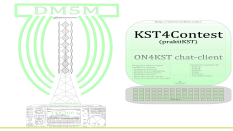
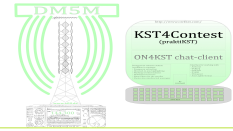

KST4Contest - manual



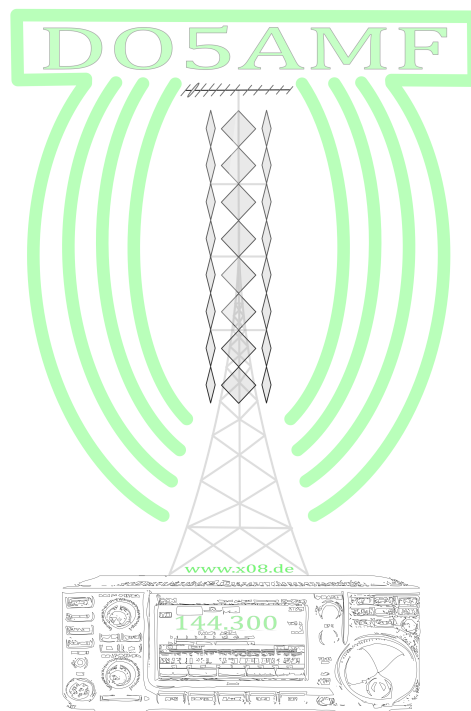
List of contents

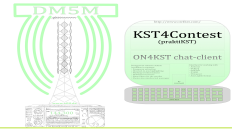
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<http://www.on4kst.com/>

KST4Contest (praktiKST)

ON4KST chat-client

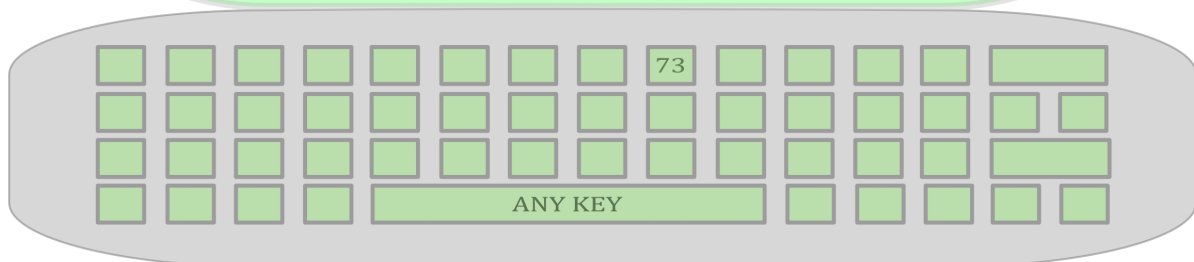
Designed to enhance station workflow in contests:

- Frequency extraction
- Directed-to-you highlighting
- Marking worked stations
- Default-text-macros
- Many filters for the userlist
- Shows also misdirected messages

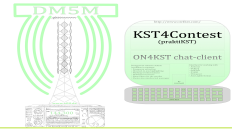
Interface for working with

- AirScout
- UCXLog
- QARTest
- N1MM
- DXLog.net

By DO5AMF



KST4Contest - manual



1) Abstract

The ON4KST-Chat is the defacto-standard for skeds at the 144+ bands.

KST4Contest is a java based client for the ON4KST chat.

I specially designed it in a way at which it can improve the workflow of an amateur radio station during the contest, using the ON4KST Chat.

In the beginning I implemented the software because the chat is really useful if you know, which of the other station you worked before. We (DM5M) using UCXLog-software of DL7UCX and sure, you could use the chat and check the log manually for the worked-state of a selected callsign and then try to handle a sked (or not).

If there are 300 to 600 chatters active, that had been a huge amount of extra work for the second op at our station and it's annoying and slow to use.

So we needed an opportunity to mark the already worked chat stations.

That leads me to implementing a client which can handle that.

Now, some time later, there had been more and more possibilities to improve the effectivity while using the chat.

2) About me

My name is Marc Fröhlich, Callsign DO5AMF and I am operator at DM5M. Many parts of the VUSHF part of the stations are results of reflections I done and worked out with the team of DM5M, mostly with DL5ASG and DL5ZK.

My passion: the upper bands. I am also qrv in some short wave contests, preferred is WAG.

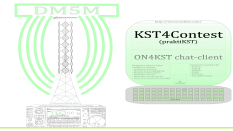
The chance to work my callsign is rare as I had been qrv in contests only (95% of the time) as DM5M since ~2005.

a) Contact me

If you want to tell me something, you can write an email to

praktimarc+kst4contest@gmail.com

Please use only this address in the context of kst4contest as my other inboxes are full of trash...



3) Prerequisites

a) Behavioral etiquette

At the ON4KST chat the official language is **english**. Please use only english, even if you are communicating to other chatters of your own country.

It's common to use HAM abbreviations such as "agn, dir, pse" to communicate. It is best if you know some of the meanings of these abbreviations, this will make it easier for you to use the chat.

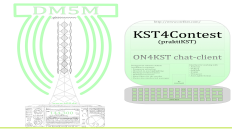
b) Account at ON4KST chat

In order to use the chat client you must be registred at the on4kst chat service. If you don't have an account yet, create one here:

<http://www.on4kst.info/chat/register.php>

c) Writing personal messages to other stations

Use „/CQ «CALLSIGN» «messageText»“ to send a text direct to this callsign! Otherwise the message will be posted in the public channel and the adressed station most likely will never get this message due to many text-traffic in contests (5-6 messages per second!) except they also uses Kst4contest because I catch such messages and sorting it to the pm table.



