

EZCronGuideFile

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Chapter 1

EZCronGuideFile

1.1 EZCron Release 3

EZCRON Release 3

January 28, 1998

Introduction

System Requirments

Installation

Running EZCron & EZCronD

Buttons Reference

Tutorials

Overview of included Rexx scripts

The EZCron(D) Arexx Interface.

Troubleshooting

The cron.config file, an overview.

A list of possible uses for EZCron

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Program History

ToDo

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1.2 Introduction

EZCron Introduction

As more and more people are learning to use and buying computers, they are becoming more of a household appliance than the desktop dust collector that would get used once in a week. Nowadays, people are using their computers for telephone answering machines, fax machines, Internet browsers, home security, CallerID etc. and they rarely ever get turned off.

EZCron fits nicely into this because it is one of those programs that will automate many of your daily, weekly, monthly, or whatever, tasks.

This project was originally started because I had a need to run Lightwave3D between newscasts (I work for a television station) and do automated rendering whenever I wasn't present. It wasn't long before I realized the power of this program and started to expand on it. Not only could I render automatically, I could also use it on another machine to automatically update my web page. At home, I use it to gather my email and news, as well as check every hour and make sure that LineMan, part of the VFX PhonePak, is running, and if not, run it. I also have a chime that rings at 15 minutes after and 15 minutes 'til the hour, and on the hour the cookoo clock bugs me.

Although there are several cron programs available for the Amiga, I felt that none were what I would call easy to use. I had a need for something that could be quickly set up with a point and click interface and flexible as well. I also wanted non-computer literate persons to be able to use EZCron. EZCron eliminates the manual editing that would be involved with a unix like crontab file.

EZCron actually consists of two programs. The first is the EZCronD (daemon) which runs as a background process transparently to the user. It's very small and pretty fast. EZCronD will sleep between every minute, only awaking to check if there are any events that need be executed. Its CPU usage is minimal! The second program, EZCron is the user-interface This is the Event Manager and allows you to easily create and edit your events. It will also allow you to start and stop EZCronD.

A Word on Arexx

=====

It is not a necessity to understand arexx, but a strong key to greatly benefiting from EZCron is to have an awareness of it. If you can write scripts to control any given program, you can control the script with EZCron. Many are included and more can be found on AmiNet or on my homepage. If you can't find what you want, drop me an email and perhaps I can write one for you.

A Word on Terminology

=====

An EVENT is the item that gets executed at a given time/date. The event can be a program file or a rexx or AmigaDos script and contains all data pertinent to the proper execution of the program to be ran.

In Conclusion

=====

EZCron is the result of many many hours of work and many contributions and ideas from you, the end users. I hope you enjoy using it.

1.3 Requirments

SYSTEM REQUIRMENTS

EZCron should run on any Amiga with Workbench/Kickstart 2.04 or better with 512k of ram. These programs and librarys are required to make various parts of the EZCron programs work. All non AmigaDOS programs are included within the archive and will be installed if necessary.

- REXXMAST MUST be running (Included with AmigaDOS v2.04 and later)
- AREXXPORT.library by Andy Cook
- REXXREQTOOLS.library 37.71 or later
- VAREXX by Andy Cook
- The sys:rexxc directory MUST exist and be in your path.

1.4 Installing EZCron

Getting Up and Running

INSTALLATION

*****IMPORTANT*****

If upgrading from version 1.xx, you MUST delete everything in the old EZCron: directory. You must also delete your s:cron.config file before installing this release.

If upgrading from release 2.xx, you must rebuild your events config file. The old one will not work. I am really sorry for this, but in order to allow progress, changes had to be made in the format of the cron.config file. If you like, print out the contents of your old file for reference when creating the new one.

To run EZCron, you first need to install it. This can be done simply by double clicking the EZCron-Install icon. Or, you can install it manually, see **MANUAL INSTALLATION**. The installation script will ask you if you want the EZCronD (Daemon) to be started from your WBStartup drawer or if you want it started from your user-startup. After installation, you must reboot.

After a reboot, EZCronD should be running. There are two ways to check. The easiest is to simply double-click on the EZCron icon in the EZCron: directory, and look at the EZCron Status gadget. It will either say "Active", or "Inactive."

NOTE: I have discovered with some 68060/PPC cards, the Status gadget may not get updated automatically. In this case, simply click the refresh

gadget and all should be well. Also, the refresh gadget may be clicked at any time if for some reason you do not 'believe' the display.

As I do not have an 060/PPC card at home one which to troubleshoot this problem, I would appreciate any comments or suggestions as to why this may be happening.

1.5 Manual Installation

MANUAL INSTALLATION

- Create a directory called EZCron.
- Copy the EZCronD program and EZCronD.info to your EZCron directory.
- Copy the EZCron program and EZCron.info to your EZCron directory.
- Copy the contents of the libs directory to your libs: directory.
- Copy rexxc/varexx and vxc to your sys:rexxc directory.

The following directories MUST be present in your EZCron directory.

- Copy the prefs directory to your EZCron directory.
- Copy the rexx directory to your EZCron directory.
- Copy the ConfigFiles directory (and all subdirectories) to your EZCron directory.

The following MUST be added to your s:user-startup file:

```
;Added for EZCron
```

```
assign EZCron: [yourdevice]:EZCron
```

```
run >nil: rx >nil EZCron:EZCronD (This is optional. The EZCronD icon may  
be dragged to WBStartup drawer instead.
```

Also note that the Start option is no
longer required)

```
;End EZCron
```

If you are running OS3.1 this assign may be like this:

```
;Added for EZCron
```

```
assign EZCron: [yourdevice]:EZCron
```

```
run <>nil: rx EZCron:EZCronD
```

```
;End EZCron
```

That should do it. Just reboot and run EZCron when you want to add,
edit or remove events.

1.6 Up_and_Running

Running EZCron and EZCronD

Generally, you will want to run EZCron from its icon. From there you can
also control EZCronD.

