

# *FDImageUpdateManager*

## *Dynamic change of graphic files*

# **User's Guide**

Revision from 06 July 2005

ForwardT Software 3.8.0

SoftLab-NSK, Ltd.

## Notice

The information in this document is subject to change without prior notice in order to improve reliability, design, or function and does not represent a commitment on the part of this company.

In no event will we be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or the inability to use the product or documentation, even if advised of the possibility of such damages.

Copyright © 1997 - 2005 SoftLab-NSK, Ltd.  
All Rights Reserved.

No part of this reference manual may be reproduced or transmitted in any form or by any means without the prior written permission of this company.

Throughout this manual, we make reference to product names that are trademarks of other companies. We are using these names for identification purposes only, with no intention of infringement of the trademarks.

## FCC Information

### **FCC ID:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 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.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded cables and I/O cards must be used for this equipment to comply with the relevant FCC regulations. Changes or modifications not expressly approved in writing by SoftLab-NSK, Ltd. may void the user's authority to operate this equipment.

## Limited Warranty

Our company warrants this product against defects in materials and workmanship for a period of one year from the date of purchase. During the warranty period, products determined by us to be defective in form or function will be repaired or replaced at our option, at no charge. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or as a result of service or modification other than by us.

This warranty is in lieu of any other warranty expressed or implied. In no event shall we be held liable for incidental or consequential damages, such as lost revenue or lost business opportunities arising from the purchase of this product.

## Table of contents

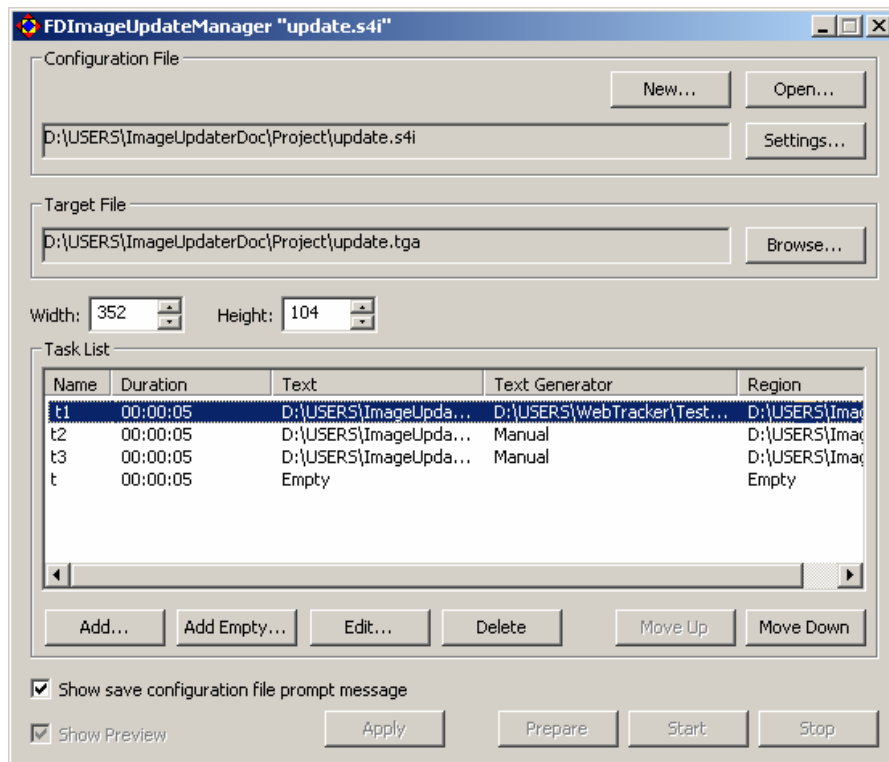
TABLE OF CONTENTS .....	3
1 INTRODUCTION .....	4
2 PROGRAM MANAGEMENT .....	5
2.1 Creation of Configuration File .....	5
2.2 Individual Settings of Image Generation Modes.....	5
2.3 Parameters Settings of a Resulting File.....	5
2.4 Task List.....	6
2.5 Configuration File Saving .....	8
2.6 Preview Window .....	8
2.7 Management of Image Generation Process .....	8
2.8 Additional Elements .....	9
3 CONFIGURATION FILE .....	10
3.1 Section [Project] for Image Generation in <i>Forward Titling (DDTitle)</i> .....	10
3.2 Section [Object] for Image Generation in <i>Forward Titling (DDTitle)</i> .....	10
4 TEXT FILE FORMAT.....	12
5 START FROM A COMMAND LINE .....	13
6 WORK WITH <i>FDWEBTRACKER</i> .....	14
7 WORKING WITH TITLE IN PROGRAM <i>FDIMAGEUPDATERMANAGER</i> .....	15
7.1 Creation of Text File (*.txt) and Region File (*.rgn) for each task .....	15
7.1.1 Region File Creation.....	15
7.1.2 Text Files Creation .....	22
7.2 Configuration File Creation.....	22
7.3 Title Project Creation in program <i>FDTITLEDESIGNER</i> .....	25
7.4 Title Project Load to <i>FDOAIR</i> and Title Elements Assignment.....	27
7.5 Start of the image updating process .....	28

# 1 Introduction

The program *FDImageUpdateManager* is used for dynamic change of the graphic files as title elements in program *FDOnAir*. With the help of this application it is possible to make the data output, which can vary in time, for example, on the current temperature, pressure, humidity. The graphic file, which is updated by this program, should be bound with title element **Picture**, created in program *FDTitleDesigner*. For dynamic change of several graphic files simultaneously should be started as much copies of the program.

Besides the program is used for creation/editing of a configuration file with the description about change of a resulting graphic file. A configuration file is a text file with expansion \*.s4i.

This version of *FDImageUpdateManager* supports a text generation with use of the project \*.webtrackerproj created in the application *FDWebTracker*. Application *FDWebTracker* is included into the package *ForwardT Software*. In more detail it is described in *FDWebTracker User's Guide*.



**Figure 1. The Main Window**

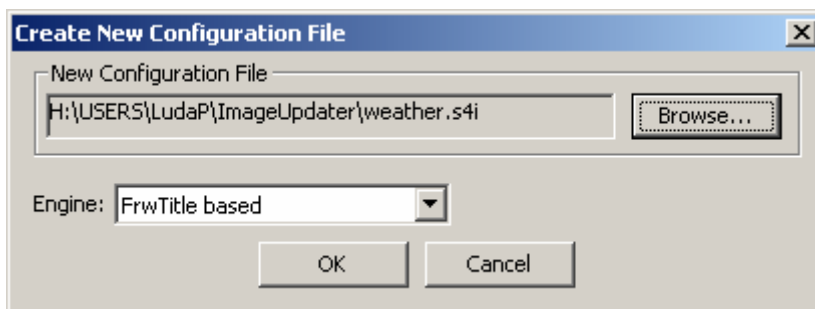
In heading of the Main Window (Figure 1) the program name and the current configuration file name are displayed, and in the curtailed window – only the configuration file name.

The text information necessary for broadcasting can change as manually by simple editing of the appropriate text files and by automatic updating text files, for example, record of the information from sensor to a file.

## 2 Program Management


### 2.1 Creation of Configuration File

Pressing the button **New...** (Figure 1) opens dialog *Create New Configuration File* (Figure 2) for creation of a new Configuration File.




**Figure 2.** *Create New Configuration File* dialog with selected file


The button **Browse...** opens the standard dialog for select of folder for saving of a new file.

 *Attention! The file at present cannot exist on a computer disk.*

Besides in the drop-down list **Engine** it is necessary to select a way of image generation.

 *Attention! The unique way of image generation by program Forward Titling (DDTitle) from package ForwardT Software now is accessible.*

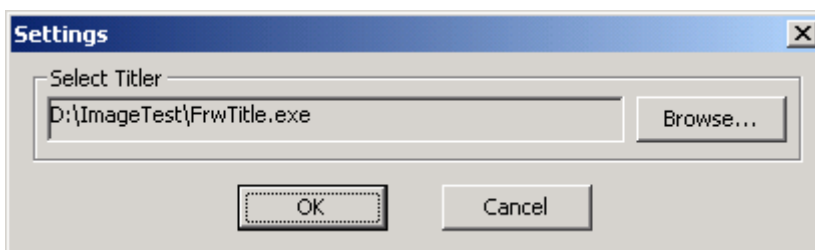
Pressing the button **Open** (Figure 1) opens the standard Windows dialog *Open Configuration File* for selecting and opening of existing Configuration File. The path to the selected file is shown in the dialog *Create New Configuration File* (Figure 2).

 *Attention! The file at present necessarily should exist on a computer disk.*

After creation a new file or opening of an existing configuration file its full path is displayed in a text field under buttons **New...** or **Open...**

### 2.2 Individual Settings of Image Generation Modes

The pressing button **Settings...** opens *Settings* dialog for individual settings of this or that way of image generation. For image generation by the program *Forward Titling (DDTitle)* dialog looks like as on Figure 3.



**Figure 3.** Individual settings in the *Forward Titling (DDTitle)*

In this dialog it is necessary to select a way to program *Forward Titling (DDTitle)* installed on a computer. It can be made by button **Browse...** opening standard dialog *Windows* for a file choice.

### 2.3 Parameters Settings of a Resulting File

In the field **Target File** (Figure 1) a full path to a graphic file is displayed. To select a file it is possible by button **Browse...** opening standard dialog *Windows* for a file choice.