4) Downloading the software

a) Download URL

The Software can be downloaded as a ZIP file here: <https://do5amf.funkerportal.de/>

The filename of the software is something like: „kst4Contest_v11.zip“ (or higher).

b) Updates for kst4Contest

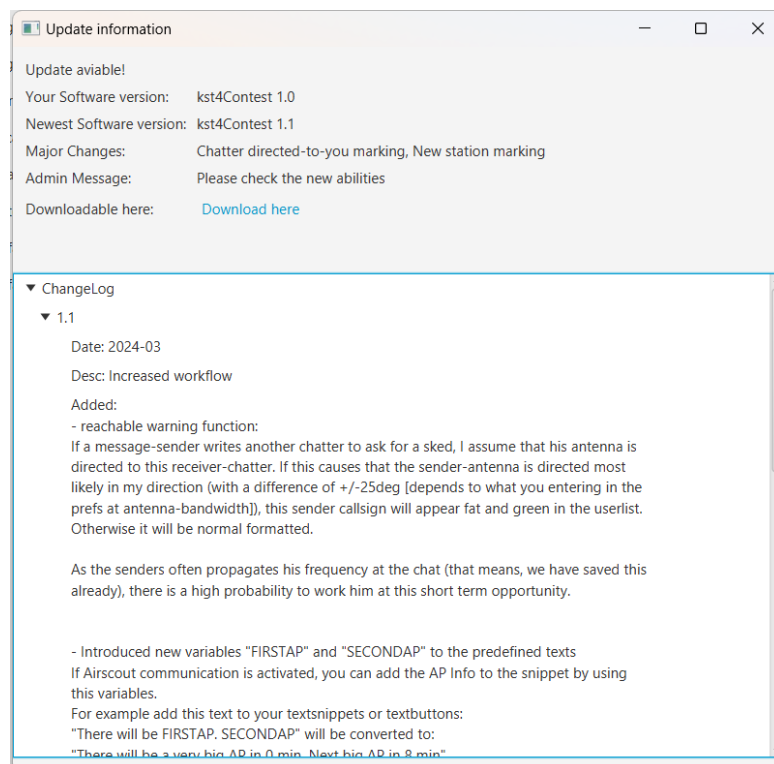
DO5ALF, the webmaster of www.funkerportal.de made it possible for me to upload my software packages there.

Thank you very much, Andreas!

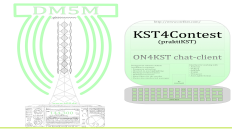
I implemented a simple update information service:

If I am uploading a new version, the older version will show a window with the information that a new version is available (also a changelog) and also will show you the download link for the latest package.

To update, there is only one way at this time. Delete the old folder and unzip the new one.



Example update window



5) Running the client, change some preferences

After running the praktiKST.exe there will be opening some window.
The most important is your best friend: the settings window.

Station X | Log synch | TRX synch | Airscout | Notification | Shortcuts | Beacon | Unworkedstn requester | Workedstn database

Set your Login Credentials and Station Parameters here

Login-Callsign: DO5AMF

Login-Password: ●●●●●●

Name in Chat: Marc

Locator in Chat: JN49GL

Chatcategory: 2: 144/432 MHz

Antenna beamwidth: 50.0

Default maximum QRB: 900.0

Default filter QTF: 180.0

!!! Don't forget to reset the worked stations information before starting a new contest !!!

Define on which bands you will be qrv today (changes UI a bit ... click save, then restart!)

My station uses 2m band My station uses 70cm band My station uses 23cm band

My station uses 13cm band My station uses 9cm band My station uses 6cm band

My station uses 3cm band

The most of the data to be entered at the station settings are obvious, even without reading this manual. That's why I will only mention the important ones.

Please do not enter fantasy values at the fields: locator, antenna beamwidth and default maximum QRB! The Reason follows now.

The „my station uses band“ checkboxes will affect the user interface. If you check only the bands where you are qrv (in many cases that will be only 2 or 3 bands), the user interface will only show you table rows and buttons which are necessary for your activated bands.

If you changed one or more of these checkboxes, you have to save and restart the software to see a changing effect.



a) Problems at running chat

1) Norton 360

praktiKST.exe is rated dangerous by Norton360 (tnx for reporting, Franz, PE0WGA). You will have to make an exception for this to use the Chatsoftware.



b) Station settings

Now let's continue to the settings which you have to make.

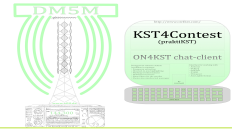
1) Antenna beamwidth

Please enter a real value here as this value is used for some calculations in the background of the software. The Software is able to highlight skeds in your own direction and this calculation is only useful if the data are plausible.

Please find more information here: [7\)a\) „Sked directed to me“-Highlighting.](#)

2) Default maximum QRB

As the Highlighting of skedders to you should only be done for distances which are workable for you, please enter a distance which is realistic for your station. A good value for us as DM5M is 900 kilometres.



c) Log synch settings

In general there are two possibilities to tag logged stations automatically as worked at the userlist of the chat.

The screenshot shows the 'Log synch' settings window. At the top, there is a tabbed interface with 'Log synch' selected. Below the tabs, there are two sections. The first section is titled 'File polling for worked callsigns' and contains a checked checkbox for 'Use universal File based callsign Interpreter (readOnly!)'. Below this, it says 'Worked stations will be read there:' followed by a text field containing 'SimpleLogFile.txt' and a 'Choose...' button. The second section is titled 'N1MM/QARTEST/UCXLog/DXLog.net Network-Listener' and contains a checked checkbox for 'Receive UCXLog network based UDP log messages'. Below this, it says 'UDP-Port for message-listener (default is 12060)' followed by a text field containing '12060'.

1) Universal file based callsign interpreter (Simplelogfile)

As earlier 2022 I had to interpret UCXLogs binary database files without any knowledge of the format, I had to find out what's possible to reach my goals.

I took notice of readable String values in the binary files. I wrote a regular expression for matching callsign patterns. With this I am able to find out callsign-like patterns out of huge amounts of text while the callsign-matcher ignores the binary data and other Strings.

If you change the path of the logfile in the preferences, you are able to use all other logfile formats. The interpreter will recognize all callsign-formatted text-strings and mark worked stations in the chat clients GUI.

But in this case there is no option to mark a worked band for the station!

The better option is to use a compatible logprogram like UCXlog or N1MM to mark the worked stations with their worked bands.

2) Networklistener for loggers' QSO-UDP-broadcast

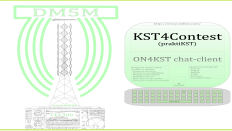
Thats important, read that!

