IAS

###### Stabilire uno standard: Von Neumann e IAS

I primi calcolatori/computer erano tutti esemplari unici.

The machine developed by mathematician John von Neumann at the Institute for Advanced Study (IAS) was an exception.

Seventeen similar vacuum tube machines were built by governments and scientific institutions around the world, standardizing the approach of storing programs and data in a common memory.

An **instruction set architecture** (**ISA**) is an [abstract model](https://en.wikipedia.org/wiki/Abstract_model" \o "Abstract model) of a [computer](https://en.wikipedia.org/wiki/Computer" \o "Computer).

It is also referred to as **architecture** or **computer architecture**.

Plans for the IAS machine were widely distributed to any schools, businesses, or companies interested in computing machines,

resulting in the construction of several derivative computers referred to as "IAS machines," although they were not software compatible in the modern sense.[[5]](https://en.wikipedia.org/wiki/IAS_machine" \l "cite_note-ias-5)

The **IAS machine** was the first electronic [computer](https://en.wikipedia.org/wiki/Computer" \o "Computer) to be built at the [Institute for Advanced Study](https://en.wikipedia.org/wiki/Institute_for_Advanced_Study" \o "Institute for Advanced Study) (IAS) in [Princeton, New Jersey](https://en.wikipedia.org/wiki/Princeton,_New_Jersey" \o "Princeton, New Jersey). It is sometimes called the von Neumann machine, since the paper describing its design was edited by [John von Neumann](https://en.wikipedia.org/wiki/John_von_Neumann" \o "John von Neumann). The general organization is called [von Neumann architecture](https://en.wikipedia.org/wiki/Von_Neumann_architecture" \o "Von Neumann architecture), even though it was both conceived and implemented by others.

Derivati dell'IAS machine

I progetti furono distribuiti a università, società e privati interessati alla macchina. Questo portò alla realizzazione di quindici macchine derivate dall'IAS machine, che mostrarono vari gradi di compatibilità con l'originale.

Tra i derivati si segnalano:

* [AVIDAC](https://it.wikipedia.org/w/index.php?title=AVIDAC&action=edit&redlink=1) ([Argonne National Laboratory](https://it.wikipedia.org/wiki/Argonne_National_Laboratory" \o "Argonne National Laboratory))
* [BESK](https://it.wikipedia.org/w/index.php?title=BESK&action=edit&redlink=1) (Stoccolma)
* [BESM](https://it.wikipedia.org/wiki/BESM) (Mosca)
* [CYCLONE](https://it.wikipedia.org/w/index.php?title=CYCLONE&action=edit&redlink=1) ([Iowa State University](https://it.wikipedia.org/wiki/Iowa_State_University))
* [ILLIAC I](https://it.wikipedia.org/w/index.php?title=ILLIAC_I&action=edit&redlink=1) ([Università dell'Illinois all'Urbana-Champaign](https://it.wikipedia.org/wiki/Universit%C3%A0_dell%27Illinois_all%27Urbana-Champaign))
* [GEORGE](https://it.wikipedia.org/w/index.php?title=GEORGE_(computer)&action=edit&redlink=1) (Argonne National Laboratory)
* [JOHNNIAC](https://it.wikipedia.org/w/index.php?title=JOHNNIAC&action=edit&redlink=1) ([RAND](https://it.wikipedia.org/wiki/RAND))
* [MANIAC I](https://it.wikipedia.org/w/index.php?title=MANIAC_I&action=edit&redlink=1" \o "MANIAC I (la pagina non esiste)) ([Los Alamos National Laboratory](https://it.wikipedia.org/wiki/Los_Alamos_National_Laboratory" \o "Los Alamos National Laboratory))
* [MISTIC](https://it.wikipedia.org/w/index.php?title=MISTIC&action=edit&redlink=1) ([Michigan State University](https://it.wikipedia.org/wiki/Michigan_State_University))
* [ORACLE](https://it.wikipedia.org/w/index.php?title=ORACLE_(computer)&action=edit&redlink=1" \o "ORACLE (computer) (la pagina non esiste)) ([Oak Ridge National Laboratory](https://it.wikipedia.org/wiki/Oak_Ridge_National_Laboratory" \o "Oak Ridge National Laboratory))
* [ORDVAC](https://it.wikipedia.org/w/index.php?title=ORDVAC&action=edit&redlink=1) ([Aberdeen Proving Ground](https://it.wikipedia.org/wiki/Aberdeen_Proving_Ground))
* [SILLIAC](https://it.wikipedia.org/w/index.php?title=SILLIAC&action=edit&redlink=1) ([University of Sydney](https://it.wikipedia.org/wiki/University_of_Sydney))
* [SMIL](https://it.wikipedia.org/w/index.php?title=Siffermaskinen_i_Lund&action=edit&redlink=1) ([Lund University](https://it.wikipedia.org/w/index.php?title=Lund_University&action=edit&redlink=1))
* [WEIZAC](https://it.wikipedia.org/w/index.php?title=WEIZAC&action=edit&redlink=1) ([Weizmann Institute](https://it.wikipedia.org/wiki/Weizmann_Institute" \o "Weizmann Institute))