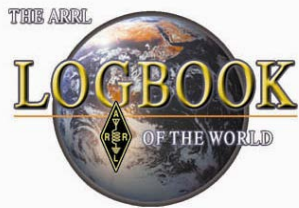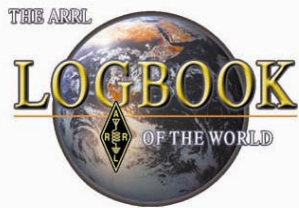THE ARRL

LOGBOOK

OF THE WORLD

What is Logbook of The World?

ARRL's *Logbook of the World* (LoTW) system is a repository of log records submitted by users from around the world.

What is Logbook of The World?

When both participants in a QSO submit matching QSO records to LoTW, the result is a QSL that can be used for ARRL award credit.

What is Logbook of The World?

Logbook of the World can accommodate every possible user scenario.

- – Home
- – Portable
- – Mobile
- – Maritime
- – QSL Managers
- – DXpedition or whatever,

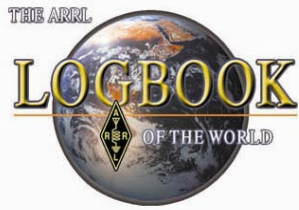LoTW can be setup to properly process your logs and match QSOs for all of your operations.

Is LoTW Secure?

To minimize the chance of fraudulent submissions to LoTW, all QSO records must be digitally signed using a digital certificate obtained from ARRL.
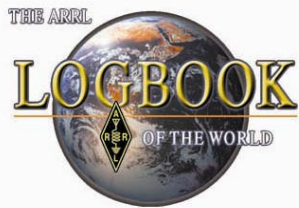
What about software?

LoTW uses software called TQSL.
TQSL is free to download and use.

TQSL works with:
- MS Windows
- Mac OS X
- Linux

How much does it cost?

Logbook of The World is **FREE** to all radio amateurs around the world.

Membership in ARRL is <u>not</u> required.

Users may upload logs and view data anytime with <u>no charges or fees</u>.
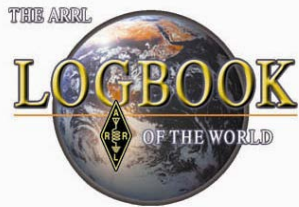
What About Application Fees?

When applying for awards users pay the appropriate application fees and QSO fees.

This is no different than when making a paper application for an award.

What About QSL Cards?

LoTW does not replace QSL collecting.

ARRL QSL Bureau is still a member benefit.
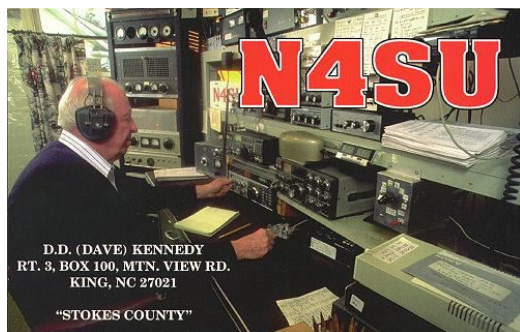
What About QSL Cards?

LoTW saves money and time.

- – No postage or IRCs.
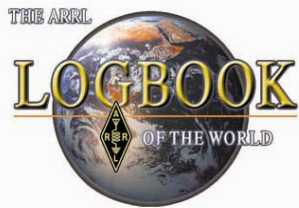- – No QSL card printing expense.
- – No waiting for QSL cards

How is LoTW different than e-QSL or other online QSL services?

Because LoTW uses private key and public key technology, users are verified and data uploaded to the system is secure.

LoTW is constantly comparing uploaded data for matches.

There are no paper cards printed that have the potential to be altered.

What can I do with LoTW?

What can I do with LoTW?