Some of you may wish to run EZCron or EZCronD from a shell. This is also a good way to troubleshoot problems you may have as well. To run EZCron or EZCronD from a shell, just cd to the directory EZCron: and type:

rx EZCron

or

rx EZCronD

If you would like your shell back and you are not troubleshooting, you will want to run it and redirect it to NIL:

run rx EZCron >NIL:

or

run rx EZCronD >NIL:

1.7 Buttons

LISTING OF BUTTONS AND FUNCTIONS

Top Section

'E' (Event)

'A' (Arguments)

'S' (Sound Sample)

'D' (Date)

Date Range

'T' (Time)

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Activate

Copy Event

Delete Event

New Config

Make Default Event

Description

Load Event

Save Event

Refresh

Clock

Preferences

Test

EZCronD Control

1.8 rexx

- Arexx Macro

This gadget will allow you to directly execute an arexx macro. Using arexx, you may build custom scripts that can control and edit your config file(s). You may also use this to directly execute ANY arexx script for testing for other purposes.

Useful arexx commands that may be sent to EZCron are REFRESH and QUIT. The port name is EZCRONPREFS. When writing scripts, you will want to use the REFRESH command at the end of your script in order to reflect the changes within the listview of EZCron. See [Cron Config](#) for information regarding the cron.config format.

1.9 About

- About

This gadget simply pops open the ABOUT requester. This contains information about both EZCron and EZCronD as well as the Author.

1.10 DESC

- Description

This button will allow you to edit your event descriptions. Simply select the event you wish to edit the description of, then click the description button. A string gadget will open containing the current description allowing you to change it. Press the return key after you're finished entering the changes.

1.11 R

- Run (To RUN, or not to RUN)

By default, all events are separated from the EZCronD task (Run). You can change this with this option. The options are: RUN and DON'T RUN.

Please remember that if you turn this feature on and the task you execute would happen to crash, EZCronD will no longer execute any other events until after you reboot. This is because EZCronD would end up waiting forever for the crashed program/script to return, and of course it will NEVER return.

NOTE: If you do not understand what this does, you probably do not need to use it (or maybe I need to explain it better).

1.12 E

- E (Create a new event)

This is the gadget you use to create a brand new event. This will bring up a requester that asks you what type of event you would like. There are two types:

Program Event:

This is the event type you would select for running external programs/scripts.

A Program Event could be an executable program, a rexx script or a dos script etc. If you select the Program event, it will bring up a file requester for you to choose the program you wish to execute.

Make sure a full path is given, or the program may not execute properly!

Next, it will ask for an event description. Describe the event in a useful manner in the text field and press enter. When a program is selected, the CURRENT time and date are filled in the time and date fields. You will need to click on the event (via the description list) and change these to reflect the time and date you wish your program to run. Also, be sure to

TEST the event to make sure it works properly before you depend on EZCronD (daemon) to start it automatically.

Instead of adding arguments to the Arguments field, you may also add them here as well. Do NOT add them to both!

NOTE: When running a rexx script be sure to use RX to start it. Also, be sure to EXECUTE dos scripts (or just set the script protect bit).

Reminder Event:

When you select REMINDER, it will bring up a string requester that allows you to enter a text string. Next, it will ask you for a description of the reminder event. Once set, this will also automatically set the Event field to TEXTREMINDER . This must remain TEXTREMINDER in order for the program to understand its task. When TEXTREMINDER is selected, the CURRENT time and date are filled in the time and date fields. You will need to change these to reflect the time and date you wish your text reminder to be displayed.

1.13 T

- T (Time)

This string gadget and button combo is the TIME field. You may type your time(s) into the text field directly or you may use the button to select useful presets.

The fields must be entered in any of these formats:

13:30

Startup

Time MUST be given in 24 hour format.

Startup is a special time field that will make the event execute when EZCronD gets started. You may combine both types of fields within one event. For instance, you may wish the same event to run at startup, plus at 07:30. In this case you could set the field to read

07:30|startup

For multiple times, use the | character to separate them. There is no limit on how many time fields you may use:

13:30|18:10

Wildcards are also supported. A wildcard allows you to substitute a # character in place of a number. This renders the digit true. A look at the examples will make this much more clear.

13:#5

This time field would be true at 13:05, 13:15, 13:25, 13:35, 13:45, 13:55

#2:30

This time field would be true at 02:30, 12:30, 22:30

##:##

This time field would be true every minute of the 24 hours.

11:3#

This field would be true from 11:30 thru to 11:39

This is where presets come in handy. The 'D' button will call up this window. There are nine time presets already defined and cannot be edited or deleted, unlike USER presets. The nine presets are:

Once - Run the event only once.

(13:22)

Minute - Run the event every minute of every hour

(##:##)

5 Min - Run the event every five minutes of every hour.

(##:0|##:5)

10 Min - Run the event every ten minutes of every hour.

(##:0)

15 Min - Run the event at 00, 15, 30, & 45 minutes of every hour.

(##:00|##:15|##:30|##:45)

20 Min - Run the event at 00, 20 & 40 minutes of every hour.

(##:00|##:20|##:40)

30 Min - Run the event at 00, and 30 minutes of every hour.

(##:00|##:30)

Hourly - Run the event every hour on the hour.

(##:00)

Startup - This is a special purpose event that ONLY executes whenever EZCronD is first started. You can have as many startup events as you like.

USER TIME PRESETS:

=====

Presets may also be made by the user. Just go to the Time presets and click the new button. Enter the field in the format:

Your Description,Time(s)

My Birthday,00:00

Wake Up Times,05:45|09:30

You may also edit the existing field presets or delete them.

1.14 timerange

- Start Time/End Time

These gadgets represent a time range you may want an event to execute within. If you wish your event to run from noon to 3pm you would enter 12:00 in the Start Time gadget and a 15:00 in the End Hr. gadget. Please note that events that run from PM to AM MUST be set up as two separate events. EZCronD works on a 24 hour clock internally. If, for example you wish your event(s) to run from 11pm to 3am you would have to set up your first event to run from 23:00 to 24:00 and then your second event to run from 00:00 to 03:00. I am VERY aware that there is not really a 24 in the 24 hour format, but it has to be done this way in order to work properly. In other words, Midnight has to ALWAYS be entered as 24 when used as an end time and 00 when used as a start time. Of course, you could enter 23:59 as the end time on one event and 00:00 as the start on another.

