

C2110 *UNIX and programming*

Lesson 4

PS / 2020 Distance form of teaching: Rev2

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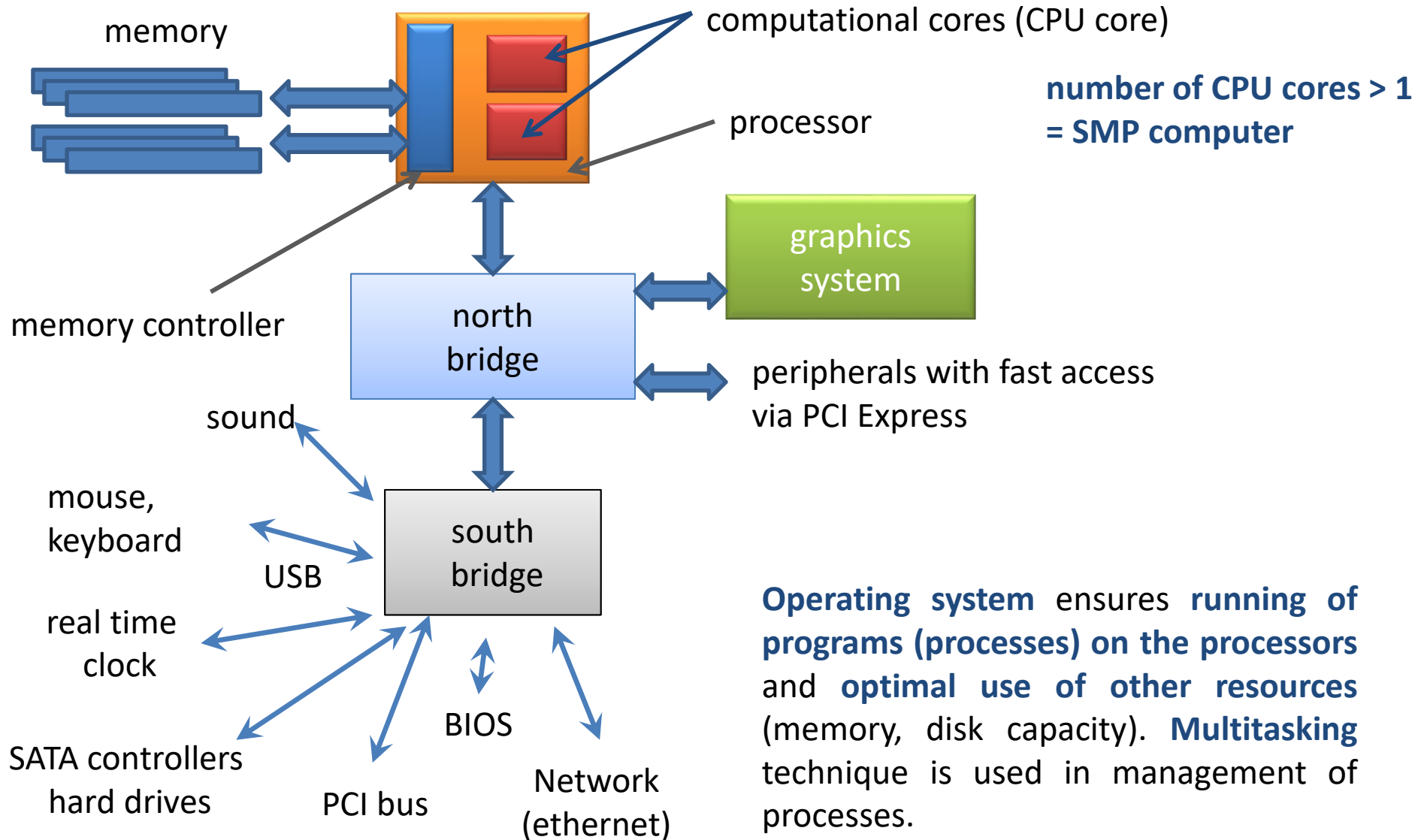
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Revision

- **Processor, Process**
- **Running Programs**
- **Redirection**
- **Pipes**

Internal Scheme of a Computer



Starting processes

Standard commands and programs:

```
$ ls
```

Standard commands and programs are in the path defined by the PATH variable

User programs and scripts:

```
$ ./my_script
```

```
$ ~/bin/my_application
```

the name of the program or script is given including the path (absolute or relative)

