Gaia data reduction using an average PC would take about 300 years! The Gaia team will complete this in only 3 years using advanced technology.

How long will it take Gaia to reach this orbit?

Immediately after insertion in its final orbit, Gaia will start taking measurements which will continue for a period of 5 years.

How much will Gaia weigh?

Based on the current design, Gaia will be 3 metres high, what is the predicted size and weight of Gaia?

How does Gaia work?

Gaia will have an accuracy of about 20 microarcseconds (the angle subtended by a five-story building at a distance of 50 km). Stellar parallax is very difficult to measure because it is a very small quantity and it decreases the further a star is from the Earth. Very precise measurements are required and these are now possible with Gaia. Gaia will have an accuracy of about 20 microarcseconds (the angle subtended by a five-story building at a distance of 50 km).

Where will Gaia be in space?

The closest star to us apart from the Sun is Proxima Centauri, in the Alpha Centauri star system. It lies at a distance of 4.3 light years from the Earth.

What will happen to Gaia after it stops functioning?

Radio signals are sent to the satellite using large radio dishes which are pointed at the satellite’s location in space. The large quantity of information sent from the satellite to the ground is also transmitted by high frequency radio waves.

How long will it take to build a satellite like Gaia?

A mission like Gaia may be studied and discussed for several years before ESA's advisors approve it. Detailed plans for Gaia’s operations are worked out in detail and many different orbits can be computed. Gaia web site: http://sci.esa.int/Gaia

The Little Books of Gaia

What are the main components of the Soyuz?

For ancient Greeks, Gaia was the goddess of Earth, the Universal Mother. More recently, this name was adopted for a theory which states that the Earth (including all living organisms, the biosphere, the rocks, the air, and the oceans) behaves like a living system in its own right.

What does Gaia mean?

The spacecraft is convened and commissioned on the Earth, then flown to the orbit around the Sun. Stellar parallax can be computed from the distortions that it creates. More detailed information can be found on the Gaia web site: http://sci.esa.int/Gaia

How is a satellite controlled from the Earth?

Radio signals are sent to the satellite using large radio dishes which are pointed at the satellite’s location in space. The large quantity of information sent from the satellite to the ground is also transmitted by high frequency radio waves.

How many people work in the Gaia project?

Currently about 2500 people are working on Gaia, including ESA staff and members of the space industry, 350 scientists, 2000 engineers and managers, and 20 to 30 companies might be involved.