

Cyan Sample



Infotainment Channel Design Sample

*Revision as of
January 22, 2009 z.*

Instruction on Installation
and Use

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Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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Introduction

Cyan Sample is included in the ForwardT Software Samples set. Set of samples is designed to demonstrate possibilities of the ForwardT product line in broadcast design. To view the samples the FD300 board is not required.

The sample shows one of the ways to overlay titles on a full-screen video including the control of a subsequent titles update in the FDonAir program via the function of switching on titles by turn automatically.

Design layout includes various types of title elements: Picture, Clock, Caption, RollCrawl (scrollable crawl line).

The sample is designed via Forward Titling, FDImageUpdater, TV Clock, FDTitle Designer, FDonAir programs included in the ForwardT Software package. For more information, see User's guides at <http://www.softlab-nsk.com/docs.html>.

During the sample performance the following programs are launched: FDImageUpdater, SLTitlePreview, FDonAir.

This document contains the information on sample installation, deinstallation and its launch. Moreover, title project description, features of some title elements settings, configuration of title demonstration in FDonAir by turn and corresponded schedule are given in this instruction. Also, main steps of the sample creating are listed in this document.



Installation & Deinstallation of the Sample

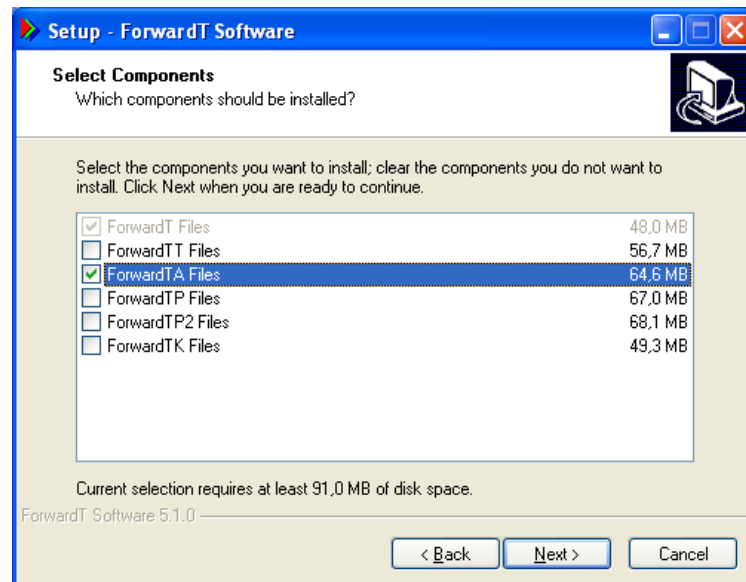
1. Sample Using Requirements

To install and use the sample the ForwardT Software, not less than 5.0.0 version for products listed below is required:

- Forward TA;
- Forward TP;
- Forward TP2.

The installer is on the setup disc. It can be also downloaded at <http://www.softlab-nsk.com/forward/download.html>

During the ForwardT Software installation the Setup - ForwardT Software window appears. Set a check mark in the appeared window opposite the name of one of the components listed above.



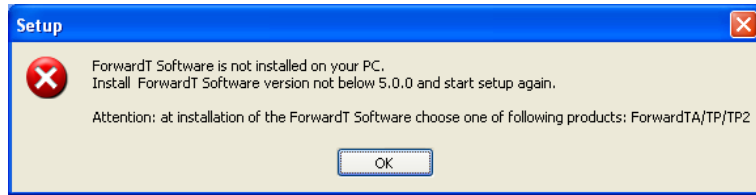
2. Sample Installation

Sample installation is implemented as usual. Answer installation program (installer) questions subsequently. Switching from one dialog window to another is made via Next (switching to the next page) and Back (switching to the previous page). Click Cancel if necessary to stop the installation.

1. To launch installing start Cyan_X_X_X.exe, where X_X_X denotes version number.
2. The installer finds the ForwardT Software, not less than 5.0.0 version on the computer.



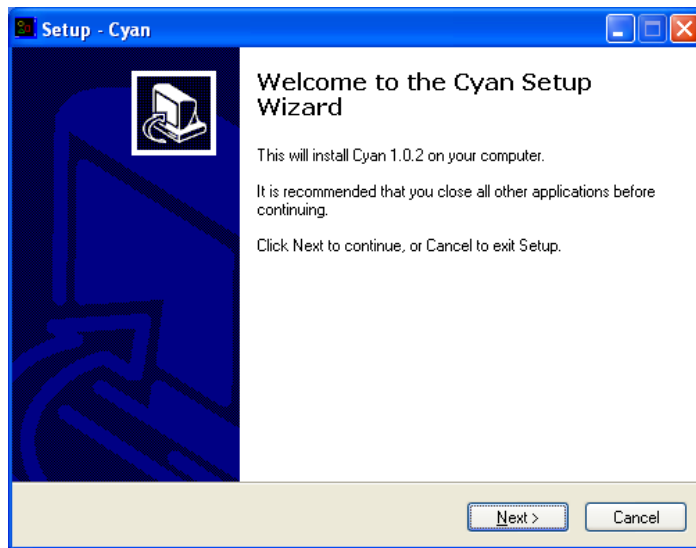
If the ForwardT Software isn't found the window with the message will appear and the installer will finish working.



In this case install the ForwardT Software.

If the ForwardT Software is installed the installer continues working.

