



MyTrendTimer v0.99.97

Introduction

The MyTrendTimer software try to reach the following goal :

Provide buy and sell signals for major financial market indexes. The signals should be computed through a software and be backtested to demonstrate the effectiveness of the mathematical model used. We don't want any human interpretation : the calculation/model application is done through a fully automated quantitative financial model.

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Examples of produced reports and other information can be found on www.MyTrendTimer.com

Output Files

13

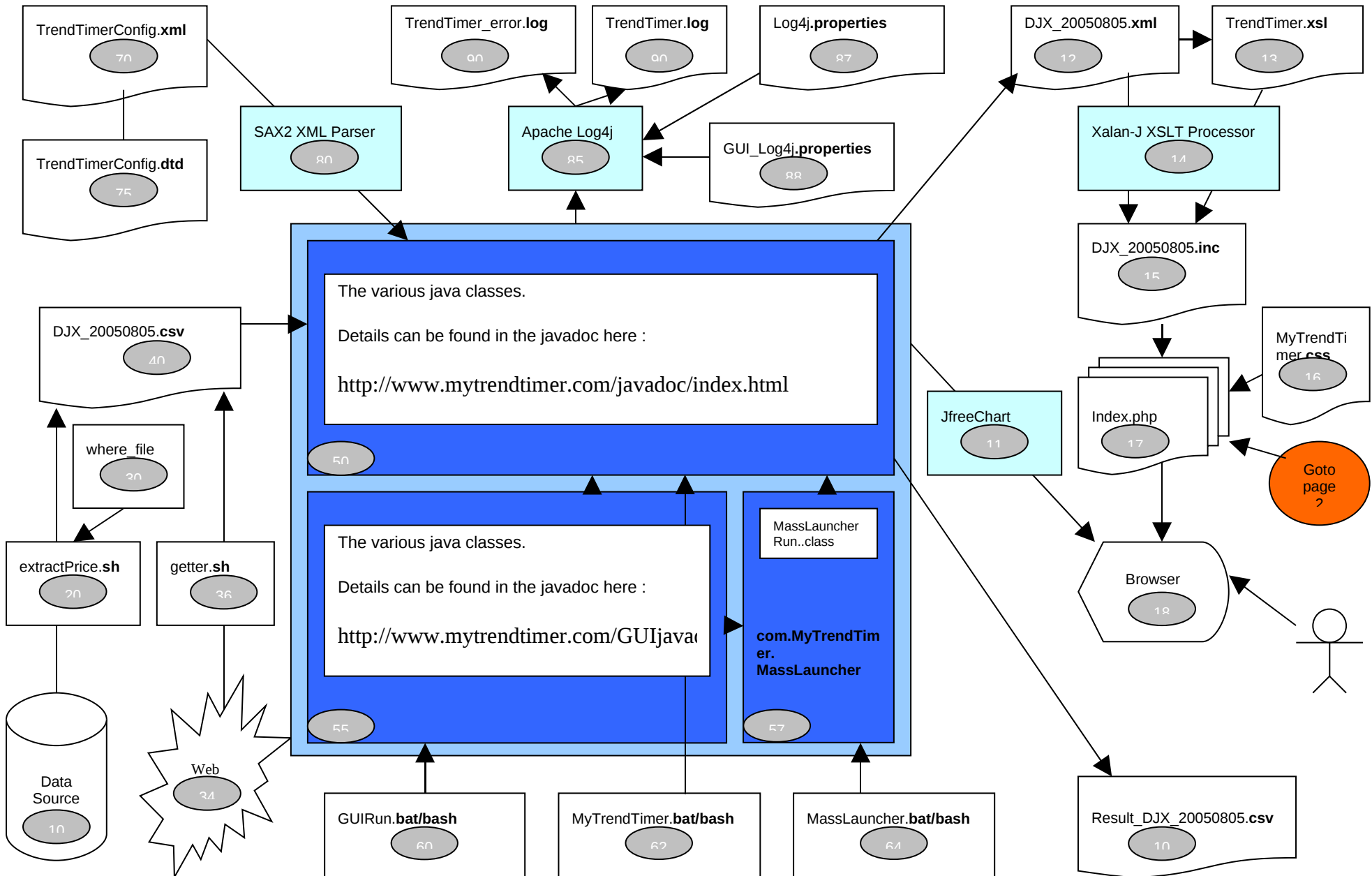
<u>XML Result.....</u>	<u>13</u>
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Features and URPS