In order to use station-worked tagging, kst4Contest must be executed parallel to the log-software!

The reason is that the log software will send an UDP packet to the broadcast address of your home network just at the moment you saves the QSO to the log programs database.

Kst4Contest catches these packets and will mark the station (potencial „chat-member“) as worked in it's own internal sqlite database. **That means, kst4contest is not connected to the log programs database but rather get's the information which the log program shares.**

KST4Contest - manual



That means, if you log a qso and the chatclient is not running, there will be no chance for the chatclient to recognize that a qso had been saved – in the most cases!

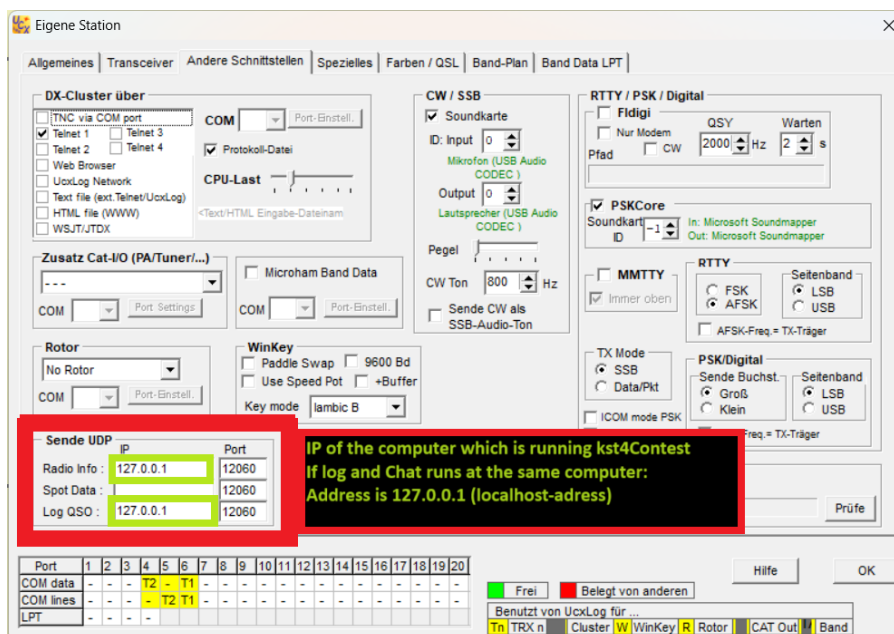
Exceptional: **QARTest is able to send a full log to the client while UCXLog is not.** Just push the right button in the preferences of QARTest.

The udp port is likely the same as default (12060) if you never changed it. If you changed it, you had a reason fo that and knows the right port value to write in the field.

Note that if you running 2 log program instances for 2 radios at 2 computers but only one kst4contest chat for both bands, **both log programs have to propagate the qso packets to the kst4contest instance! Then at least one IP is not 127.0.0.1 (localhost).**

At DM5M we have this setup. If you are running 2 log programs at 2 pcs each one with an instance of kst4contest, then only the localhost have to consume the qso packets.

A) Needed preferences for UCXLog



Note the green highlighted fields! Fill in the IP of the kst4contest computer (most likely localhost)

KST4Contest - manual



B) Needed preferences for QARTest

Broadcast Dati

UDP Broadcast

	Indirizzo IP	Porta	Default	
<input type="checkbox"/> Score	127.0.0.1	12060	Def.	Ogni 3 min
<input checked="" type="checkbox"/> QSO	127.0.0.1	12060	Def.	Invia log completo
<input checked="" type="checkbox"/> Radio info	127.0.0.1	12060	Def.	
<input type="checkbox"/> Spot	127.0.0.1	12060	Def.	

Invia dati QSO ad HRDLog.net

User _____ Codice _____ Invia log completo

OK

„Invia log completo“ will send the full QARTest log database to the chatclient. **Buona funzionalità caro IK3QAR!**

C) Needed preferences for N1MM

I have to take a picture of that sometimes...

D) Needed preferences for DXLog.net

Live score UDP broadcast
IP address: _____ Port: _____ Default

DXC spots UDP broadcast
IP address: _____ Port: _____ Default

Radio UDP broadcast
IP address: 127.0.0.1 Port: 12060 Default

Direction UDP broadcast
IP address: _____ Port: _____ Default

QSOs UDP broadcast
IP address: 127.0.0.1 Port: 12060 Default

UDP broadcast listener
IP address: _____ Port: _____ Default

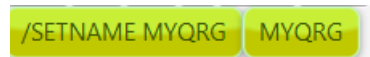
Note the green highlighted fields! Fill in the IP of the kst4contest computer (most likely localhost)



d) TRX-synch settings

The trx synch option is also based to UDP packets of the log program, as the qso log synch option is. UCXLog and other programs are transmitting the actual frequency setting of the trx so the chat client and it will process this information, too.

By using this option, you are able to propagate your qrg in the chat within a very short time and also via the automatic cq beacon. Just hit the macro key for the MYQRG or clicking the button and you never have to type your qrg again if someone asks for it.



MYQRG Buttons

Note that if you running 2 log instances for 2 radios at 2 computers but only one instance of kst4Contest (in DM5M case an additional pc), only one logprogram instance should propagate the frequency packets to the network, the other should not.

Kst4contest dont distinguish between the sources of these packets and processes everyone!

At DM5M we have this setup and I only propagate VHF qrg.

It's the better option to use 2 instances of kst4Contest at 2 separate computers/logs and 2 logins then...

e) Airscout settings

Airscout allows to easily detect airplanes for the signal propagation via aircraft scatter. It allows to communicate with it via an UDP interface which kst4Contest does. If you don't used airscout before, now it's time to do so!

Air scatter allows very far communication at VHF and up even for stations with low asl levels and bad topographic conditions. Thanks to **DL2ALF** all stations can use this great opportunity!

