Scammer Jammer® Change History

Release: August 13, 2021

eeprom	16
firmware	1.06
cidMonitor	1.06
dbmaint	1.06
fccLoader	1.06
importContacts	1.06
reportGen	1.06
sjsConfig	**1.06.1**
sjsQ	1.06
sjsUi	1.06
sjsX	1.06
snClientX	1.06

SJSCONFIG Windows-based Configuration Program

- For users with multiple SJ's that are NOT linked, clicking on the 411 button in the log detail would bring up the correct phone #, but not necessarily the same SJ device so the Current Action/Rule Source may not be what was expected. Corrected.
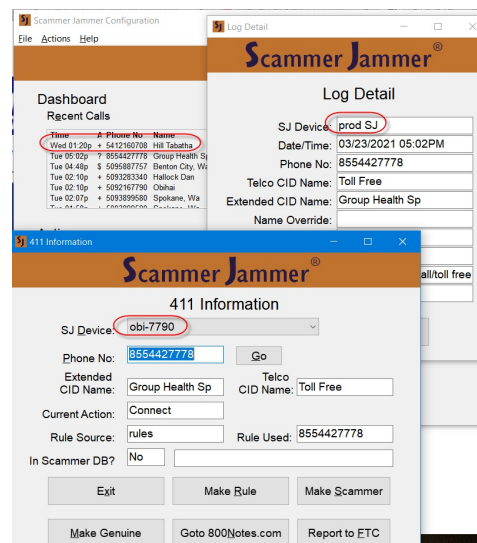
- In Log Detail window, 411 is now the default button (rather than Exit). In 411 window, Make Scammer is now the default button rather than Exit.

  Typically when user is in Log Detail, they are planning to mark a Scammer. So by changing the defaults of these two windows, the user can more quickly mark a scammer.

Release Hickory: Jan 29, 2021

eeprom	16
firmware	1.06
cidMonitor	1.06
dbmaint	1.06
fccLoader	1.06
importContacts	1.06
reportGen	1.06
sjsConfig	1.06
sjsQ	1.06
sjsUi	1.06
sjsX	1.06
snClientX	1.06

SJ Firmware

- Created debugging code to help locate rare issue where using distinct ring option causes the SJ box to reboot.

SJSCONFIG Windows-based Configuration Program

- In the main menu, control-A would bring up the Account Window. This caused a problem if you wanted to use control-A to select all text in the 411 telephone field. So, now control-C is the hot key to the account window.

- In Windows 10, when using enlarged fonts (DPI > 100%), all of the fonts are blurry. This is a new 'feature' of Windows 10 forcing everyone to rewrite their code, or users to mess with configuration settings. Now, sjsconfig knows it is running on Windows 10 and will make the settings itself so the fonts aren't blurry.

- The SJ database, which contains call logs and scammer lists, has had its tables optimized with better indexes. This allows sjsconfig to more quickly pull up the log history at startup so start up is much faster now.

- The log history was changed some time ago to include the *Next action* if the same caller makes another call.

  The code to perform this check takes a lot of time on the server. If a real-time call is occurring, we don't want to impact it. So, when sjsconfig requests the log history, it will get the full history, then compute as many *Next actions* as possible within a limited time frame (roughly 1/2 a second).

  The problem was there really weren't very many log history records being returned with *Next action* set before the time limit was exceeded.

With the new change, sjsconfig easily allows for a full month of log history records to be returned with *Next action* displayed.

- Some users have multiple SJ devices to monitor multiple phone lines. To make configuration easier, there is a master SJ and the rest are slaves and get their configuration from the master.

  Because the slaved SJ units get their configuration information from the master, it makes no sense for users to change fields in the Device Settings form for slave units.

  Now, when you view a slave SJ unit in the Devices (SJ Server Settings) window, these fields are now made read-only so the user cannot modify them.

- When starting sjsconfig and the login window was displayed, there was no associated taskbar button for the login window. Now, there is.

- In Log History, holding the cursor over a record will now cause a hint to pop up showing the source of the rule used (scammer, nuisance, default, etc) and the actual rule.

Release Fir: Jan 31, 2020

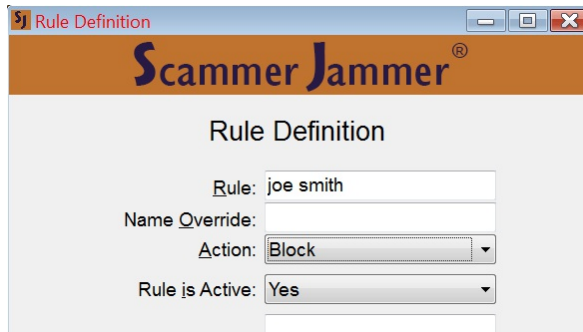|	
eeprom	16
firmware	1.05
cidMonitor	1.05
dbmaint	1.05
fccLoader	1.05
importContacts	1.05
reportGen	1.05
sjsConfig	1.05
sjsQ	1.05
sjsUi	1.05
sjsX	1.05
snClientX	1.05

SJ Firmware

- In very rare instances, the telco CID name would not show up. Though a name was sent, the SJ device would display spaces and send spaces to the handset.
- SJ Firmware now uses the new Arduino C++ Compiler, 1.8.9. This compiler supports sensing if the SJ is connected to the network. Now, if SJ is not connected to the local network, it will sense this quickly and accurately.