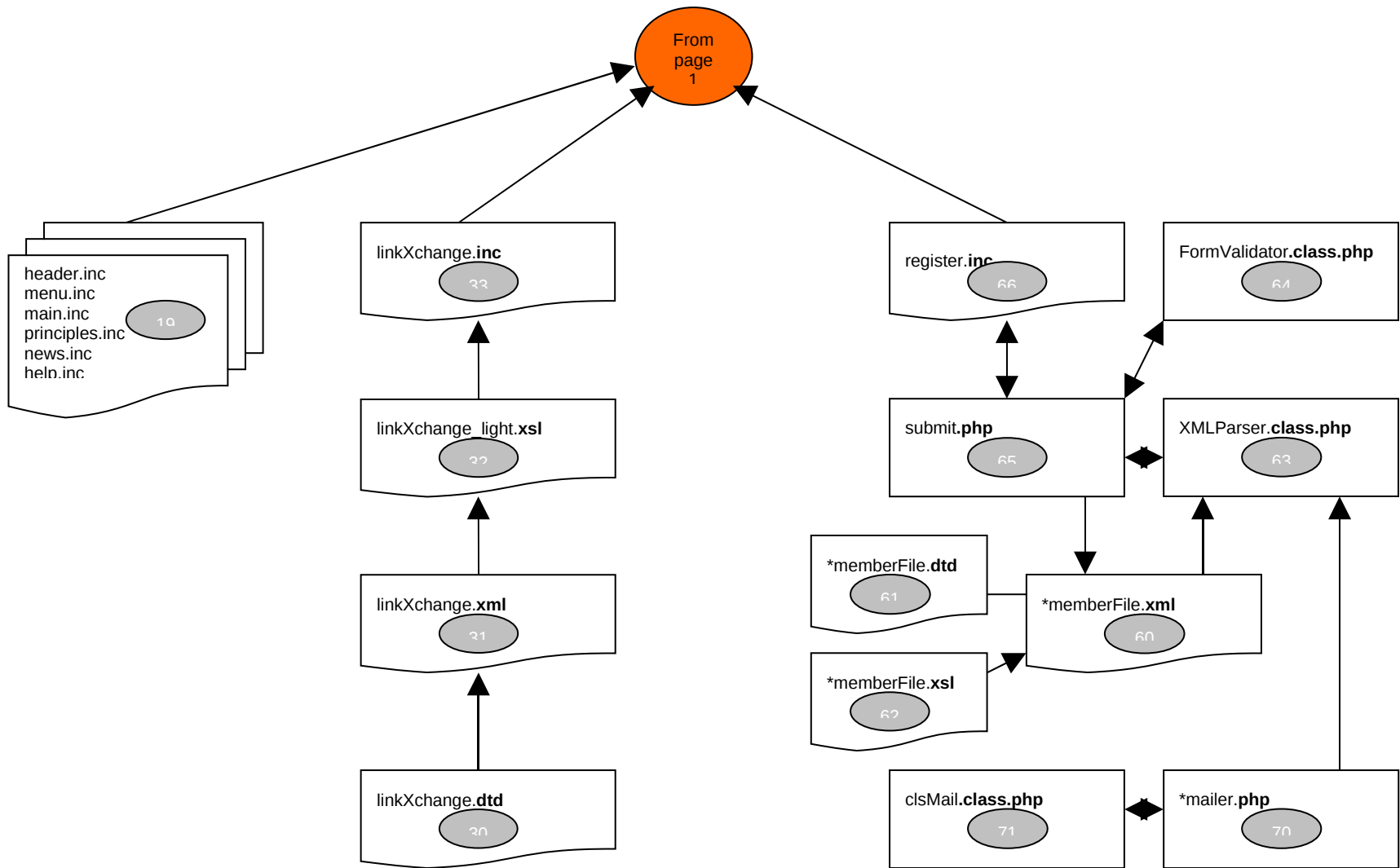
The MyTrendTimer software had the following requirements / URPS in mind while developping :

