

WeatherExperience

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COLLABORATORS

	<i>TITLE :</i> WeatherExperience		
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Contents

1	WeatherExperience	1
1.1	WeatherExperience · Contents	1
1.2	WeatherExperience · Introduction	2
1.3	WeatherExperience · Installation	2
1.4	WeatherExperience · Legal information	2
1.5	WeatherExperience · Usage - The Menus	3
1.6	WeatherExperience · Usage - The Main Window	4
1.7	WeatherExperience · Usage - The Forecast Window	4
1.8	WeatherExperience · Usage - The Settings Window	4
1.9	WeatherExperience · ARexx interface	5
1.10	WeatherExperience · Author	7
1.11	WeatherExperience · Thanks	8
1.12	WeatherExperience · About MUI	8
1.13	WeatherExperience · History	9
1.14	WeatherExperience · Future	11

Chapter 1

WeatherExperience

1.1 WeatherExperience · Contents

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Released as freeware

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Introduction
Usage
~
Installation

The Menus

Legal stuff

The Main Window
~
Author

The Forecast Window

Thanks to

The Settings Window

About MUI

History

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ARexx interface

Future

1.2 WeatherExperience · Introduction

Introduction

WeatherExperience was written after I saw WinWeather on a PC. I thought it looked interesting and I'm always looking for new, interesting TCP/IP applications to program. WeatherExperience, like WinWeather, uses some servers in the US that get their data from the National Weather Service. WeatherExperience downloads weatherdata for the cities you tell it to, and displays it in a listview.

Please give me your comments about the program, the future of any of my programs depends very much on the amount of feedback I get from the users!

Requirements

- ~AmigaOS 2.04 or higher
- ~MUI 3.3 or higher
- ~A TCP/IP stack (like AmiTCP, Miami, As225, Inet225 ormlink)

Features

- ~Can monitor weatherdata for 558 cities in the US, 44 cities in Canada and 93 cities outside the US/Canada.
- ~Shows data like temperature, wind, conditions, forecasts and many others.
- Can convert measurements to various units like Celcius, Fahrenheit, Kelvin, meter/second, miles per hour and knots.
- Almost 100% asynchronous network operation (you can use the GUI while the program is fetching weatherdata, and you can abort at almost any time).
- ~Updates weatherdata display after a user-configurable delay.
- ~Manipulate data with Copy to clipboard/Print/Save to disk funtions.

1.3 WeatherExperience · Installation

Installation

Simply copy the included files to where you want them. There are no special arrangements to be made so I haven't provided an installer script.

You may want to look in the icons drawer for some alternative icons for WE. If you don't like any of the icons, make a better one and send it to me!

1.4 WeatherExperience · Legal information

Legal information

WeatherExperience is Copyright © 1996-97 Ultima Thule Software.

WeatherExperience is freeware, which means that you are allowed to use and distribute it freely if you don't modify any of the included files. The author of WeatherExperience assumes no responsibility for what this program might do, you are using it at your own risk. However, WeatherExperience has

of course been tested quite thoroughly and should not cause any problems.

1.5 WeatherExperience - Usage - The Menus

Usage - The Menus

Project

Hide

Hide WE's userinterface. You can use the MUI settings to configure whether WE should open an icon on the Workbench or be completely hidden.

About...

Open the Aboutwindow with some information about WE.

About MUI...

Open the MUI aboutwindow.

Quit

Quit WE.

Weatherdata

Copy to clipboard

Copy weatherdata for selected cities to the clipboard.

Print

Print weatherdata for selected cities.

Save to disk...

Save weatherdata for selected cities to disk. A filerequester will open, allowing you to choose a filename. If you select a file which already exists, you will be asked whether you want to overwrite the file or append the data to the end of the file.

Settings

WeatherExperience...

Open the

WE Settingswindow

.

MUI...

Open the

MUI

Settingswindow. Here you can configure exactly how you want the WE userinterface to look.

ARexx

Execute ARexx script...

Open a filerequester that allows you to select an ARexx script to run.

Below this, menuitems will be inserted according to the contents of the ARexx subdirectory of the directory WE resides in. All files matching #?.wxx will get a menuitem and when you select that menuitem the corresponding ARexx script will be run.

1.6 WeatherExperience - Usage - The Main Window

Usage - The Main Window

The listview that dominates this window will show you the weatherdata for all cities you have chosen to monitor. Doubleclick a city to open the Forecastwindow

.