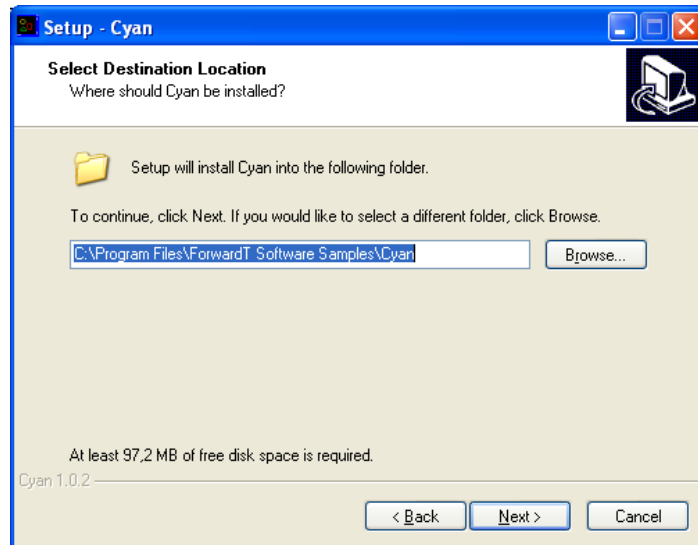
3. Welcome to the Cyan Setup Wizard window appears.



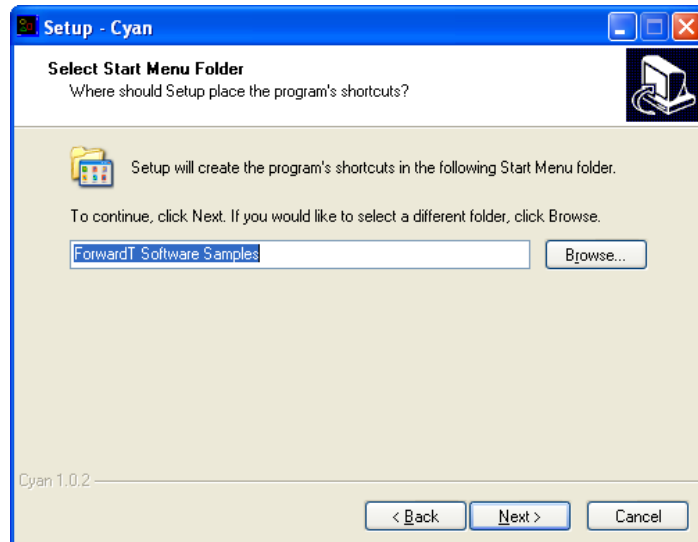
Click Next to continue.



4. Select a folder to install the Cyan sample.

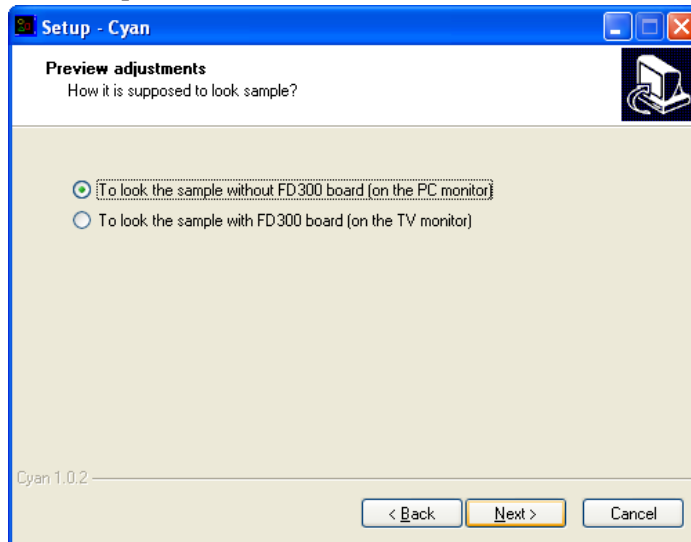


5. Select Start menu folder to create shortcuts for the sample.

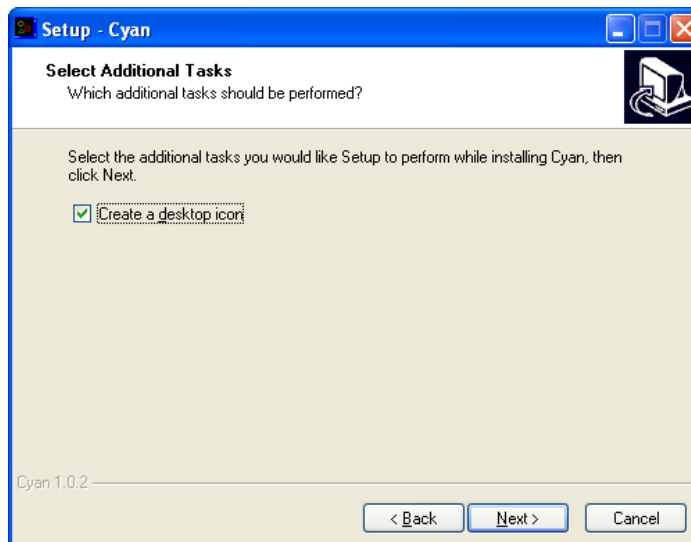




6. Choose one of preview modes:
 - To look the sample without FD300 board (on the PC monitor) – view without the FD300 board;
 - To look the sample with FD300 board (on the TV monitor) – view on the TV monitor or in the FDPreviewMonitor window if the FD300 board is installed. This program requires the board.



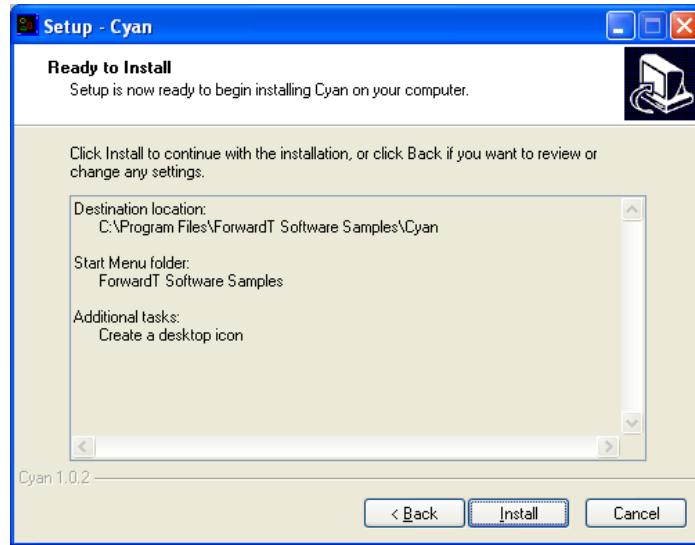
7. If the check mark Create a desktop icon is set the shortcut for launching the sample will be placed on desktop.