- The software has to be portable, we dont' want the win32 monoculture. (Java / OpenJDK / The GNU Compiler for the Java were used)
- The software has to be as efficient as possible. No need of a supercomputer to run it.
- The software should be OOP for easier evolution.
- The software should use standard paradigms and design patterns.
- The financial model implementation should be as much possible independant of the infrastructure implementation.
- A GUI is a « nice to have ». The model MUST be able to start in a batch / service (SOA) mode.
- The data (eg. Quote files) used should be available.
- The data (eg. Quote files) needed should be free (as in beer) and easy to obtain / undertand.
- The javadoc should be published.
- Even if for a small public (eg not user friendly...), documentation should be up-to-date.
- Don't care about old java/OS version. Backward compatiblity is a pain !
- Target licence should be GPL. (for the time beeing, the code is not ready for a wide publication. Refactoring is still needed.)
- Open source rules !!!

Technical Overview



Examples of produced reports and other information can be found on www.MyTrendTimer.com



Legend page 1

Data extraction

10

Database, file, data feed etc... where the quotes are available.

20

Shell script (.sh) or Batch file (.bat) that extract the quote data.

30

Flat file used as a criterion to extract the quote data.

40

Website or webservice etc... where the quotes are available.

50

Shell script (.sh) or Batch file (.bat) that extract the quote data found on the website, webservice.

Script to launch application

60

Shell Script (.bash) for the *nix platform and batch file (.bat) for the windows platform used to start the GUI.

65

Shell Script (.bash) for the *nix platform and batch file (.bat) for the windows platform used to start the core.

69

Shell Script (.bash) for the *nix platform and batch file (.bat) for the windows platform used to start the MassLauncher.

Core and algorithm implementation

40

The "Coma Separated Values" (.csv) file which is formatted and ready to be read and parsed.

50

The core of the TrendTimer. The 13 java classes handle the logic. The package is com.MyTrendTimer.TrendTimer.

55

The GUI of the TrendTimer. The various classes that implement a GUI in Java Swing . The package is com.MyTrendTimer.GUITrendTimer.

57

The MassLauncher of the TrendTimer. MassLauncher is used to determine the most suitable arguments for the MyTrendTimer programm. The package is com.MyTrendTimer.MassLauncher

Program parameterization and configuration

70

The "eXtensible Markup Language" (.xml) file which contain the configuration and the static data as well.

75

The "Document Type Definition" (.dtd) file which check and validate the configuration file

80

The "Simple API for XML". SAX is the best API available for streaming XML processing, for processing documents as they're being read.

Legend page 2

Program logging

05

The « Logging 4 Java » (log4j) is a API to efficiently produce log files.

07

The properties file for the log4j API used for the MyTrendTimer core. Here you set rotations (time or size), log level, log files name and path etc...

08

The properties file for the log4j API used for the MyTrendTimer GUI. Here you set rotations (time or size), log level, log files name and path etc...

00

The logs files produced by the core and the GUI of the TrendTimer. Used for monitoring and troubleshooting if any.

Program output files and transformation

10

The "Coma Separated Values" (.csv) file which contains the quotes AND the buy/sell operations. A chart or a deeper analysis can be produced with a spreadsheet. Also useful for debugging purpose.

11

The JFreeChart chart generator API is used to produce the "Portable Network Graphic" (.png) image of the chart.

12

The "eXtensible Markup Language" (.xml) file which contains the results (returns, operations, technical infos etc...) produced by the core of the TrendTimer.

13

The "eXtensible Stylesheet Language" (.xsl) file used to format the result.

14

Xalan is the Apache Group implementation of the the XSLT XML transformation language has well as the XPath and the XML query language.

15

The "include" (.inc) file which is the result of the XSLT transformation. In fact an .html table

Web Site static infrastructure

16

The "Cascading Style Sheets" (.css) file used to add style (e.g. fonts, colors, spacing) to the html document.

17

The "Personal Home Page hypertext processor" (.php) file. This file include other files (menu, header etc...) to produce a single .html page.

18

The browser where the final result is published and displayed.

10

The "include" (.inc) files which contain the menu, the header, the body, the news and the archives etc..

Web Site link management

20

The "Document Type Definition" (.dtd) file which check and validate the linkXchange xml file

21

The "eXtensible Markup Language" (.xml) file which contain linkXchange data. (title, url, text etc...)