Wildcard Support

NEW: As of EZCron Release 3, EZCron now supports full wildcard support in time ranges. This new feature greatly enhances the functionality of EZCron and allows you to do very creative time settings.

Here are some examples of how you might use this feature:

If your event time is set for ##:05 the event would execute every 10 minutes. Using a range like this (Start: ##:05 End: ##:55) the event would execute every 10 minutes EXCEPT for the top of the hour. Or an event of 'thirty_min' with the start range set to ##:25 and the end range set to ##:30 would only execute at the half hour instead of the half and the top of the hour. There are practically limitless possibilities here as you can probably imagine.

1.15 D

- D (Date)

This string gadget and button combo is the DATE field. You may type your date(s) into the text field directly or you may use the button to select useful presets.

The fields must be entered in any of these formats:

01/31/98

EveryMMDD

Startup

Dates **MUST** be given in a MM/DD/YY format.

Startup is a special date field that will make the event execute when EZCronD gets started.

EveryMMDD is a special day/month event. See below.

You may combine all types of fields within one event. For instance, you may wish the same event to run at startup, plus 01/16/98. In this case you could set the field to read

01/16/98|startup

For multiple dates, use the | character to separate them. There is no limit on how many date fields you may use:

01/21/98|03/08/98

Wildcards are also supported. A wildcard allows you to substitute a # character in place of a number. This renders the digit true. A look at the examples will make this much more clear.

##/15/##

This date field would be true the 15th of every month of every year.

01/##/97

This date field would be true every day in January of 1997

##/##/##

This date field would be true every day of every year.

This is where presets come in handy. The 'T' button will call up this window. There are thirteen date presets already defined and cannot be edited or deleted, unlike USER presets. The thirteen presets are:

Once - Run an event on one day only.

(03/14/98)

Daily - Run an event every day.

(##/##/##)

Monthly - Run an event one day a month.

(##/14/##)

Sun-Sat - Run an event on the given day of the week. Note that the days are now

three letter abbreviations. (Mon, Tue, Wed..etc)

Weekends - Run an event on Saturdays and Sundays only

(Sat|Sun)

Weekdays - Run the event Mon-Fri only.

(Sun|Mon|Tue|Wed|Thu|Fri|Sat)

EveryNNDD - This is a strange one. This option will allow you to run events on given days in weeks of the months.

ie: 'Every_3_Fri' would run the event every third

Friday of every month. 'Every_1_Mon' would run

the event every first Monday of a month.

USER DATE PRESETS:

=====

Presets may also be made by the user. Just go to the Date presets and click the new button. Enter the field in the format:

Your Description,Date(s)

My Birthday,03/14/96

Monday Wednesday Saturday,Mon|Wed|Fri

You may also edit the existing field presets or delete them.

1.16 daterange

- Date Range

The date range feature allows you to set a range of dates for a given event. If, for instance, you wish to run an event every day from January 1, 1997 to March 14, 1997, you would enter 01/01/97 as the start date and 03/14/97 as the end date. Note that the event WILL run on the end date specified.

Wildcard Support

NEW: As of EZCron Prerelease 3, EZCron now supports full wildcard support of date ranges in each field. This new feature greatly enhances the functionality of EZCron and allows you to do very creative date settings.

Here are some examples of how you might use this feature:

If your event date is set for ##/##/## the event would execute every day.

Using a range like this (Start: #2/#5/97 End: #2/25/97) the event would execute every February and December on the 5th, 15th and 25th. Or an event of 01/1#/97 with the start range set to 01/##/97 and the end range set to 01/16/97 would only execute on Jan. 10th, 11th, 12th, 13th, 14th, 15th and 16th. There are practically limitless possibilities here as you can

probably imagine. There are more examples below.

Keep in mind that a range will override any date setting you may have.

MORE EXAMPLES

=====

Date: ###/###/97

Startdate: ##/14/97 This would run an event every month of 1997 on the

Enddate: ##/18/97 14th through the 18th only.

Date: ###/###/97

Startdate: 01/###/97 This would run an event every day throughout January

Enddate: 02/###/97 and February of 1997 only.

Date: Every_3_Fri

Startdate: 01/14/97 This would run an event every third Friday from January

Enddate: 06/###/97 14th through the last day of June.

Date: Saturday

Startdate: 01/14/97 This would run an event every Saturday from January 14th

Enddate: 05/###/97 through the last day of May.

1.17 ED

- Activate

This switch will Activate/Deactivate events. By default, all events are active when created. It is simply a toggle switch. This will add a '!' character to the beginning of the event name. EZCronD will not execute events marked in this manner.

The Description field will also be marked so you can tell at a glance which items are disabled. The method used here is parenthesis. The complete description will be enclosed in parenthesis if it is disabled. It is not unlike disabling tooltypes within an icon.

NOTE: This gadget was formerly labeled Enable/Disable.

NOTE: Events may STILL be tested when disabled.

1.18 LoadEvent

- Load Event

This gadget will allow you to Load separate/individual events within the existing Config file.

1.19 SaveEvent

- Save Event

This gadget will allow you to Save separate/individual events within the existing Config file.

1.20 mkdef

- MkDef (Make Default Event)

When EZCron makes a new s:cron.config file, it must always create one event within the new file (EZCron (daemon) would simply exit if no events existed). EZCron will create a default event of your choice simply by clicking on an event in the listview window, or by creating an event, then clicking the MkDef gadget. You could set the default event to be dated sometime in the past so that the default event never actually runs.

1.21 A

- A (Event Arguments)

This brings up a ReqTools file requester for adding program arguments. Be sure that your paths are complete.

If the argument is not a file, you may type the argument in manually in the text field. Pressing return will accept it.

Instead of using this field, you may also add your arguments to the 'E'vent field as instead.