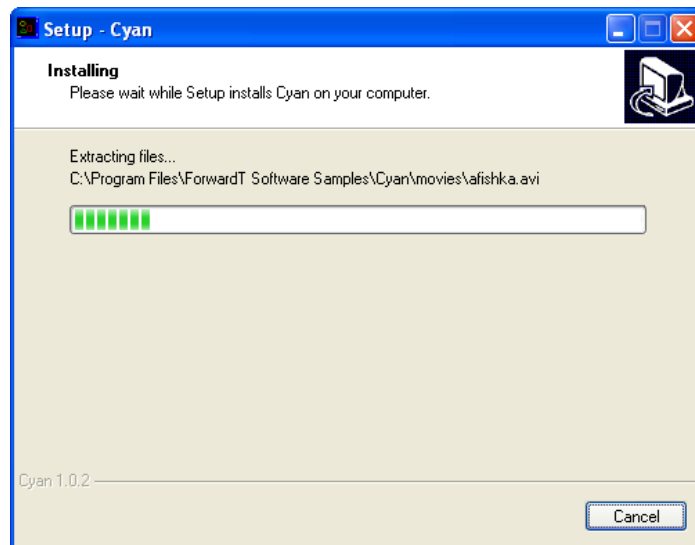


8. Check the information on installing parameters. Click Back if necessary to adjust parameters.

To continue installing with selected parameters click Install.



9. The installer installs files in the indicated folder.

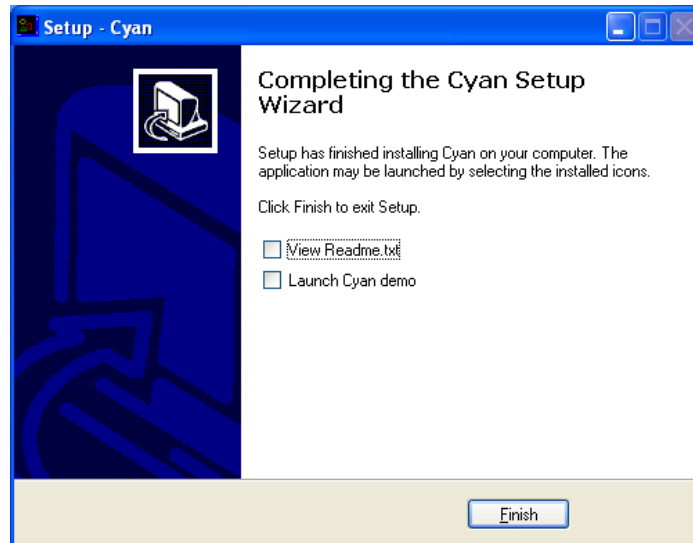




10. After installing is complete set corresponded check marks to perform necessary options automatically:

- View Readme.txt – open the file with supporting information;
- Launch Cyan demo – start the sample performance.

✓ **Important:** If radio button To look the sample with FD300 board is selected plug TV in the board output or open the FDPreviewMonitor program to view.



3. Sample Deinstallation

There are 2 ways to deinstall the sample:

- Via Start Menu command: Programs > ForwardT Software Samples > Cyan > Uninstall;
- Via Control Panel: open Add or Remove Programs window. Click left mouse button on the bar with the sample name Cyan X.X.X, where X.X.X – version number in the appeared window. Click Remove.



Sample Demonstration

1. Demonstration Launching

To start the sample demonstration use either the shortcut or the Start menu command: Programs > ForwardT Software Samples > Cyan > Start.

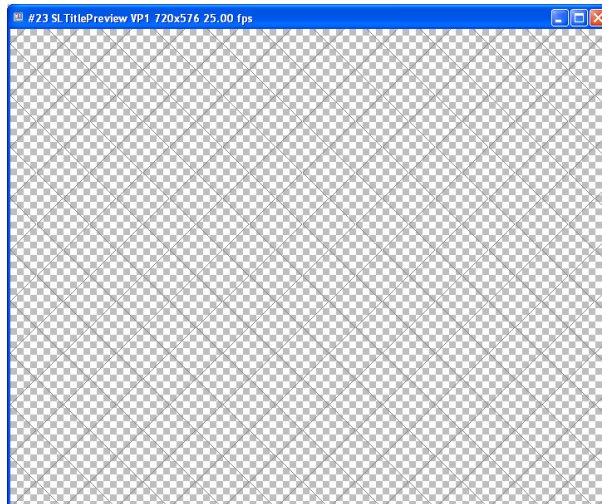
Perform one of the following operations before launching the sample demonstration if during the sample installation the mode To look the sample with FD300 board was set:

- Connect board output to TV video input to view the sample on TV monitor;
- Launch the FDPreviewMonitor program to view the sample on computer monitor. To do so use either the desktop program shortcut or the Start menu command: Programs > ForwardT Software> Tools > Preview Monitor. In the appeared window remove check mark Input and press Show. Sample demonstration will be implemented via this program.