sjsconfig Windows-based Config Program

- **CID Name Based Rules**

You may now create rules using the caller ID name. If you want to block 'JOE SMITH' regardless of the number he calls on, enter JOE SMITH in the rule:
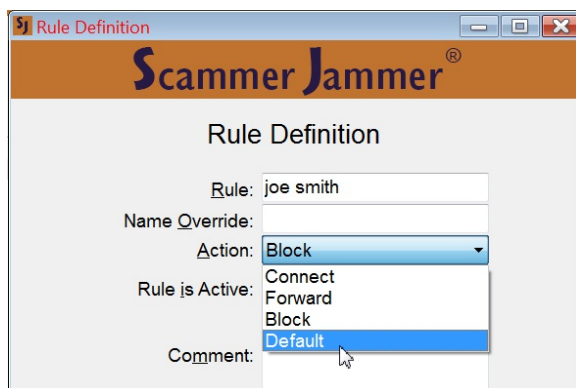

Note that the name in the rule MUST match the CID name exactly.

For more information on using this feature, see the manual:
http://scammerjammer.xyz/files/documentation/User%20Guide.pdf#_PAGE0%231-72

- **Default Action**

 When creating a rule, you may now specify DEFAULT as the action:

  If DEFAULT is used, when a new call comes in that matches the rule, it will use the current default action rather than be fixed as Connect/Fwd/Block. This can be handy if you want to assign a number a Name Override, but you still want it to follow the default action.

  For more information on using this feature, see the manual:
  http://scammerjammer.xyz/files/documentation/User%20Guide.pdf#_PAGE0%231-79

- **New Standard Rule, !ScamCName**

  There is a new standard rule that will block commonly known scammers based on their caller ID name:
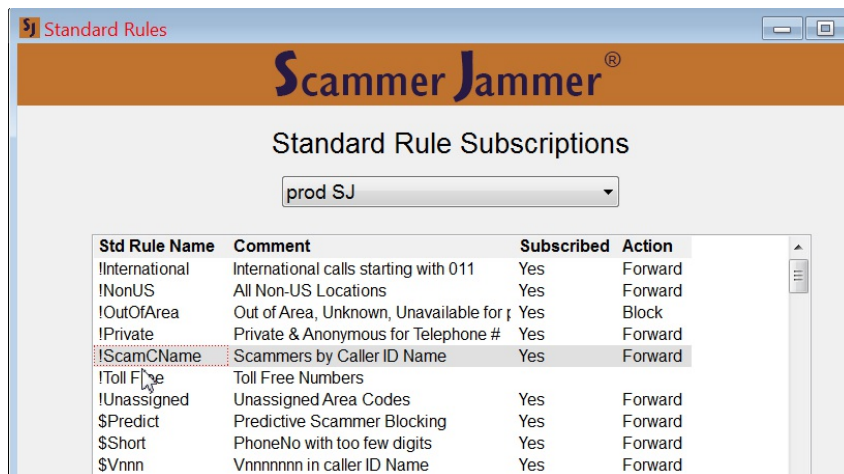
If you subscribe to this rule, it will block/forward callers with CID names such as Fire Assoc, NRA, and RNC.

At the moment, there is no direct way for you to see exactly which names are being blocked. The current list is:

ACIV	NRA	ST JUDE
APPLE INC	NRA OF AMERICA	SUPORTPOL
ASV	NRCC	SUPPORT ASSOC
ASYNC	POLICE ALLIANCE	THEASSNRESPONDE
BCHC	PORTFOLIORECOV	UBC
BREAST CANCER	PROBABLY FRAUD	UBCF
CANCER COUNCIL	RNC	WCF
FIRE ASSOC	SSI	lcrtrm
FIRE CHARITFUND	SSI-DYNATA	trmdsrv
IEPAC	SSRN	
NCPT		

- **Better MacOS Support**

The latest Lazarus/Free Pascal computer language (2.0.2) now supports the 64-bit MacOS directly. sjsconfig has been compiled in that version and tweaks were made to sjsconfig will run on MacOS Catalina.
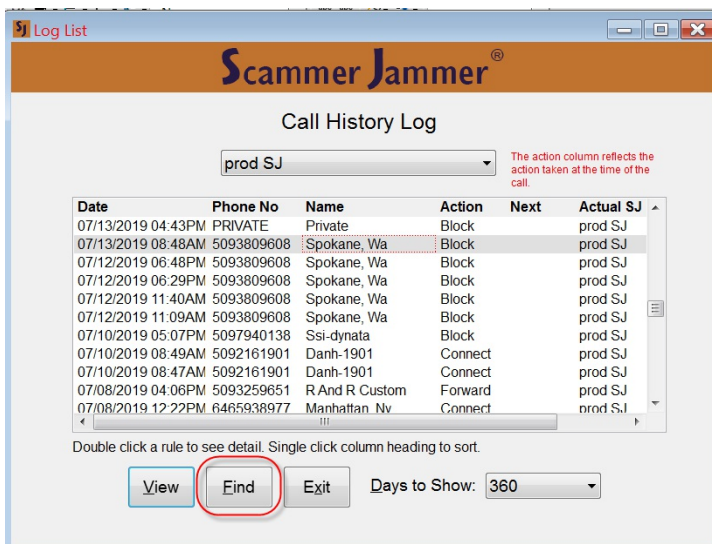
- **Standard Menu Implemented**