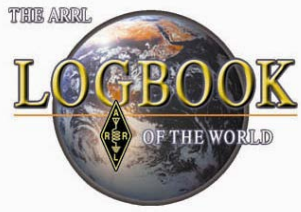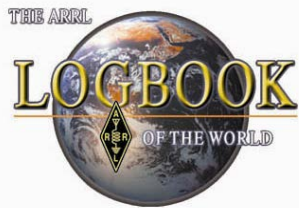| DXCC Award	New LoTW QSLs	LoTW QSLs in Process	DXCC Credits Awarded	Total (All)	Total (Current)
Mixed *	2	0	300	302	297
CW *	5	0	253	258	255
Phone *	0	0	257	257	253
Digital *	2	0	111	113	113
160M	0	0	52	52	51
80M *	1	0	124	125	123
40M *	1	0	188	189	187
30M	2	0	67	69	69
20M *	3	0	244	247	245
17M	4	0	86	90	90
15M *	2	0	206	208	206
12M	4	0	34	38	38
10M *	2	0	167	169	166
6M	0	0	1	1	1
Challenge *	19	0	1157	---	1176
5-Band *	---	---	---	---	---

Account Status

* = Award has been issued

View Award Credit Matrix

- Apply for awards
- Track DXCC credits
- View DXCC Matrix
- Track WAS Credits
- Search QSOs and QSLs
- View QSL Details

TQSL 2.0

TQSL is the software that ***Logbook of The World*** users install at their location to securely upload logs to Logbook of The World.

TQSL is free to download and use.

TQSL 2.0

The **TQSL** software is downloadable from the web at:

www.arrl.org/TQSL-Download

TQSL 2.0 Works with all supported versions of MS Window OS.

TQSL 2.0

TQSL 2.0 is also available for Mac OSX.
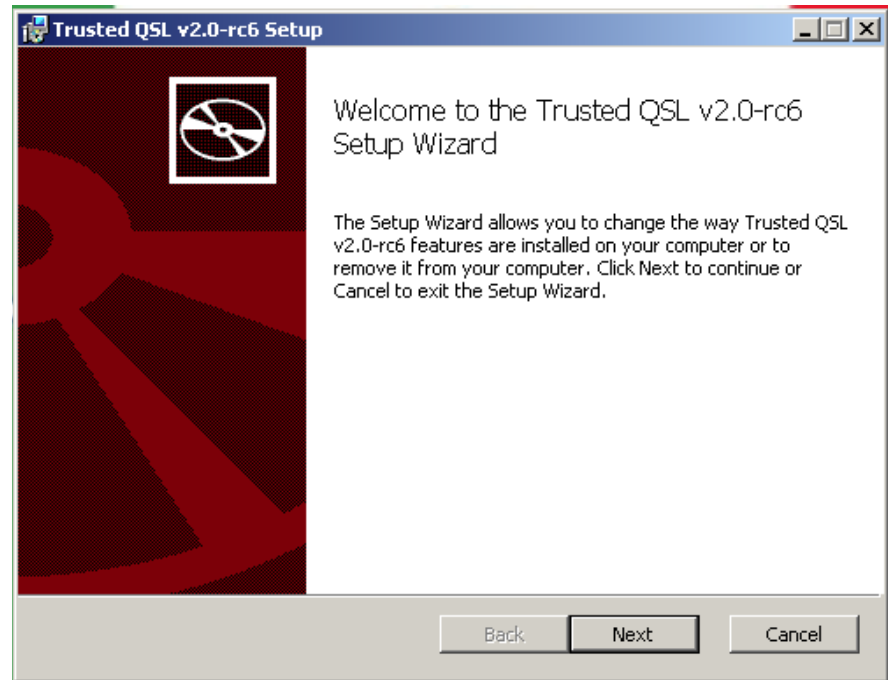
TQSL 2.0 for Linux is supported by the Linux community.

TQSL 2.0

TQSL automatically checks for updates in the software or configuration files.

