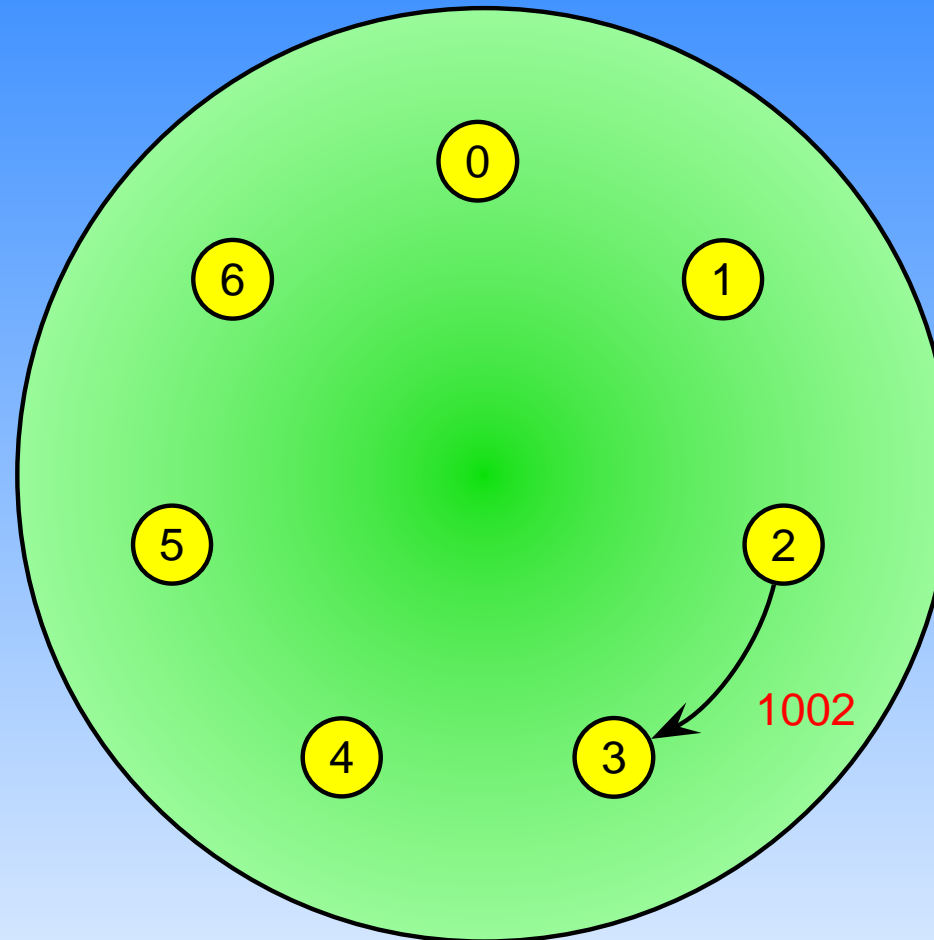


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

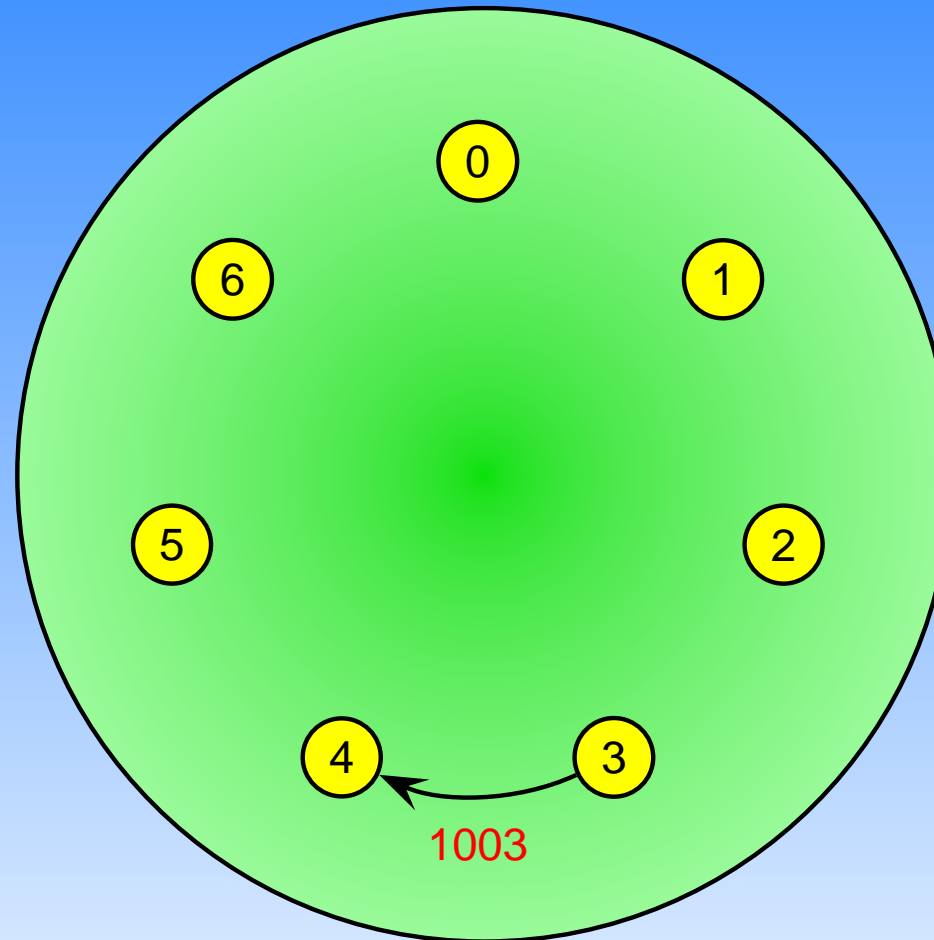


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