1) Airscout Download

Download here:

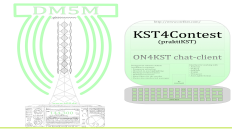
<http://airscout.eu/index.php/download>

2) Plane feeds (ADSB)

As the free usable plane feeds at the internet are unreliable and don't allow much traffic for the airplane data download (number of queries is mostly very limited), we all are very glad about the plane feed service established by **OV3T** (Thomas).

You need an account for his service. Don't forget to donate for this great service as the server costs for him are also not for free.

KST4Contest - manual



Get your account information here:

- <https://airscatter.dk/>

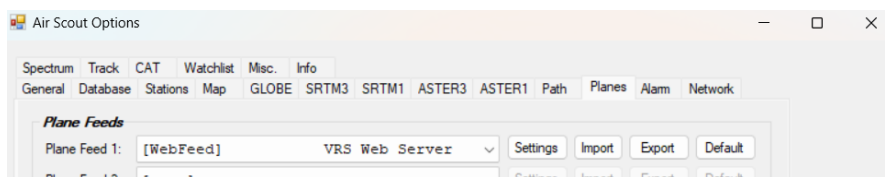
or here:

- <https://www.facebook.com/groups/825093981868542>

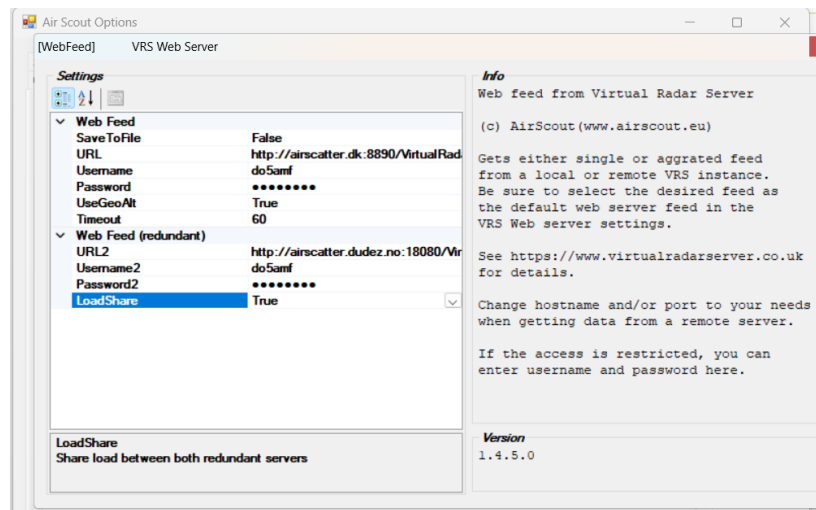
3) Plane feed setup

If you got your account by Thomas, next step is to setup it at the AS client.

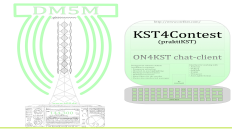
Step1:



Step2:



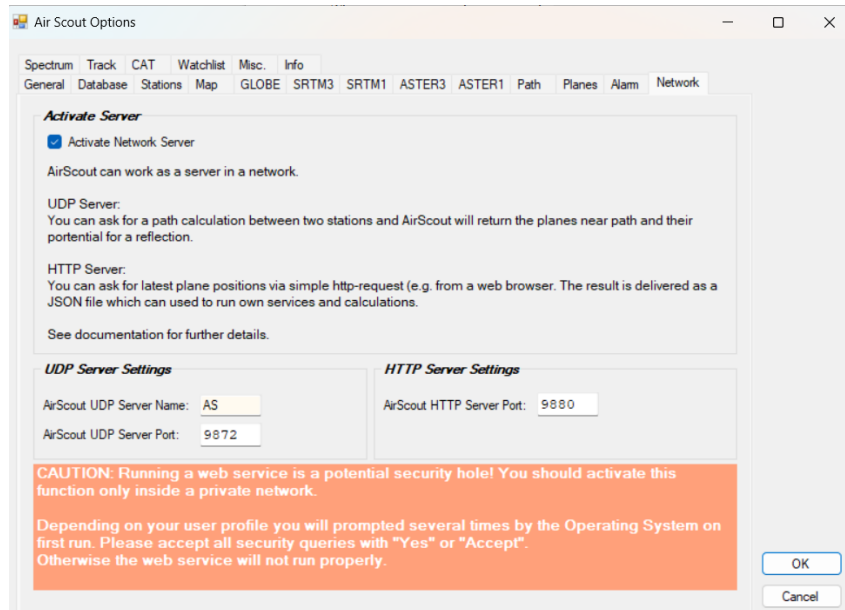
KST4Contest - manual



4) Setup for communication with kst4Contest

If there is no need to differ of the default values, then you should not do that.

There have to be only one checkbox enabled for turning on kst4contest ↔ AirScout communication:



5) Resulting userlist behaviour in kst4Contest

After setting up all (and after connecting to a chat), the AP column will show up to two reflectable airplanes from your locator to each chatters locator. For enhanced workflow, the private chat messages window do also provide this information, the data fields are the same then.

Callsign ▲	Name	QRA	QTF	QRG	Act	AP [minutes / pot%]
(DF9QX)	Matthias	JO42HD	1.1°		0	0 (100%) / 0 (100%)
(F1NZC)	Jean-Louis J...	JN15MR	226.74°		0	nil
(F5DYD)	Jean-Louis ...	JN03KG	223.27°		0	14 (50%) / 31 (50%)
(F6DKW)	Maurice	JN18CS	262.71°		0	0 (100%) / 1 (75%)

Let's look for example to DF9QX:

- 2 planes available
 - one in 0 minutes, another one in 0 minutes
 - both with 100% potential (good height and distance, big planes)

As this is a bad example, let's use F5DYD:

- 2 planes available
- one in 14 minutes, another one in 31 minutes
- both with 50% potential (not very big) but also maybe reflectable

KST4Contest - manual

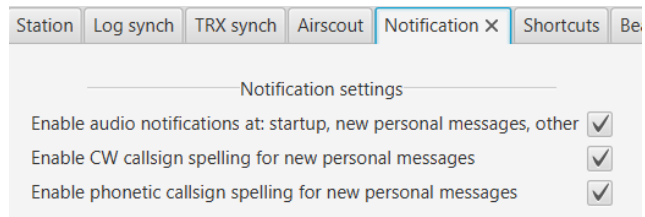


6) Using AP Text-Shortcuts

If there is an airplane available, the Strings FIRSTAP and SECONDAP will be replaced with reflectable airplane data. Have a look to: 7)c)1)A) FIRSTAP, .

f) Notification settings

You can choose between up to 3 notification types here. First are simple sounds, such as a TADA sound for incoming messages, tick sound for sked-direction-detection, etc.