TQSL 2.0

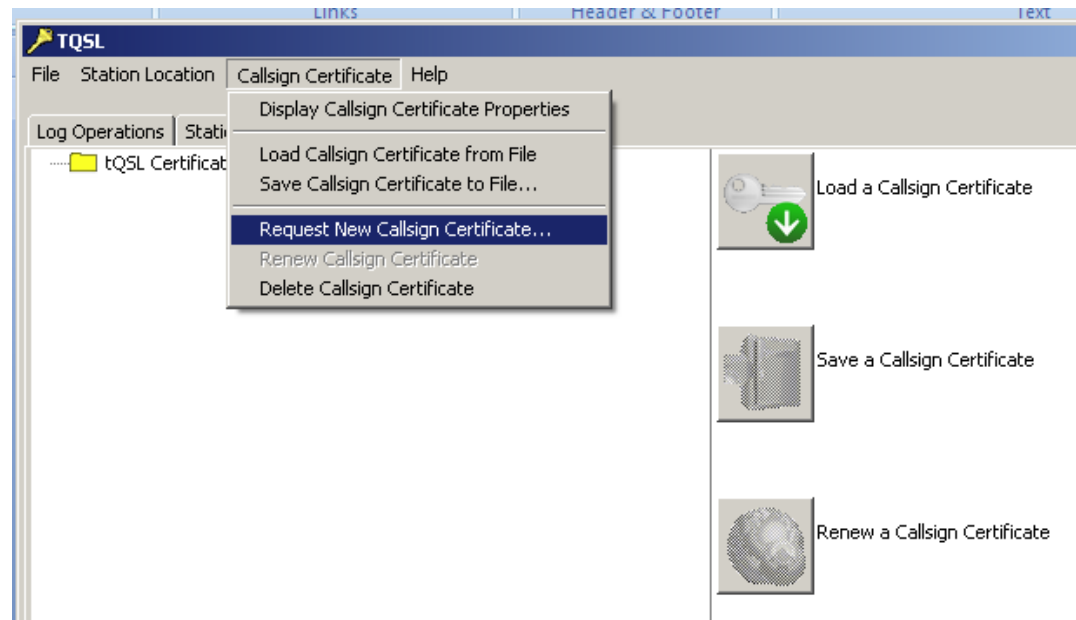***TQSL*** uses a standard Windows installer

TQSL 2.0

The next step is to request a

Call Sign Certificate?

Excuse me.

I have a question.

TQSL 2.0

Why do I need TQSL software?

What is a Call Sign Certificate?

Why do I need this to send my logs to LoTW?

Log Operations	Station Locations	Callsign Certificates

🗀 tQSL Certificates

🏆 N1ZQ - UNITED STATES OF AMERICA

TQSL 2.0

Logbook of The World only accepts *Trusted files*.

Trusted files are created by *TQSL*.

TQSL uses the Call Sign Certificate to electronically sign the Trusted file.

TQSL 2.0

Types of Trusted files:

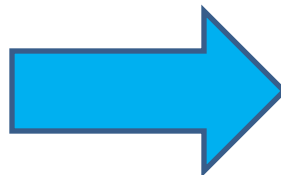**TQ 5** - Request for a Call Sign Certificate.

TQ 6 – Response to a **TQ5** request.

TQ 8 – Signed log file.

TQSL 2.0

Sending a secure log file is like sending your log in a locked box.

TQSL 2.0

TQSL is the software that locks the box and sends it to LoTW.

TQSL 2.0

This is why the TQSL icon is a key.
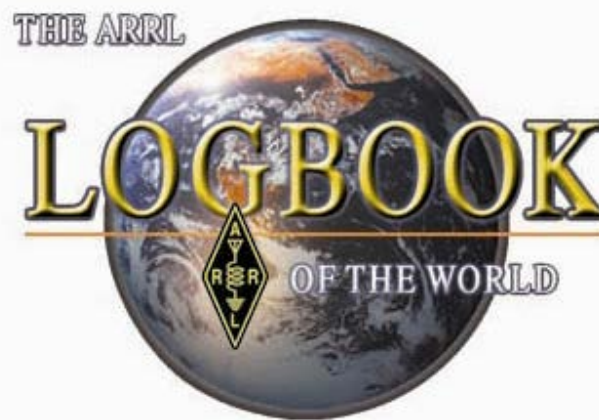
TQSL 2.0

The Call Sign Certificate encrypts
the log file and acts as the lock.

TQSL 2.0

When your locked file is received at LoTW…

TQSL 2.0

… we use the same key to unlock the "box" that was used to lock it at your location.

TQSL 2.0

The keys and the locks must match or the file cannot be opened.