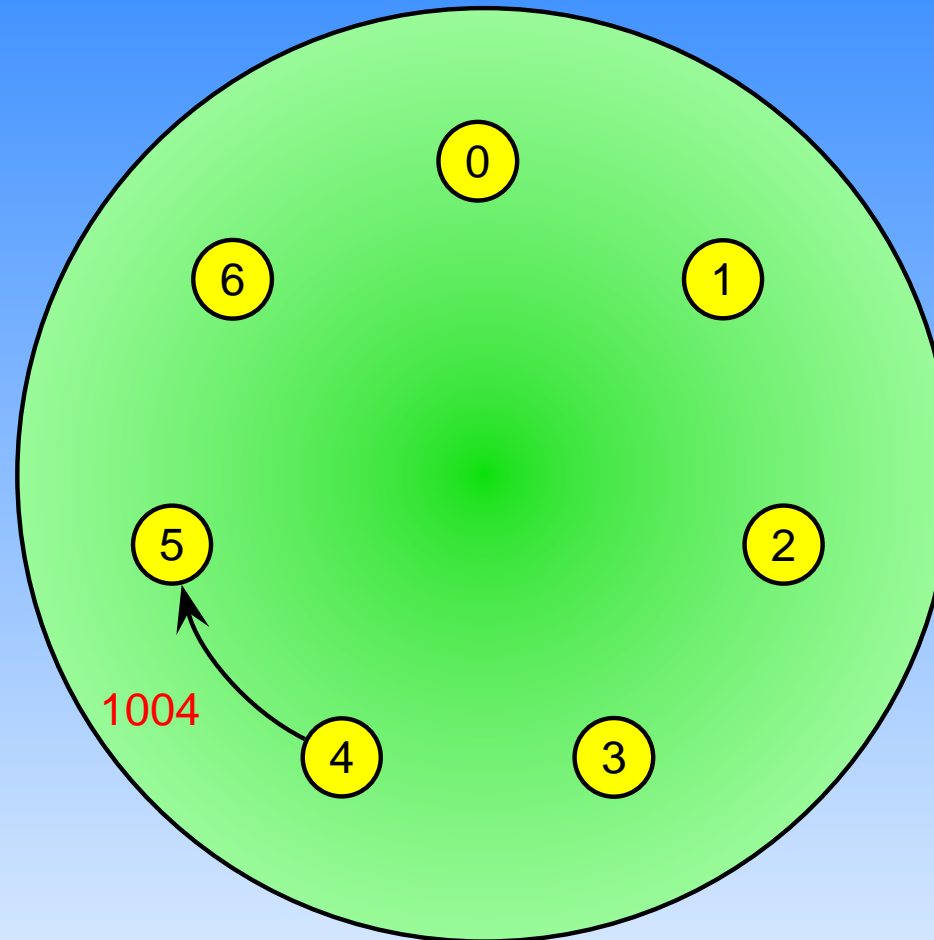


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

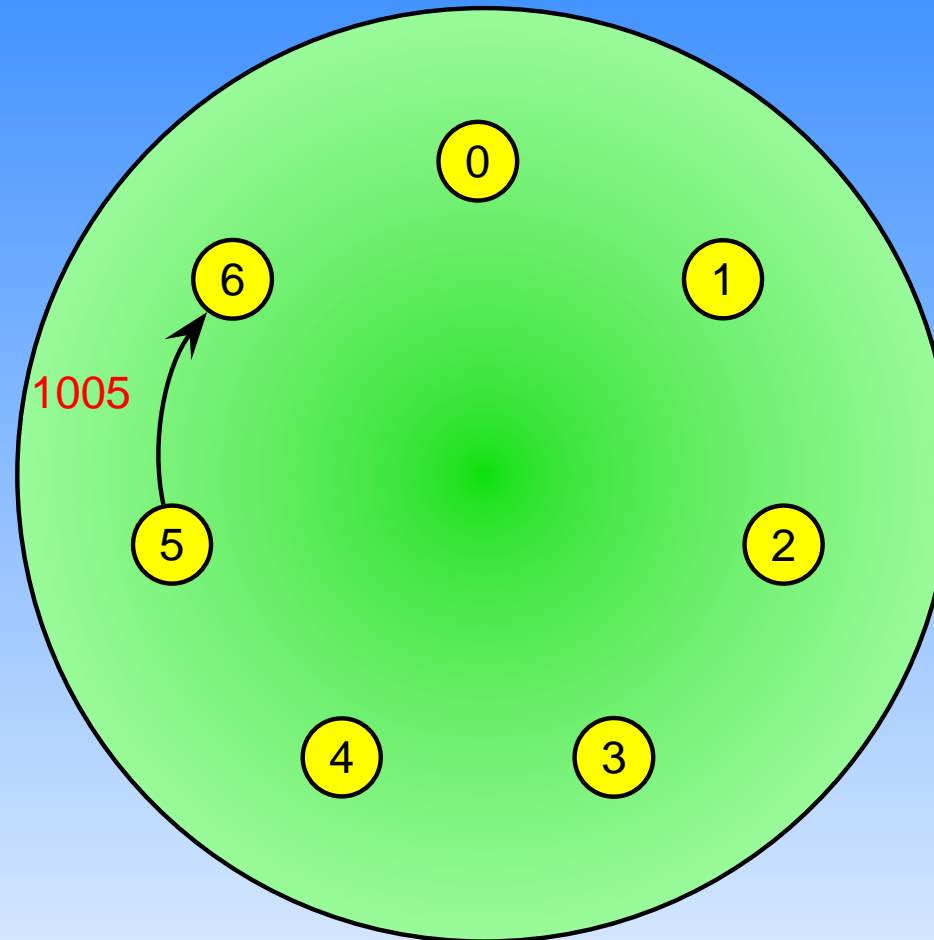


Figure 4: Communication ring

End of slide

