

Customer

American-Russian developer of digital home media-systems

Objective

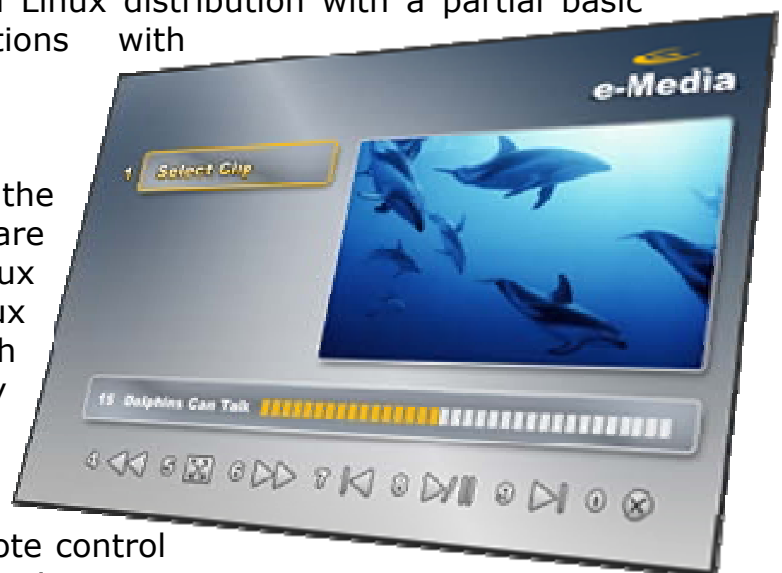
To develop a programming platform for a Linux-based home multimedia center. The platform should enable one to play music, view video, record and view TV programs, record multimedia data on CDs or DVDs, as well as other multimedia functions. The center is controlled with a remote control.

The software should be installed from a startup installation disk.

Solution

The system is based on a custom Linux distribution with a partial basic functionality supporting operations with multimedia data.

Recording of TV programs and the "record during pause" functions are implemented with the Video4Linux interface, embedded into the Linux core and ensuring interfacing with TV tuners. A Samba client-library was used to access network resources of a local network (Windows shared folders) via the CIFS protocol. Support of the remote control was implemented through LIRC libraries.



Custom installation distribution based on a standard graphics Linux installer.



Benefits and features

- Convenient and flexible user interface;
- Support of various TV tuners and remote controls;
- Download support of multimedia data from FTP and Windows Shared Folders;
- Support of streaming video and karaoke;
- Background recording of TV programs to HDD during playback;
- Graphics output to an LCD screen, TV receiver, projection display.



Technologies	Simple DirectMedia Layer (SDL) cross-platform media library, Video4Linux API, CIFS, Samba, LIRC
Programming languages	C++
Project management tools	dotProject, MSProject, CVS
Efforts	420 man-days
Duration	7 months