☞ *Attention! The file at present cannot exist on a computer disk. Therefore it is necessary to have in view of, that its extension should be such which is allowed for title element **Picture**, created in program *FDDTitleDesigner*.*

In fields **Width** and **Height** it is necessary to set the sizes of a picture, which need to be got in a resulting graphic file.

## 2.4 Task List

**Task List** contains tasks on the basis of which there will be a change of the image. For generation of the image with use *Forward Titling (DDTitle)* the list looks like as on Figure 4.

Name	Duration	Text	Text Generator	Region
t1	00:00:05	D:\USERS\ImageUpda...	D:\USERS\WebTracker\Test...	D:\USERS\Ima...
t2	00:00:05	D:\USERS\ImageUpda...	Manual	D:\USERS\Ima...
t3	00:00:05	D:\USERS\ImageUpda...	Manual	D:\USERS\Ima...
t	00:00:05	Empty		Empty

**Figure 4. Task List for image generation in *Forward Titling (DDTitle)***

The column **Name** contains a task's name.

The column **Duration** contains duration of unchangeable state of a picture in a cycle.

The column **Region** contains a path to a file with image «style» used for this task (files with extension \*.rgn).

The column **Text** contains a path to a file with text information, which will be displayed in output graphic file.

The column **Text Generator** contains the relative path to a project file of the text generator (see 6). At text changing manually this column contains inscription **Manual**.

Set of buttons under **Task List** allows editing both tasks, and the order of there following in a cycle (Figure 5).

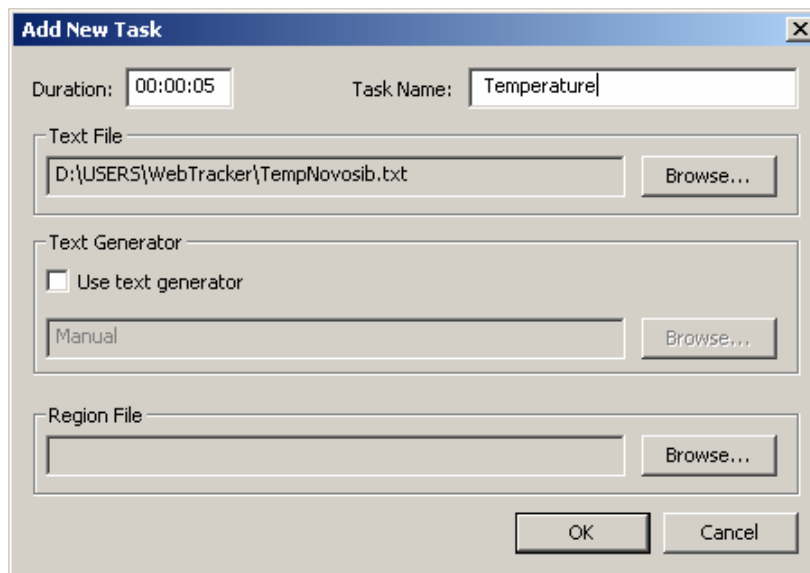


**Figure 5. The buttons for Task List editing**

Pressing the button **Delete** deletes a selected task from the **Task List**.


Pressing the buttons **Move Up** and **Move Down** changes position of the selected task in the **Task List**.

Pressing the button **Add...** opens dialog *Add New Task* for adding of a new task to the **Task List**. For image generation by *Forward Titling (DDTitle)* dialog looks like as on Figure 6. In this dialog it is necessary to choose in the appropriate fields task duration and its name.



**Figure 6.** *Add New Task* dialog for image generation in *Forward Tiling (DDTitle)*

Besides it is necessary to select a text file from which the necessary information will take.


 *This program uses a simple text files with extension \*.txt.*


A text file can change manually or by program:

- at change of a text file manually in a field to the left of button **Browse...** it will be specified **Manual** (Figure 6);
- for change of the text by program it is necessary to choose option **Use text generator**. The current version of this program supports a text generation with use of projects – files \*.webtrackerproj created in application *FDWebTracker* (see 6).

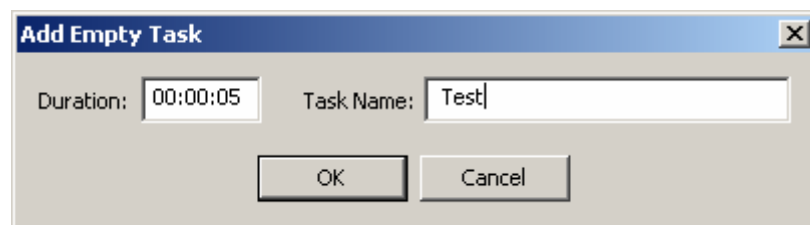
The relative path to project file of the text generator is displayed at the left in a field from the button **Browse...**

Also it is necessary to specify a Region-file for style in which the new image will be created. It can be made by means of button **Browse ...** opening standard dialog *Windows* for a file choice.

 *Files at present necessarily should exist on a computer disk.*

 *The sizes of regions created on the basis of rgn-files cannot coincide with the sizes of the resulting image. In that case the images created on the basis of regions, will be centered.*

The button **Add Empty...** adds task-pause. At its performance the completely transparent picture will be generated. By pressing this button the dialog *Add Empty Task* (Figure 7) opens. In this dialog it is necessary to specify Duration and Task Name in the corresponding fields.



**Figure 7.** *Add Empty Task* dialog

The button **Edit...** allows editing a selected task. By pressing this button the dialog *Add New Task* (Figure 6) or the dialog *Add Empty Task* (Figure 7) opens.

## 2.5 Configuration File Saving

After editing of any of parameters becomes accessible button **Apply**, having pressed on it the current parameters enter the name in a Configuration File. At incorrect parameters of a Configuration File pressing the button **Apply** opens the warning message *Configuration File* (Figure 8).

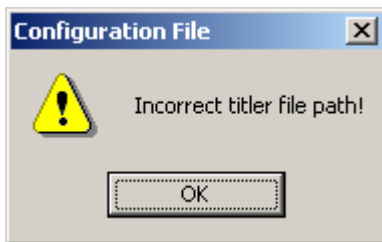


Figure 8. Warning message about incorrect parameters

## 2.6 Preview Window

During change of a resulting graphic file it is possible to see work result in the Preview Window (Figure 9). This window can be opened or closed by switching of option **Show Preview**.

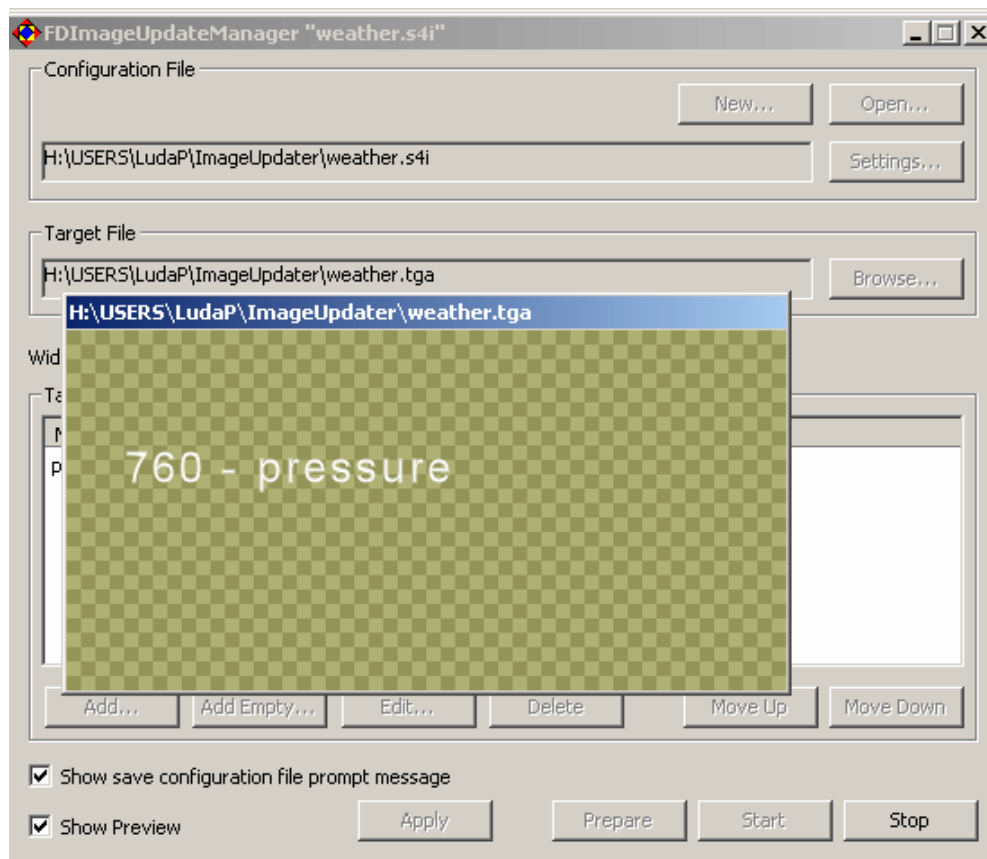


Figure 9. Preview Window


In heading of a Preview Window the full path of an executed Configuration File is displayed. For convenience of viewing of images with a transparency (with the alpha-channel) as a substrate it is used «chess-board».

