The model presents the following modes of observations:

– stare and drift-scan modes with telescope is fixed in position;

– stare mode with daily telescope moving.

The model is interactive in 3D virtual space. 3D model of the telescope was implemented by using 3D Studio MAX software. Virtual reality modelling language (VRML) was used for development of interactive interface. One of the VRML browser such as Cortona VRML Client, Cosmo etc. is necessary for viewing of 3D scenes.

This research allow to refine possibilities of the Fast Robotic Telescope with automatic observations of the minor planets.

USAGE OF SCANNER FOR DETERMINATION OF COORDINATES AND STELLAR MAGNITUDES OF OBJECTS ON ASTRONOMICAL PLATES

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Photographic archives of observatories contain huge number of astronomical plates, which have been taken for the last 100 years. More than one hundred thousand of the astronomical plates are concentrated in the observatories of CIS only.

The interest in unique information contained in the photographic archives has increased for the last period of time because of the following reasons:

– proper motions of stars in Hipparcos catalogue need to be improved due to ageing of this catalogue;

– small asteroids need to be rediscovered at earlier epochs to improve their ephemerids in connection with GAIA space mission;

– modern computers, professional scanners (12800 dpi), and software for digital filtration allow us to make new, quick, and precise reduction of the astronomical plates.

The Scanning Measuring Machine (SMM) was created in the RI NAO for identification of objects, determination of their equatorial coordinates and stellar magnitudes.