MacOS requires a traditional menu system. On the main window, there is now a menu that can be accessed in MacOS and Windows:
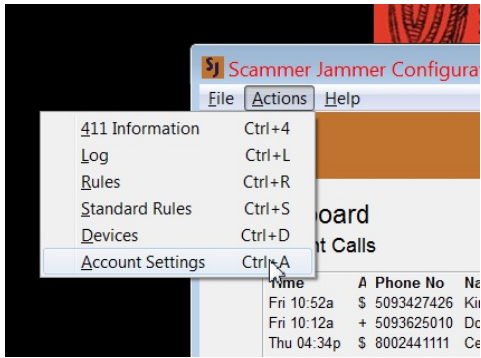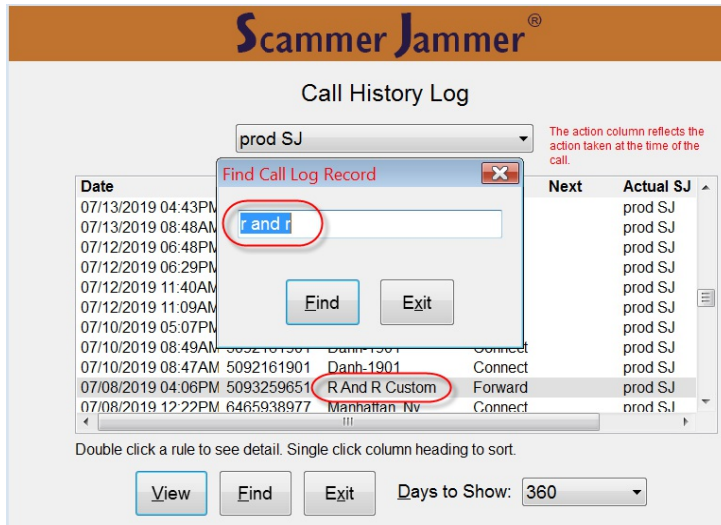
- **Find Button**

There is now a FIND button in the Log and Rules windows which allows you to more quickly find data:


When you click on this button, you will be allowed to enter text to find within the window:

Each time you press Find, the next matching record is found.

- New *Reset Forms* button in *Account Settings* window allows user to reset ALL window sizes and locations.

- The DELETE key can now be used in the Rules and Standard Rules windows.

- The INSERT key can now be used in the Rules, Standard Rules, and Devices windows.

- Long network connection can be aborted.

  If the network connection to the server is slow or down, you will now see a dialog box which allows you to abort the connection so you don't have to wait if you don't want:
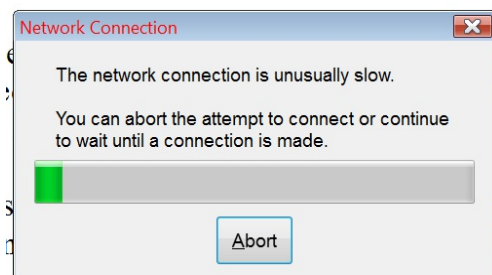
- **New Splash Window**

  When you start sjsconfig, it must spend some time downloading data from the server. If this takes very long, this splash window will be display so you know the program is starting.

Scammer Jammer®

Scammer Jammer
On

Previous/Call Log

Go Back

Select/
Mode

Next/Settings

Release Elm: Jun 7, 2019

eeprom	16
firmware	1.04
cidMonitor	1.04
dbmaint	1.04
fccLoader	1.04
importContacts	1.04
reportGen	1.04
sjsConfig	1.04
sjsQ	1.04
sjsUi	1.04
sjsX	1.04
snClientX	1.04

SJ Firmware

- SJ now fully supports storing / restoring of its configuration to/from the server. See sjsconfig changes below on viewing your settings.

- If you use your SJ's call log to change rules, you will find there is a new action *Default* besides the usual Connect, Forward, Block.

  For the moment, using *Default* acts exactly like using *Connect*. In fact, if you change to *default* and attempt to change the action again, you will see it is changed to *Connect*.

  The new action *Default* will be added to the server side in the near future. I want to make sure everyone's SJ firmware is capable of handling it now.

sjsconfig

- Startup of sjsconfig is now quite a bit faster due to changing some initial db queries.

- You can now view your SJ Settings from sjsconfig, rather than having to use the SJ device itself.