Multiselect cities and manipulate their data with the "Weatherdata/#?"

menuitems

.

Weatherdata is shown in columns, and an entry of "N/A" means the data isn't available from the server.

The small textfield shows you what WE is doing while refreshing weatherdata.

The Refresh button contacts the weatherservers and updates the data in the listview. The Abort button aborts a refresh.

The window closegadget quits WE. (As opposed to hiding it, as in some commodities.)

1.7 WeatherExperience - Usage - The Forecast Window

Usage - The Forecast Window

This window opens when you doubleclick a city in the main window listview.

Use the Copy to clipboard to copy the forecast to the clipboard, or the Print button to print it.

Forecasts are sadly only available for US cities.

1.8 WeatherExperience - Usage - The Settings Window

Usage - The Settings Window

The configuration of WE is split into three pages:

Cities

Here you configure which cities you want WE to fetch weatherdata for. Choose a region from the popup window and drag cities from the left listview into the right one.

Dragging is done by selecting a city in the listview and holding the left mousebutton down while moving the mouse.

Drag cities back into the left listview if you don't want to monitor them, and rearrange cities within the right listview to determine in which order they will be shown in the

main window

listview.

Fields

WeatherExperience can display many different kinds of weatherdata about cities. Some are fetched raw from the servers and some are calculated based on the raw data. In this page you decide which of these fields of data should be shown as columns in the main window listview. You can also decide which order they should be shown in.

WE also has the ability to convert raw data between different units of measuring. Use the cyclegadgets below the listviews to decide which units WE should use.

Network

This page lets you enter new names of servers, should you know any I don't know, and rearrange the order in which WE attempts to connect to these servers (using drag and drop).

Below that you will find a slider which allows you to set how much time should pass between each time WE contacts the weatherservers and updates the weatherdata. Drag the slider all the way to the left to turn off the automatic updates completely.

Below the slider is a checkmark that determines whether WE should update the weatherdata immediately after startup or wait till the amount of time specified above has passed.

Below the pages are three buttons.

Save - make the changes permanent
Use - use the changes until the next reboot
Cancel - cancel all changes done

1.9 WeatherExperience - ARexx interface

ARexx interface

WeatherExperience can be controlled through its arexx port. For information about how to create ARexx scripts, you should refer to the manuals that came with your computer.

In order for ARexx to work SYS:System/RexxMaster needs to be running and ARexx needs to be turned on in the MUI configuration.

The arguments for the commands works exactly like ordinary AmigaDOS command arguments with respect to the flags /A, /S, etc.

For commands which returns a string in 'result' you need to execute the arexx command 'options results' first. Remember also to have your script send its commands to the correct port. WeatherExperience's ARexx port is called 'WEATHEREXP.x' where x is a number from 1 to the number of currently running WEs.

The following commands are available.

QUIT FORCE/S

Ends WeatherExperience.

HIDE

Hides (iconifies) WeatherExperience.

SHOW

Shows (pops up) an iconified WeatherExperience.

INFO ITEM/A

According to the given parameter the result string is filled with the following contents:

- "title" Title of the WeatherExperience
- "author" Author of the WeatherExperience
- "copyright" Copyright message
- "description" Short description
- "version" Version string
- "base" Name of the ARexx port
- "screen" Name of the public screen

HELP FILE/A

A list of all ARexx commands available in WeatherExperience is written into the given file.

REFRESH

This command will perform the same function as pressing the Refresh button in the mainwindow, contacting the weatherservers and updating the information. The command will be synchronous, i.e. your arexx script will wait until the refresh has finished.

The command is safe to call even if a refresh is already in progress, in that case the command returns 10 in rc.

ABORT

Abort a refresh in progress. Does nothing if no refresh is going on.