27

The "eXtensible Stylesheet Language" (.xsl) file used to format the result.

22

The "include" (.inc) file which is the result of the XSLT transformation. In fact an .html table. The transformation is done with command line tool : xsltproc (which use libxslt).

Web Site new member management

60

The "eXtensible Markup Language" (.xml) file which contain members data. (firstname, lastname, e-mai, country etc...)

61

The "Document Type Definition" (.dtd) file which check and validate the member file

62

The "eXtensible Stylesheet Language" (.xsl) file used to give a better view on the .xml file. (display purpose only)

63

The "Personal Home Page hypertext processor" (.class.php) class file. This class implements the XML parser.

64

The "Personal Home Page hypertext processor" (.class.php) class file. This class implements some method to validate a form for completion (not null, valid e-mail etc...)

65

The "Personal Home Page hypertext processor" (.php) script file. It acts as a flows controller and interacts with the objects.

66

The "include" (.inc) files which contain registration html form.

Web Site mailing management

60

The "eXtensible Markup Language" (.xml) file which contain members data. (firstname, lastname, e-mai, country etc...)

61

The "Document Type Definition" (.dtd) file which check and validate the member file

62

The "eXtensible Stylesheet Language" (.xsl) file used to give a better view on the .xml file. (display purpose only)

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The "Personal Home Page hypertext processor" (.class.php) class file. This class implements the XML parser.

70

The "Personal Home Page hypertext processor" (.php) script file. It acts as a flows controller and interacts with the objects.

71

The "Personal Home Page hypertext processor" (.class.php) class file. This class implements some method to send a valid e-mail.

Swing GUI Screenshot Windoze ©

package com.MyTrendTimer.GUI.TrendTimer version 0.75 on Windoze

The screenshot displays the MyTrendTimer application interface. The main window has a menu bar (File, Config, Calculate, Result, Doc, Help) and a 'Main' section with four buttons: 'Get Quote', 'Run Batch', 'Run All', and 'Publish'. To the right, there are input fields for 'Single file' (Quote File, Arg1, Arg2, Date) and checkboxes for 'Test' (Mass) and 'Chart' (Save img, Show, Detailed).