Running applications in the foreground

```
$ gimp
```

processes running **in the foreground block the terminal** because they use its standard input and output

Running applications in the background

```
$ gimp &
```

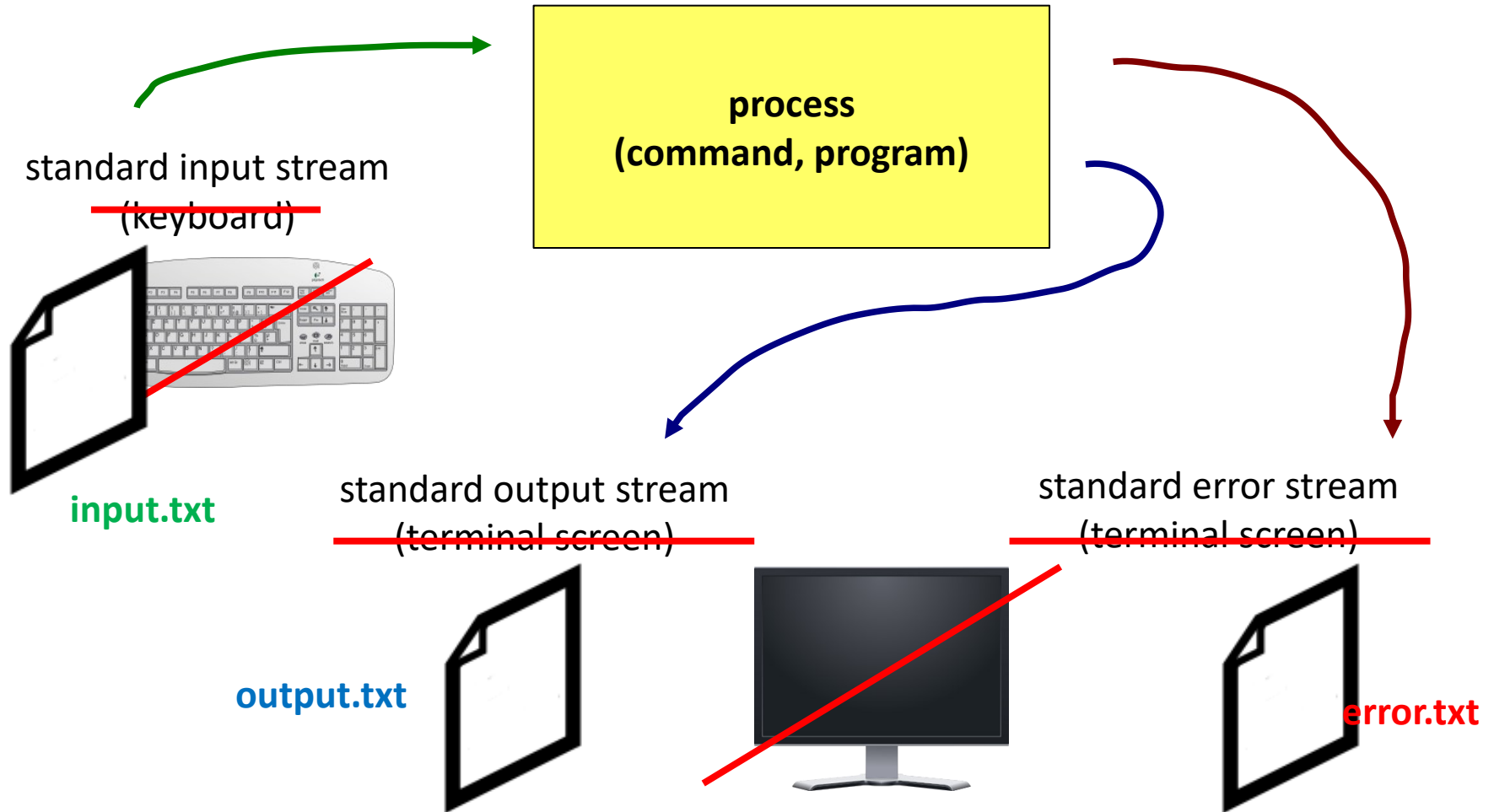
processes running **in the background do not block the terminal**

