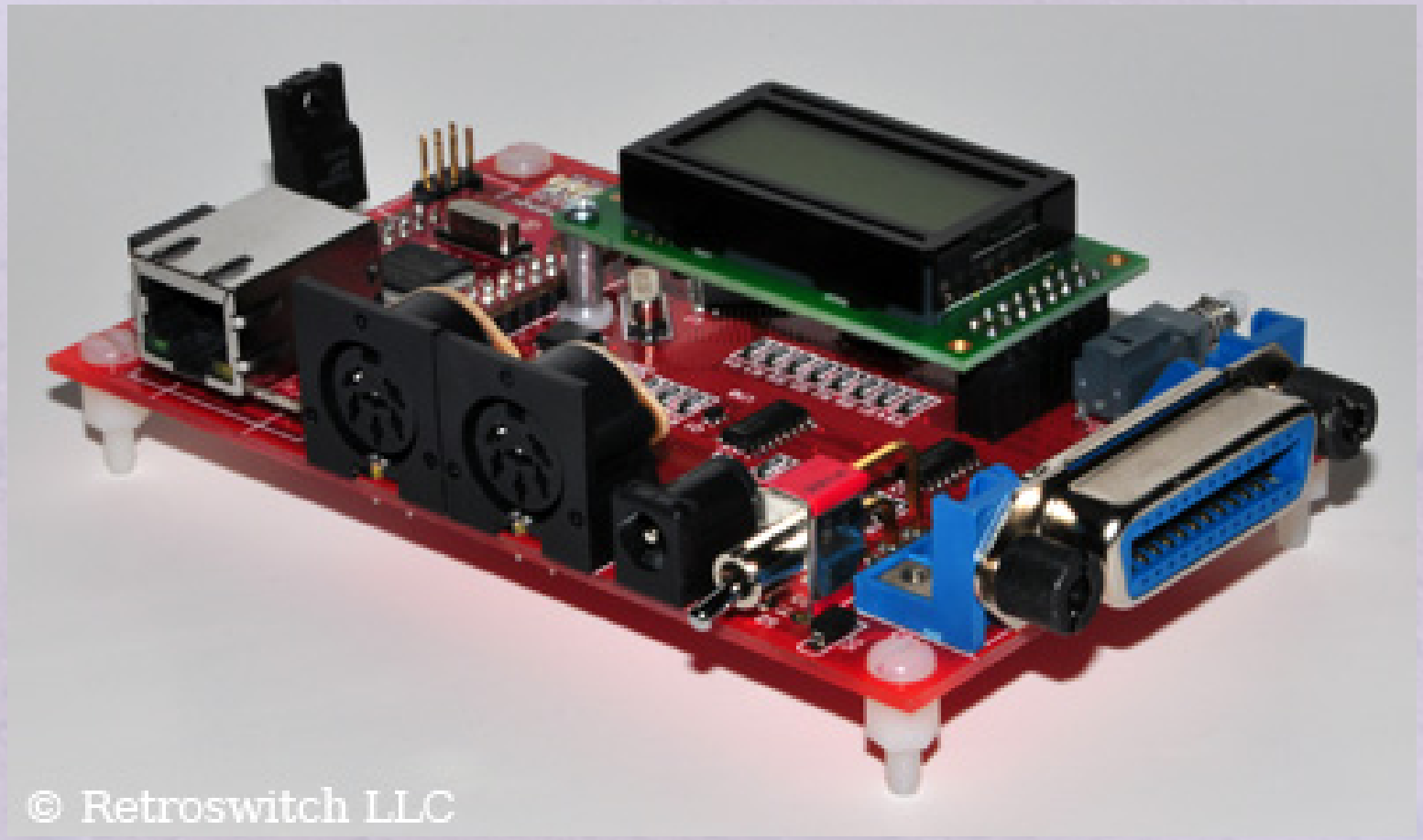
The Commodore Flyer
ShadowM
ECCC 2012

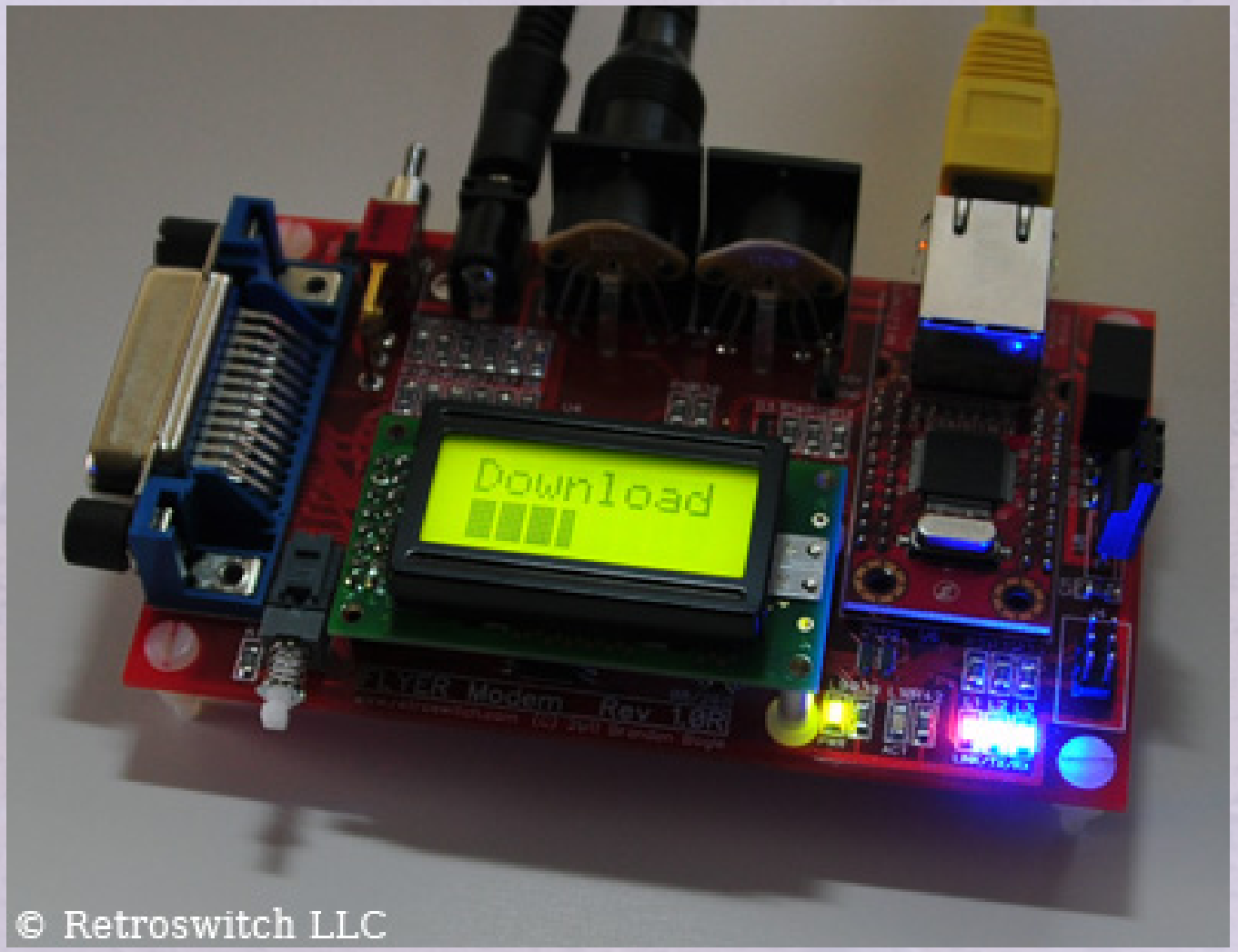
overview

- The Flyer is an IEC (serial port) device for connecting to the internet. Neither the cartridge port nor the user port are used.
- It also has an IEEE-488 connector.
- Detailed user's guide available (28 pages).
- Cloud storage accessed via device #7; can also be used for writing network programs.
- ~3.5M of flash is also provided as a “scratch area” for temporary storage; defaults to device #10, but can be changed with a button press.

the Flyer



the Flyer (connected)



PET with Flyer on IRC

front panel switch

Front button is used to select:

- disk image selected for flash drive
- device number for flash drive
- currently selected cloud server