1.22 S

- S (Sound Effect/Sample)

This gadget brings up a ReqTools file requester for adding an optional sound effect to be played with a given event. Once again, make sure a full path is included here. The Sample Player Prefs must have some sort of audio player set like playsound, Play16, etc.

1.23 COPY

- Copy Event

This gadget allows you to copy an existing event. It will be added to the bottom of the list. Simply select the event, then click the COPY button.

The new event will have "Copy of" appended to the description.

1.24 DEL

- Delete Event

Deletes the selected event from the list. There is no safety net here,

If you accidentally click on the DELETE button, the event is gone for good (unless you had it saved, in which case just reload it).

1.25 NEW

- New Config

When clicking this gadget, EZCron will create a new `s:cron.config` file with a 'dummy' event contained in it. There **MUST** be at least one event in the config file for EZCronD to function (This default event can be set using the MkDef Event gadget). This event may be a date already passed if you don't wish to be bothered with an active event.

1.26 TEST

- Test (Test Event)

This will test the selected event to make sure everything works just fine before you 'trust' it to work on its own.
rx 'address EZCronPrefs testeve

1.27 CONTROL

- EZCronD

This starts and stops EZCronD (daemon). It simply toggles it on or off. EZCronD may only exit at the top of a minute. This is because EZCronD is 'asleep' until then so as to not use precious CPU time. After sending the stop command, EZCronD will wake up (at top of minute) and check for any messages from EZCron, if the stop command is preset, it exits. Otherwise, it then checks the config file to see what events, if any, need executing. Just remember to start EZCronD if events are due to take place. If you used the installer, EZCronD will be started from your startup-sequence or WBStartup drawer automatically.

1.28 REFRESH

- Refresh

This simply refreshes the events listing and the Daemon control status. You may need this if you edit the `cron.config` file with a text editor that separates itself from the parent process, for example.

1.29 No title

- Clock

This gadget will pop open an AmigaDos clock. You may set your clock preference via the prefs gadget.

1.30 LOADCONFIG

- Load

This gadget will pop open reqtools file requester and allow you to load a different config file.

NOTE: As of Release 3 of EZCron, the config files now have a special header to identify it as being an EZCron config file. If you try to load a pre v3.0 file, you will get an error message that claims it's not an EZCron config file. This is because the older files are no longer compatible with the new format.

1.31 SAVECONFIG

- Save

This gadget will pop open reqtools file requester and allow you to save the current config to the filename of your choice.

1.32 PREFS

- Prefs

This gadget takes you to the prefs window where you may set your own prefs for various items.

PREFS WINDOW

- Choose Sample Player

For adding a sample player to the prefs file. This must be set if you wish to use sound effects with events.

- Set Test Console

When testing an event, by default, a con: window will pop up for debugging purposes. This prefs setting decides the attributes and redirection values of the tested event. This could be changed to prt: if desired and the results would be printed. Also, if you wish for no output whatsoever, you can replace this with an empty string.

Clock

This simply allows you to choose whether you want a digital or analog clock.

cron.config path

This setting will allow you to put your cron.config file (the one the daemon reads) in a location of your choice. The default is t:cron.config.

Note that if you choose a place on your HD, it will spin your drive once a minute when the daemon 'wakes' up to check its events so the ideal place for this file is ram:, sd0:, rad: etc.

1.33 Tutorials

TUTORIALS

A few tutorials are given below to help you understand how to edit and add events.

How to add a new PROGRAM event

How to add a new REMINDER event

How to COPY events

How to MODIFY events

How to DELETE events

How to create a DEFAULT event.

How to create a new CONFIG file.

How to change config files automatically (Very Useful!)

1.34 How to add a new program event

ADDING A NEW PROGRAM EVENT:

Click the 'E' button at the top left. A Requester will pop up asking if want a Program or Reminder event.

Click on PROGRAM. A file requester will then pop up. Find the program you wish to run and click ok.

Next, a requester will come up asking for an event description. Be short, but descriptive as you can. Press ENTER.

The program, current date and current time should appear in their respective fields now.

If this event is one that you only wish to run once, click in the date gadget and change the date to whatever date you want (remember, the format is mm/dd/yy). Otherwise, click on the 'D' button and select a preset selection.

Next, edit the time field to whatever time you desire, or use the 'T' button to select and alternate selection.

The event is ready to run. Click the "TEST" button to make sure it runs as planned.

1.35 How to add a new REMINDER EVENT

ADDING A NEW REMINDER EVENT:

Click the 'E' button at the top left. A Requester will pop up asking if want a Program or Reminder event.

Click on REMINDER. A string requester will then pop up. Type in the text you want displayed and click ok.

Next, a requester will come up asking for an event description. Be short, but descriptive as you can. Press ENTER.

The reminder string, current date and current time should appear in their respective fields. Also, the top event field should have displayed "TEXTREMINDER"

If this event is one that you only wish to run once, click in the date gadget and change the date to whatever date you want (remember, the format is mm/dd/yy). Otherwise, click on the 'D' button and select and alternate selection.

Next, edit the time field to whatever time you desire, or use the 'T' button to select and alternate selection.

The event is ready to run. Click the "TEST" button to check it.

1.36 How to copy and event

COPY AN EVENT:

Click on the event you wish to copy. Click the 'COPY' button. The newly copied event should now appear at the bottom of the event list. The description will read 'Copy of lyour event description!'

NOTE: If you do not modify the copied event, the event will execute twice.

1.37 ModifyEvent

MODIFY AN EVENT:

Click on the event you wish to modify. Make the necessary modifications.

Be sure to hit return if you change the fields directly. The changes should now be applied.

1.38 How to delete an event

DELETE AN EVENT:

Click on the event you wish to delete. Click the 'DELETE' button.

1.39 How to create a default event

CREATE A DEFAULT EVENT:

Click on the event you wish to become the default event. Click on the MkDef button. Now, whenever you create a new config file, this event will be automatically created.

1.40 How to create a new config file

CREATE A NEW CONFIG FILE (s:cron.config)

Click the 'NEW' button. If you already have a config file, it will ask if you want to overwrite it. Select 'YES'. You will now have a new config file with the default event in it (See CREATE A DEFAULT EVENT).