2. Begining of Demonstration

Programs windows will appear automatically in a subsequent way during the sample launching on the computer monitor:

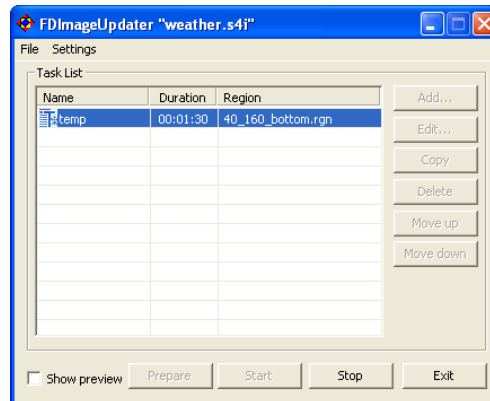
1. The SLTitlePreview, instance #23 window will appear if during Cyan installation the mode To look the sample without FD300 board is set.



SLTitlePreview program is designed to view FDonAir output data without the FD300 board.

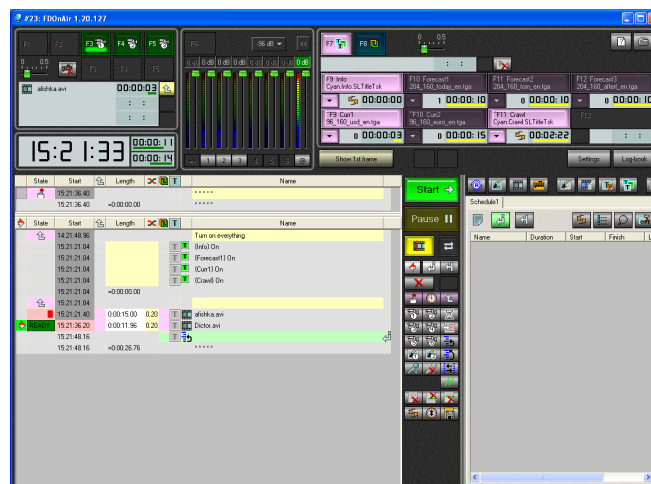


2. FDIImageUpdater.



FDIImageUpdater program is designed for dynamic change of graphic files. The program is used to organize the output of updated during broadcast information, e.g. temperature, pressure, humidity.

3. FDO nAir, instance #23



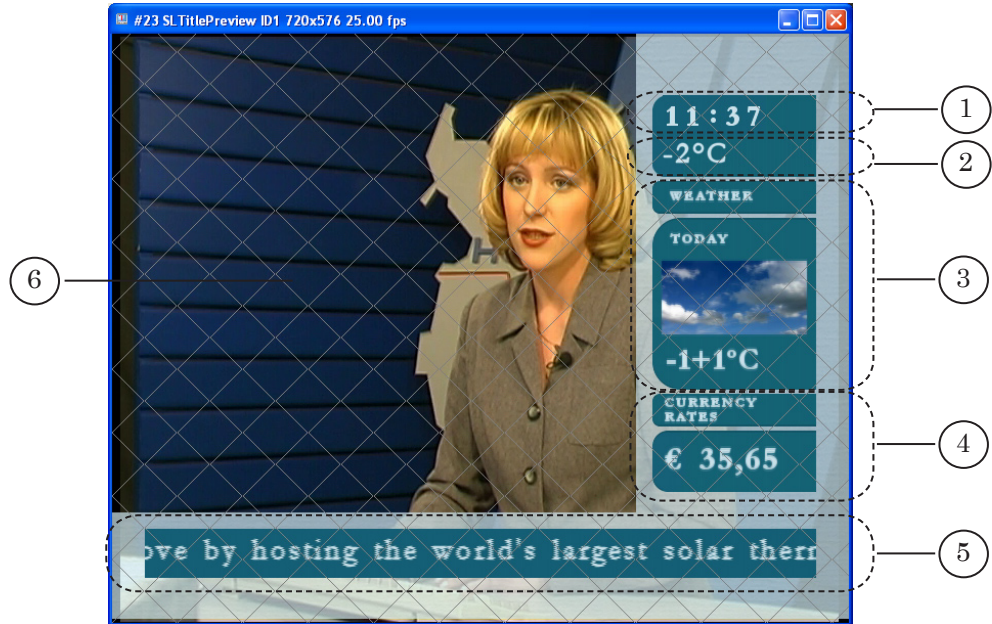
The FDO nAir application is designed to control broadcasting in an automatized way i.e. schedule preparation (play-list), broadcast realization, broadcast control and its adjusting.



3. Displayed Information

The information either on TV or in the view program window will be displayed when steps mentioned above will be completed.

The SLTitlePreview program window that appears during the sample demonstration is shown below.



Cyan shows the way of titles overlay (1–5) on the background video (6).

The background video is a range of subsequently displayed video clips. The area of title location in the broadcasting field is specified with transparent background elements.

The table below contains information on displayed information blocks description.

Picture index	Information block	Brief description (displayed information)
1	Current time	Clock displays current time
2	Temperature	Temperature. Displayed temperature can be updated during the sample demonstration (for more information, see Dynamic Update of the Title Element Content User's Guide").
3	Weather forecast	Pictures with the weather forecast for today, tomorrow, the day after tomorrow appear and dissappear by turn (for more information, see Adjustment of Titles Displayed by Turn part of this document).
4	Exchange rates	Pictures with the information on exchange rates appear and dissappear by turn.
5	News	Scrollable crawl line moves from right to left displaying news. Messages are circled, the first message follows the last.



4. Sound

Sound is played from demonstrated video clips during sample demonstration.

If the SLTitlePreview program is used to view the sample the sound will be played via sound device used by default on PC. Test sound will be played on the sound device from the program launch moment to the start of information displaying.

5. View Completion

Close all applications appeared at the beginning in the given below turn to complete the sample view.

1. FDImageUpdater.
2. FDOnAir.
3. The program where the view is performed:
 - SLTitlePreview;
 - FDPreviewMonitor.

✓ **Important:** Close the SLTitlePreview program window after the FDOnAir program.



Title Project

1. General Overview

Layout of air designing with titles is made via title projects. Projects are created via the FDTitle Designer program (for more information, see «FDTitle Designer. Title projects editor. User's guide»).