  To enter settings, click on the SJ Settings button in the SJ Server Settings window:
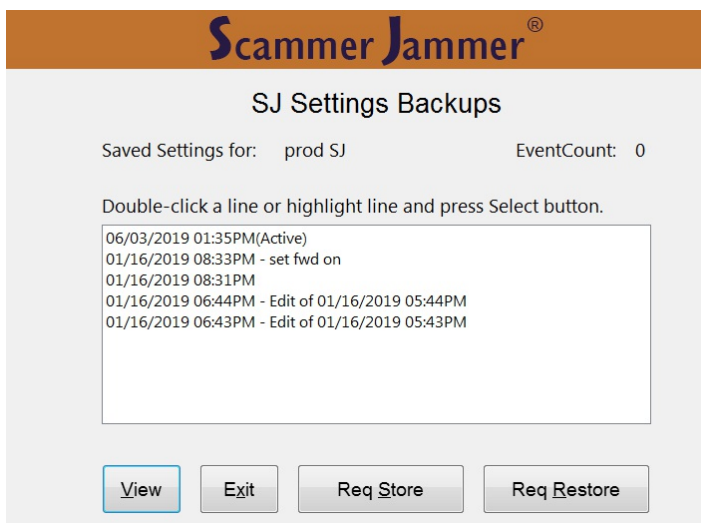
This will show all of the SJ settings backed up to the SJ server:
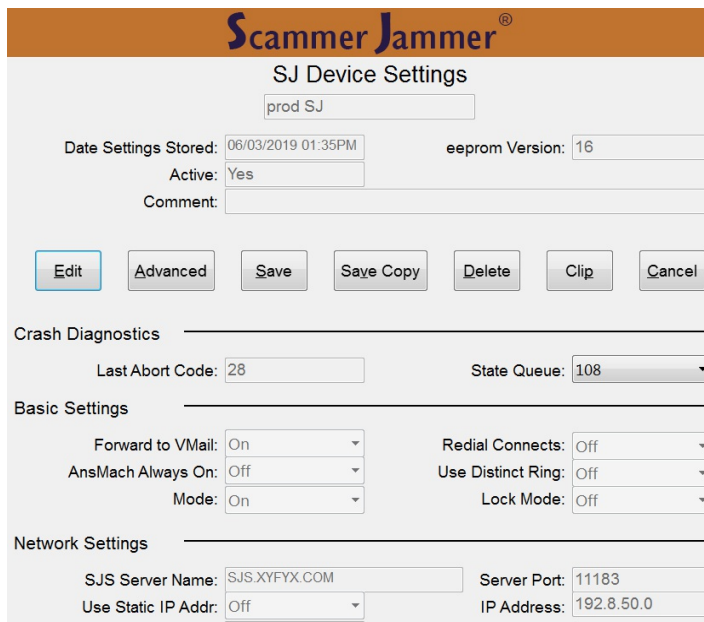
Note in the list there should be an entry with *(Active)*. This is current settings. Double click on this entry and it will show all of the device settings for your SJ:

You can view and change settings. This is fully documented in the Users Guide, here.

WARNING: going into Advanced settings can cause your SJ to freeze up. I suggest doing this only when directed.

- Auto Logon is now supported. By checking this box:

The next time you run sjsconfig, it will simply go straight to the menu rather than asking to logon.

- Don't like getting the Exit Warning box?
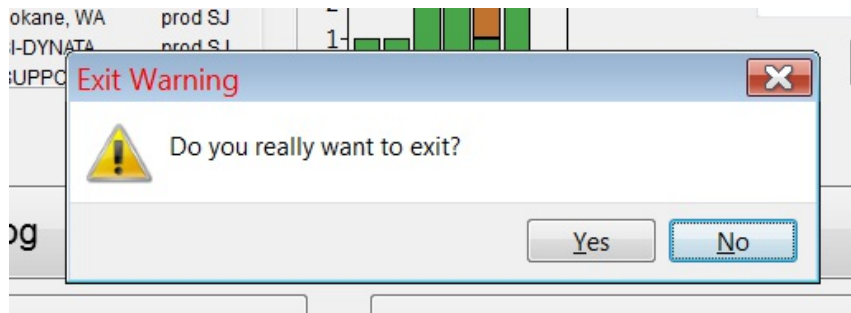
You can now go to Account Settings turn it off:
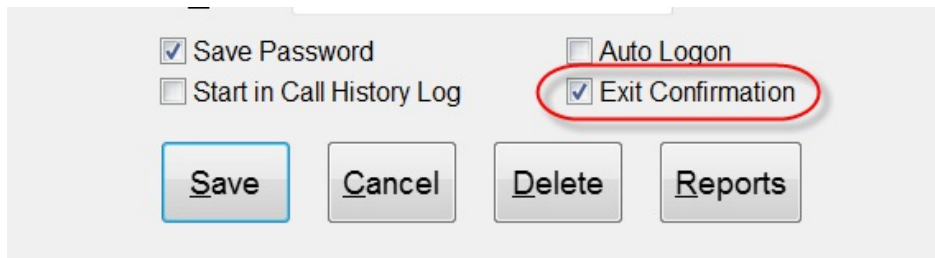
- The Call History Log now as a new column, Next:

When a call is logged, the Action column tells you what action was taken at the time of the call. In the case of the example, the action was *Connect*.

The new Next column tells you what will happen NEXT time the caller calls. After the example caller called, I added a rule to forward the call so the NEXT column shows *Forward*.

Release Dogwood: Nov 30, 2018

eeprom	16
firmware	1.03
cidMonitor	1.01
dbmaint	1.00
fccLoader	1.03
importContacts	1.00
reportGen	1.03
sjsConfig	1.03
sjsQ	1.03
sjsUi	1.03
sjsX	1.03
snClientX	1.03

SJ Firmware

● SJ now backs up local settings on reboot.

● The SJ server now determines, in advance, if there will be enough time to look in the alternative CNAM database. If not, it skips this optional lookup reducing the chance of not being able to connect the line to the phone by ring #2.

sjsconfig

● Rules are now scanned in this order by the SJ Server:

> private
> genuine (this test just allows the scammers test to be skipped)
> scammers
> system ($)
> std rules
> except
> default

● Implemented new Standard Rule, $PREDICT, Predictive Scammer Blocking.

If you subscribe to this rule, calls with telephone numbers nearby known heavy scammers are forwarded or blocked.

