Home of the possible asteroid impacts

<https://www.kaggle.com/nasa/asteroid-impacts>

# Context

An asteroid's orbit is computed by finding the elliptical path about the sun that best fits the available observations of the object. That is, the object's computed path about the sun is adjusted until the predictions of where the asteroid should have appeared in the sky at several observed times match the positions where the object was actually observed to be at those same times. As more and more observations are used to further improve an object's orbit, we become more and more confident in our knowledge of where the object will be in the future.

When the discovery of a new near Earth asteroid is announced by the Minor Planet Center, Sentry automatically prioritizes the object for an impact risk analysis. If the prioritization analysis indicates that the asteroid cannot pass near the Earth or that its orbit is very well determined, the computationally intensive nonlinear search for potential impacts is not pursued. If, on the other hand, a search is deemed necessary then the object is added to a queue of objects awaiting analysis. Its position in the queue is determined by the estimated likelihood that potential impacts may be found.

# Content

Sentry is a highly automated collision monitoring system that continually scans the most current asteroid catalog for possibilities of future impact with Earth over the next 100 years. This dataset includes the Sentry system's list of possible asteroid impacts with Earth and their probability, in addition to a list of all known near Earth asteroids and their characteristics.