1.41 How to change config files automatically

DYNAMICALLY CHANGE CRON.CONFIG FILES

AS OF RELEASE 3 THIS SCRIPT HAS BEEN REWRITTEN.

As you can probably imagine, there is a LOT of power in the ability to alter config files on the fly, without being present. There could be many reason to want to do this.

One reason to do this could be set up many different config files for certain times of the day. For instance, you may have a config file that only controls X-10 lighting devices within your home. This could be made active at midnight for instance on days that you happen to work late..... or whatever.

Another reason to do this is to reduce the size of a very large config file that only have events which execute at certain times on a daily basis. ie, you have 20-25 events that execute before noon each day, but only 10 events which execute after noon. You could essentially have EZCron swap these config files in and out automatically throwout the day.

NOTE: For this to work properly, make sure the s (script) bit is set on the file 'EZCron:rexx/SwapConfigs.rexx'

1. First, you must already have two or more config files saved. Preferriably within the EZCron:ConfigFiles" directory. This tutorial will assume thats the location of them.
2. Click the "E" gadget. A requester will pop up.
3. Click on PROGRAM in the requester. A file requester will pop up
4. Click on the rexx directory (EZCron:rexx) and choose the filename "SwapConfigs.rexx" and click 'OK'. The full path and filename should now appear within the window beside the "E" gadget.
5. Single click the "A" gadget. A file requester will pop up. Single click on the ConfigFiles directory (EZCron:ConfigFiles).

Now, double click the config file that you wish to REPLACE your current config.

6. Click the 'D' button and select the DATE you wish this to execute on.
7. Click the 'T' button and select your TIME you wish this to execute on.
8. Click the 'SAVE' button and save the newly modified config file to EZCron:ConfigFiles/<filename>.
9. Click the "TEST" button to check and make sure it works. If it does, you should see the new config file within the event listview within a second or so. You can now do this tutorial again with the newly loaded second event file.
10. Thats all.

There are many possibilities with this.....the config file you load automatically can contain a similier type command to reload the original config at another time....this would allow you to rotate between two or more config files. Also, as a bit of a 'safety net', you could make the swapconfigs.rex macro run every minute, but only between a specific time range. This would be useful if you had a power outage during the time period the config was suppose to get swapped. When EZCronD restarted, it would see the event and go ahead with the copy ensuring your new config file does get changed.

1.42 Author & Acknowledgments

EZCron is emailware

EZCron is free. If you like it and use it, I would like to hear from you. Or if you have any suggestions for improvements or new features, I like to hear them. Also, of course, if you find any bugs, I would like to know where they are. My email addresses are:

hines_j@iolinc.net

or

jhines@wdtv.com

EZCron is developed entirely in ARexx. I think it's a pretty good example of the power that arexx has to offer. There is not much you can't do in ARexx.

My Amiga is an A2000 with a GVP 030/50mhz. I have 18mb FASTRAM and 2mb CHIP.

The 2mb CHIP comes from the hardware hack from AmiNet. Also in my A2K resides a GVP PhonePAK which is a fantastic card!! It allows me to control my Amiga and my house (via arexx, of course :) from the telephone. Also I have a Picasso 2 graphics card for displaying on a GateWay 2000 CrystalScan 17" SVGA monitor. My Amiga also controls my entertainment center via Infrarexx and homemade hardware.

I hope to have a 75mhz 060 BoXer in a PC tower case soon.

Visit my Internet Home Page for the latest version of EZCron and for other interesting stuff:

http://www.iolinc.net/~hines_j

Also available on my homepage are:

EZCID: A caller ID program.

EZ-X: Controls IBMs Aptiva Home Directer Software

CyberX10G GUI to control CyberX10 (available from aminet)

...and Much More!

Acknowledgments

=====

Thanks must go to the following people:

Gene Heskett For his huge help in figuring out some of these algorithms. . .and for beta testing.

Thanks Gene!

Robert Wilson For his contribution of his very nice and useful scripts for Miami and YAM).

Also, some of his suggestions for improvments have been wonderful and I am grateful.

Thanks Rob!

Mike Herschede Yet another great beta tester.

Andy Cook Author of VArexx for which the GUI wouldn't have been possible. Where are ya?

LEGAL STUFF

* EZCron & EZCronD ©1994-1997 Jim Hines

* rexxreqtools.library ©1992-1994 Rafael D'Halleweyn

* reqtools.library ©1992-1994 Nico Francois

* VArexx and RexxPort.library ©1995-96 Andy Cook

1.43 Troubleshooting

TROUBLESHOOTING

One important thing to check first:

Make sure you have ARexx installed and running.

Make sure that you rebooted after installing or upgrading EZCron. An old EZCronD running in the background may cause problems.

EZCROND WILL NOT RUN ON STARTUP:

Make sure that the line 'run <>NIL: rx ezcron:ezcround start ' is in your s:user-startup sequence.

Make sure you have a valid s:cron.config file. It will not run without it!

A valid cron.config file should contain at least 1 event in the following format:

command,args,time,date,startdate,enddate,TimeRangeStart,TimeRangeStop,SFX,ReminderString,0/1,Description,

EXAMPLES:

rx,EZCron:rexx/TalkingClock.rexx,hourly,daily,-,-,--,-,-,1,A talking Clock Script,

TEXTREMINDER,-,22:00,range,01/01/97,12/31/97,--,-,-,Remember to email the author.,0,Email the author.,

Most EZCronD startup problems are related to broken config files.

If you have an EZCron:prefs/startup.prefs file, try deleting it.

EZCRON WILL NOT RUN AT ALL:

Make sure all the included libraries are installed in Libs:.

Make sure that sys:rexxc is in your path. I have found some systems that don't seem to carry their path over to shell processes too well.

Make sure that varexx and vxc are in your sys:rexxc directory.