● In the 411 Window, you can now use telephone numbers with special characters such as (800) 555-1212. This allows you to easily paste telephone numbers from other software.

● sjsconfig has been migrated to the McIntosh operating system. There are some differences in operation which have been covered in the User's Guide.

- In the device window, you can now specify days for the EXCEPT option. This allows you to connect unknown callers on just weekdays, for example.

- The Device Window now include the *Days to Keep Log Data* and *Extended Cnam Lookup* options:

Days to Keep Log Data specifies at what point the server can delete old log records. If set at the default, 365 days, then any log date older than 1 year (365 days) is deleted.

Extended Cnam Lookup specifies if/when to use extended CNAM lookup. The 'CNAM' is the name of a caller associated with his phone number. Normally this comes from the telephone company as part of the call. However, Scammer Jammer can also use an alternative database of CNAMs.

The options are *None*, *Limited*, and *Full*.

None means the alternative database is never used.

Limited means the telephone company's CNAM is used unless it is OUT OF AREA or WIRELESS CALL in which case the alternative database is used.

Full means the alternative database is used for all calls.

This should normally use the default of *limited* as the telephone company's data, if provided is a little more accurate. *Full* should only be used for those few telephone companies (such as Google voice) that don't provide CNAM lookup at all.

- Most of the regularly used windows can now be resized and their location will be

maintained each time sjsconfig is run.

- In the main window's Recent Calls list, Scammers are clearly identified with a '$' in the A (action) column.

Release Chestnut: Jun 21, 2018

eeprom	16
firmware	1.02
cidMonitor	1.01
fccLoader	1.02
importContacts	1.00
sjsConfig	1.02
sjsQ	1.02
sjsUi	1.02
sjsX	1.02
snClientX	1.02

General

- Call Detail and Summary Emailed Reports can be requested in sjsconfig. The server will generate these reports and email them each day.
- A third party caller-id name service is now being used to provide the caller name.

SJ Firmware changes

- If you use SJ modes, the names have been changed.

Old Name	New Name
On	On (remains the same)
Answer Only	Forward Connects
Block Only	Connect Forwards
Log Only	Connect ALL

- Automatic Store/Restore of Settings. When you change an SJ setting, the settings are now saved to the server. This will allow sjsconfig the ability to allow you to remotely change SJ settings in the future.

- *Max Silent Rings* is now called *Must Ring On*. The default for *Must Ring On* is now 2 (it was 3). That means SJ will let the phone start ringing on ring 2 rather than ring 3.

sjsconfig Changes

- There is a new icon for Scammer Jammer:

  The new icon will show properly in the start menu, but may not if it is on the desktop. There is a bug in windows that prevents it from seeing the new icon. But eventually it should show up properly.

- The Recent Calls List on the dashboard has been completely rewritten:
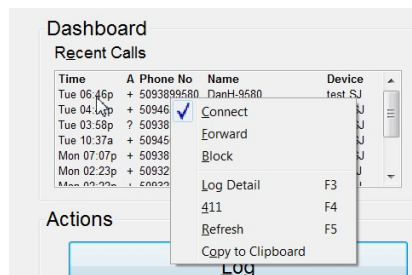
  Now you can right-click on any entry in the Recent Calls table and quickly set (or disable) a rule or jump into the log detail or 411 Information window.

- The Top Scammers report on the dashboard has been replaced with the Daily Call Counts graph:
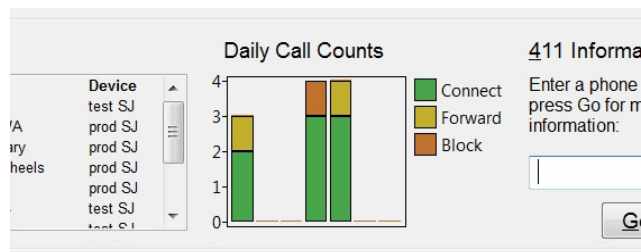
  The graph shows call counts for the past 7 days. Each bar shows the number of calls for a single day. The rightmost column is today, the column to its left is yesterday, etc.

- The Action Status Window is now called the 411 Information window since it shows much more than just the current action.

- The new 411 Information window now shows caller ID name information when available:

  The *Open CNAME* field is the name of the caller as reported by opencnam.com. The *Telco CNAME* is the name of the caller as reported by your telephone company. Often these two are the same, but not always.

- In the Device window, there is a new Scammer Detector Sensitivity setting:

  You can set this to high, medium, or low and it will pick good settings for *Reject Call if Score >=* and *and age in days <* for you.

  It is recommended to set Detector Sensitivity to high. If you find SJ sometimes blocks callers as scammers that it shouldn't, then set it to medium. Use the low setting to block only the most blatant scammers.

- When you first start sjsconfig, there is a new *Start in Call History Log* check box available:

  When checked, sjsconfig will always open the Call History Log window immediately upon starting.

