

## SESSION 11

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### THE INPUT-OUTPUT SYSTEM

#### OBJETIVES

- To understand the need of I/O systems.
- To be able of distinguishing between elements of a I/O system.
- To know basic transfer protocols.
- To know I/O map concepts
- To know different I/O synchronization mechanism

#### PREVIOUS KNOWLEDGE

Deep knowledge of digital electronic. Basic knowledge about I/O devices.

#### BIBLIOGRAPHY

- Fundamentos de los Computadores. Pedro de Miguel Anasagasti. Thomson-Paraninfo, 9º ed. 2004.
- Estructura y Diseño de Computadores. David. A. Patterson and John L. Hennessy Ed. Reverte 2000.
- Organización y Arquitectura de Computadores. William Stallings. Pearson-Prentice Hall, 2006

#### TASKS

##### READINGS

FUNDAMENTOS DE LOS COMPUTADORES (Pedro de Miguel Anasagasti. Thomson-Paraninfo. 2004)

1. Chapter 7. Input / Output
2. General concepts (8.1)
3. Programmed I/O (8.2)
4. Priorities (8.3)
5. Interrupts driven I/O (8.4)

ORGANIZACIÓN Y ARQUITECTURA DE COMPUTADORES. (W. Stallings. Pearson-Prentice Hall, 2006)

1. Chapter 8. Input / Output
  - a. External devices (7.1)
  - b. I/O modules (7.2)
  - c. Programmed I/O (7.3)
  - d. Interrupt driven I/O (7.4)
  - e. DMA (7.5)

##### EXERCISES

Download [http://atc2.aut.uah.es/~avicente/asignaturas/eoc/pdf/enunciados\\_t5.pdf](http://atc2.aut.uah.es/~avicente/asignaturas/eoc/pdf/enunciados_t5.pdf) some of them will be solved during the classes.