GETDATA STEM/A,SELECTED/S

This command gives you access to the weatherdata that WeatherExperience has fetched. The STEM argument is the basename for the stemvariable you want to hold the data. The SELECTED switch tells WE to return data for the currently selected cities only, instead of returning data for all cities. All data returned is converted according to the settings. If some information isn't available, the corresponding stemvariable will contain "N/A". The data returned in the stem variable is the following:

<stem>.count - number of cities

for n = 1 to <stem>.count

- <stem>.n.beaufort - string describing windpower on the Beaufort scale
- <stem>.n.city - name of city
- <stem>.n.conditions - string describing weather conditions

```

<stem>.n.country      - contry of city
<stem>.n.date          - date data was measured
<stem>.n.heatindex    - heatindex, a temperature which is a product of the
                        airtemperature and the relative humidity
<stem>.n.humdity       - relative humidity
<stem>.n.pressure     - airpressure
<stem>.n.region       - region of city (geographical, province or state)
<stem>.n.temperature  - airtemperature
<stem>.n.time         - time data was measured
<stem>.n.windchill    - windchill index, a temperature which is a product of
                        the airtemperature and the windspeed
<stem>.n.winddirection - windirection
<stem>.n.windspeed    - windspeed
<stem>.n.forecast     - forecast for city and local region. warning, this
                        may be long.

```

Example script

```

/* get results */

options results

/* talk to first WE started */

address WEATHEREXP.1

/* show which version of WE we are running */

'info version'
say "Running " || substr(result, 7)

/* refresh data */

'refresh'

/* get data for all cities and print it to the screen */

'getdata wd'

do i = 1 to wd.count
  say "In " || wd.i.city || " in " || wd.i.country || " the temperature is ↵
      currently " || wd.i.temperature
end

```

1.10 WeatherExperience · Author

Author

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Feel free to contact me about anything related to WeatherExperience.

1.11 WeatherExperience · Thanks

Thanks to...

- ~Petter 'Mitchman' Nilsen
for the multitcp module and the basic timer code.
- Petter 'Mitchman' Nilsen
- Oliver 'Olli' Wagner
- Bjørn 'breese' Reese
for help with making the network code in WE asynchronous.
- ~Stefan 'Yabba' Burström
for help with various MUI programming issues.
- ~Michael B. Smith
for help with making WE work with AS225.
- ~Timothy A. Ashley
for betatesting and help with meteorological calculations.
- Troy D. Davis
for betatesting, lots of suggestions and nagging
- ~Drew Kraus
- ~Michael Risås
- ~Marc Severin
- ~Joseph Shaughnessy
- ~Philip A. Vedovatti (Aesculape)
for the icons included with WE.
- ~The Prodigy
for the name, great music and a cool concert earlier this year. :)
- ~National Weather Service
- ~Environment Canada
for the weatherdata.

All who have given me encouragement and suggestions!

1.12 WeatherExperience · About MUI

This application uses

MUI - MagicUserInterface

(c) Copyright 1993-96 by Stefan Stuntz

MUI is a system to generate and maintain graphical user interfaces. With the aid of a preferences program, the user of an application has the ability to customize the outfit according to his personal taste.

MUI is distributed as shareware. To obtain a complete package containing lots of examples and more information about registration please look for a file called "muiXXusr.lha" (XX means the latest version number) on your local bulletin boards or on public domain disks.

If you want to register directly, feel free to send

DM 30.- or US\$ 20.-

to

Stefan Stuntz
Eduard-Spranger-Straße 7
80935 München
GERMANY

Support and online registration is available at

<http://www.sasg.com/>

1.13 WeatherExperience · History

Version history

WeatherExperience 1.0 (20.7.96)

- ~First release to AmiNet.

WeatherExperience 1.1 (21.7.96)

- ~Of course, the good boys at the National Weather Service just had to change the format of the data the day I released WeatherExperience. That broke the parsing of weatherdata for all non-US cities.
- ~The weather boys also changed the spelling of a few cities:
 - "Capetown" -> "Cape town"
 - "Ho Chi Minh Ct" -> "Ho Chi Minh Cty"
 - "Nagano" -> "Ngano" (?!)
 - ~"St.Petersburg" -> "St. Petersburg"
- Information for Shanghai, China now available

WeatherExperience 1.2 (23.7.96)

- ~Guess what... They changed the format of the data back.. Aaaargh. That means all changes done from 1.0->1.1 has been reversed for 1.2. :(
- The main listview with the weatherdata now jumps to display the last inserted city if the scrollbar is at the bottom.
(Suggested by Troy D. Davis)

WeatherExperience 1.3 (27.7.96)

- ~Fixed a bug in the "smart"-scrolling.
-

- ~Added a new unit for pressure: kilopascal.
(Requested by Adam Szymczak)
- Added 44 major Canadian cities!
(Most requested feature)
- Improved settings saving & loading, WE should no longer mix up cities from different regions with the same names.
- ~When you press refresh the timer request is now aborted and a new one is started.
- ~Changed the formula for calculating Pascal from inches of Mercury slightly.
- ~This version still does not work with as225/inet225. I know where the problem is, and I can reproduce it, but I don't know how to fix it yet.