- All of the windows containing tables of information have been upgraded with several

new features:

Std Rule Name	Comment	Subscribed	Action	
!International	International calls starting with 011	Yes	Forward	
!NonUS	All Non-US Locations	Yes	Forward	
!OutOfArea	Out of Area, Unknown, Unavailable for phone #	Yes	Forward	
!Private	Private & Anonymous for Telephone #	Yes	Forward	
!Toll Free	Toll Free Numbers			
!Unassigned	Unassigned Area Codes	Yes	Forward	
$Short	PhoneNo with too few digits	Yes	Forward	
$Vnnn	Vnnnnnnn in caller ID Name	Yes	Forward	
AK	Alaska			
AL	Alabama			
AR	Arkansas			

- ○ When you drag on the scroll bars, the table moves dynamically rather than after you release mouse.
- ○ You can change the column widths and they are saved.
- ○ Grid lines were removed and headings bolded to make for a cleaner appearance.
- ○ After you double click on a table entry and exit from the resulting window, you will return to the same place in the table, rather than the top of the table.

- An Uninstall option is now in the sjsconfig start menu.

Release Birch: Feb 9, 2018

eeprom	15
firmware	1.01
cidMonitor	1.01
fccLoader	1.00
importContacts	1.00
sjsConfig	1.01
sjsQ	1.01
sjsUi	1.01
sjsX	1.01
snClientX	1.01

- Implemented fwInstall.bat to allow simplified windows-based upgrading of SJ firmware.

- Data locking redesigned.

- sjsconfig: Action Status now displays information about genuine numbers.

- sjsX: Can now generate test international calls.

- sjsconfig: Now allows long (international) telephone numbers.

- sjsconfig hangs if there are 10,000s+ log entries. Now, sjsconfig will only retrieve, at most, the most recent 5,000 log entries.

- sjsconfig: Top Scammers font face changed to arial.

- Genuines were not being handled properly by the call processor (sjsQ). sjsQ now treats numbers in both scammers and genuines as genuine.

- Added Phone No field to device form. This allows user to identify the phone number of the line the SJ is connected.

- All shortstring data structures were converted to packed array of byte. This greatly reduces the amount of data being transmitted by sjsUi to the user.

- Added Scammer Action to device form. Rather than always blocking scammers, this field allows user to indicate which action to perform on scammers.

- Added EXCEPT fields to device form. This allows the user to specify an alternative default action based on the time.

- Added support for new $system rules, specifically $Vnnn. $system rules are special standard rules which can do filtering based on other criteria besides just phone number. For example, the new $Vnnn will perform an action if the CID name contains V followed

by 7 or more digits.

- Users may now create genuine numbers.

Release Aspen-delta-1: Nov 20, 2017

eeprom	15
firmware	1.00
cidMonitor	1.00
fccLoader	1.00
importContacts	1.00
sjsConfig	1.00
sjsQ	1.00
sjsUi	1.00
sjsX	1.00
snClientX	1.00

- This is the initial production release. There are no outstanding bugs or features for the firmware.

- Hardware WDT implemented. If anything goes wrong that causes a hang / loop, Scammer Jammer® will reboot itself.

- Redial Bypass is now called *Redial Connects* and the default is now OFF rather than ON.

- Aggressive network testing has been removed. In the past, if the network went down, Scammer Jammer® would use PING packets to try and determine where in the network the failure occurred and report its findings.

  Unfortunately the code that generates the PING has always been slightly unreliable. Rarely, it will hang and when it does, Scammer Jammer® stops functioning and more than likely all inbound calls will be lost because the handset is disconnected from the line.

  I have removed this aggressive testing. Now, if Scammer Jammer® discovers it cannot communicate with the server, it will simply report "Network Problem" and it is up to the user to determine the source of the issue.

  There are diagnostics in Scammer Jammer® to manually ping the local router and the remote server to aid in troubleshooting.

- If the local router were replaced with a new one, Scammer Jammer® has been known to hang. That problem has been rectified, also, by removing aggressive network testing.

- The idea of a simple / expert menu has been dropped. Instead, the *main* (top level) menu contains the settings most likely to be changed by a user. The rest can be accessed via the

network or advanced submenus.

- Some other menu changes were made to finalize the menu:
  - ○ *Max silent rings* moved to Advanced menu.
  - ○ *LCD light timeout* moved to Advanced menu.
  - ○ *DNS Server IP addr* is now just *Server Addr*.
  - ○ *Redial Bypass* is now *Redial connects*.

- The *Initial Op Mode* setting has been removed. Instead, when you change the op mode (say from On to Answer Only), Scammer Jammer® writes the new opMode to memory and uses that same setting when it restarts.

- In the advanced menu, there now is a lock settings submenu. Theses settings are used to assign a PIN to the Scammer Jammer®. The PIN prevents unauthorized changes from occurring to the Scammer Jammer®. Once the PIN is enabled, you must supply the PIN to unlock the Scammer Jammer® to make changes.

Release Aspen: Oct 19, 2017

eeprom	14
firmware	0.12
cidMonitor	0.02
fccLoader	0.03
importContacts	0.00
sjsConfig	0.02
sjsQ	0.12
sjsUi	0.02
sjsX	0.00
snClientX	0.02

- This release includes the new sjsUi program (Scammer Jammer® Server User Interface) and sjsconfig (Scammer Jammer® Server Configuration program).

- sjsconfig is a windows-based program used to set the server side of your Scammer Jammer® configuration such as defining and changing rules.

- sjsui is the server side of the sjsconfig program. sjsconfig talks to sjsui on the server to gain access to the database.

- Changes to the Scammer Jammer® firmware since 0.11 have been minimal. There is no requirement that your Scammer Jammer's® firmware be upgraded from 0.11 to 0.12.

0.11 June 9, 2017 (EEPROM Version 14)

- SJS now logs to syslog server. This brings Scammer Jammer® and SJS logs together in one place for easier troubleshooting.