More functions available by addressing device #7 on the command channel, e.g.

```
OPEN15,7,15"DISK-ADD:D64,mY gROOVY dISK"
```

configuring network settings

```
10OPEN15,7,15
20PRINT#15,"CONFIG:IP=192.168.1.203"
30PRINT#15,"CONFIG:SU=255.255.255.0"
40PRINT#15,"CONFIG:GA=192.168.1.99"
50PRINT#15,"CONFIG:DN=192.168.1.99"
60CLOSE15
```

(note: DHCP also supported)

configuration from the flash drive

- The flash drive also presents a second unit like the older Commodore drives, containing utility programs.

```
LOAD"$1",10

LOAD"1:CONFIG",10
```

firmware updates online

- list available firmware revisions:

```
LOAD"$^",7
```

- list revisions w/release notes:

```
LOAD"$^:*,V",7
```

- upgrade to current firmware version:

```
LOAD"^:*",7
```

firmware listing

firmware listing with changelog

```
0 firmware releases
1   "1.1.1"     2011-11-12
1   -initial release
2   "1.1.2"     2011-11-18
2   -disk image fixes
2   -reenabled dos copy, rename
3   "1.1.3"     2011-12-03
3   -30% faster net transfers
3   -new disk manager utility
4   "1.1.4"     2011-12-15
4   -secondary drive wildcards
4   -d80/d82 support
4   -easyprog timing fix
4   -bug fixes
5   "1.1.5"     2012-01-10
5   -jiffydos support
5   -display scrolling for disk and cloud
 names
5   -n-a now works with http channels
5   -disk directory padding fixes
5   -relaxed some dos checks (fixed cbm c
mdr compat issues)
5   -dos cmd status now shows flyer ident
 on startup and init
```