5 – Progressive overlays with PSTricks nodes

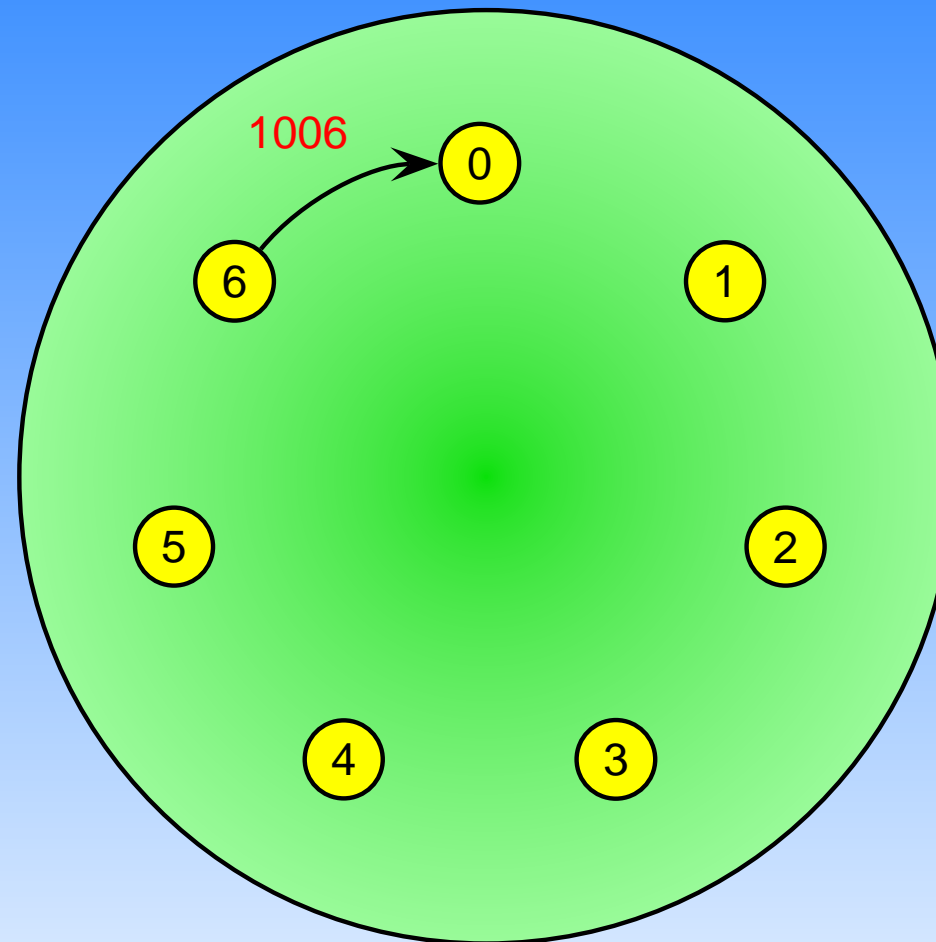


Figure 4: Communication ring

End of slide

6 – External files inclusion



Figure 5:

End of slide

6 – External files inclusion