- Wrote program to automate loading of FTC Do-not-call violations.
- sjdb command line utility now has 'scamcheck' option to determine if a particular phone number is in the scammers database.
- When syslog server is down, both Scammer Jammer® and SJS suffered performance issues. In the case of Scammer Jammer®, the delays could cause a watch dog timer interrupt.
- Loading of FCC do-not-call violations is now automatic and occurs every Mon, Wed, and Fri. Unfortunately, the way the FTC does their file I cannot automate the process, but manually check for it once a week and do an update if it is available.
- The mode 'Max Protection' is now called 'Maximum Protection'.
- The mode 'Block Scammers' is now call 'Block Only' because it actually blocks scammers and any black listed phone numbers.

0.10.01 May 5, 2017

- SJS now queries whocalled.us to determine if a phoneNo is a scammer.
- sjdb command line database utility implemented.
- sjdb now contains massive list of telemarketers from FCC/FTC.
- Block mode is now called 'Block Scammers'. Instead of blocking ALL it now just blocks scammers and blacklists. Everyone else is connected.
- Renamed modes:
  - Max Protection   (on)
  - Off   (same)
  - Answer Only   (Forward)
  - Block Scammers   (Block)
  - Log Only   (connect)

0.10   April 19, 2017   (EEPROM Version 14*)

- Version 0.10 is a complete rewrite of the Scammer Jammer® server software. The new server has an SQL database and is multithreaded. Both the Scammer Jammer® and SJSQ (server) software are incompatible with prior versions. As in the past, you MUST install the new firmware and server software together.

  The new SJSQ software has been designed to allow eventual unlinking between the versions.

- sjsX (sjsQ exerciser) has been developed to allow stress testing of the multithreaded function of sjsQ.

- If in connect mode, and you go into timed connect mode, exiting TCM will no longer incorrectly return to ON mode.

- The back light is now turned on in the main menu when the left button is pressed.

0.09.03 (EEPROM Version 13*) (Mar 24, 2017)

- Saving of settings has been modified again. The changes in 0.09.02 had issues as well. Now, when you make a change in the settings menu, it updates EEPROM immediately. Inbound calls during setting changes will not cause settings made up to that point to be lost.

  Some network settings, such as SJS DNS name, require Scammer Jammer® to be restarted. If you change such a setting, it will be saved in EEPROM. If a call comes in before you exit the settings menu, Scammer Jammer® is not forcibly restarted so the change will NOT become effective until the next time you restart Scammer Jammer®.
- The uploadHex utility now forces an sjlogoff command.
- The self test menu now has a test for external EEPROM memory.
- The call log is now accessible directly from the main menu. Simple press the up button or scroll counterclockwise. Using the scroll wheel makes this very simple. Scroll CCW one click and you go into the call log, then continue CCW and you will review the log from most recent to oldest call.
- On Scammer Jammer® start up, many of its configuration settings are transmitted to the syslog server to aid in troubleshooting.
- If the Scammer Jammer® server does not authenticate, the indicator for the call will now be " | " rather than " ! ". The explanation point is used for network errors. Authentication is really not a network error, so the bar indicates that problem.
- Implemented a Simple Settings Menu which is now the default. This allows easy access to the most common settings. If you want to use the Expert Settings menu, simply turn that option on in the Simple Settings menu.

0.09.02 (EEPROM Version 12*) (Feb 17, 2017)

- Removed LCD dimmer code. Turns out dimming the LCD produced noise on the phoneline.
- Added new SJLT command, sjHangWatch, which will monitor Scammer Jammer® for a hang and report it via email.
- Since one MUST exit out of the settings menu to force changes to take effect as of 0.09.01, I've added a little notice to help remind when settings are saved. As you exit the settings menu, "Settings Saved" will display for 1 second.
- Phone # search is now case insensitive. This means you can use either 'private' or 'PRIVATE' and both will properly match calls with 'private' as the phone number.
- Updated to an even more recent version of the Ethernet library. In fact, all libraries have been updated to the most recent versions.
- syslog has been implemented. This allows internal debugging messages to be sent to a remote syslog server for examination, rather than having to have a serial connection to the Scammer Jammer®.
- When editing strings in the settings (currently only DNS names), there is now a 'Clear All' option in the mini menu. When selected, this will completely erase the existing text, allowing one to start over again.

0.09.01 (EEPROM Version 11*) (Jan 30, 2017)

- HWTest now uses the new ethernet library.
- sshRevTun files are now maintained in /sjs/local for sjltxx units.
- sjtunnelsup now verifies the tunnels aren't always up for sjltxx units.
- Scammer Jammer® no longer gets WDT timeout if local DHCP server is turned off.
- New diagnostic 'Clear abort code' allows the last abort code to be reset to 0.
- New diagnostic Force WDT timeout will put Scammer Jammer® into an infinite loop to verify WDT is functioning.
- Implented Self Test menu in diagnostics. This allows almost all of the HWTest tests to be done without having to change firmware.
- 'Saving' of settings is slightly different now. In the past, if you changed a setting and then let the menu timeout, back to the main screen, the settings would be saved.
- Now, you MUST press GoBack in Settings to go back to the main screen for the settings to be saved.