## 2.7 Management of Image Generation Process

The buttons **Prepare**, **Start**, **Stop** (Figure 1) manage of image generation process to a resulting file. Button **Prepare** becomes accessible only then when the configuration file has no errors. Pressing this button begins process of preliminary preparation of images.

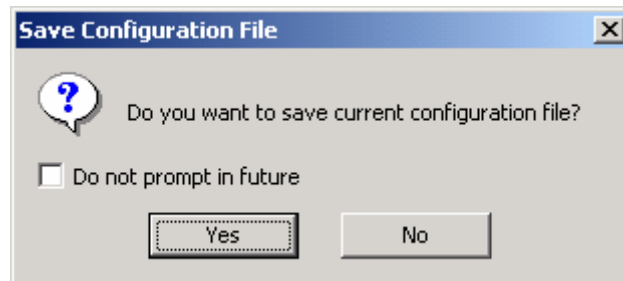
Pressing the button **Start** begins change of a resulting graphic file on a cycle described in the **Task List**. At this moment the Preview Window is opened at switching on corresponding option (see 2.6).

Pressing button **Stop** stops process of image generation to a resulting file.

 *Attention! Closing of the program interrupts process of image generation.*

### 2.8 Additional Elements


Option **Show save configuration file prompt message** (Figure 9) allows to show/hide the warning message *Save Configuration File* (Figure 10) at application closing and open or create of a new Configuration File.



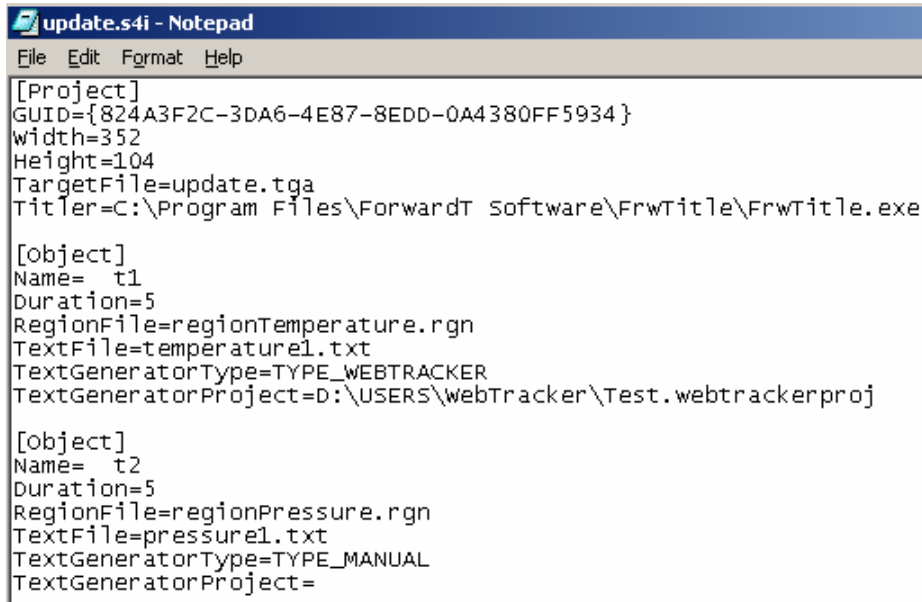
**Figure 10.** *Save Configuration File* message

### 3 Configuration File

Process of image generation to a resulting graphic file is described in a Configuration File – a text file with extension \*.s4i.

 *It is not recommended to edit a Configuration File any other ways except for program `FDImageUpdateManager!`*

To view a Configuration File it is possible in any text editor, for example, *Notepad* (Figure 11).



```
update.s4i - Notepad
File Edit Format Help
[Project]
GUID={824A3F2C-3DA6-4E87-8EDD-0A4380FF5934}
width=352
Height=104
TargetFile=update.tga
Titler=C:\Program Files\FowardT Software\FrwTitle\FrwTitle.exe

[Object]
Name= t1
Duration=5
RegionFile=regionTemperature.rgn
TextFile=temperature1.txt
TextGeneratorType=TYPE_WEBTRACKER
TextGeneratorProject=D:\USERS\webTracker\Test.webtrackerproj


[Object]
Name= t2
Duration=5
RegionFile=regionPressure.rgn
TextFile=pressure1.txt
TextGeneratorType=TYPE_MANUAL
TextGeneratorProject=
```

**Figure 11. Configuration File for image generation in *Forward Titling (DDTitle)***

Configuration File consists from sections which name is made in square brackets []. There are 2 section types:

1. In section [Project] the general parameters are described. In a Configuration File there can be only one such section.
2. In section [Object] the task is described. Such sections in a Configuration File there can be any quantity.

Each section consists of records in a format: «name» = «value».

 *All paths in a Configuration File are saved concerning a directory where the Configuration File settles down, i.e. are relative. It provides carry of the data from one computer to another.*

#### 3.1 Section [Project] for Image Generation in *Forward Titling (DDTitle)*

Section consists of the following records:

1. **GUID** – describes a way of image generation.
2. **Width** – sets width of the resulting image.
3. **Height** – sets height of the resulting image.
4. **TargetFile** – sets the path of the resulting file image.
5. **Titler** – sets the path to program *Forward Titling (DDTitle)*.


#### 3.2 Section [Object] for Image Generation in *Forward Titling (DDTitle)*


1. **Name** – contains the task's name.
2. **Duration** – sets the task's duration.
3. **RegionFile** – sets the path to rgn-file describing task's style.
4. **TextFile** – sets the path to a txt-file containing the text information.

## FDImageUpdateManager. User's Guide

---

5. **TextGeneratorType** – sets a type of text generator. If the text changes manually this line it is underlined TYPE\_MANUAL.
6. **TextGeneratorProject** – sets the relative path to a project file of text generator.

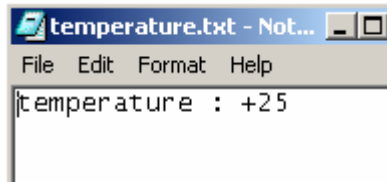
 *All paths in a Configuration File are saved concerning a directory where the configuration file settles down, i.e. are relative. It provides carry of the data from one computer to another.*

 *If in section the «empty» task is described values in records **RegionFile** and **TextFile** should be absent.*

## 4 Text File Format

The task's Text File should be created in a simple text format with extension \*.txt. Each line of this file should be written down in the following format (Figure 12): «the name of a text field»:«text».

At performance of the task in Region-file of this task the text field with a name «the name of a text field» is searched. If such field will be found, in it the text from «text» will be substituted. In detail the mechanism of image updating is described in chapter 5.



**Figure 12.** Text File for image generation in *Forward Titling (DDTitle)*

To create or edit Text File it is possible in any text editor.

## **5 Start from a Command Line**

Command Line for start of program *FDImageUpdateManager* has the following format:

**«the full path to the program FDImageUpdateManager» «the full path to a file \*.s4i»**

Besides to start program *FDImageUpdateManager* it is possible by double-click of the mouse left button on a file with extension \*.s4i.

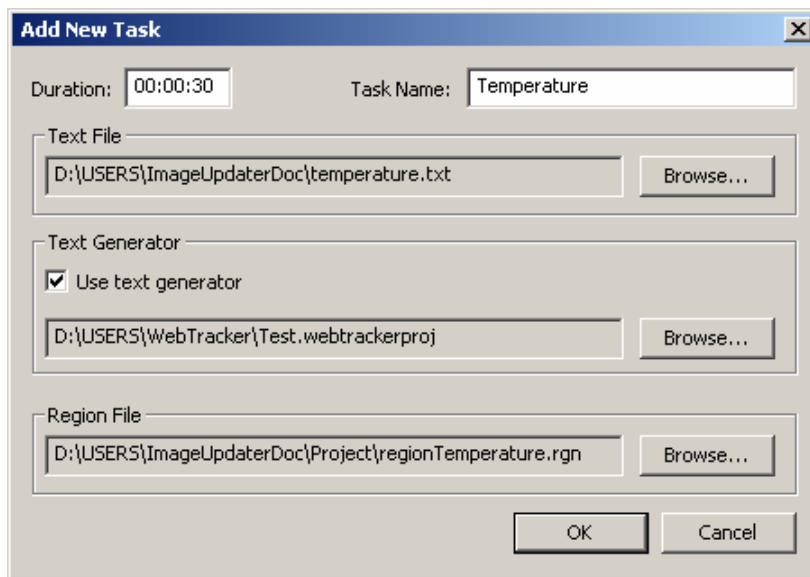
## 6 Work with *FDWebTracker*

This version of program *FDImageUpdateManager* supports a text generation with use of projects (files with extension \*.webtrackerproj) created in application *FDWebTracker*. *FDWebTracker* is an editor for creation of the projects allowing automatically to receive and write down varying in time text from Web sites. Examples of the similar text are the data on weather, exchange quotations, the news published on a site. In more detail about work with this application see *User's guide FDWebTracker*.

To use a text file generation on the basis of project \*.webtrackerproj in program *FDImageUpdateManager* it is necessary:

- to set option **Use text generator** in the dialog *Add New Task* (Figure 13);
- to select a project file in format \*.webtrackerproj by the button **Browse...**, its full path will be displayed at the left in field from the button.

The received text is written down to a text file of the task, its path is displayed in field **Text File**.



**Figure 13.** Add New Task by using a text generator

 At work with program *FDImageUpdateManager* application *FDWebTracker* can be closed as generation of file is made by program *FDImageUpdateManager*.

