Virtual Telescope and Stars Guide Service for Mobile Device

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Abstract

We present Virtual Telescope project, which will allow users to get information of different sky objects (planets, constellations and others) without special astronomical equipment but just by means of mobile device. In particular we propose the new astronomical service that turns mobile device into handheld guide of the stars sky and even to the personal telescope. The proposed service can be used in different areas of human life, e.g. from professional training of pilots and educational courses for school students that can be organized in the most comfortable and "cool" form, to just fulfilling user's curiosity about stars and space or even for fun.

We describe demo of our service, which allows user to get scheme of the stars and constellations, which s/he can observe in different points on the Earth. Qt for Symbian was used for developing demo, free star database (ESO HST Guide Star Catalogue) to determine the relationship between the user's coordinates and the coordinates of celestial objects. We propose two more demo of service: demo, which provide real images of the star sky by coordinates and demo, which define area of the sky, to which user is pointing by using sensors of mobile device.

INDEX TERMS: VIRTUAL TELESCOPE, MOBILE SERVICE, STARS GUIDE ON MOBILE DEVICE, TEACHING ASTRONOMY