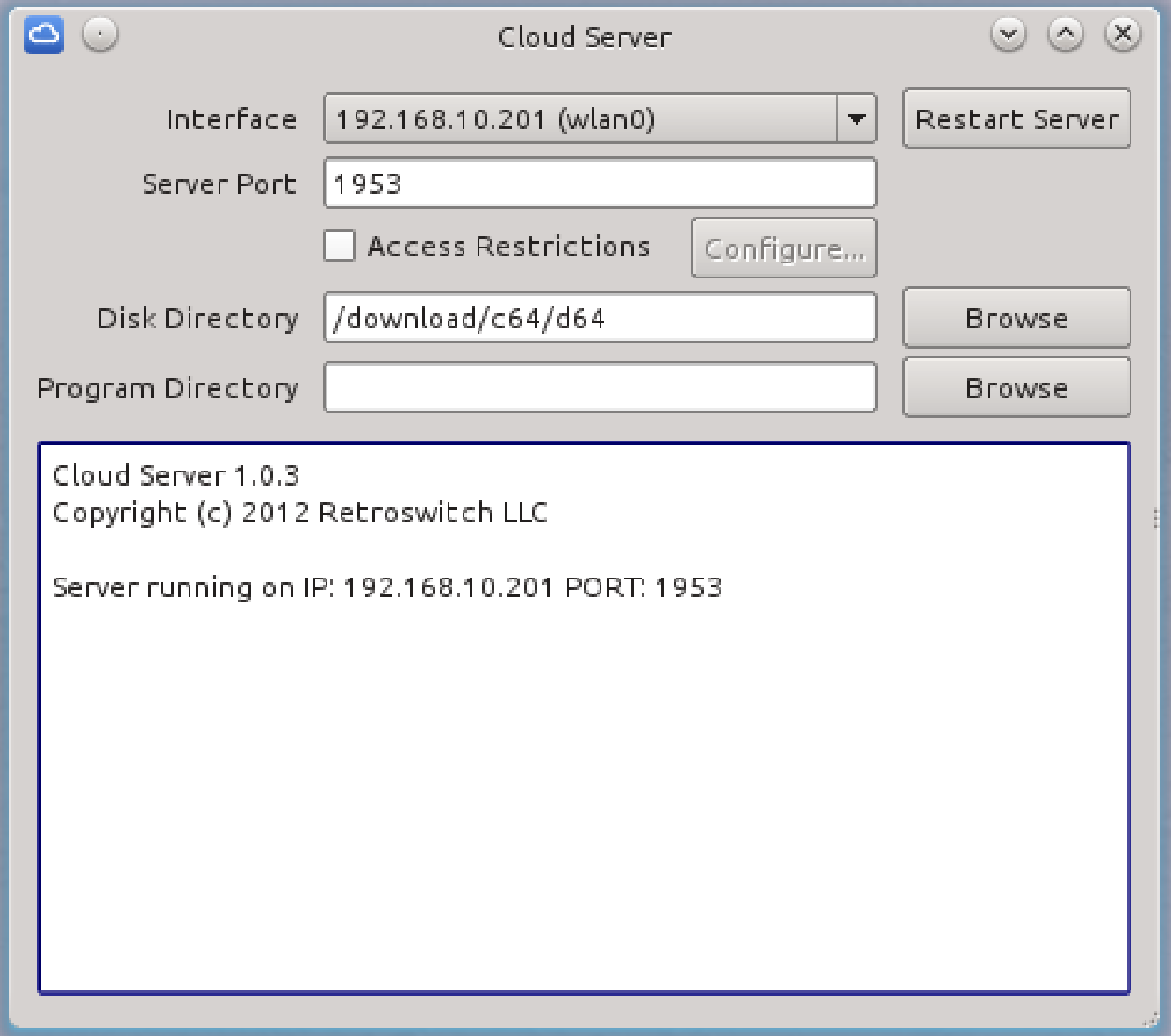
cloud storage

- Flyer is meant to store disk images and programs "in the cloud".
- commodoreonline.com is the default cloud server (requires creating free account).
- You can also easily run your own cloud server and access the collection you've amassed on your PC.
- Up to four different cloud servers can be selected with the button on the Flyer; default can be changed with a command.

configuring your own cloud server

```
10OPEN15,7,15
20PRINT#15,"CONFIG:CLDNAM2=ORAC"
30PRINT#15,"CONFIG:CLDSRV2=192.168.10.201"
40PRINT#15,"CONFIG:CLDPRT2=1953"
50PRINT#15,"CONFIG:CLDUSR2=SHADOWM"
60PRINT#15,"CONFIG:CLDPWD2=WIZARD"
70CLOSE15
```

cloud server (Linux version)



directory listings

- directory of flash drive:

```
LOAD"$$",7
```

- directory of current cloud server:

```
LOAD"$",7
```

- upload disk to cloud server image:

```
SAVE"DISK:NAME",7
```

loading programs from the cloud

- load program from specified site:

```
LOAD"HTTP:RETROSWITCH.COM/FILES/IRC64.PRG",7
```

- load program from default cloud server:

```
LOAD"PROGRAM NAME",7
```

- upload disk to cloud server image:

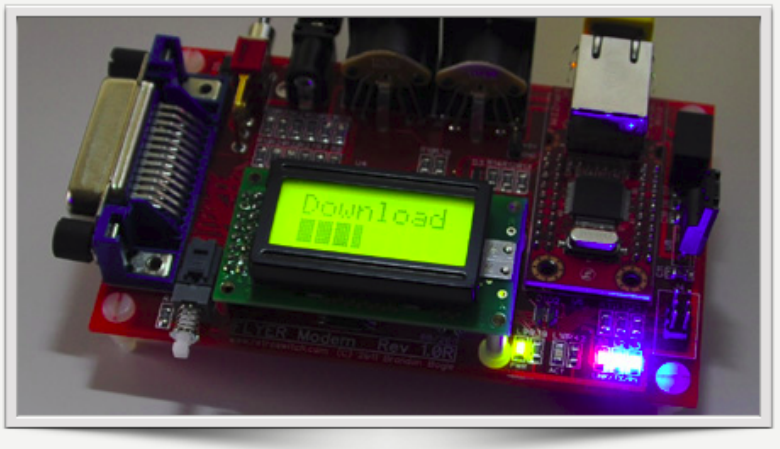
```
SAVE"DISK:NAME",7
```

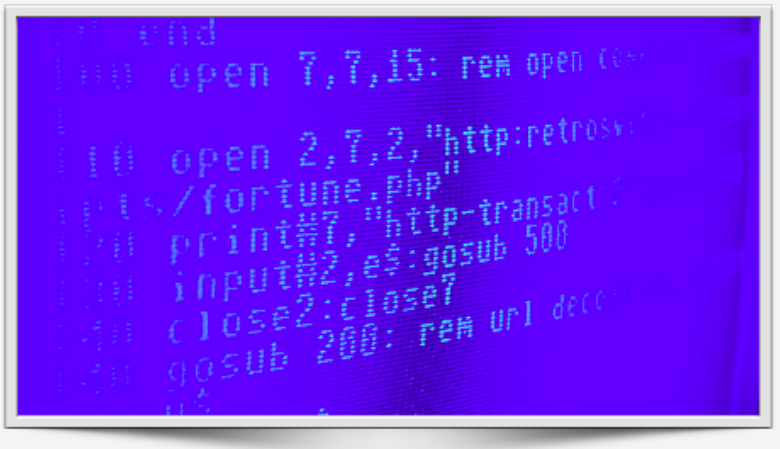
commodoreONLINE

Sign In or Register

commodoreONLINE

ABOUT who we are | MY ACCOUNT library & profile | COMMUNITY share & connect | CONTACT questions? comments?



