



## ROOT

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### What does it do?

ROOT is an object-oriented framework for data analysis which helps developers to build data analysis tools and enables researchers to view and analyse large amounts of data.

### How does it work?

The ROOT software system brings a set of classes and functions that provides all the functionalities needed to deal with big data processing, statistical analysis, visualisation and storage.

### Is there an analogy or metaphor you can use to help describe this simply?

Its like excel but super powerful.

### Unique characteristics

The ROOT Data Analysis Framework itself is written in and heavily relies on the programming language C++. It's able to process very large files without issue.

### Limitations or constraints

Hard to learn and implement.  
Has only eked out an existence in an small niche of academia.

### Originally designed to be used for:

It was originally designed to replace the older data analysis tools since they could not manage the huge amount of data collected by the LHC.

### Questions related to this technology

What about the implementation of root framework in other software projects?

## References

<https://kt.cern/technologies/root>

<https://root.cern.ch/>

[http://www-ekp.physik.uni-karlsruhe.de/~quast/Skripte/diving\\_into\\_ROOT.pdf](http://www-ekp.physik.uni-karlsruhe.de/~quast/Skripte/diving_into_ROOT.pdf)