WeatherExperience 1.4 (8.9.96)

- ~There's now drag and drop configuration of which fields to show, and in which order to show them.
- Many new fields: Country, Region,~Heat index, Wind chill, Beaufort windscale, Date and Time.
- ~Timer is reset when pressing Save/Use if it has been changed.
- ~Option for turning off the timer completely.
- The message "finished updating watherdata" now has a datestamp attached so you can see when the last update was made.
- ~Doubleclicking a city in the main listview opens a window that shows a forecast for the city/region. Buttons in the window allows you to copy the forecast to the clipboard or print it.
- ~Relocated Yellowknife in Canada to its correct province, namely NorthWest Territories. Fixed a spelling mistake "Yokon"->"Yukon".
Both reported by Peter Denomy
- ~The titlebar now says when the last update was made and when the next will be made if the timer is on.
- ~WE now works with socket.library (as225/inet225/surfpack).
- ~WE now handles both the old and the new format that the NWS servers use for the non-US data.
- ~Option for fetching data immediatedly after launch.
- ~"Hide" menuitem. (I called it Hide and not Iconify because you can use MUI prefs to configure it to not show any icon while hidden.)
- ~New awesome aboutwindow. :)
- ~WE now reads its own icon imagery and uses it while iconified.
- ~You can now multiselect cities and manipulate the data in three different ways: copy to clipboard, print and save to disk (with append or overwrite option).
- ~Wrote the AmigaGuide documentation.

WeatherExperience 1.5 (3.8.97)

- All South Carolina cities were listed twice.
(Spotted by June Nilsen, while being forced to try my program :)
- ~"British Colombia" -> "British Columbia"
(Reported by Gary Gagnon)
- ~Fixed the fact that no euro data seemed to be available
(Reported by Troy D. Davis and a million others later)
- ~Removed the silly error requester when cancelling a filerequester.
- ~Added a workaround for a bug in RTPatch 38.298 that caused the error requester to appear anyway.
- ~Now uses the fixed font (configured in MUI prefs) in the forecast window.
(Suggested by Troy D. Davis and Eirik Synnes)
- Three new ARexx commands: REFRESH, ABORT and GETDATA (see AmigaGuide for usage information).

- ~New menu called "ARexx". It contains one item that lets you execute an ARexx script chosen from a filerequester, and below that you will a menuitem ↔ for all files matching the pattern "#?.wxx" in PROGDIR:ARexx. Selecting one of those items will launch the corresponding ARexx script.
(Idea ripped off AmIRC *without* the author's permission ;)
- ~Moved Auckland and Sydney into a region of their own, Australia. They were previously put under the Asia region because I thought it was silly to have a region with two members, but I was convinced otherwise by Troy D. Davis. :)
- Pressing the Help key on your keyboard will now open the AmigaGuide to the section describing the active WE window.
- ~The ARexx portname is now listed in the aboutwindow.
- ~Horizontal scrollbar in mainwindow finally realized. :) This is done using Gilles Massons NList.mcc.
- Changed "Marthas Vinyard" -> "Martha's Vineyard" misspelling in a Massachusetts town. (not my error :)
(Reported by Philippe REUX)
- ~Corrected another misspelling: "Tunesia" -> "Tunisia".
(Reported by Giovanni Calderone)

1.14 WeatherExperience · Future

Planned enhancements

- ~Add a field called dewpoint.
 - ~Add a windspeed unit: kilometres per hour.
 - ~More cities! European, UK, Belgian, all I can find data for.
 - ~Locale
 - ~Arexx - so you can export data for use in statistics programs, etc.
 - ~Update city entries in the listview without clearing it between each refresh.
 - Subtask based networking, like all the Amiga webbrowsers.
 - Graphic icons/animations showing weather conditions.
 - ~Put things like About- and Settingswindow into classes that are added dynamically when they are opened (to save memory).
 - ~Optimize listview display speed a bit..
 - ~Your suggestions?
-