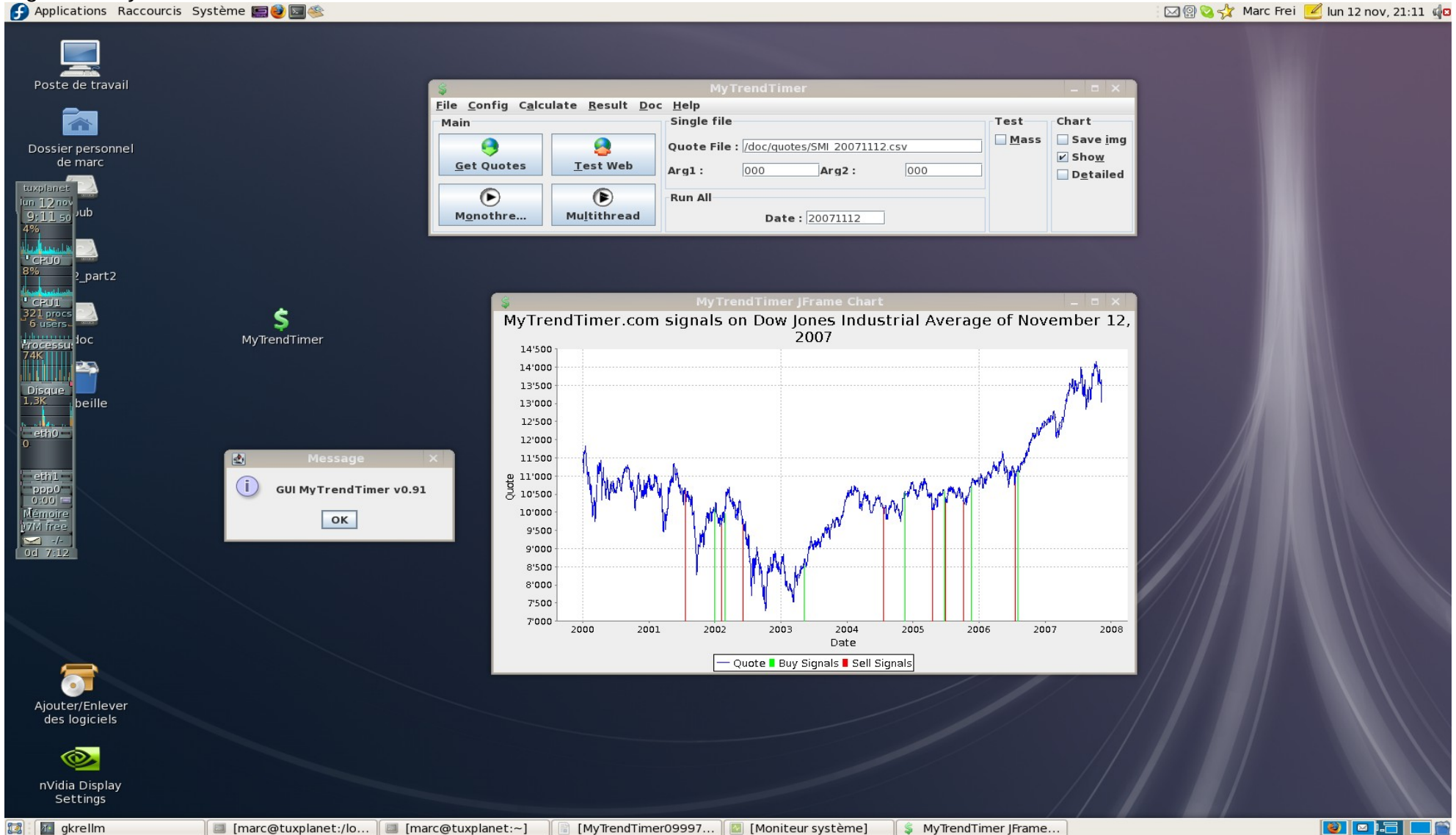
A secondary window titled 'Chart on Dow Jones Industrial Average' shows a line chart of the Dow Jones Industrial Average from 2000 to 2007. The chart is titled 'MyTrendTimer.com signals on Dow Jones Industrial Average dated 10.04.2007'. The y-axis is labeled 'Quote' and ranges from 7,000 to 13,000. The x-axis is labeled 'Date' and shows years from 2000 to 2007. The chart features a blue line representing the 'Quote' and vertical bars representing 'Buy Signals' (green) and 'Sell Signals' (red). A legend at the bottom identifies these elements.

A 'Message' dialog box is open in the foreground, displaying the text 'GUI MyTrendTimer v0.75' and an 'OK' button.

Examples of produced reports and other information can be found on www.MyTrendTimer.com

Swing GUI Screenshot Linux Fedora 8

package com.MyTrendTimer.GUI.TrendTimer version 0.91 on Linux Fedora 8



Examples of produced reports and other information can be found on www.MyTrendTimer.com

Configuration file

Example for Dow Jones Industrial (DJX).

File : TrendTimerConfig.xml

Content sample:

```
<instrument id="DJX">
  <symbol>DJI</symbol>
  <fullname>Dow Jones Industrial Average</fullname>
  <underlying>DIAMONDS Trust, Series 1 (DIA)</underlying>
  <currency>USD</currency>
  <comment>Iran announced on Monday it had begun industrial-scale nuclear fuel production in a fresh snub to the U.N. Security Council. </comment>
  <arg0>46</arg0>
  <arg1>96</arg1>
  <csvoutputgeneration>0</csvoutputgeneration>
  <periodicperfgeneration>1</periodicperfgeneration>
  <statgeneration>1</statgeneration>
  <htmltransformation>1</htmltransformation>
  <maxDayGapWarn>9</maxDayGapWarn>
  <maxDailyPercQuoteChangeWarn>7</maxDailyPercQuoteChangeWarn>
  <nbrOfDigits>2</nbrOfDigits>
  <minYaxis>7000</minYaxis>
  <maxYaxis>13000</maxYaxis>
  <chartImgGeneration>1</chartImgGeneration>
</instrument>
```

Input File

Example for Dow Jones Industrial.

File : DJX_20070410.csv

Content sample:

```
03.01.2000,11455.00
04.01.2000,11082.00
```

Examples of produced reports and other information can be found on www.MyTrendTimer.com

05.01.2000,11219.00
06.01.2000,11304.00
07.01.2000,11664.00
10.01.2000,11700.00
11.01.2000,11623.00
12.01.2000,11635.00
13.01.2000,11670.00
14.01.2000,11839.00
18.01.2000,11659.00
[...]