Specify set, types of title elements and their properties during new title project creating.

All title elements are distributed according to title objects. Title objects are specific named groups. Title objects are used in the FDOAir program to control titles: their switching on/off, task updating and etc. (for more information, see «FDOAir. Broadcast automation. User's guide»).

The Cyan.SLTitleProj title project is used in the Cyan sample.

2. Cyan.SLTitleProj Elements and Objects

2.1. Title elements list

The table below contains information on all project title elements (its type, task name file, information block) and element grouping according to title objects.

Title element name	Title element type	Task file name*	Information block	Title object name
right_bckgr	Picture	StatTitles\RightBckgr.tga	–	Info
time	Clock	digit_cyan.clc	Current time	
temperature	Picture	weather\40_160_bottom.tga	Temperature	
today	Caption	StatTitles\204_160_today_en.tga	Weather	Forecast1
tomorr	Caption	StatTitles\204_160_tom_en.tga		Forecast2
aftertom	Caption	StatTitles\204_160_aftert_en.tga		Forecast3
usd	Caption	StatTitles\96_160_usd_en.tga	Exchange rates	Curr1
euro	Caption	StatTitles\96_160_euro_en.tga		Curr2
down_bckgr	Picture	StatTitles\DownBckgr.tga	News	Crawl
crawl	RollCrawl	spt\world_news.spt		
crawl_bckgr	Picture	StatTitles\48_656.tga	–	

*Hereinafter file paths are indicated concerning the Cyan folder. Given file names are specified during title elements configuration in FDTitle Designer.



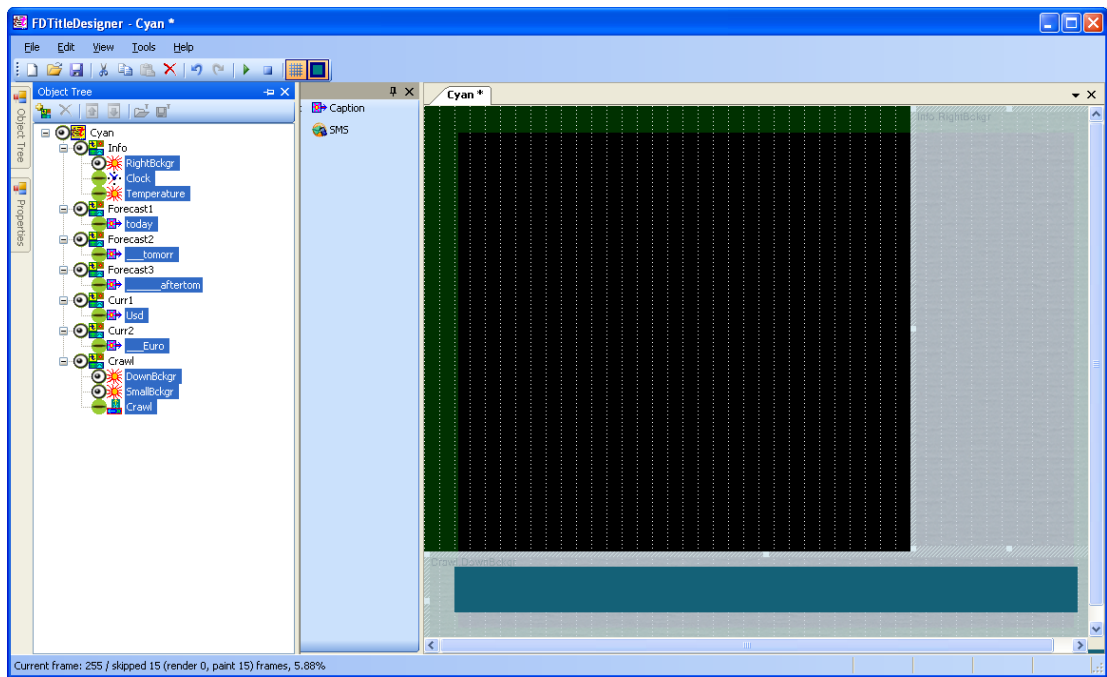
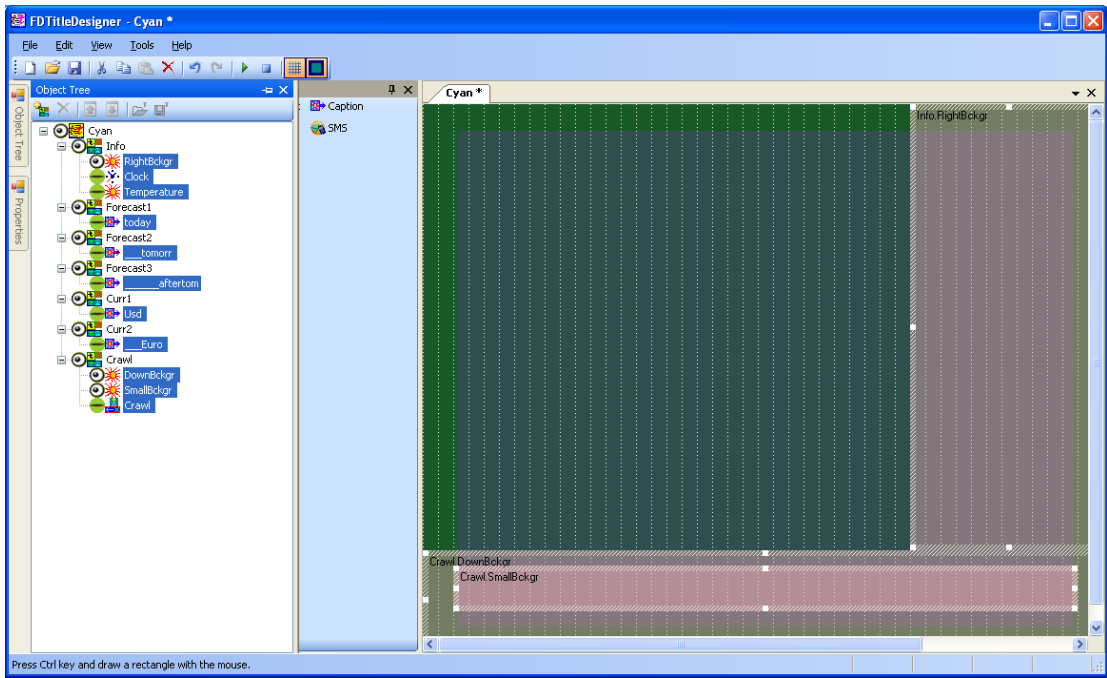
2.2. Background Elements