## 7 Working with Title in program *FDImageUpdateManager*

Working with title in the program *FDImageUpdateManager* includes some stages:

1. Creation of Text files (\*.txt) and Region-files (\*.rgn) for each task in the **Task List** of Configuration File.
2. Creation/opening of Configuration File in the program *FDImageUpdateManager*.
3. Creation of a Title Project in the program *FDTitleDesigner*.
4. Loading of a Title Project to the program *FDonAir* and assignments of Title Objects for the Control Elements.
5. Start of image updating process.

Let's consider these stages on a concrete example.

We shall create Title Project with two Title Elements **Clock** and **Picture** for its use in the program *FDonAir*. The element **Picture** will be used for playback of the current temperature, pressure and humidity. Playback duration of each data block will be for 30 seconds. Between blocks «temperature-pressure-humidity» we shall insert a pause into 30 seconds. The size of the resulting image is 200 (width) x 100 (height).

### 7.1 Creation of Text File (\*.txt) and Region File (\*.rgn) for each task

In the **Task List** of a Configuration File of all will be 4 tasks: 3 – for playback of temperature, pressure and humidity and one empty – for a pause. Thus, really it is necessary to create three Region Files with image style for information playback and three Text Files directly with the necessary information.

#### 7.1.1 Region File Creation

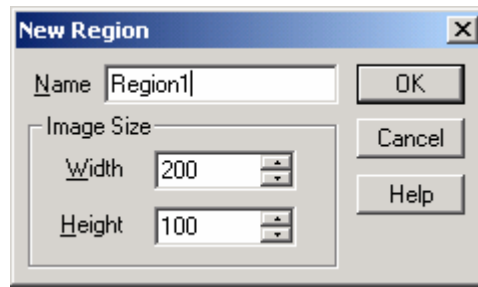
For Region File (\*.rgn) creation we use program *Forward Titling* from package *ForwardT Software*.

Let's start program *Forward Titling*. In dialog *Welcome to Forward Titling* (Figure 14) we shall select option **Create New region** for a new file creation.



Figure 14. New file creation in *Forward Titling*

Pressing the button **OK** opens *New Region* dialog (Figure 15) for set of image parameters.



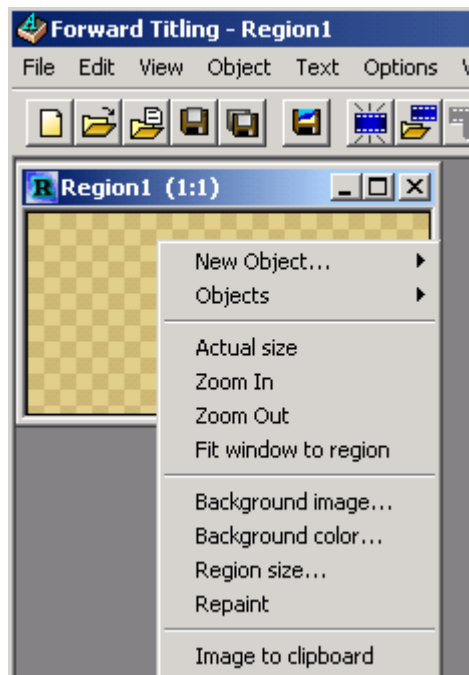
**Figure 15. *New Region* dialog**

Having set all necessary parameters – a new region name and image size – and having pressed on the button **OK** we shall see the preliminary region image (Figure 16) in a separate window.



**Figure 16. Image region in separate window**

For the best display of image transparency in Region Window the substrate as «chess-board» is used. If program *Forward Titling* was started before for region the styles used in the previous session will be chosen. We shall change style on necessary: we shall replace background color for information playback.



**Figure 17. Region local menu**

Pressing by the mouse right button in Region Window will open the local menu (Figure 17) in which it is necessary to select option **Background color...**. In opened dialog *Color* (Figure 18) we shall select the necessary color and a transparency.



Figure 18. Color dialog

Let's add a text field in which the necessary information will be displayed. For this purpose pressing of the right button on Region Window we shall open the local menu and we shall select option **New Object.../Text box** (Figure 19).

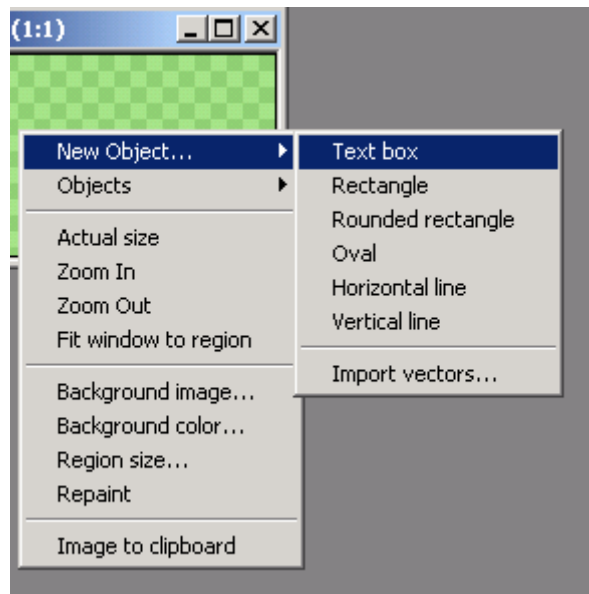


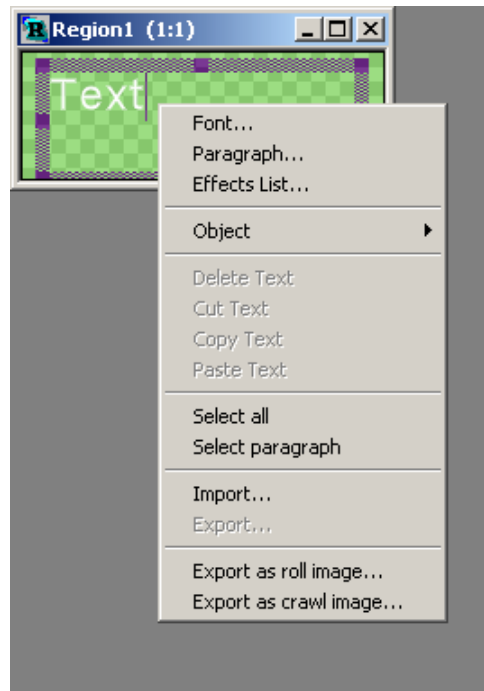
Figure 19. Text box creation

With the help of the mouse, keeping pressed the left button; we adjust the sizes and position of a text field (Figure 20) in the Region Window.



**Figure 20. Text box with fixed sizes**

Let's set parameters of the text. For this purpose all over again we shall print any text and we shall change its style. Click by the mouse right button in a text field will open the local menu (Figure 21) with commands for all necessary changes.



**Figure 21. Local menu for parameter text change**

Let's change a text color. For this purpose we shall select from the local menu option **Effects List...** and in the dialog *Effects List* (Figure 22) we shall press the button **add Above**.

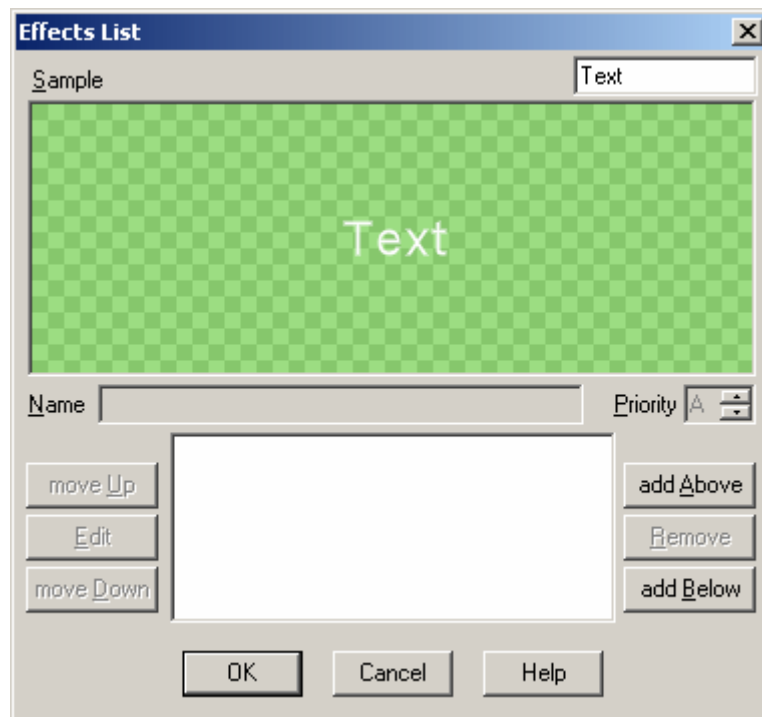


Figure 22. *Effects List* dialog

In result dialog *Select Effect* will open (Figure 23). In it we can select the effect – in this case **Fill Color**.