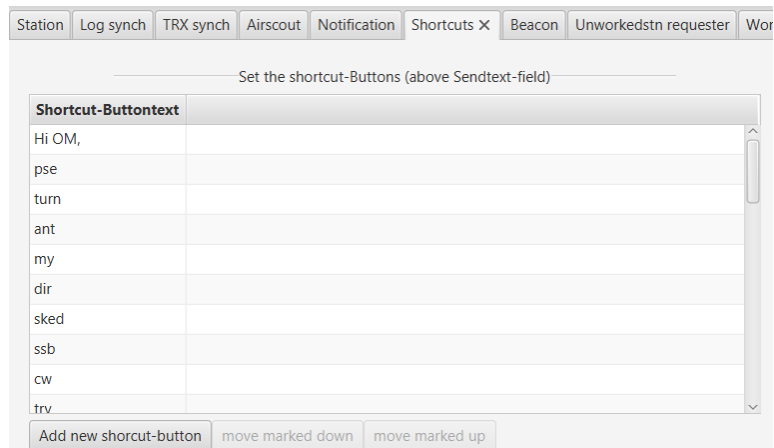


Second type is that the callsign of a station which writes a personal message to you will be typed as an audio cw signal out of your speaker.

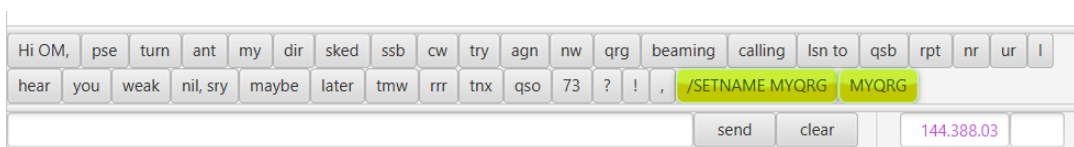
Last type is a phonetic spelling of the callsign of a station which writes a personal message to you.

g) Shortcut settings

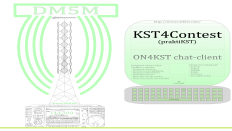
Here you can change or add fast accessible text-buttons which are generated live. I created some as default but most likely you need other ones. Also longer texts are possible. The texts will be added to the UI. A click to each button will insert the text of the button to the sendtext-field, where you are typing your texts normally. It's also possible to use all variables. The variables will be changed to real values if you use it there (and also if you type it by hand).



1) Resulting UI behaviour



Each shortcut text will create exact one button



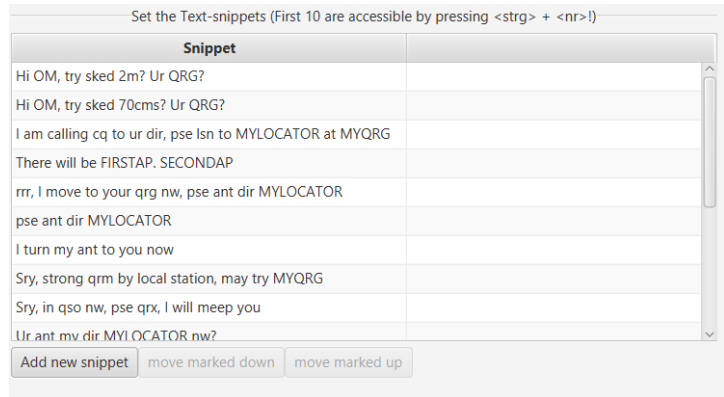
h) Snippet settings

The textsnippet-function is very similar to the shortcut buttons.

The snippets which you creating here are accessible via

- right click to a callsign in the userlist,
- right click in the cq-message table,
- right click in the pm-message table and
- the first 10 snippets are linked to the button combination ctrl+1, ctrl+2, [...], ctrl+0!

I had this idea from Gianluca Costantino, read more here: 7)c) Macros.



1) Resulting UI behaviour (right click)

Call Sign	User	Message	Usage
(DF9QX)	Matthias	Hi OM, try sked 2m? Ur QRG?	100% / 3 (100%)
(F1NZC)	Jean-Louis J...	Hi OM, try sked 70cms? Ur QRG?	50% / 11 (50%)
(F5DYD)	Jean-Louis ...	I am calling cq to ur dir, pse lsn to MYLOCATOR at MYQRG	75% / 17 (75%)
(F6DKW)	Maurice	There will be FIRSTAP. SECONDAP	
(S52FO)	Janez	rrr, I move to your qrg nw, pse ant dir MYLOCATOR	
(SM7SPG)	Per	pse ant dir MYLOCATOR	100% / 0 (100%)
DG2KBC	Ansgar MM...	I turn my ant to you now	100% / 0 (100%)
DH3NAN	Matthias	Sry, strong qrm by local station, may try MYQRG	100% / 5 (75%)
DL1YDI	Dirk 2m/9Ele	Sry, in qso nw, pse qrx, I will meep you	100% / 0 (100%)
DO1CTL	Frank 2/70/...	Ur.ant.mv.dir.MYLOCATOR.nw?	50% / 13 (50%)
(F6HTJ)	Michel	nil?	100% / 8 (75%)
F6IFX	Bert 2/70/23	No cw op here, pse can we use ssb?	100% / 0 (100%)
G4FUF	Keith	No chance in ssb, can we use cw?	(75%) / 0 (50%)
G4TRA	Steve	Nil till now, are you calling?	100% / 2 (75%)
G4URT	Peter 2m 4*...	Nil here, tnx try, maybe later!	
G4XYW	Andrew	Nil, I will look for an ap and meep you then	
GW0GEI	steve 2/6m	There will be an AP in	
HA2NP	Robert	Tnx fb qso, all ok, 73 es gl!	75% / 3 (75%)
HA4XN	Zoli 2m SSB...		
(I3MEK)	Mario		



k) Click save settings to store your personal settings!