The table below contains information on title elements used to overlay background elements, title elements purpose and its setting features.

Title element name	Purpose	Setting specificities
right_bckgr	Marking of title location area	Transparency is set with Alpha property; value 184 is set.
down_bckgr		
crawl_bckgr	Scrollable crawl line background element	

Background elements are always displayed.

The FDTtitle Designer program window in edit and preview modes are shown on pictures below. Title elements used for background elements overlay are displayed, others are hidden.



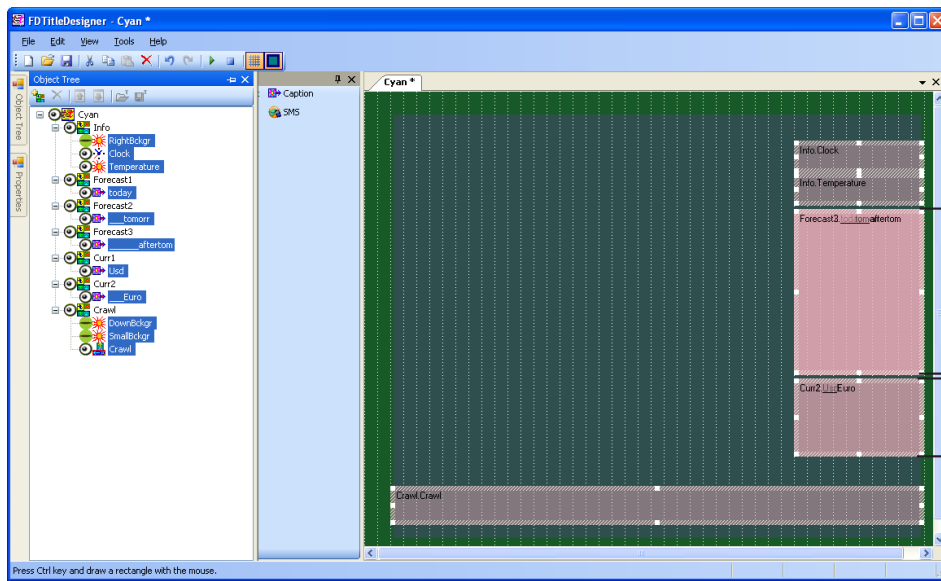


2.3. Information Content

This table contains information on title elements used for information content of TV channel displaying.

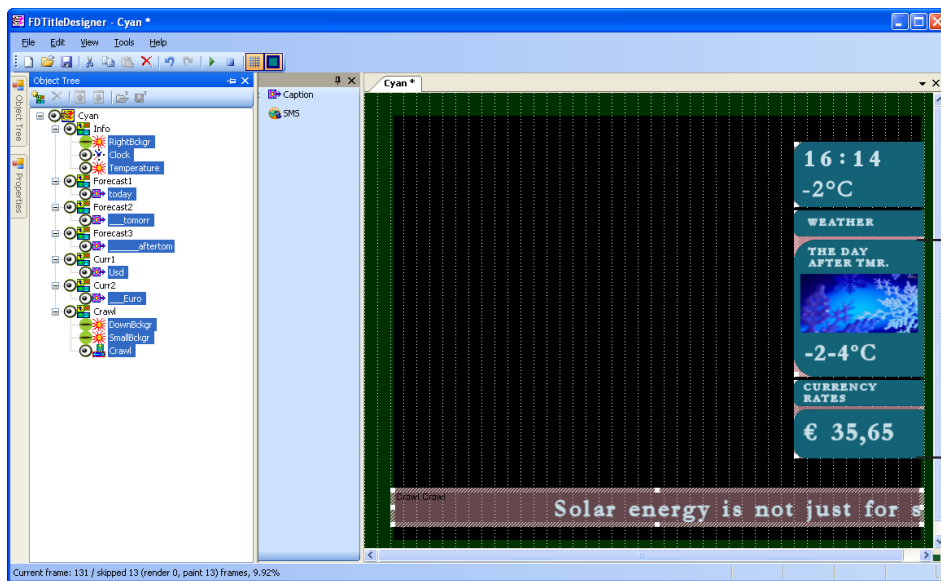
Title element name (type)	Displayed information	Setting specificities
temperature	Temperature, °C	The Picture title element. Task file here is the file with generated by FDImageUpdater content.
time	Clock displays current time. Timing every second.	The Clock title element. As the time source computer system clock is selected. For Clock source property System time is selected.
crawl	RollCrawl with ads text	The RollCrawl title element. Text design is set with the efc\cyan.efc styles file. Task demonstration is looped. For Loop property Yes is selected.
today, tomorr, aftertom	Pictures with information on weather for today, tomorrow, the day after tomorrow appear and dissappear	The Caption title element. All three elements have the same size and location. For the setting of the title demonstration the following element property values are set: In Direction – right; Out Direction – left; Speed – 5 (px per frame); Rest Time – 7 (sec.); Pause – 1 (c). Properties values for all elements of this group are the same.
usd, euro	Pictures with information on exchange rates appear and dissappear	The Caption title element. All elements of this group have the same size and location. For the setting of title demonstration the following element property values are set: In Direction – right; Out Direction – left; Speed – 5 (px per frame); Rest Time – 11,5 (sec.); Pause – 1 (sec.). Properties values for all elements of this group are the same.