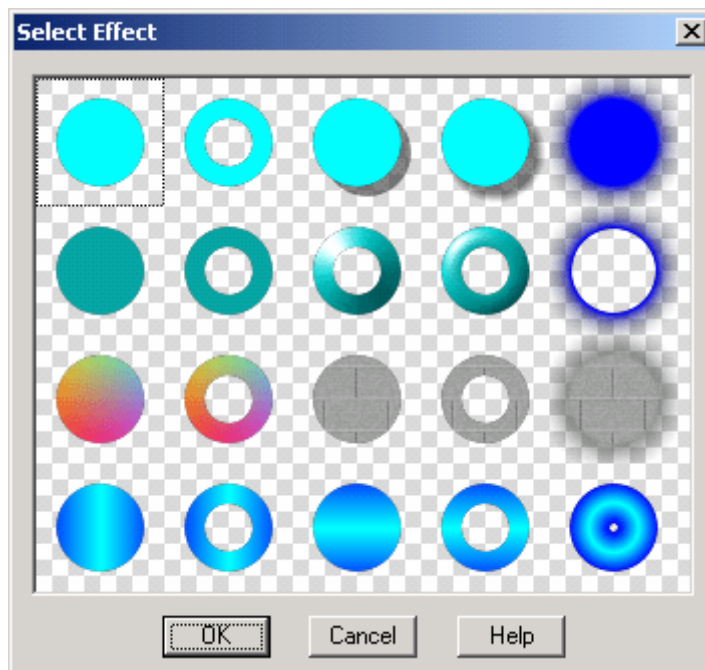
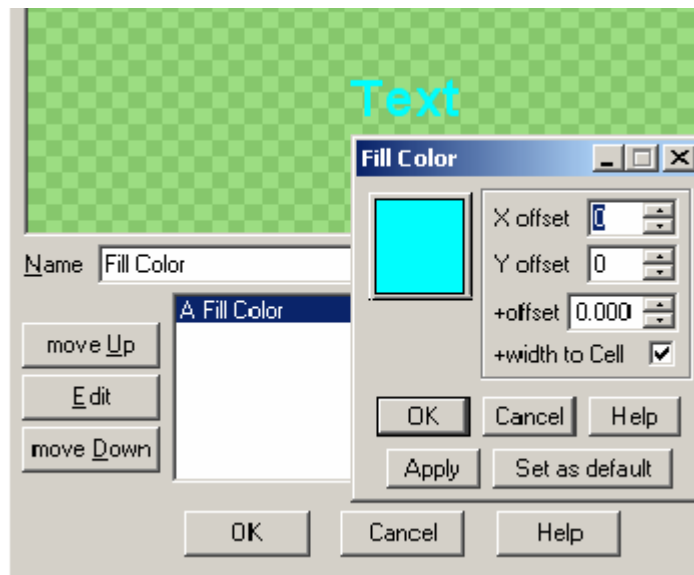


Figure 23. *Select Effect* dialog

We select the necessary effect and press button **OK**. This dialog is closed, and the selected effect is added in the list of dialog *Effects List* (Figure 22). We shall edit its parameters – change the text. For this purpose it is necessary to choose effect in the list and to press button **Edit**. Dialog for editing properties of effect will appear. In this case it is *Fill Color* (Figure 24).



**Figure 24. Fill Color dialog**

For color select it is necessary to double-click of the mouse left button on picture with the current color in the top left corner. Dialog *Color* (Figure 25) will open.



**Figure 25. Color select dialog**

Let's select necessary color and we shall close all effects dialogs. We shall remove the text, which was used for effect adjustment.

Let's set a name of a text field, which will be used for search and substitution of the text information. Click of the mouse right button in Region Window opens the local menu in which it is necessary to choose the option **Object/Properties...** (Figure 26).

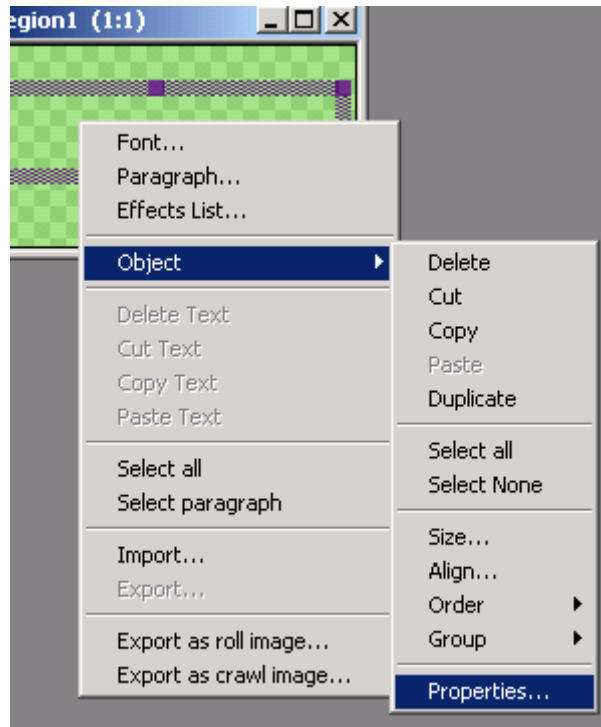


Figure 26. Local menu for change of object properties

In the dialog *Object Properties* (Figure 27) it is necessary to enter object name in field **Name**.

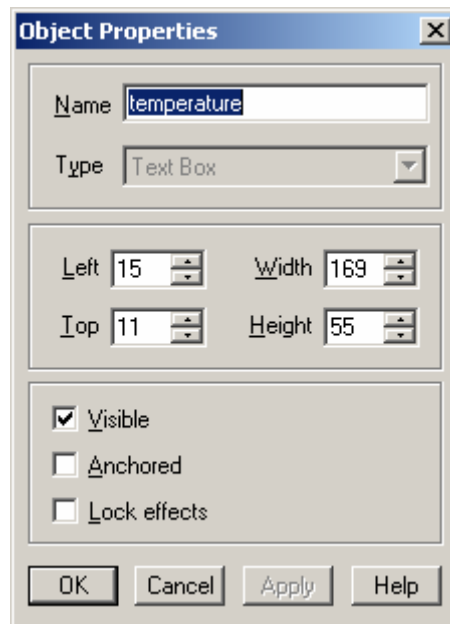


Figure 27. Select of a text field name

The name of a text field (parameter **Name**) will be used for substitution in this text field of the necessary information from a text file of the same task.

After that it is necessary to save the created region in a file. It can be made by option **File/Save Region** from Main Menu by the button on the toolbar (Figure 14).

As it is necessary to make 2 regions for pressure and humidity playback we shall repeat above mentioned operations (Figure 28).

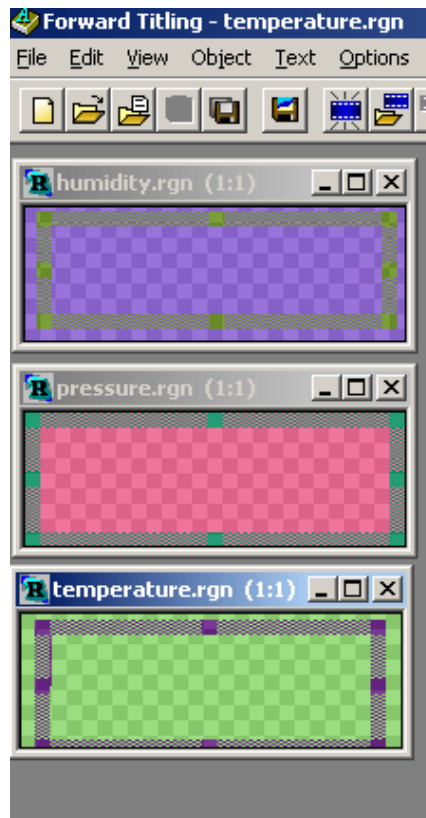


Figure 28. Regions in the program *Forward Titling*

☞ *More detailed information on work and opportunities of program Forward Titling can be received from the appropriate documentation on work with this program.*

### 7.1.2 Text Files Creation

For creation of the text files with the information it is possible to use any text editor, for example *Notepad*. Text File format is described in chapter 4.

Let's open program *Notepad* and we shall create Text File for display of temperature (Figure 29).

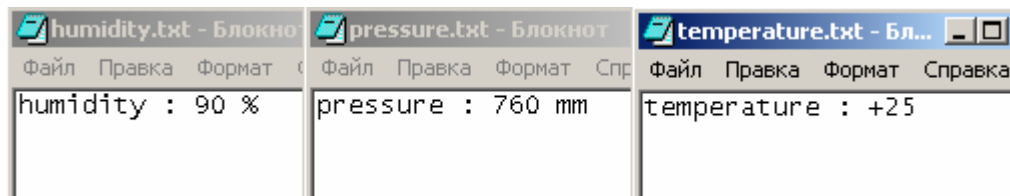


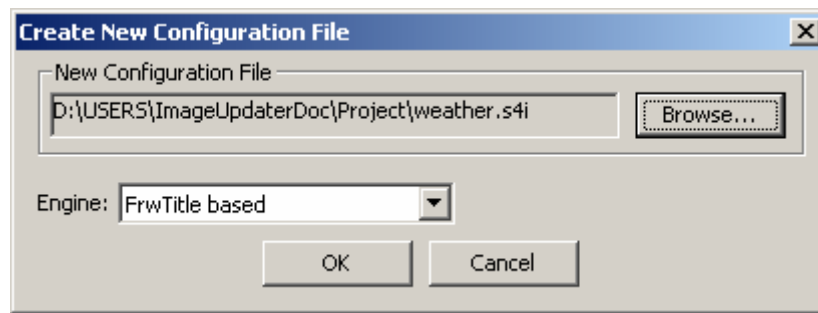
Figure 29. Text File for tasks with current data

☞ *In the left part of record there should be a name of that text field in which the text from the right side from a divider «:» will be displayed (Figure 27, Figure 29).*

Let's keep the received Text File. We shall repeat creation of a Text File for all tasks. The result is shown in Figure 29.