This settings will be saved in the folder „praktikst/preferences.xml“ at your user folder.

Since version 1.21 your windows sizes (and divider positions) will also be saved via the save-button.

6) Connecting to the chat

After selecting a chat category, you are able to press the connect button and connecting to a Chat. If Aircscout is running and all preferences are ok, it should look like the following.

The screenshot displays the KST4Contest software interface. At the top, it shows the current frequency (2:144.432 MHz) and the mode (D05AMF). Below this is a menu bar and a toolbar with various settings like 'Show only QRB', 'Show only QTF', and 'deg. 50.0 beamwidth'. The main area is divided into two panes. The left pane shows a list of stations with columns for Callsign, Name, QRA, QTF, QRG, Act, AP (minutes / pot%), and worked status. The right pane shows a chat window for the selected station (DL68F), displaying a list of messages with columns for Time, Call TX, and Call RX. The chat messages include various QSO reports and general chat.

As you can see, my PM window in the upper left corner left empty during this test.

At the downer right side you can see the messages of/to a selected station. You are also able to filter which messages you want to see.

In this way you will have a very fast overview of what happened during the communication of this chatter.

Disconnect and reconnect is only available via the settings window.

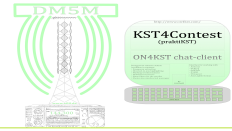
Best practice is to leave the settings window open as if youre scanning frequencies for new qsos, you may should turn off the beacon sending.

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There will be an additional „cluster & QSO of the others“ window. There you can try to follow the qso flow between the other stations. As I don't do that ever, I am minimizing this window. This window is interesting only in the night hours of contests, if the traffic decreases.

At this time it is unfiltered but later I will filter the messages of chatmembers, which are in your selected QTF (See 7g)Direction filter for the userlist).

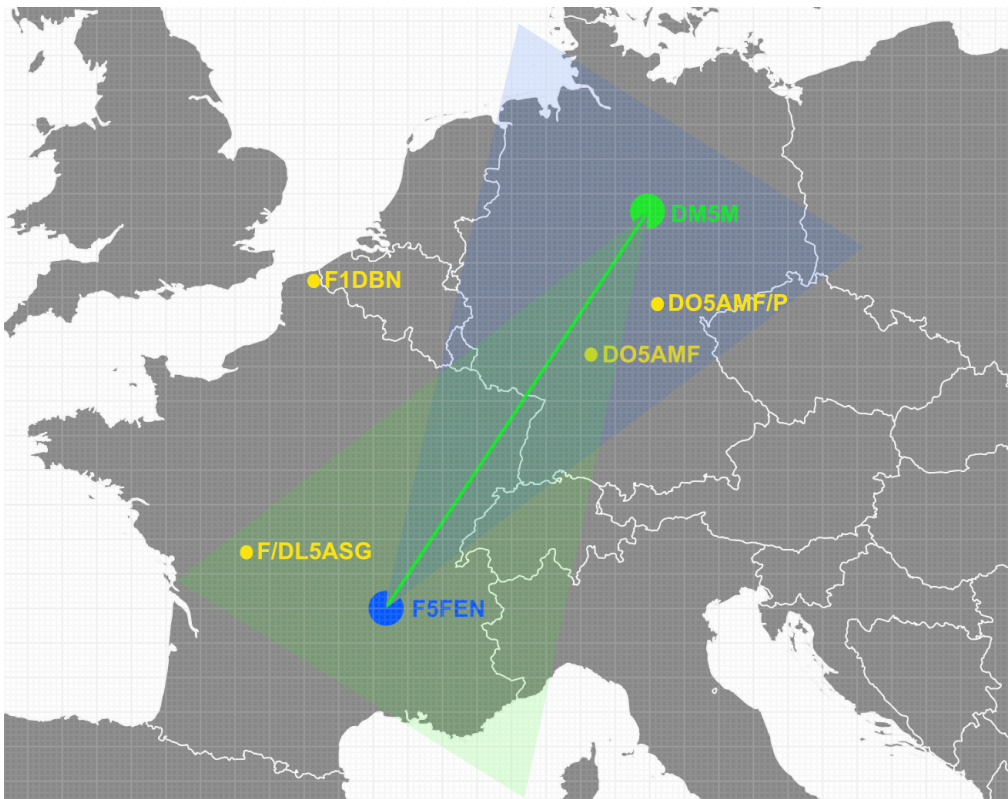


7) Features

a) „Sked directed to me“-Highlighting

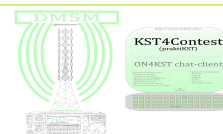
One picture tells more than 1000 words. I painted one.

So let's begin with the picture and then let's follow 1000 words:



- **Sked from F5FEN to DM5M**
 - DO5AMF in JN49 will get a sked-in-your-direction-tag for F5FEN in the userlist
 - DO5AMF/P will get a sked-in-your-direction-tag for F5FEN in the userlist
 - F/DL5ASG will **NOT** get a sked-in-your-direction-tag for F5FEN in the userlist
- **Sked-answer from DM5M to F5FEN**
 - DO5AMF in JN49 will get a sked-in-your-direction-tag for DM5M in the userlist
 - DO5AMF/P will **NOT** get a sked-in-your-direction-tag for DM5M in the userlist
 - F/DL5ASG will **NOT** get a sked-in-your-direction-tag for DM5M in the userlist
- **F1DBN is unaffected by the communication**

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Following now: an explanation to the mechanics and the thoughts. It's simple and free of topographic path calculations although this would be possible. Maybe this will follow sometime.

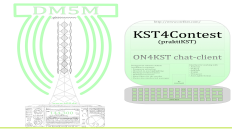
If a message-sender writes another to ask for a sked, I assume that his antenna is directed to this receiver-chatter. If this causes that the sender-antenna is directed most likely in my direction (with a difference of «half of selected beamwidth»), the callsign will appear fat and green in the userlist. As the sender often propagates his frequency at the chat (that means, we have saved this already), there is a high probability to work him at this short term opportunity

At this moment, the calculation is based to the value of your own antenna beamwidth. I tested this with 50 deg (while DM5M uses only Quads with 69 deg). Test results had been good for 50 deg.