0.09 (EEPROM Version 10*) (Jan 4, 2017)

- SJS on Linux systems was not updating time properly when Daylight savings occurred.
- The callUid (Call Unique ID) is now in the log record.
- Fixed Memory Leak in SJS.
- Implemented a Network Stress test procedure to allow extensive network testing.
- Updated Ethernet Library to allow access to the faster and less expensive Wiz850io LAN module.
- Fixed issue where SJS could possibly hang during its backup.
- If changing Op Mode is disallowed, Timed Connect Mode can no longer be entered.
- SJS is again supporting a full list of scammers via scamlist.txt.
- Foreign area codes (e.g. Jamaica, Barbados) are now blocked via the file areacodes.txt. Note that all Canadian area codes are also blocked, at least for the time being (any of these can be overridden in the user's action list).
- Handling of 1+areacode is now properly handled. If the CID phone number is 1+<number>, the 1 is stripped before comparing to the various action lists. This allows the action list to never require a preceding 1.
- The action to be applied to a particular number can now be modified with Scammer Jammer® rather than at the server. Simply find the entry in the call log, press select, and you can change the action for this number.

   Note that these numbers are maintained in a special file, dynlist.txt, rather than in list.txt. This is to prevent comments from being stripped out of list.txt.

- EEPROM can now be reset at Restart time by holding SELECT+LEFT ARROW when power is applied.
- Entries that are blocked in scamlist and areacodes now use the '$' indicator so you know the reason they are blocked is because they were found to be Scammers. Hence, SCAMMER JAMMER!
- Action list entries for dynlist.txt will now contain the CID text if user adds an entry and an appropriate name can't be found in one of the other action lists. This allows some documentation of the # in dynlist.txt.

0.09B (EEPROM Version 10*) (Dec 3, 2016)

- Updated ethernet and ICMPPing libraries.
- If net was down when Scammer Jammer® was turned on, it would not connect to server even after net was   restored. Fixed.
- EEPROM version is now displayed in Information menu.
- New entries in Advanced Menu/Timeouts for DHCP timeout and DHCP response timeout. These have the value of 10 and 4 secs and should not be changed unless advised.
- When exiting back out of menu system, you no longer are required to go back to the main menu.
- The default net init timeout is now 30 seconds.

0.08.1 (EEPROM Version 9*) (Nov 6, 2016)

- If telco connection is lost while handset is onhook, it will be reported. Lost telco still cannot be detected if handset is offhook.
- If call in progress when Scammer Jammer® is turned on, Scammer Jammer® no longer disconnects the call.
- Picking up handset during forward to vmail no longer disconnects caller.
- Vmail check by some phones no longer produces SJS log records.

0.08 (EEPROM Version 9*) (Oct 30, 2016)
- Testing for Dial Tone (e.g. Telco being up) has been reimplemented and is now reliable. If a telco is encountered with unexpected voltage levels, this testing can be disabled.
- Scammer Jammer® now displays callUid for each call in its debugging to allow matching debugging output between Scammer Jammer® and SJS
- Very, very rarely, it was possible to pickup the handset just as caller ID was being transmitted and cause a FLASH signal, or hangup on the caller.
- Caller ID was intermittent on some handsets (some VTech and Panasonic models).
- A bug in cidMonitor / linkSprite board would very rarely cause a check sum error when, in fact, the checksum was fine.
- If rings until Answer mode (RUAM) is enabled, it no longer disconnects the call as soon as the handset goes offhook.
- The caller ID waveform is now dynamically computed and can be change via EEPROM settings (wave height and wave start angle).
- Static network settings are automatically set based on DHCP settings.
- Backlight is now always off during outbound calls

0.08B (Oct 7, 2016)

- SJS can now run on Raspberry Pi
- Load action list on each call so changes are seen w/o restarting SJS.
- New importContacts utility to allow importing of CSV files to SJS's action list.
- Renamed TEST mode "Connect" mode.
- NEW call indicator on Scammer Jammer® LCD. Turns on for any inbound calls. Turns

off when Call Log   is examined.
- Buttons in change mode work as they do for the rest of the menus.
- New Timed Connect Mode (sometimes referred to as TCM).
- Added Uptime in Information menu.
- SJS now checks for Unmatched quotes in action list.
- Pressing left key in status display now does nothing.
- Cache Change: cache has been confusing - calls one would think would be blocked or answered are not because the cache may not match the action list.

    Now, cache is ONLY examined if the network is not available or SJS has not responded fast enough.

- Call log CSV file is now created with a header row.
- Phones that check for voice mail are now handled gracefully.
- Supports static IP addressing.
- Diagnostic menu now has "Modem Monitor" option.

    When enabled, Modem Monitor will display additional information regarding the modem to the serial over USB port.

- FLASH signal is now gracefully handled.
- If phone number is "PRIVATE" it is no longer formatted as "PRI-VATE".
- New callLog.txt file provides formatted callLog. callLog.csv is still available.

0.08A (Aug 18, 2016)

* EEPROM VERSION:

You can move back and forth between versions of Scammer Jammer® that use the same version of EEPROM w/o issue.

If you update to a version of the firmware that uses an earlier (lower numbered) version of EEPROM, then EEPROM will be reset and you will need to reenter your settings.

If you update to a version of the firmware that is 1 greater than your current version, then EEPROM will be converted from the old to the new version for you.

If you update to a version of the firmware that is 2 or more than your current version, then EEPROM will be reset and you will need to renter you settings.