1.44 ARexx Scripts

Included ARexx Scripts (and how to use them)

There are a few useful ARexx scripts included that you may find useful. You can find them in the the EZCron/rexx directory. There are auto-online/Getmail scripts for AmiTCP and Thor here as well as for Miami and YAM.

I will list them here and briefly describe what they do and how to utilize them.

AutoGetMail :

This simple script utilizes both AmiTCP v4.+ and Thor. All it does is start your AmiTCP/bin/startnet script and gets online...then it runs Thor:bin/gettcp and gets your mail and any newsgroups you may be subscribed to. The only setting that is adjustable, and you must adjust this, is the ThorMailBox variable at the top of the script.

Just change this to reflect YOUR Thor mailbox.

LWave_EZCron.rexx :

This script will control Lightwave 3.5+ and start rendering a given project when executed. It is even smart enough to figure out which frame to start on if there are previously rendered frames in the directory. There are variables that need to be set at the top of the script and they are pretty much self explanatory.

Reminder.rexx :

This script is used internally by EZCron. It is used to control any textreminders you may have set in EZCronGUI. There are no user variables to set and this script should be left as is.

TalkingClock.rexx :

This script does exactly what you think....its a talking clock.

First, you MUST have speak: mounted. If you are not familiar with Speak:, see you AmigaDos manuals. Also, Speak: is not included with AmigaOS starting with v2.1.

TalkingClock.rexx by Gene Heskett ©1997

MailCheck.rexx (No longer included within this archive) :

This fine script is written by Robert Wilson and is used for automatically getting on line with Miami and getting mail using YAM. Although it is no longer included in this archive do to size, it is highly recommended for those of you using Miami and YAM and is available on my homepage or on AmiNet.

CooKooClock.rexx :

This silly little script will play a cookooclock sample and cookoo the proper number of times for the given hour. Set it up as an Daily and 30 Minute event. It requires you have Play16 (available free on AmiNet) in your c: directory.

See script for more info.

1.45 uses

- Twenty Uses for EZCron

1. Get Email
2. Get Newsgroups
3. Control X10 units (home automation)
4. Control Christmas lighting
5. Make your coffee in the morning.
6. Defrag your harddisk.
7. Backup your harddisk
8. Talking Clock(s)
9. Annoying CooKoo Clock(s)
10. Visual / Text / SFX reminders
11. Change channels on your TV (via Infrarexx)
12. Hourly / Quarterly / whatever Chimes.
13. Grab web pages from the Net at certain times/dates (via ABGetURL or equivalent).
14. Update your web page(s) at certain times/dates.
15. Make sure certain programs are running when they are suppose to.
16. Place ads on IRC channels every # minutes.
17. Announce XDCC files on IRC channels every # minutes.
18. Batch process images when the machine is not busy (ie: the middle of the night).
19. Render images without being present.
20. Send email via SendEMail cli command. Perhaps your IP address to a friend.

If you have a great uses for EZCron, email me and tell me. I will add it to this list.

1.46 Arexx

- EZCron Arexx Interface

Useful arexx commands that may be sent to EZCron are REFRESH and QUIT. The port name is EZCRONPREFS. When writing scripts, you will want to use the REFRESH command at the end of your script in order to reflect the changes within the listview of EZCron. See [Cron Config](#) for information regarding the cron.config format.

There are more commands available as EZCron is written in arexx and ALL buttons actually sends arexx commands to itself. These commands are not very useful to arexx programmers. However, simply for completeness, they are listed here:

COMMANDS:

=====

eventtype ; Same as clicking the 'E' gadget.

closewindow ; Same as clicking the closewindow gadget.

quit ; Will quit EZCron.

prefsgad ; Calls the Prefs window.

testevent ; Will test the selected event.

AC_New ; Creates a new config file.

arg1gad ; Opens the arguments requester

sfxgad ; Opens the Sound requester.

datefields ; Opens the date presets window.

timefields ; Opens the time presets window.

indis ; Enable/Disable selected event toggle.

update ; Will modify the selected event. It actually rewrites the config file with any changes.

addevent ; Will copy the selected event.

addefault ; Makes the selected event the default event.

delete_event ; Deletes the selected event.

ac_toggle ; Runs EZCronD or not depending on the state of EZCronD.

clockon ; Runs the clock.

refresh ; Will Refresh/re-parse the config file.

about ; Brings up the about requester.

loadconfig ; Opens the load config file requester.

saveconfig ; Opens the save config file requester.

loadevent ; Opens the load event requester.

saveevent ; Opens the save event requester.

rexxgad ; Opens the ARExx macro file requester.

desced ; Opens the description requester.

eparse ; Re-parses the cron.config file.

1.47 Cron.config: An Overview

Cron.config: An Overview

As of v3.00, you can now load and save config files. Keep in mind though that regardless of how many config files you have, the loaded one is always copied to the s:cron.config file. This file will always be the master, or active file. Saving out a config file merely copies the s:cron.config file to the path and filename you enter from the save requester. Loading a new config file will simply copy that particular file to s:cron.config.

NOTE: Please do not confuse this with the preference for setting your cron config path. That function is used to copy the cron.config file (or whatever you wish it called according to the preference) to your RAM or similiar device.

NEW: As of Release 3 of EZCron, the config files now have a special header to identify it as being an EZCron config file. If you try to load a pre v3.0 file, you will get an error message that claims it's not an EZCron config file. This is because the older files are no longer compatible with the current format.

Pre v3.0 config files ARE NOT COMPATABLE with this new format. You may use this information to modify your existing config files, or just create a new one with EZCron (recommended).

*** FOR THOSE YOU WOULD RATHER MAKE THE CONFIG USING A TEXT EDITOR ***

; EZCron Config File

; This is the cron.config file. The semi-colon is a comment marker.

; You may use this to remove commands or make comments. You may also

; comment (disable) out events by using the '!' charactor at the head

; of the line. This will allow you to view and modify events that don't

; actually execute. Note that the description (last field) gets surrounded

; by parentheses as well when an event is disabled.