TQSL 2.0

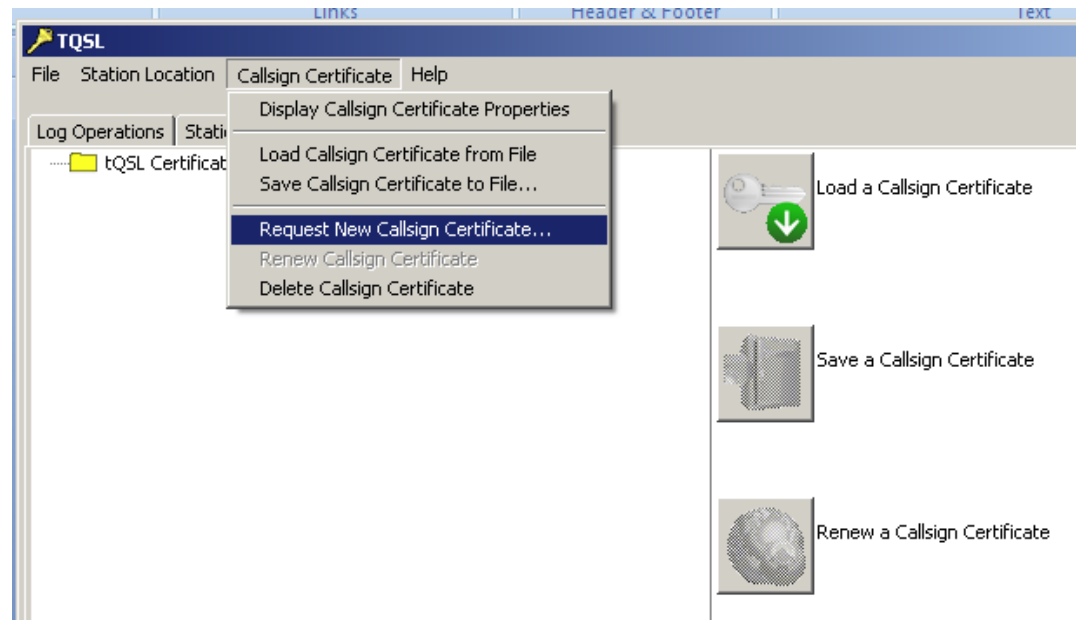This is a _very simplified_ illustration of public key - private key technology.

TQSL 2.0

Let's continue...

TQSL 2.0

The next step is to request a

Call Sign Certificate?

TQSL 2.0

This is nothing more than filling out a form.
Name, address, call sign, e-mail…

TQSL 2.0

The TQSL program will offer to send your call sign certificate request for you.

Upload

? Do you want to upload this certificate request to LoTW now?
You do not need an account on LoTW to do this.

[Yes]   [No]
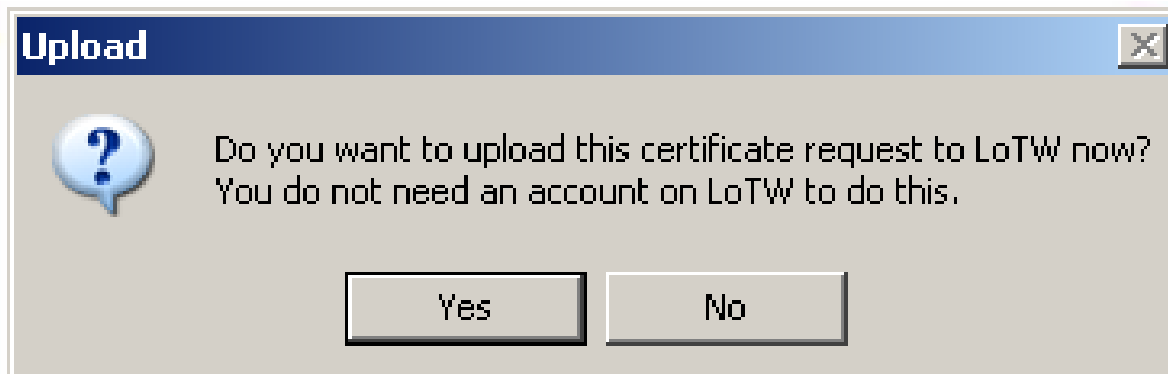
TQSL 2.0

After your request is processed at ARRL you will receive your **TQ6** response.

Accepting your **TQ6** file is a simple mouse click.