Output Files

XML Result

File : DJX_20070410.xml

Content sample :

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<?xml-stylesheet type="text/xsl" href="TrendTimer0999x.xsl"?>
<!-- ***** -->
<!-- ***** Generated by MyTrendTimer v0.99.92.3 on 10.04.2007 09:54:11 ***** -->
<!-- ***** -->
<TrendTimerResults>
<!-- ***** Data related to the financial instrument (extracted from xml config file) ***** -->
<instrument>
  <FullNameName>Dow Jones Industrial Average</FullNameName>
  <SymbolName>DJI</SymbolName>
  <CurrencyName>USD</CurrencyName>
[...]
```

HTML Result

File : DJX_20070410.inc

Content sample:

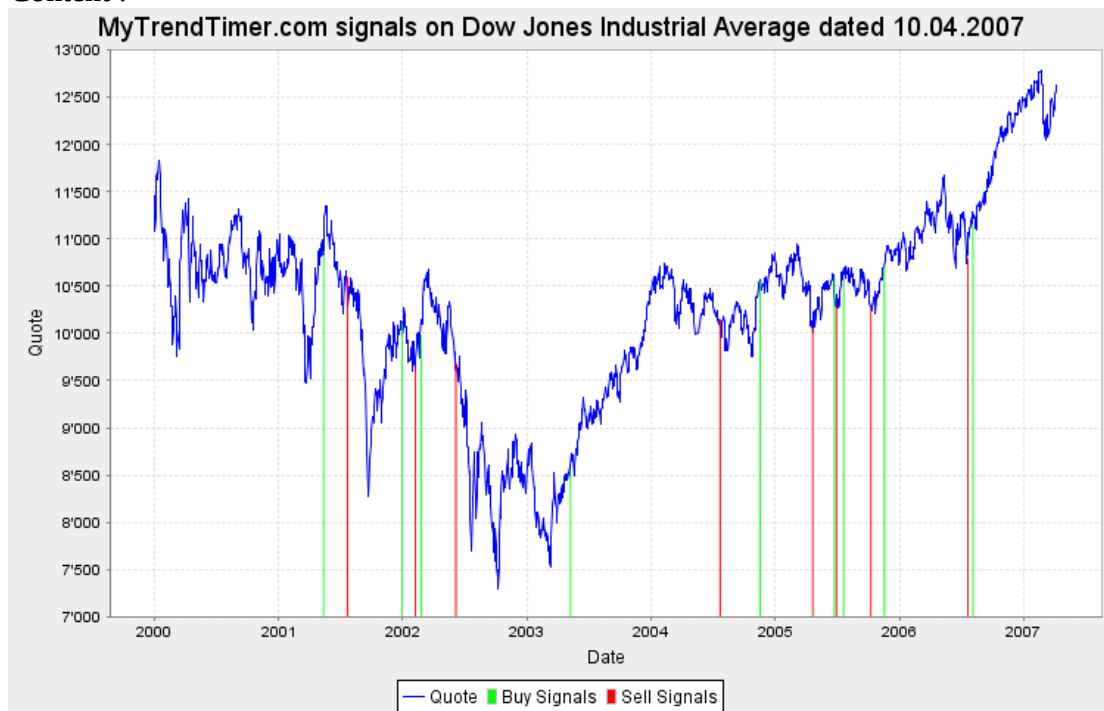
Examples of produced reports and other information can be found on www.MyTrendTimer.com

```
<table border="1" width="90%" cellspacing="5" cellpadding="10" class="center">
<tr>
<th colspan="2" title="Asset under review and date of the analysis">
MyTrendTimer :
Dow Jones Industrial Average
of
April 10, 2007</th>
</tr>
[...]
```

PNG Result

File : Chart_DJX_20070410.png

Content :



Examples of produced reports and other information can be found on www.MyTrendTimer.com

CSV Result

File : Result_DJX_20070410.csv

Content sample :