;

; The structure of the file is as follows and each field is seperated by a comma:

; -----

; 1st entry: The path & program you wish to run

; 2nd entry: The program arguments

; 3rd entry: The time to execute. This may also be set to 'Minute' and 'Hourly'

; 4th entry: The Date to execute. This may also be set to 'Daily', a day of the

; week such as 'Wednesday', 'Monthly-00' or 'Range'. The Montly must

; have the hyphen and a two digit number in the same format as written

** 08-25-96 Changes the cron.config file to reside in envarc: and RAM:ENV

** Great idea Paul. ;)

** 09-02-96 Moved the active config file to ram:t as the env: was causing HD

** activity with such programs as HDEnv. The cron.config is now BACK

** in s: but copied to t:

** 09-09-96 Started work on the range stuffs

** 09-10-96 Hourly time range routine added.

** 09-11-96 Fixed a few bugs and tightened the code up a bit.

** 09-18-96 Added the every 5 minutes time field.

** 10-10-96 Fixed a nasty clock bug in the I/O button which caused the GUI to exit.

** This occurred after being in the event editor, then exiting to the

** control panel and then quitting the daemon.

** 01-07-97 Added the ENABLE/DISABLE EVENT function

** 01-08-97 Rewrote the GUI section entirely. Now smaller and faster since the

** main loop is much much smaller!!!

** 01-09-97 You can now test disabled events. Line 210

** 01-14-97 More speed rewrites: seperated the waitforpkt() from the eventparse()

** shortening the main loop even more.

** Added Ten_Min and Thirty_Min to the time fields.

** 01-18-97 Fixed a nasty bug; If you tested a disabled event, then enabled

** the event, the argument 1 field would get copied to the other 3.

** TOOK OUT THE DELAYS()

** Added a check for an empty cron.config file. Used to cause a startup error.

** 01-20-97 Fixed a bug in the testevent(). It was lacking the double quotes which was

** causing problems.

** 01-25-97 Reworked the event gadget. It now will ask what type of event you want.

** 01-27-97 Fixed a bug in Purge:.

** Fixed a bug in Prefs:.

** 01-29-97 Started on the Date Range function.

** 01-30-97 DateRange function implemented, but still a little buggy.

** 02-01-97 Now supports unlimited arguments.

** Now using commas between fields. Old config is no longer compatable

** as of v1.84e

** 02-04-97 Eliminated the online help system. With the new GUI, its much easier

** to understand and it was felt that it was no longer needed.

** 02-06-97 ReqTools requesters will now open under the mouse pointer.

** 02-07-97 Rewrote the update() routine. It will no longer put modified events

** at the bottom of the list.

** 02-07-97 Reduced the deleteevent() and adddefault code majorly.

** Added a comma after the last field.

** Cleaned up extra, unneeded copy to t: routines.

** 02-08-97 Blank date range double dashes (--). Now it's a single dash (-).

** 02-09-97 Added the shour to the time menu.

** 02-09-97 added the hour wildcard '##'. ie: '##:15'. AF (advanced feature #1)

** 02-10-97 Renamed EZCronGUI to EZCron

** 02-12-97 Renamed the MAINWINPORT to EZCRON_PREFS.

** EZCronD can now auto update the daemon status window.

** 02-14-97 Renamed EZCron to EZCronD and EZCronGUI to EZCron.

** Sorry for the confusion, but they really needed renaming.

** The ARexx ports were also renamed to EZCROND and EZCRONPREFS.

** 02-16-96 Added a new prefs option: Test Routine Redirection.

** Changed cprefs to defev.prefs.

** 02-17-97 Public Release v2.00.

** 02-21-97 Change clock to analogue.

** 03-04-97 Added clock prefs.

** 03-05-97 Added cron.config path prefs.

** 03-06-97 Added rexx command quit.

** 03-06-97 Added rexx command copy (Don't ask).

** 03-09-97 Public Release v2.10.

** 03-13-97 Added Startup Event feature.

** 03-16-97 v2.16 The control button now disables whenever stopping EZCronD.

** This was added to prevent multiple button presses which causes errors.

** All file requesters now default to 'sys:'

** 03-18-97 Bumped EZCron to v2.17 to match everything else.

** 03-19-97 Decent error handling finally added. This SHOULD fix a lot of

** peoples problems!

** 04-27-97 Added every twenty minute event.

** 04-27-97 Deleted the startup event limitations. It is now treated as

** a regular event.

** 04-30-97 Minor bug fix. v2.21

** 07-02-97 Added a Load and Save cron.config file function.

** Added a call writeln('dfile', ';EZCron Config File'

** to the top of Cron.Config file.

** Added a header to the cron.config file that is checked when

** loading a new config. See above

** 07-15-97 Much better preferences settings. The paths now show up within

** prefs string gadgets.

** Also, created new subroutine openprefsfiles:

** 09-02-97 Removed the need for the 'ADD' button by making all changes
** and additions 'instant'.
** Changed the rungad into a radio gadget.
** 09-29-97 The listview now contains event descriptions instead of the command.
** A description edit button has also been added.
** 10-02-97 Selected events now stay selected always. Also, disabled events
** will now be surrounded by parenthesis.
** 11-22-97 Fixed a bug in the Arguments and SFX requesters.
** A cancel would null the current field data.
** Also, there are no longer multiple prefs files. All in one now.
** 11-23-97 Added Load/Save event gadgets.
** 11-24-97 Started work on user-configurable time/date presets.
** 12/01/97 Release 3 is finally released (v3.026)
** 12-13-97 15 min. preset was missing the 30 after time, also the hour was screwed too...fixed.
** Some simple housekeeping was added to event functions to prevent events from
** being selected after certain operations.
** Fixed major bugs in the preferences window. Thanks go to Allen P. Brooks for finding this one.
** Removed <>NIL: as this was causing problems on some machines. Thanks again Allen.
** Added help gadget.
** Fixed closewindow refresh bug in time/date windows.
** Fixed bug in the AddDefEvent routing. Leftover routine from old prefs files.
** Need to fix Startup event handling so DATEs will work again.
** 01/27/98 Added a WaitForPort EZCRONPREFS in an attempt to correct some problems
** on some peoples machines.