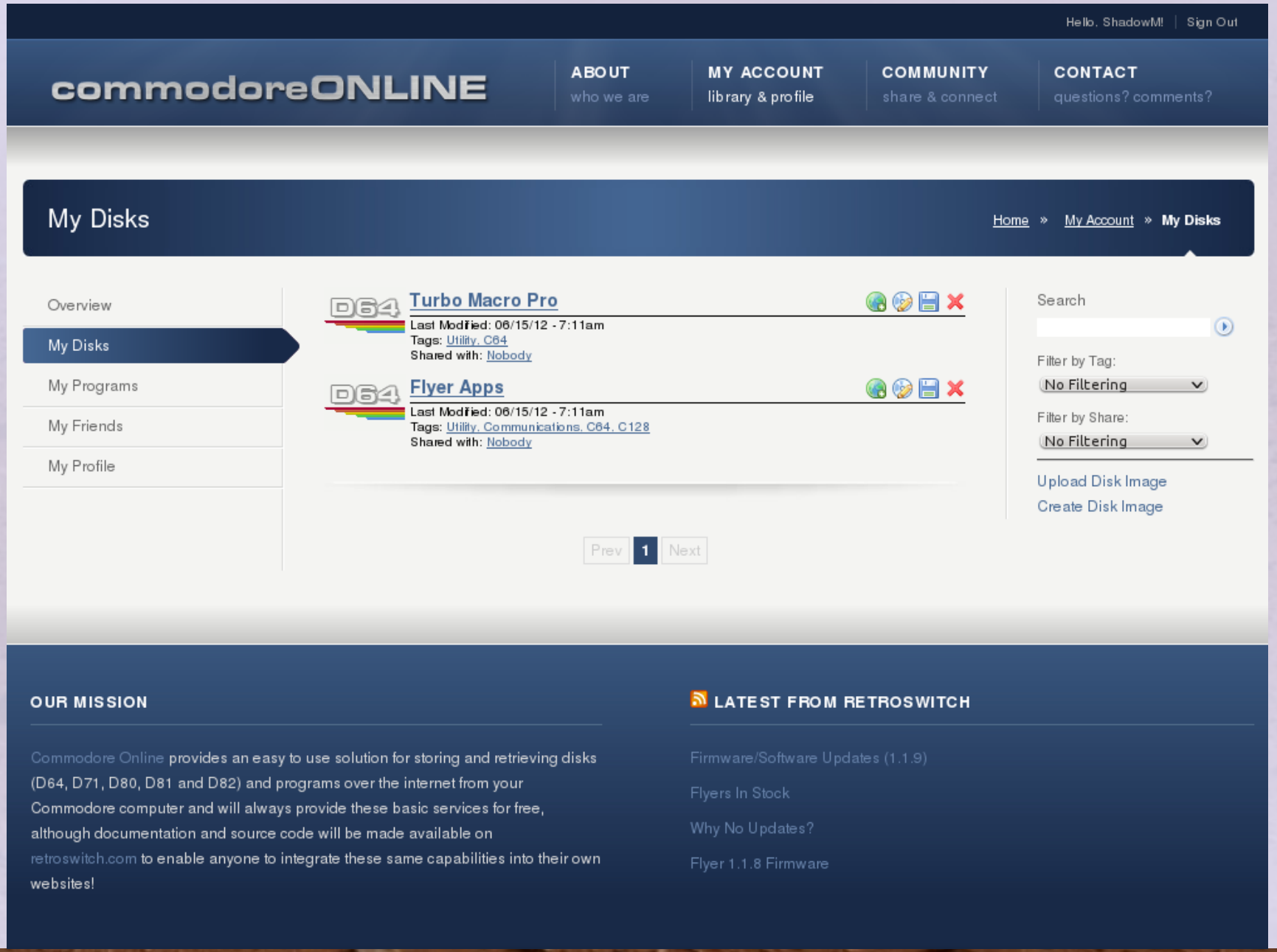


Commodore Online is a free web based service for uploading all your favorite Commodore disk images (D64, D71, D80, D81 & D82) and supports content distribution for the following Commodore 8-Bit computers:

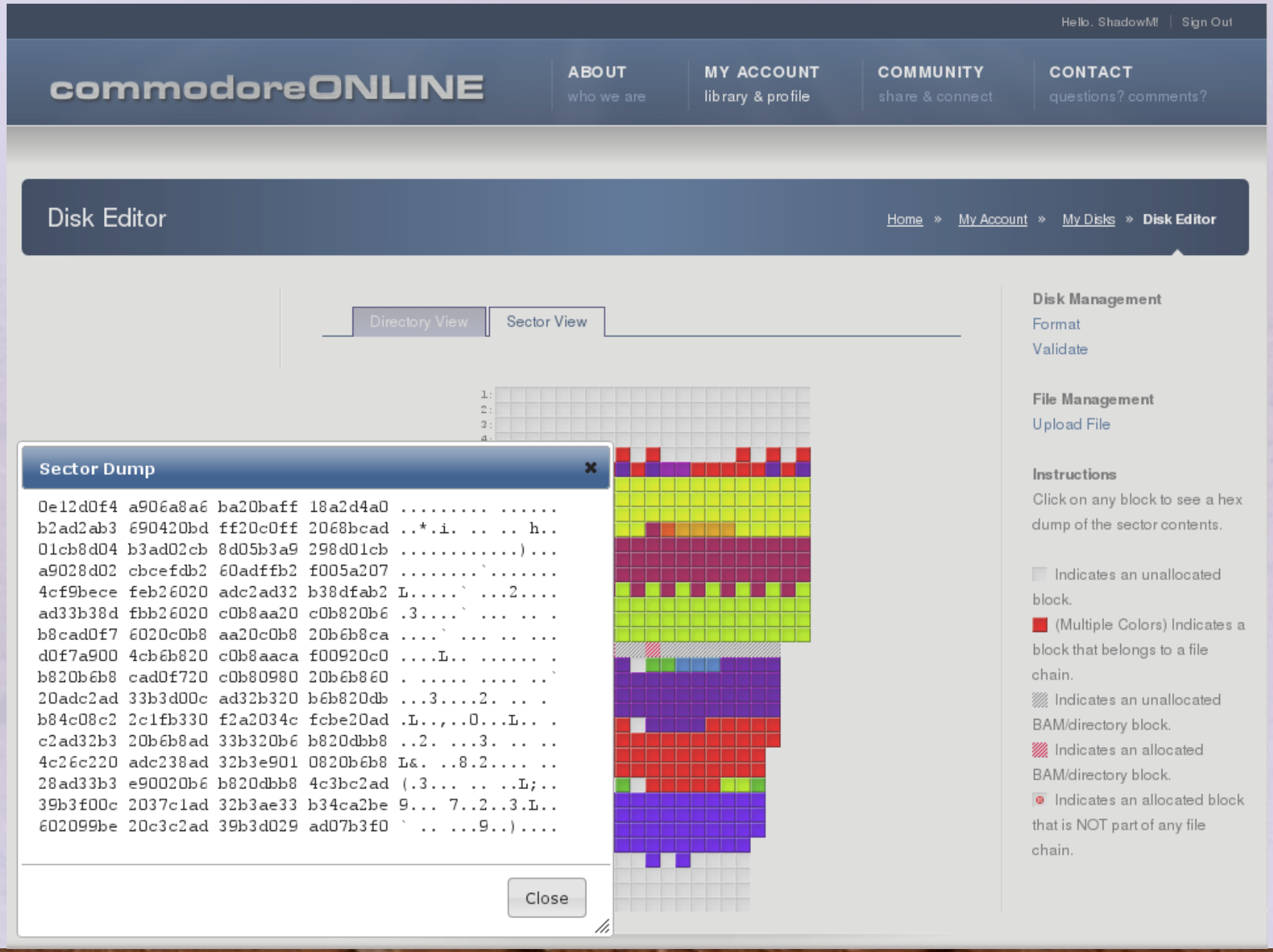
- Commodore CBM PET
- Commodore VIC-20
- Commodore Plus/4
- Commodore 16
- Commodore 64 (C64)
- Commodore SX-64 / Executive 64
- Commodore 128 (C128)
- Commodore 128D and DCR