As you certainly use an antenna setup similar to the most of the other stations of the used bands, I am assuming that the other stations do nearly have the same antenna beamwidth as you are using. Maybe it would be good to decide between the others beamwidth and the own. But since I don't have any information about the antennas, I firstly have to find a good threshold for the warnings.

Show only QRB [km] <= 900.0							Show only QTF: 135.0 deg, 50.0 beamwidth							N NE E SE S SW W NW					
Find...		Hide:		wkd	144	432	23	13	9	6	3	Inactive stations							
Callsign	Name	QRA	QTF	QRG	Act	AP [minutes / pot%]	worked												
							wkd	144	432	23	13	9							
(F1NZC)	Jean-Louis J...	JN15MR	226.74°	n285	13	nil													
G1KAW	kevin	IO91RH	291.04°	320	18	5 (75%) / 9 (75%)													
9A1UN	Davor MMC...	JN65TF	139.09°	310 320	39	0 (100%) / 1 (75%)													
YU7SMN	Nesha	KN05EG	113.25°	284	2	nil													
OK1FPR	Milos	JO80CE	78.93°	271 382 35...	39	0 (100%) / 3 (75%)													
DD0VF	Steffen 2m ...	JO61TB	62.08°	182	47	0 (100%) / 0 (100%)													
DK5EW	Wini	JN48MB	166.72°	182	22	0 (100%) / 0 (100%)													
OE3FVU	Franz 4x14...	JN78VE	102.39°	180	21	nil													
OH6KTL	Lasse	KP02OJ	23.64°	144180 315	25	nil													
G4KWQ	Andy 2x12ele	IO92AQ	299.96°	144095	10	nil													
EW7T	Anatoly	KO53DR	64.17°	144058	42	nil													
HB9SJV	Ben	JN36DO	208.46°	144.310	28	0 (100%) / 4 (75%)													
PA2DX	Kees	JO23XE	337.48°	144.180	14	0 (100%) / 0 (100%)													
OM4CW	Vlado 2m Q...	JN88UN	95.19°	144.052	46	nil													
DL8KX	Tommy	JO53CL	13.9°	087	9	0 (100%) / 0 (100%)													
DG5CST	Sebastian70...	JO60DS	60.32°	077	52	0 (100%) / 1 (75%)													
I3MEK	Mario	JN55SJ	152.46°	060 358	6	0 (100%) / 1 (75%)													
DK3EE	TOM	JO41GU	0.0°	060	51	0 (100%) / 0 (100%)													
(DF9QX)	Matthias	JO42HD	1.1°		21	0 (100%) / 0 (100%)													
(F6CIS)	144.010.00	IN94WL	233.02°		21	11 (75%) / 15 (75%)													
(G4MKF)	Malcolm	IO91HJ	290.67°		52	1 (50%) / 3 (50%)													

Example: green and fat means: station makes a sked in your direction



b) Airscout-interface

As described in the AirScout settings, kst4Contest is able to send messages to Airscout and it answers with a list of reflectable planes and their properties.

Note, if you running multiple instances of kst4Contest and this setting is turned on at both instances, Airscout will answer to both instances as well in the local network!

That´s not a problem if the locator is the same for both instances (or/and if the login callsign differs from one instance to the other). Otherwise it will have bouncy effects to the available AP list and the AP data maybe are not valid.

c) Macros

There are some predefined Text-Snippets you seen before. In general you mostly does not need more than 4 or 5 predefined texts in the whole contest.

The first 10 texts are callable by hitting key-combinations: CTRL + 0 [...] CTRL + 9.



Gianluca Costantino gave me the idea of using a programmable macro keyboard and assigning the key combinations to the keys. By hitting a key, you can call the texts, hitting another key (linked to enter) will send the text.

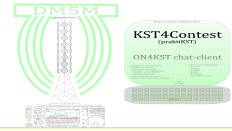
This really saves a lot of time compared to the right click menu and significantly improves the workflow.

In the most cases, the macro calling will only make sense after you selected a receiver in the userlist. Kst4Contest will then address the user by typing:

„/CQ «callsignOfTheUser» «Makro»“

to the sendtext-field.

Hitting enter will then send this text, even if you the sendtext-field dont have the focus.



1) Variables

There are some built in variables which will be replaced by values at the runtime.

A) *FIRSTAP*,

Assuming (example):

- a plane to a selected station is available
- the plane have a potential of 100%
- the plane is available for reflection in 1 minute

Typing „FIRSTAP“ will causing this text for example: „a very big AP in 1 min“

B) *SECONDAP*

Assuming (example):

- a second plane to a selected station is available
- the plane have a potential of 75%
- the plane is available for reflection in 9 minute

Typing „SECONDAP“ will cause this text for example: „Next big AP in 9 min“

C) *MYQRG*

This will be replaced by the QRG Value which had been received of your log software, if you activated the TRX synch in the preferences or otherwise the entered value of the textfield „MYQRG“ right of the send button. Format for QRG string (example, (autoupdating on)) would be: „144.388.03“.

D) *MYQRGSHORT*

Same as MYQRG but only the first 7 characters will be used, for example: 144.388.

E) *MYLOCATOR*

This will be replaced by your maidenhead-locator (6 characters, for example „JO51IJ“).

F) *MYLOCATORSHORT*

Same as MYLOCATOR but only the first 4 characters will be used, for example: „JO51“

G) *QRZNAME*

This will be replaced by the data in the name-field of a selected station.

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H) MYQTF (planned for v 1.3)

This will be replaced by values for „north, north east, east, [...]“. The value for that will be setted out of your beam direction in deg which you can enter at right-handed to the MYQRG-Field (MYQTF-Field).



d) Simplelogfile

As earlier I had to interpret UCXLogs binary database files without any knowledge of the format, I had to find out what's possible to reach my goals.