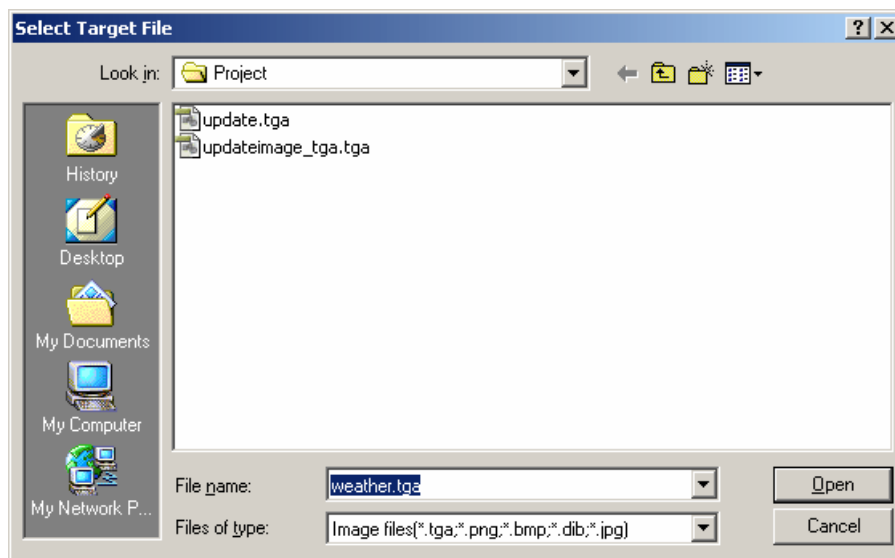
## 7.2 Configuration File Creation

Let's open program *FDImageUpdateManager* (Figure 1) and we shall press button **New...** for creation of a new Configuration File. In the dialog *Create New Configuration File* (Figure 30) we shall press button **Browse...** and choose a name for a new Configuration File. We shall press button **OK** and close dialog.



**Figure 30. Create New Configuration File dialog**

Let's choose a name of a resulting file, which further will be used for creation of title object in program *FDTitleDesigner* from package *ForwardT Software*. For this purpose it is necessary to press button **Browse...** near to field **Target File** in *FDImageUpdateManager* (Figure 1) Main Window. In dialog *Select Target File* (Figure 31) the necessary name and extension of a file from the list accessible is necessary to set.



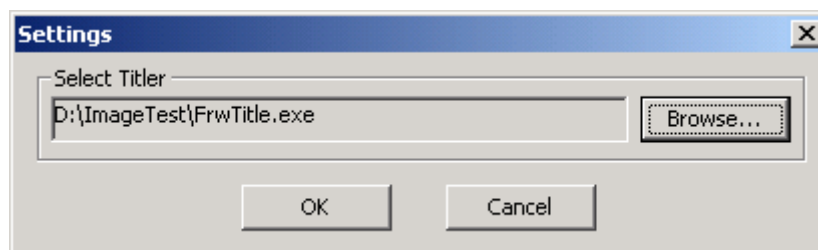
**Figure 31. Select Target File dialog**

In the fields **Width** and **Height** (Figure 32) in *FDImageUpdateManager* Main Window (Figure 1) we'll set the necessary sizes of a resulting image.



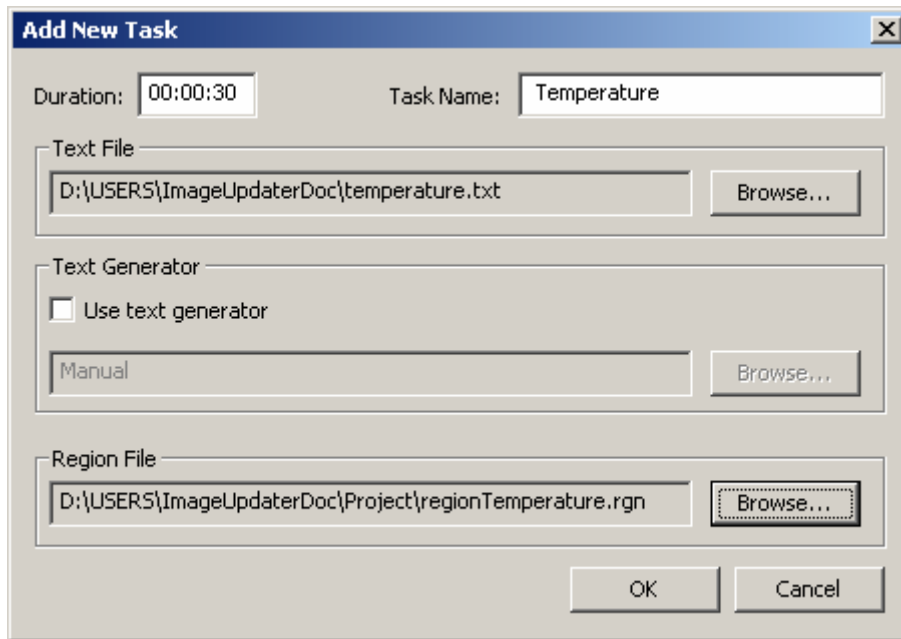
**Figure 32. Set of a resulting image sizes**

Pressing button **Settings...** in the Main Window (Figure 1) will open dialog *Settings* (Figure 33) for path select to program *Forward Titling*, which will be used for image generation.



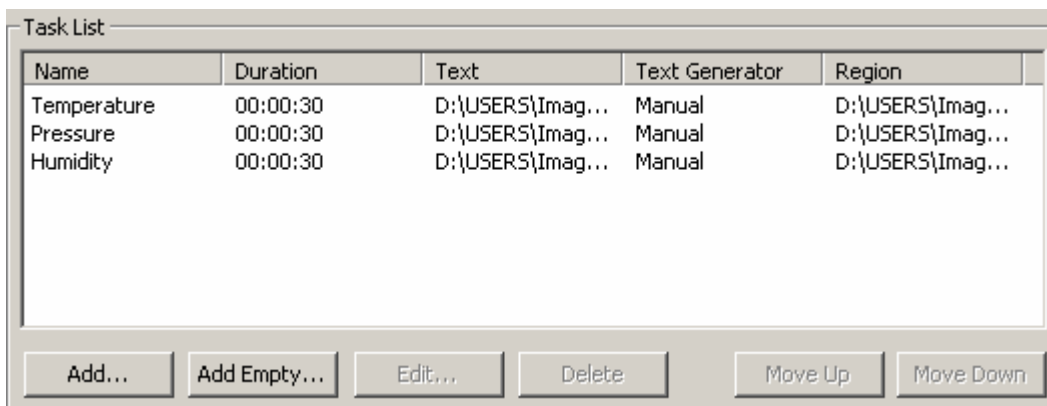
**Figure 33. Path select to Forward Titling**

For filling **Task List** we'll add the task for temperature playback, having pressed on button **Add...** in the Main Window (Figure 1). In opened dialog *Add New Task* (Figure 34) we shall set duration 30 sec and the name of the task. We'll add in the task a text file and a region-file created earlier (see 7.1.1, 7.1.2).



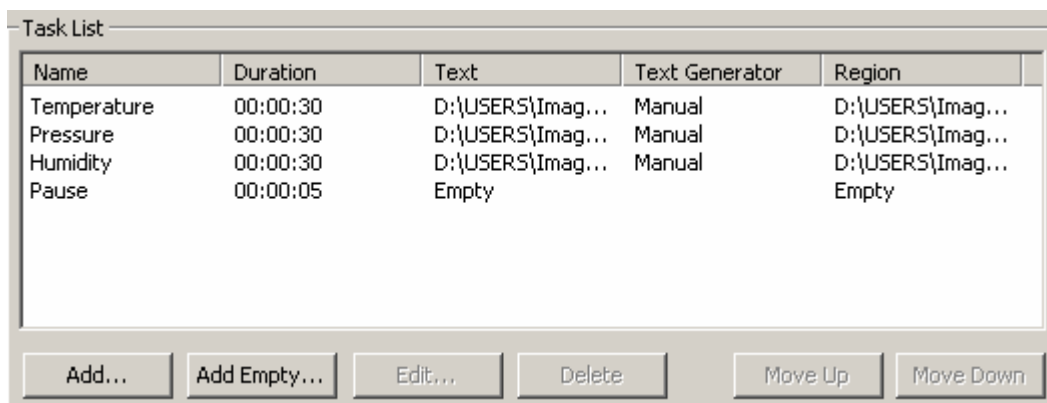
**Figure 34. Add New Task**

Pressing the button **OK** adds a task to **Task List**. Similar way we'll add tasks for playback of pressure and humidity (Figure 35).



**Figure 35. Task List**

The buttons **Edit...**, **Move Up**, **Move Down** allow to edit or to move selected task in **Task List**. Let's add a pause with duration in 5 sec after the block «temperature– pressure–humidity». For this purpose we'll press button **Add Empty...** and in opened dialog *Add Empty Task* set necessary duration and the task name. Pressing the button **OK** adds the task in **Task List** (Figure 36).