usable for both standard and user programs

at the end (after arguments and redirects) of the statement we type an ampersand

Redirection

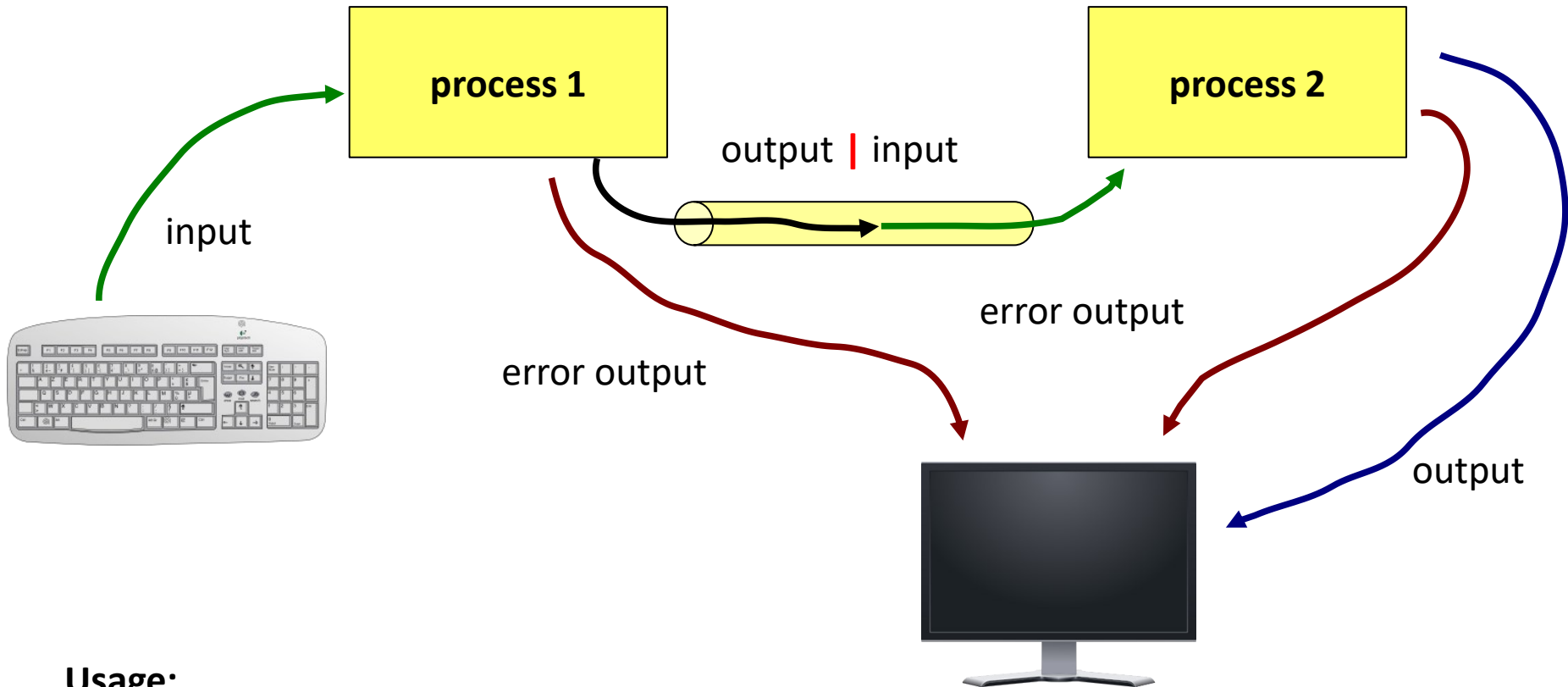
Input-output currents can be redirected to use **files** instead of the keyboard or screen.



```
$ program < input.txt > output.txt 2> error.txt
```

Pipes

Pipes serve to combine the standard output of one process with the standard input of another process.



Usage:

```
$ command_1 | command_2
```

Redirection and pipes can be combined.

Next Subject

- **Basic Work with Linux**

Content

- **Linux as a Desktop Environment**
 - **GNOME**
 - **Terminals**
 - **Standard and scientific-technical applications**
- **File System**
 - **Quotas**
 - **Disk device**
 - **Symbolic links**
- **Text Editors**
 - **vi, vim, nano**
 - **gedit, kwrite, kate**