Figure 5:

End of slide

6 – External files inclusion

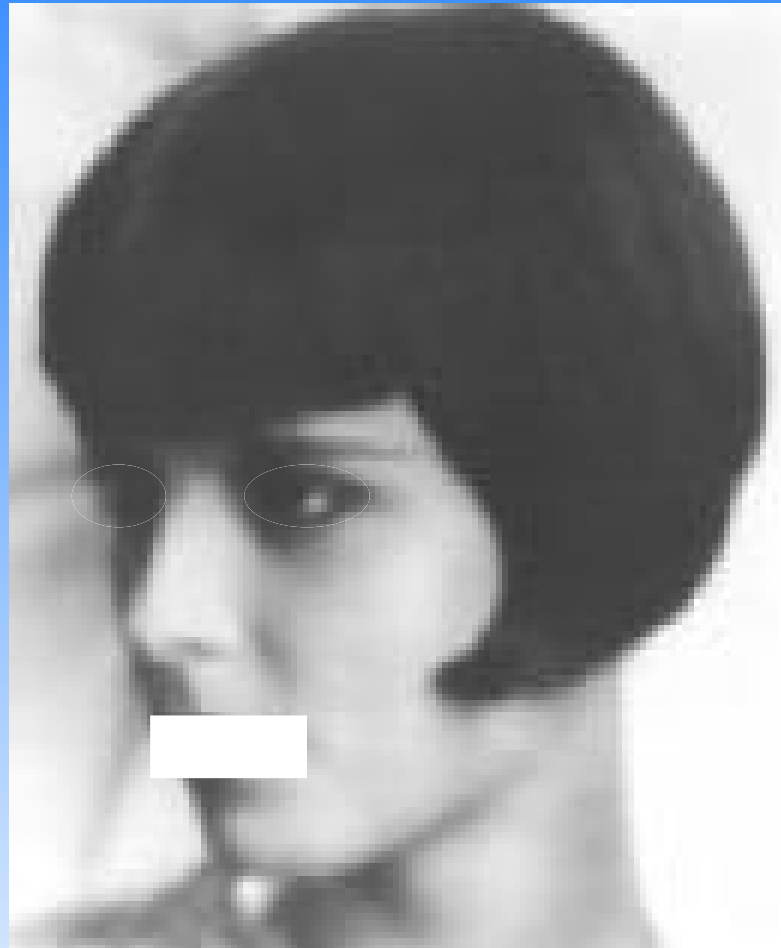


Figure 5:

End of slide

6 – External files inclusion



Figure 5: Louise Brooks (1906–1985)

End of slide