**Figure 36. Finally generated Task List**

## FDImageUpdateManager. User's Guide

Pressing the button **Apply** in the Main Window (Figure 1) let's save all brought changes in a Configuration File on a disk. Consistently pressing buttons **Prepare** and **Start** it is possible to view results of work (Figure 37) and to make necessary changes.

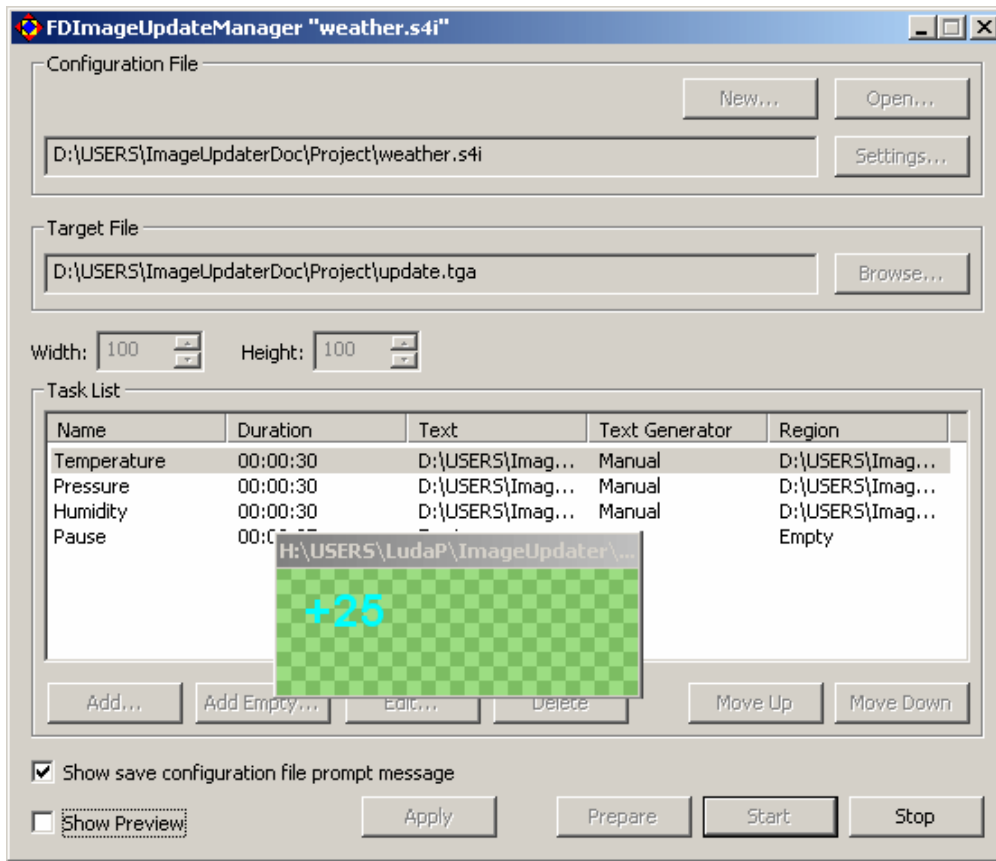
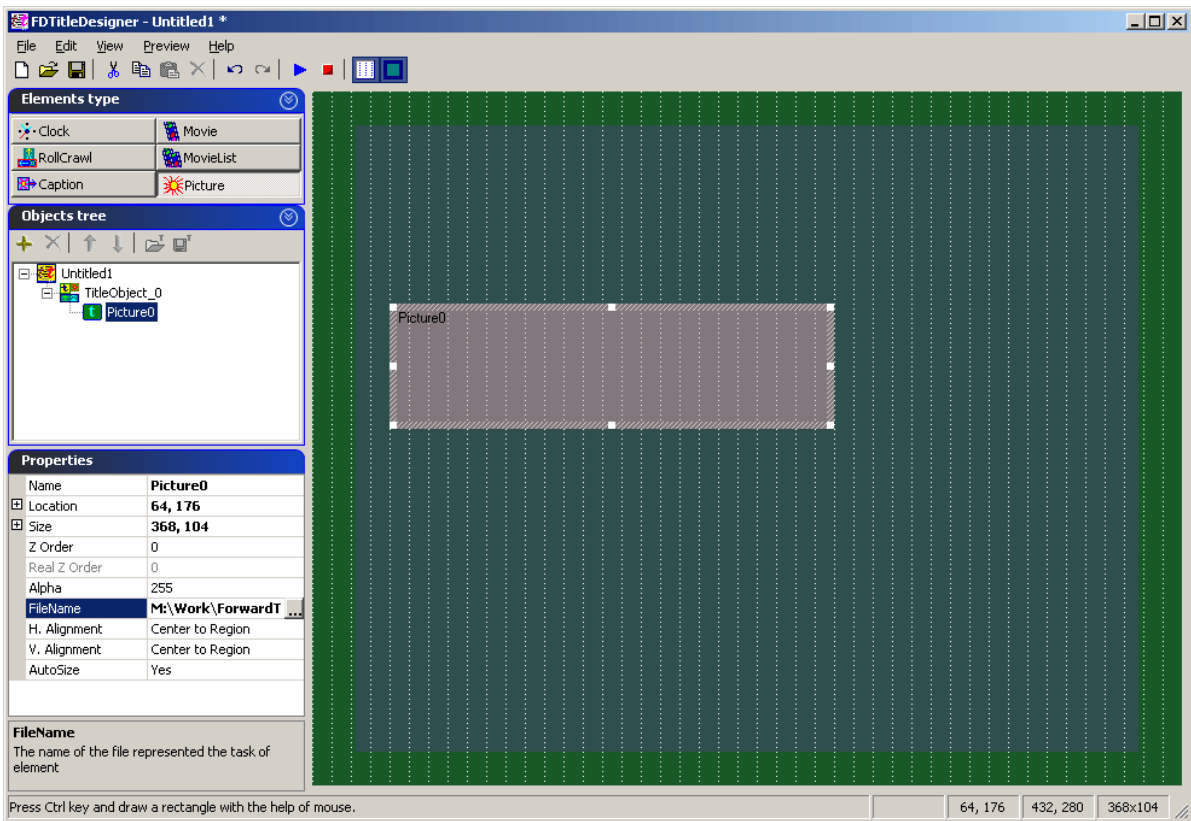


Figure 37. Preview Window

At this stage work with program *FDImageUpdateManager* is completed.


### 7.3 Title Project Creation in program *FDTITLEDesigner*

Let's open program *FDTITLEDesigner* from package *ForwardT Software*. We'll add Title Element in the future Title Project. For this purpose from list **Elements type** we shall choose type **Picture**. By the mouse at the pressed left button we shall create area for Title Element (Figure 38).

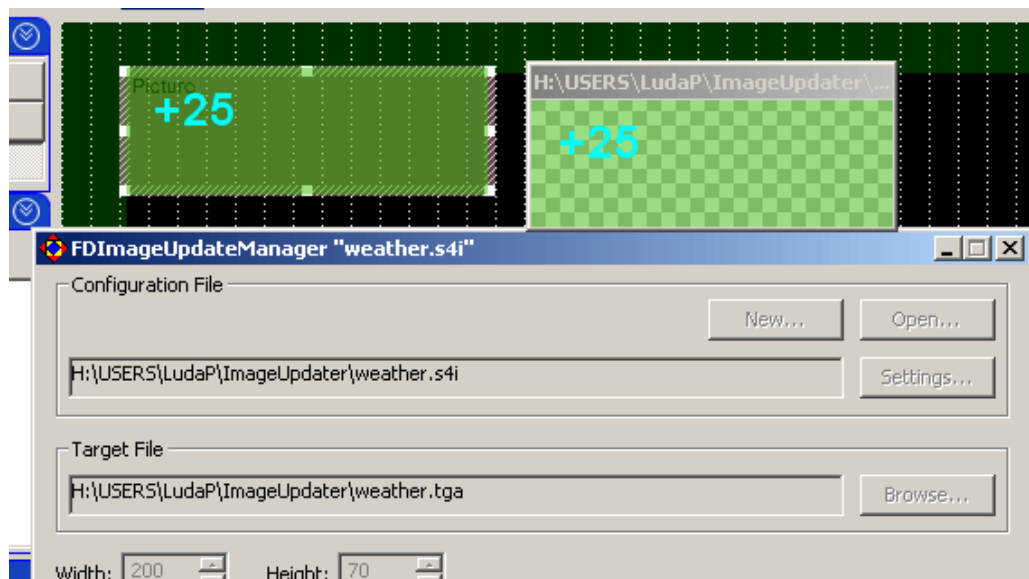


**Figure 38. Add of Title Element *Picture***

In fields of group **Properties** we shall set area **Size**: 200 (width) x 100 (height). By the mouse or changing of parameters **Location** we'll set necessary position of area on the screen. In the property field **FileName** we'll choose the necessary graphic file (Figure 38) from structure of Configuration File in program *FDImageUpdateManager* (see 7.2).

Let's look the received result. Again we shall start program *FDImageUpdateManager*. The buttons **Prepare** and **Start** start process of the image updating. The button **Start Preview**  on the toolbar in program *FDTileDesigner* starts process of preliminary viewing.

Now it is possible to see results of this stage in Main Window of program *FDTileDesigner* (Figure 39) and to make necessary changes on an arrangement of created Title Element.