EZCronD

/* EZCronD is the Daemon that always runs silently in the background, checking
** for events to be executed.
**
** 10-23-95 Added requester to verify making a NEW cron.config file. See newrtn:
** 10-25-95 Fixed Bug in the above and added renaming of the old config file. See newrtn:
** renamed from ACron to EZCron. GUI started on this date too.
** 11-30-95 added the text string reminder support and the sfx functions
** 12-05-95 Fixed case sensitivity problem with weekly, monthly & Daily routines
** 12-13-95 Added Speech Function
** 01-04-96 Added Weekdays, Weekend and Quarterly support functions
** 01-05-96 Fixed a bug in the Weekdays routine.
** 01-11-96 Cleaned up the code a bit
** 01-17-96 Added a new routine. ie every_3_wed
** 08-25-96 Moved the cron.config file to envarc: / RAM:ENV

** Good idea Paul. ;)

** 09-02-96 Moved the active config file to ram:t as the env: was causing HD

** activity with such programs as HDEnv

** 09-10-96 Hourly time range routine added.

** 09-11-96 Fixed a nasty bug in time range and majorly rearranged the timer code.

** Version bumped to 1.70. Thanks Gene!

** Finally renamed the rexx port from ACron_Rexx to EZCron_Rexx.

** 09-18-96 Added the every 'Five_Min' time field.

** 10-03-96 Actually made it work (What took me so long?)

** 01-07-97 The daemon now also ignores the '!' charactor as a comment. This is used

** by EzCronGUI to disable events without removing them from the list.

** 01-14-97 Now supports Ten_Min and Thirty_Min events.

** 01-20-97 Fixed a speak: bug. It was lacking the double quotes which was

** causing problems.

** 01-25-97 Rewrote the quarterly routine.

** 01-28-97 Fixed a bug I made when I rewrote the quarterly routine.

** 01-30-97 Started work on the date range routine.

** Changed the TimeRange so it will now accept minutes.

** 02-09-97 added the hour wildcard '##' support. ie: '##:15'. AF1 (advanced feature #1)

** 02-11-97 Added the minute wildcard '##' support. ie '22:##'

** Added the Date wildcard support. ie: ##/##/## would be = DAILY

** ##/11/## would be = MONTHLY-11

** 02/##/97 would be every day in FEB of 1997

** 02-12-97 EZCronD can now auto update the daemon status window.

** If present, signals the EZCron (Prefs) program when starting/stopping.

** 02-13-97 Moved the timerange routine below the wildcard routines.

** Empty startdate and enddate fields are now '###/###/###' instead of '-'

** Empty starttime (rng1) and endtime (rng2) is now '--:--' rather than '-'

** Renamed EZCron to EZCronD and EZCronGUI to EZCron.

** Sorry for the confusion, but they really needed renaming.

** The ARexx ports were also renamed to EZCROND and EZCRONPREFS.

** 03-04-97 Reworked the every_##_dd and Monthly routines a bit.

** Got rid of the void_event check in the wildcard time check.

** 03-05-97 Reworked and shortened considerably the wildcard routines.

** Added movable cron.config file by reading prefs file.

** 03-09-97 Public Release v2.01.

** 03-10-97 v2.15 Added Icon support. May now be launched from WBStartup drawer.

** Now longer needs the 'start' argument. It's defaulted.

** 03-12-97 Added true error handling (It's about time isn't it?)

** 03-13-97 Added Startup Event feature.
 ** 03-16-97 Added sfx function to startup event
 ** 04-20-97 v2.20 Changed a few routines for better speed.
 ** 04-27-97 Added every 20 minutes event.
 ** Reworked startup event. No longer requires external file.
 ** 04-30-97 Minor Bug Fix. v2.21
 ** 05-15-97 Fixed a small bug in the close(sfx) file routine. v2.22
 ** 07-14-97 v3.00b1. Time ranges and date ranges now accept full wildcard strings.
 ** This is a major step for EZCron and its functionality has grown
 ** greatly with this addition.
 ** v3.00b3
 ** Ok, this is how it's gotta be. ahrs1 is the left digit in the
 ** actual hours string, or the tens digit. ahrs2 would be the actual hours
 ** string for the ones digit. This is how it will work for each of the
 ** vars. The 'a' in ahrs or amin mean 'actual' minutes. An 'e' will be
 ** the 'event' minutes. So, as of 3.00b, ALL fields can accept wildcards.
 **
 ** 08-04-97 The time field may now accept multiple times separated
 ** by a 'l' character. Version 3.00b5
 ** 11/06/97 Fixed a bug that prevented reminders from executing as a startup event.
 ** Added support for event.next.desc
 ** Adding support for multiple date fields.
 ** 11-26-97 Fixed sfxplayer variable to use same prefs EZCron.prefs.
 */

1.49 todo

TODO LIST FOR EZCRON(D)

- o I would like get rid of the every minute parsing routine in favor of a routine that only parses when EZCron has actually made a change in the config file. This would have to be done using some type of rexx port with a refresh command. The problem is I constantly rename/reuse var names and the original vars become munged. Major rewrite!! Other problems include stacking up commands in the arexx port. Anyway around this?
- o Event Priority setting.
- o Bubble Sort. ie, Move events up/down in list (This will be a tough one!)
- o Add a speech option to every event.
- o Add up/down arrows to allow for click time changes.
- o Create an option whereas it will execute events that it did not due to

either the system being off or a power outage etc. Anyone have any ideas on how to do this?

- o Ability to send commands to a hardware port.

- o x10/Home Automation support. ~~~~~

- o Built in alarm clock w/optional snooze

- o Next Event window showing the next event...duh

- o Exception Days and Times: For example, you want an event to run weekdays every hour except for Tuesday between 9am and 6pm.

By setting an exeception, you could do this in one event.

- o Double-Click on event to enable/disable it. (This may be impossible using VAREXX

- o Rewrite EZCronD in C (I hope to do this sometime in 1998. The GUI will come later.

If anyone wants to add some ideas, please write and tell.
