Printer Status Web Page

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Systems involved

- Each individual CBAM Printer PC in our office; for now that means #154 and #158; these are the source of the status messages
- IO-WEB: this is the web server used by the office. The printer PC's write their status messages to the server, which then updates a web page. Only Joe (or another administrator) can directly access this server.
- User web browsers on our office LAN (meaning any PC or device connected to the LAN and running a browser): connect to **http://io-web.io.local/report.html** This will display the current status of the printers. This page automatically updates itself

CBAM Printer PC

The **machine.cfg** file on each printer PC has a section that controls how the printer sends out its reports. Below is an example of the configuration; the only thing that would need to be changed is the underlined printer_name field; otherwise all other settings can stay the same.

```
[Reporter]
printer_name = SWZP_158
ip = 10.1.8.30          # IO-WEB
port = 65000
home_name = Joe_database
max_depth = 100
check_freq = 3
socket_timeout = 3
```

IO-Web

To access io-web, run **mstsc** on your PC and specify **io-web**
Login as: julowetz, provide the password.
Note: this server runs Centos 7

Reminder: I "opened" port 65000 in the firewall on the io-web server for the PC's to be able to send in their status report messages. Nothing needs to be here if adding additional CBAM PC's. Other changes would only be needed if moving this feature to a new server, or using a different tcp port. (The commands used to open the firewall port are listed at the end of this document.)

Tip: to log out of the CentOS 7 desktop, click circle icon in far upper right corner of the screen, click your name, then click "Log Out"

Tip: to open a terminal window, click "Applications" in the menu bar at the upper left part of the screen, then "System Tools" this will offer a choice for "Terminal".

Tip: there are two directories in /home/julowetz that create the web page(s)
- /home/julowetz/ReporterHome   This is the "real" one for "production"
- /home/julowetz/ReporterHomeDev   This is for development testing (not currently in use much)

Reminder: Centos 7 does not allow links in the /var/www/html directory because that is a security risk. Therefore the reporter program has to re-write the /var/www/html/report.html file to update the web page.

Reminder: the ReporterHome program runs as a service:
To check that it is running: `systemctl status ReporterHome.service`
To restart the service after making changes to the source code: `sudo systemctl restart ReporterHome.service`

Tip: The software is written in python3. To make software changes, I edit the source code on my PC in the **PycharmProjects/ReporterHome** directory (this is only on Github). When the code is changed I launch **FileZilla** on my PC, select: File / Site Manager. From this window select IO-Web and press the Connect button. Navigate to the /home/julowetz/ReporterHome directory on the remote site, and update files as desired. After doing so, it is necessary to log into IO-Web, open a terminal window, and restart the service so the changes will take effect:
`sudo systemctl restart ReporterHome.service`

WARNING: ALL SOURCE FILES MUST BE CONVERTED TO LINUX EOL CHARACTER BEFORE COPYING TO IO-WEB

Tip: if you need to access the system log for troubleshooting, it is located at:
/var/log/messages

User Web Browser access

When connected to the office LAN, launch this page:
http://io-web.io.local/report.html

Note that this is not an "https" address, and browsers will sometimes complain that it is not secure. Live with it.

Commands used to "open" port in firewall

This is FYI, in case it ever needs to be done again:

```
[julowetz@IO-Web html]$ sudo iptables-save | grep 65000
[julowetz@IO-Web html]$ ll /etc/services
-rw-r--r--. 1 root root 670293 Jun  7  2013 /etc/services
[julowetz@IO-Web html]$ sudo nano /etc/services
[julowetz@IO-Web html]$ sudo iptables-save | grep 65000
[julowetz@IO-Web html]$ sudo firewall-cmd --zone=public --add-port=65000/tcp --permanent
success
[julowetz@IO-Web html]$ sudo firewall-cmd --reload
success
[julowetz@IO-Web html]$ sudo iptables-save | grep 65000
-A IN_public_allow -p tcp -m tcp --dport 65000 -m conntrack --ctstate NEW,UNTRACKED -j
ACCEPT
[julowetz@IO-Web html]$
```