This is made possible by Flyer, a Commodore compatible high speed internet modem and disk drive emulator. Once you have your disk images uploaded to the "Commodore Online" website, you can view and edit their contents from your web browser or directly via your Commodore computer. You can even download disk images directly to your Flyer internet device at broadband speed and access them as if you were using a real Commodore disk drive.

commodoreONLINE - disk display



commodoreONLINE - sector display



network programming

- The Flyer also exposes APIs to use its WIZnet board for network programming.
- HTTP connections can be made with both URL parameters and POST parameters, and a data payload can be sent as well.
- Connections can also be made to arbitrary ports for send and receive.

HTTP request parameters (URL and POST)

```
list

10 open15,7,15
20 open2,7,2,"http:192.168.10.201/eccc/e
ccc?a=add"
30 print#15,"http-post:2,one=first"
40 print#15,"http-post:2,two=second"
50 print#15,"http-post:2,three=third"
60 print#15,"http-transact:2"
70 ef=0:rs$=""
80 get#2,r$:if st and 64 then ef=1
90 rs$=rs$+r$
100 if ef=0then 80
110 print rs$
999 close2:close15:end
ready.
run
A: "ADD"
ONE: "first"
TWO: "second"
THREE: "third"


ready.
```

what the server saw

```
2012-09-16 13:09:23 INFO  ECCCServer doPost:78 checking for request parameters...
2012-09-16 13:09:23 INFO  ECCCServer doPost:93 a: "add"
2012-09-16 13:09:23 INFO  ECCCServer doPost:93 one: "FIRST"
2012-09-16 13:09:23 INFO  ECCCServer doPost:93 two: "SECOND"
2012-09-16 13:09:23 INFO  ECCCServer doPost:93 three: "THIRD"
```

connecting to an arbitrary port

```
list

10 open15,7,15
20 open2,7,2,"tcp:192.168.10.201,1953"
30 print#2,"wizard is the best cat a boy
 ever had!"
40 print"reading echo..."
50 input#2,ec$:printec$
60 close2:close15:end
ready.
run
reading echo...
wizard is the best cat a boy ever had!

ready.
```

what the server saw

```
2012-09-16 13:27:04 INFO  ConnectionListener <init>:35 -----------------
2012-09-16 13:27:04 INFO  ConnectionListener <init>:36  FlyerServer 0.01
2012-09-16 13:27:04 INFO  ConnectionListener <init>:37 -----------------
2012-09-16 13:27:04 INFO  ConnectionListener <init>:40 server: opening socket
2012-09-16 13:27:12 INFO  ConnectionThread run:47 received connection from /192.168.1.203:1953
2012-09-16 13:27:12 INFO  ConnectionThread run:55 received: WIZARD IS THE BEST CAT A BOY EVER HAD!
2012-09-16 13:27:12 INFO  ConnectionThread run:58 server: client thread /192.168.1.203:1953 ending
```

web site

- official web site:

  `http://www.retroswitch.com/products/flyer/`