```
03.01.2000;11455.0;487.45;236.19;+1'145'400.00;*NA*;251.26;+2.19;0;0;0;0;0
04.01.2000;11082.0;938.28;459.81;-3.26;*NA*;478.47;+4.32;0;0;0;0;0
05.01.2000;11219.0;1375.76;681.65;+1.24;*NA*;694.11;+6.19;0;0;0;0;0
06.01.2000;11304.0;1798.23;900.67;+0.76;*NA*;897.57;+7.94;0;0;0;0;0
07.01.2000;11664.0;2218.05;1122.59;+3.18;*NA*;1095.46;+9.39;0;0;0;0;0
10.01.2000;11700.0;2621.54;1340.68;+0.31;*NA*;1280.86;+10.95;0;0;0;0;0
11.01.2000;11623.0;3004.58;1552.69;-0.66;*NA*;1451.89;+12.49;0;0;0;0;0
12.01.2000;11635.0;3371.83;1760.57;+0.10;*NA*;1611.26;+13.85;0;0;0;0;0
13.01.2000;11670.0;3724.95;1964.89;+0.30;*NA*;1760.06;+15.08;0;0;0;0;0
14.01.2000;11839.0;4070.23;2168.48;+1.45;*NA*;1901.75;+16.06;0;0;0;0;0
[...]
```

Log File

File : MyTrendTimer.log

Content sample :

```
2007-04-17 09:08:16,233 INFO (      GUIMenu.java: 125) - Started method actionPerformed with :Change log
2007-04-17 09:08:54,827 INFO (      GUIMenu.java: 125) - Started method actionPerformed with :About MTT
2007-04-17 09:09:59,812 INFO (      GUIRun.java: 133) - Started method main of GUI MyTrendTimer v0.75
2007-04-17 09:09:59,890 INFO (      GUIRun.java: 71) - Started constructor createAndShowGUI
2007-04-17 09:10:00,000 INFO (      GUIButtons.java: 50) - Started constructor GUIButtons
2007-04-17 09:10:00,031 INFO (      GUIMenu.java: 57) - Started constructor GUIMainMenu
2007-04-17 09:10:00,125 INFO (      SAX2Handler.java: 185) - End parsing /etc/TrendTimerConfig.xml (filter : ALL)
2007-04-17 09:10:00,187 INFO (      GUITextField.java: 65) - Started constructor GUITextField
2007-04-17 09:10:00,281 INFO (      GUICheckBox.java: 65) - Started constructor GUICheckBox
2007-04-17 09:10:05,484 INFO (      GUIMenu.java: 125) - Started method actionPerformed with :DJX 20070417
2007-04-17 09:10:05,484 INFO (      MyTrendTimer.java: 228) - <----->
2007-04-17 09:10:05,484 INFO (      MyTrendTimer.java: 229) - Starting MyTrendTimer v0.99.94
2007-04-17 09:10:05,515 INFO (      SAX2Handler.java: 185) - End parsing /etc/TrendTimerConfig.xml (filter : DJX)
2007-04-17 09:10:05,875 INFO (      MyTrendTimer.java: 520) - Start writting the XML file.
2007-04-17 09:10:05,937 INFO (      MyTrendTimer.java: 631) - Start the main loop
2007-04-17 09:10:07,047 INFO (      MyTrendTimer.java: 969) - End the main loop
```

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```
2007-04-17 09:10:07,109 INFO ( MyTrendTimer.java:1127) - Start periodicperfGeneration
2007-04-17 09:10:10,765 INFO ( MyTrendTimer.java:1243) - Start statGeneration
2007-04-17 09:10:11,969 INFO ( MyTrendTimer.java:1507) - Result Summary ;;46;96;MyTrendTimer v0.99.94;5828;17.04.2007
09:10:11;0.7;C:\local\java\TrendTimer\data\DJX_20070417.csv;
17;2.829403606102635;-4.55;15;337;6;440;1.8386506;2.835115;1.820541;-0.91453934;0.80596524;-1.0145739;-3.7496543;-2.0291498;-0.018
10956;-2.75319;-1.0326853;
2007-04-17 09:10:11,969 INFO ( MyTrendTimer.java:1527) - Start htmlTransformation
2007-04-17 09:10:12,437 INFO ( MyTrendTimer.java:1560) - Start ImgGeneration
2007-04-17 09:10:12,469 INFO ( MyTrendTimer.java:1598) - Ending MyTrendTimer v0.99.94
[...]
```