General Project Description

Project title:	Testing of IPv6 Core
Project kind:	Pilot project
Contractor:	Archak N.A. (5-year MMF SpSU student)
Customer:	“Oktet” (http://www.oktet.ru/)
Project start date:	15.04.2002
Project end date:	29.04.2002

Project goals

The main goal of the project was examination of possibilities to apply CTesK in testing of software developing by the company. As an implementation under test the IPv6 implementation on the real time platform developed in the company was used.

Project input

The IPv6 implementation for the embedded system with a few interfaces (Ethernet, ATM, ADSL) and a serial port for configuration were considered.

In the project a subset of the protocol was tested. Usually it is called IPv6 Core. IPv6 Core is described by the IETF document RFC2460.

The system under test was tested through the net interface (sending/receiving net packets), described in the protocol standard.

Process used

The test set was developed based only on the protocol standard (RFC2460). The implementation code was not analyzed. CTesK of version 0.1 was used for test development and testing.

Project effort

The project was completed by 1 man for 2 weeks.

Project results

The project demonstrated high effectiveness of CTesK when using it in a development of tests of protocol implementations: with a few spent resources — 0,5 man/month, 3 errors were found: in all cases the behavior of the implementation under test did not correspond to the standard described by RFC2460.

Specifications’ size was 20 Kb. Mediators’ size was 1 Kb. Test scenarios’ size was 30 Kb. The size of the all code developed for testing was 70% of the size of the source code of the implementation under test.