The FDTITLE Designer program window in edit and preview modes are shown on pictures below. Only title elements mentioned in the table are shown, others are hidden.



Title objects/elements
Forecast1/today,
Forecast2/tomorr,
Forecast3/aftertom

Title objects/elements:
Curr1/usd,
Curr2/euro



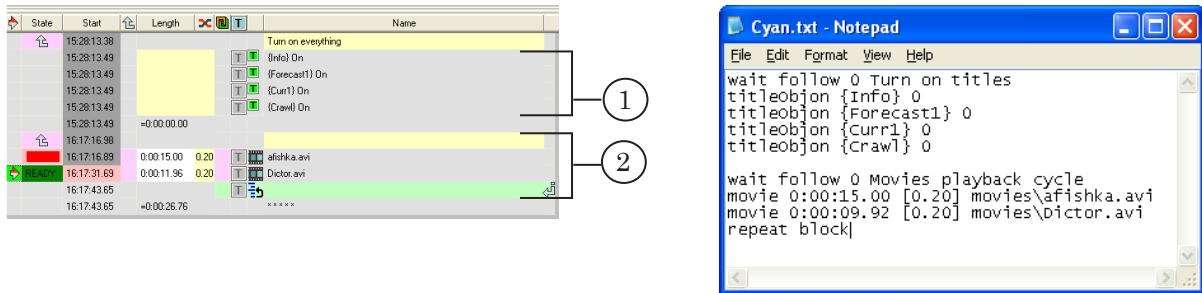
Only the upper
element of every
block is visible
during preview since
title elements have
the same location
and demonstration
settings.



Schedule

During the Cyan sample demonstration the cyan.air schedule is loaded in the FDO nAir program. The cyan.air file can be opened via text editor e.g. Notepad.

Pictures below show schedule in table (in the FDO nAir window) and in text format.



The schedule consists of 2 command blocks.

The first block (1) starts with the Wait previous command (⏸). Turn on titles (switching titles on) note in the Name column informs about block purpose. Then follow Titling on commands (📄) which switch Info, Forecast1, Curr1, Crawl title objects in «On» mode.

The second block (2) starts with the Wait previous command (⏸) and finishes with the Repeat current block command (🔄). Cyclic block commands execution is made via these options.

Movies playback cycle note (playing video clips cycle) in the Wait previous command line of the Name column informs about block purpose. Via the Play video clip command (🎬) afishka.avi and Dictor.avi video clips start to be executed.

For more information, see «FDO nAir commands. Broadcast automation. User's guide».



Sample Features

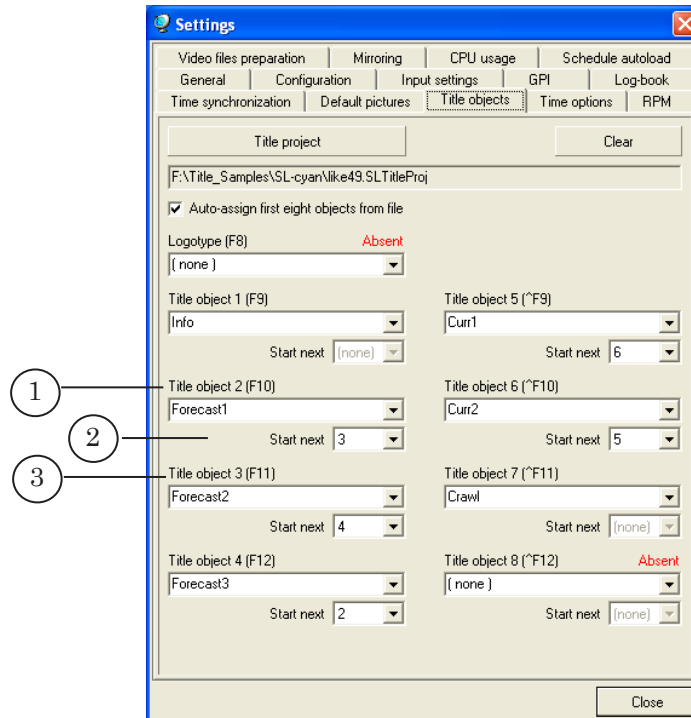
1. Adjustment of Ttiles Displayed by Turn

In the Weather information block weather forecast is given. Pictures with weather forecast for today, tomorrow and the day after tomorrow appear and disappear on the screen by turn.

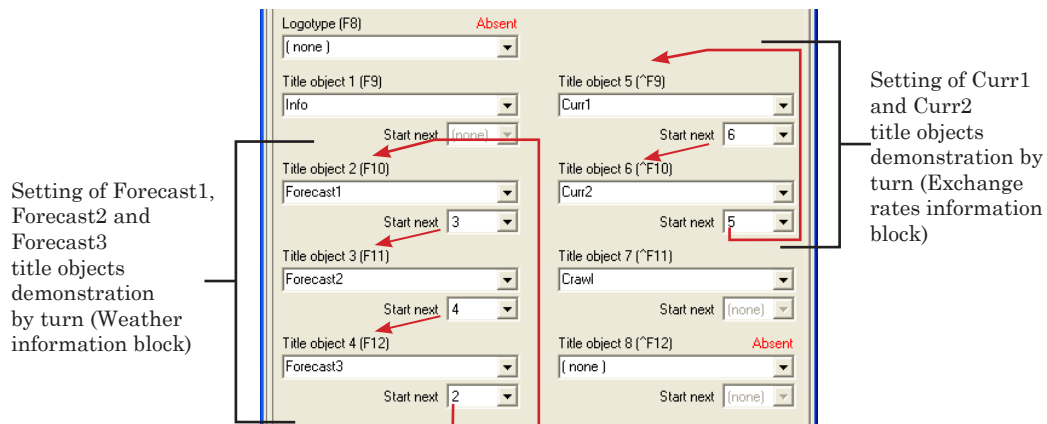


Demonstration of this block is made via Forecast1, Forecast2, Forecast3 title objects. These objects have the same location, size and property settings. Way of appearing and demonstration duration are set by means of title elements properties during title project development in the FDTtitle Designer program.