TQSL 2.0

The TQ 6 response is specific to the TQ 5 request.

Only the key that made the **TQ5** request can unlock the **TQ6** response

TQSL 2.0

Because the **TQ5** and **TQ6** are a matched set the request and acceptance must be performed from the same computer.

TQSL 2.0

So, I can only use this on one computer?

Using the back and restore utilities in TQSL the configuration can be transferred to other computers.

TQSL 2.0

Backup and Restore

After you have configured TQSL with a certificate and station locations you can **backup your configuration** and move it to another computer.

This is a simple process involving a few clicks of your mouse.

TQSL Configuration
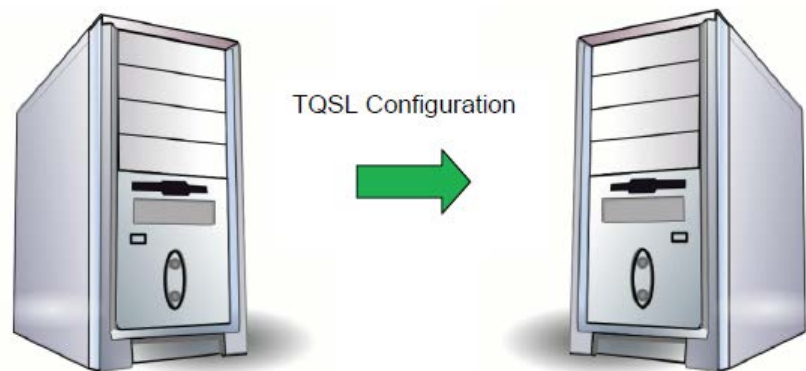
TQSL 2.0
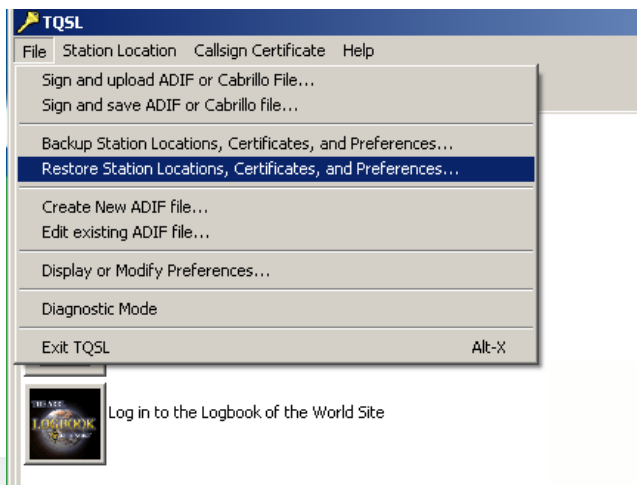
Backup and Restore