**Figure 39. Preview of results in *FDTileDesigner***

Let's stop preliminary viewing in program *FDTileDesigner*. Let's stop process of images generation in program *FDImageUpdateManager*.

Let's add Title Element **Clock** in Title Project. It can be made two ways:

1. In the same Title Object where element **Picture** was added.
2. To create a new Title Object and to add **Clock** in it.

The first way allows operating in further both Title Elements in program *FDO nAir* simultaneously as single whole (to start, stop). In the second case Title Elements will work independently.

From the list **Elements type** we shall choose **Clock** (Figure 40). By the mouse at pressed left button we shall create area for Title Element. In the field **FileName** of the **Properties** group we shall select the necessary file with the clock project.

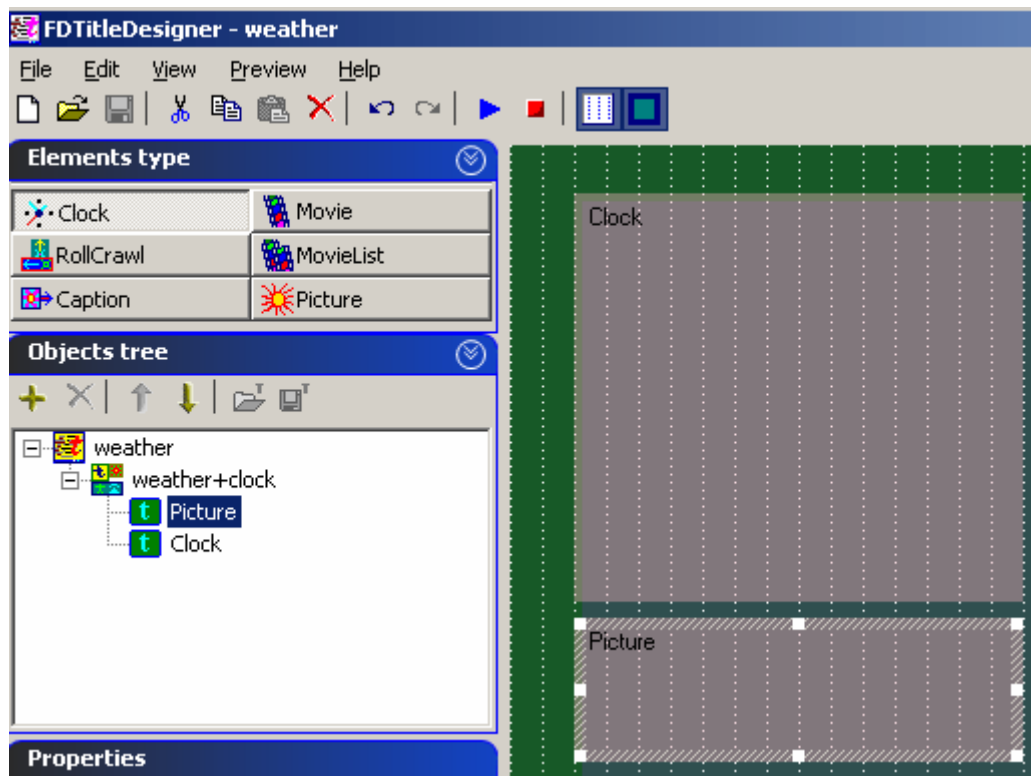




Figure 40. Add of Title Element *Clock* in *FDTITLEDesigner*

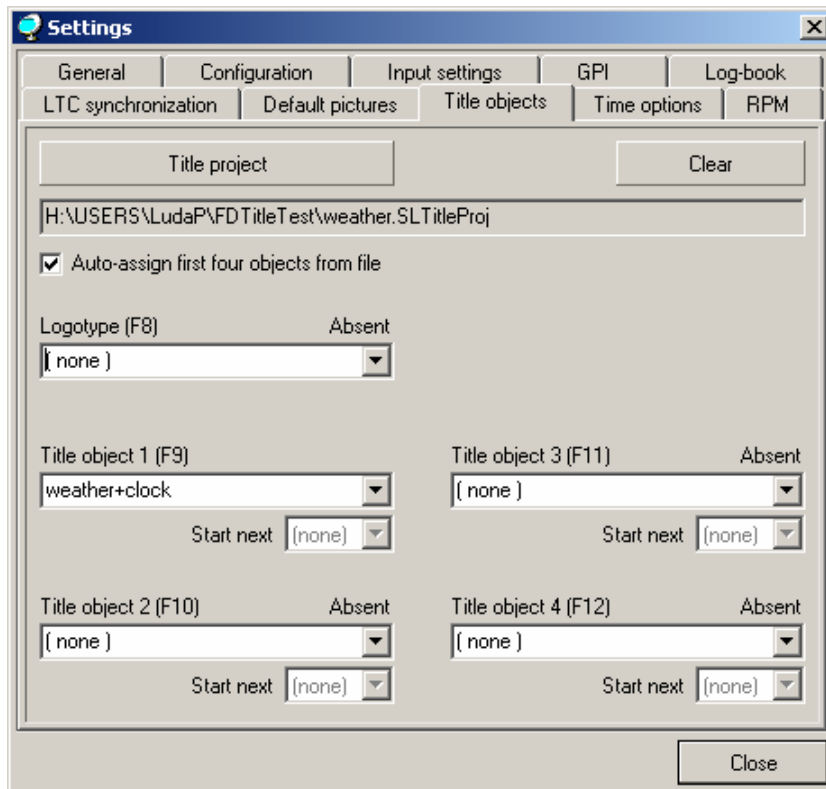
Let's save created Title Project to a file with a new name by command **Save project As...** from menu **File**.

 *More detailed information on work and opportunities of program FDTITLEDesigner can be received from the appropriate documentation on work with this program.*

### 7.4 Title Project Load to *FDO nAir* and Title Elements Assignment

Let's start program *FDO nAir* from package *ForwardT Software*. We shall load created earlier Title Project in the dialog *Settings* having pressed on the button **Settings** .


In the dialog *Settings* on panel **Title objects** we press button **Title project** (Figure 41) for a file select.



**Figure 41. Title objects panel in program FDO nAir**

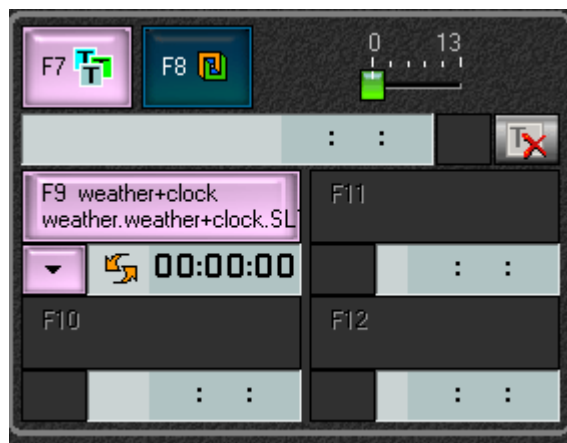
Unique Title Object will control by button **F9** in Main Window of *FDO nAir* that will be reflected after exit from this dialog on command **Close** – button **F9** becomes highlighted (Figure 42). It is possible to appoint logotype to any of buttons **F8** – **F12**.

Now by means of this button it is possible to switch playback titles **Clock** + **Picture**.

 *More detailed information on work and opportunities of program FDO nAir can be received from the appropriate documentation on work with this program.*

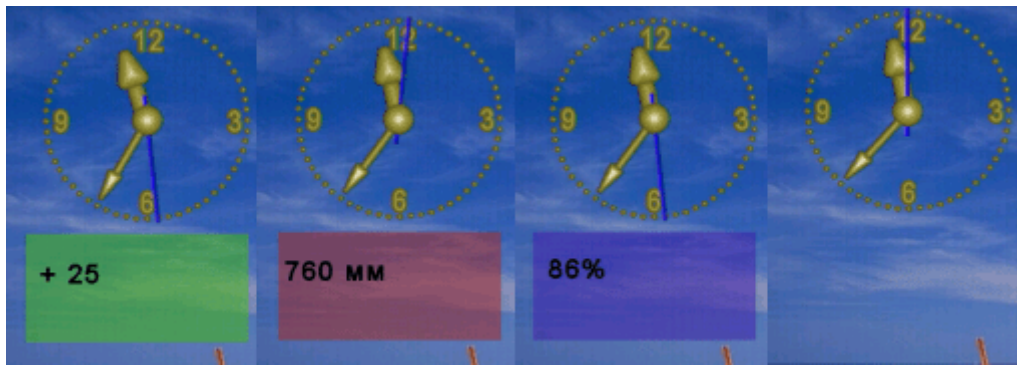
## 7.5 Start of the image updating process

Let's start program *FDImageUpdateManager* we shall choose the created Configuration File for playback of temperature, pressure and humidity. We shall press button **Prepare** and then **Start** having started thus process of the image updating. In program *FDO nAir* we shall select necessary Title Project and we appoint unique Title Object from it to button **F9**. Pressing the button **F9** plays back titles (Figure 42).




**Figure 42. Title button in program FDO nAir**

The result of consecutive change of images is shown on Figure 43.



**Figure 43. Sequence of images change for information playback**

 *Closing of program `FDImageUpdateManager` during titles playback interrupts process of image change.*

The text information necessary for playback can change as manually by simple editing the appropriate text files, and by automatic updating text files, for example, record of the information from gauges in a file.