The sequence of the way of appearing can be set in the FDOonAir program. To do so apply the function of turning titles on/off automatically by turn. Configuring is made in the Settings window on the Title objects tab.

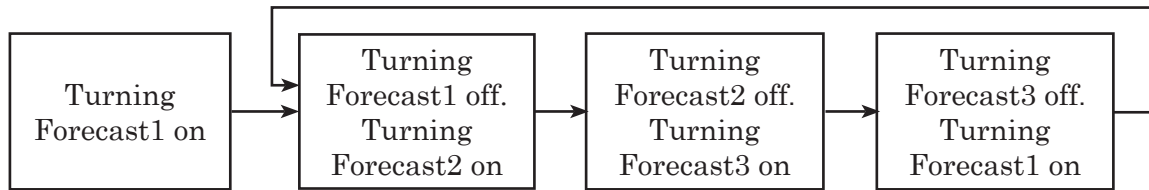


Set the necessary sequence of turning the title objects demonstration on via the Start next drop-down lists. Choose the title object number (3) which should be turned on after title object is off in the Start next drop-down list (2). This title object should be selected from the corresponded Title object# list (1).





The scheme of turning the Forecast1, Forecast2, Forecast3 objects on/off looks like:



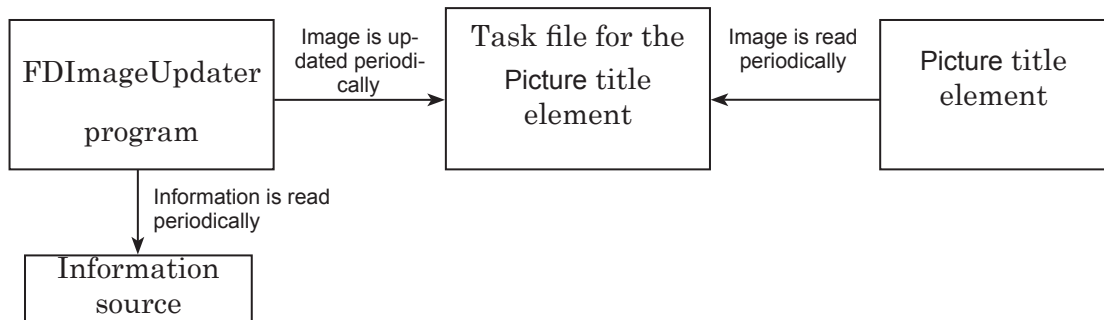
The Forecast1 object is the first object to be switched in the "On" mode. All other objects are switched automatically according to set configurations.

2. Dynamic Update of the Title Element Content

Our sample shows how title elements are used to broadcast information on air. The information is updated during broadcast e.g. current weather forecast.

For this the Picture title element and the FDImageUpdater program are used.

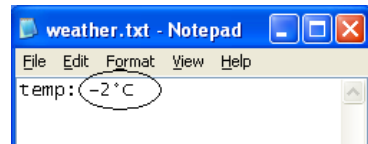
FDImageUpdater reads the information from the specified source during certain time periods. The source may be a text file, weather station or a Web site page. With this information FDImageUpdater updates graphical file which is the task for the Picture title element. The title element reads the task file periodically (once per second). If changes are found the title element will reload the picture from the task file.



The Weather\weather.txt text file as the information source for the FDImageUpdater program in the Cyan sample is used. In specified time periods (30 sec for this sample) FDImageUpdater reads the information from the Weather\weather.txt file and updates the 40_160_bottom.tga file. The latter is the task for the temperature title element. The result is a displayed updated information.



If during demonstration the weather.txt file is modified at some time period specified in project settings after file saving these modifications will be displayed in the view window. Specified time periods should be not more than 30 sec. Only the text followed «temp:» can be modified.





Main Steps for Sample Creating

An approximate workflow for Cyan Sample designing is given in the table below.

No	Executed operation	ForwardT Software package application	Outcome
1	Creating font styles collection	Forward Titling (graphics editor)	efc\cyan.efc
2	Creating of tasks for the RollCrawl title element	Standard text editor – Notepad (is not included in the ForwardT Software package)	spt\world_news.spt
3	Creating of the FDImageUpdater program configuration file for weather.tga image generation from the weather.txt text file	FDImageUpdater (program for graphic files dynamic update)	Weather\weather.s4i
4	Creating of graphic files (images)	Forward Titling (any graphic editors supplied specified file extensions)	weather\40_160_bottom.tga StatTitles*.tga
5	Creating of clock image	TV Clock (clock editor)	digit_cyan.clc
6	Creating of title project	FDTitle Designer (editor of title projects)	Cyan.SLTitleProj
7	Setting of titles display sequence and schedule creating	FDonAir (program for broadcast automation on the FD300 board basis)	cyan.air

* – denotes all files with specified extension in the folder

For more information on programs, see corresponded user's guides. Documentation can be downloaded at <http://www.softlab-nsk.com/docs.html>



Useful Links

ForwardT Software set: description, download, documentation, solutions

<http://www.softlab-nsk.com/forward/index.html>

Support

e-mail: forward@sl.iae.nsk.su

forward@softlab-nsk.com

forward@softlab.tv

Forum

<http://www.softlab-nsk.com/forum> (currently available in Russian only)

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26 May, 2010

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