TQSL 2.0

<u>Backup and Restore</u>

You can move your TQSL configuration to other computers regardless of the operating system or platform.
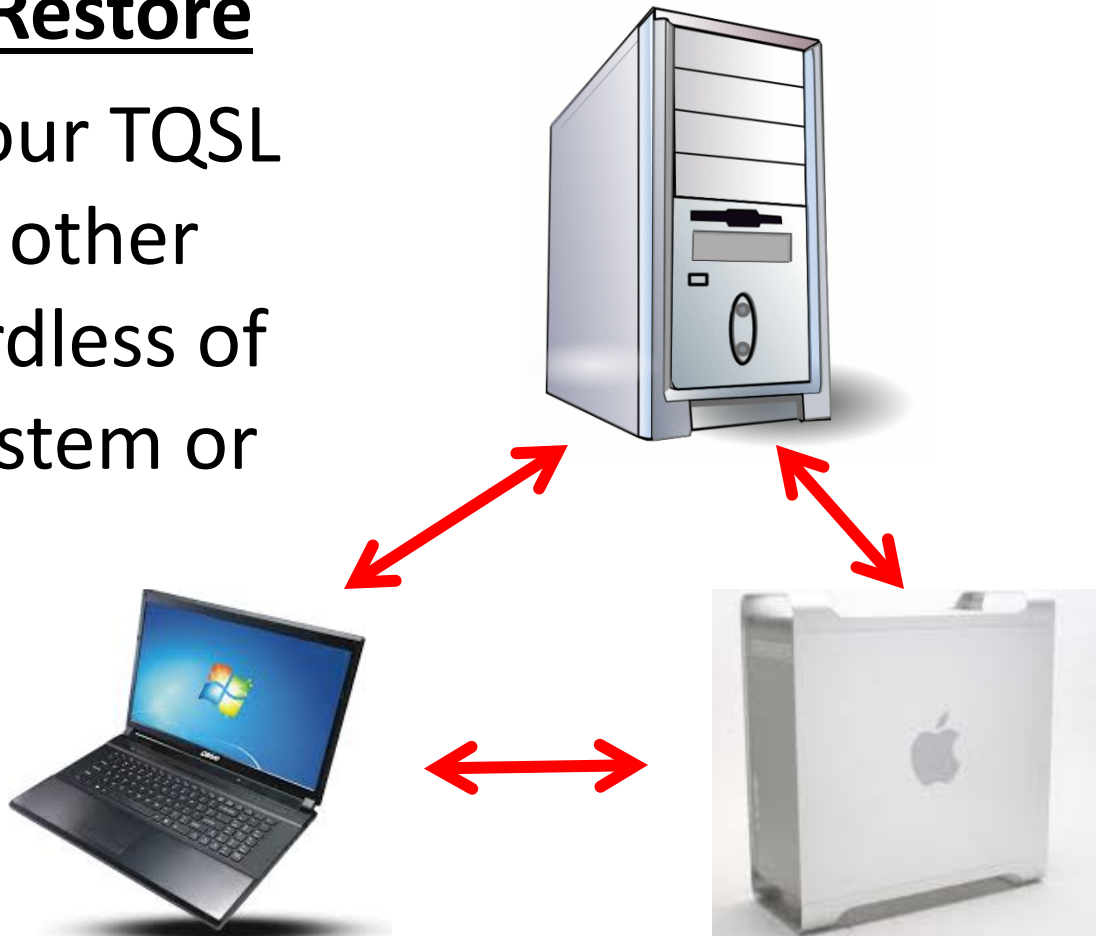
TQSL 2.0

But wait a minute.

Why do I hear about receiving a postcard in the mail?

TQSL 2.0

When you request a Call Sign Certificate you are requesting a key.

TQSL 2.0

The request is authenticated before sending the key.

TQSL 2.0

Authentication is only required when you are creating a new Logbook of The World user account.

TQSL 2.0

<u>Authentication</u>

<u>US Operators</u>

Will receive a postcard mailed to their address listed in the FCC database.

<u>Non-US Operators</u>

Must mail a copy of their operator permit and identification (numbers blacked out) to ARRL

TQSL 2.0

Let's continue...

TQSL 2.0

Station Locations

In addition to placing an electronic signature on your log file TQSL also adds your geographic information to the Trusted file.

Station locations are associated with your certificate.

TQSL 2.0

<u>Station Locations</u>

Geographic information can include US States counties, provinces, grid squares, CQ and ITU zones, IOTA, etc.

TQSL 2.0

Station Locations

You can make as many station locations as needed to accommodate your operations.

This is great for grid or county activations.

TQSL 2.0

Recap

LoTW only accepts *Trusted files*.

TQSL is the software that creates Trusted files.

TQSL 2.0

Recap

The Call Sign Certificate request and acceptance must be performed from the same computer.

Geographic information is managed through **Station Locations**.

TQSL 2.0

Recap

TQSL configuration can be moved to a second computer using the ***backup and restore*** functions.

TQSL 2.0

The TQ 8 File

A TQ 8 file is a signed (encrypted) log file that gets uploaded to LoTW.

TQSL creates the TQ8 and uploads it to LoTW.

TQSL 2.0

Let's look at a TQ8 file.

Your call sign and DXCC entity are embedded in your certificate.

TQSL 2.0

Let's look at a TQ8 file.

The QSO information is in your ADIF or Cabrillo log file.

- call sign of station worked
- date
- time
- band
- mode

TQSL 2.0

Let's look at a TQ8 file.

The geographic information is managed in your ***Station Locations.***

- US State
- County
- Grid square
- ITU and CQ Zones

TQSL 2.0

Let's Get Started