I took notice of readable String values in the binary files. I wrote a regular expression for matching callsign patterns. With this I am able to find out callsign-like patterns out of huge amounts of text while the callsign-matcher ignores the binary data and other Strings.

If you change the path of the logfile in the preferences, you are able to use all other logfile formats. The interpreter will recognize all callsign-formatted text-strings and mark worked stations in the chat clients GUI.

But in this case there is no option to mark a worked band for the station!

The better option is to use a compatible logprogram like UCXlog or N1MM to mark the worked stations with their worked bands.

Meanwhile I used the logfile in the program folder for tagging stations worked which are unworkable for me (they wrote something with this meaning by the chat, e.g. „I am not qrv today, just spying“). I will replace this method later by introducing reachable tags or something similar (I have to think about that).

The file will be handled as read-only. This way you could also use your production logfile.

e) Intervalled beacons

KST4Contest is able to propagate that you are QRV via messages to the public chat channel. It's able and recommended to insert your CQ frequency there. The best option for that is to use the MYQRG variable (7)c)1)Variables). You are able to update the MYQRG by log program then or also set it manually.

If someone other uses kst4contest in the chat channel, this station will instantly have your QRG on the screen because of the qrg reading.

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f) QRG-reading

Kst4Contest processes each line of text which flows through the channel.

One of my first goals of the implementation was to build a cluster-like list where I can find out the CQ QRGs of calling stations without asking.

The result to the workflow is clearly that you can visit the QRGs short term and have a look (or throw an ear) if you might can work a station.

Together with the direction warnings it is a useful feature for working stations at good opportunities without really interrupting your CQ calling.

Callsign	Name	QRA	QTF	QRG	Act	AP [minutes / pot%]	wkd
(F1NZC)	Jean-Louis J...	JN15MR	226.74°	n285	9	nil	
G1KAW	kevin	IO91RH	291.04°	320	13	10 (75%) / 13 (75%)	
9A1UN	Davor MMC...	JN65TF	139.09°	310 320	35	0 (100%) / 0 (100%)	
YU7SMN	Nesha	KN05EG	113.25°	284	2	nil	
OK1FPR	Milos	JO80CE	78.93°	271 382 35...	34	2 (75%) / 2 (75%)	
DD0VF	Steffen 2m ...	JO61TB	62.08°	182	43	0 (100%) / 0 (100%)	
DK5EW	Wini	JN48MB	166.72°	182	18	0 (100%) / 5 (75%)	
OE3FVU	Franz 4x14...	JN78VE	102.39°	180	16	nil	
OH6KTL	Lasse	KP02OJ	23.64°	144180 315	21	nil	
G4KWQ	Andy 2x12ele	IO92AQ	299.96°	144095	6	nil	
EW7T	Anatoly	KO53DR	64.17°	144058	38	nil	
HB9SJV	Ben	JN36DO	208.46°	144.310	24	1 (75%) / 5 (75%)	
PA2DX	Kees	JO23XE	337.48°	144.180	9	0 (100%) / 0 (100%)	
OM4CW	Vlado 2m Q...	JN88UN	95.19°	144.052	42	nil	
DL8KX	Tommy	JO53CL	13.9°	087	5	0 (100%) / 0 (100%)	
DG5CST	Sebastian70...	JO60DS	60.32°	077	48	0 (100%) / 0 (100%)	
I3MEK	Mario	JN55SJ	152.46°	060 358	2	0 (100%) / 0 (100%)	
DK3EE	TOM	JO41GU	0.0°	060	47	0 (100%) / 0 (100%)	

QRG-column will be filled with (likely) QRG-values



g) Direction filter for the userlist

If you call CQ contest in a direction it is maybe useful to ask for skeds in this direction. To make it easy finding stations in this direction, it's possible to show only callsigns in the userlist, which are positioned in a special direction. Just activate „Show only QTF“ (fill in degrees or) use the N / NE / E / SE / S / SW / W / NW [....] buttons to filter.

Show only QRB [km] <=	900.0	<input type="checkbox"/> Show only QTF:	135.0 deg, 50.0 beamwidth	N	NE	E	SE	S	SW	W	NW
Find...		Hide:	wkd	144	432	23	13	9	6	3	Inactive stations
Callsign ▲	Name	QRA	QTF	QRG	Act	AP [minutes / pot%]	wor				
							wkd	144	432	23	
DJ9MG	Peter	JO52TC	35.41°		23	0 (100%) / 0 (100%)					
DK3EE	TOM	JO41GU	0.0°	060	45	0 (100%) / 0 (100%)					
DL1YDI	Dirk 2m/9Ele	JO42FA	358.84°		15	7 (75%) / 8 (75%)					

Direction filter is up to the userlist

h) distance filter for the userlist

As the most contesters knows their maximum reachable distance (average), it's possible to hide chatters which are farer than this distance. Have a look to the button „Show only qrb [km] <=“. It's a toggle button. If you turn it on, the real dx stations will be hidetd..., :-).

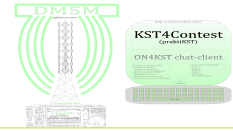
i) worked-filter and NOT-QRV-filter for the userlist

By activating one or more of the hide-worked (also hide-NOT-QRV-tagged) togglebuttons (one per band), you can activate a filter to hide stations which are worked at a special band or tagged as NOT-QRV by yourself.

Show only QRB [km] <=	900.0	<input type="checkbox"/> Show only QTF:	180.0 deg, 50.0 beamwidth	N	NE	E	SE	S	SW	W	NW				
		Hide worked:	wkd	144	432	23	13	9	6	3	Inactive stations				
		Hide un-QRV:													
Callsign ▲	Name	QRA	QTF	QRG	Act	AP [minut...	worked							NOT QRV @	
							144	432	23	13	9	6	3		wk...
(9A4P)	Club	JN85UH	120.44°		21	nil									144
(F5DYD)	Jean-Louis ...	JN03KG	223.27°		20	nil									144 70
(G4MKF)	Malcolm	IO91HJ	290.67°		20	nil									144 70 SHF23 SHF13
(G8IQL)	Martin	IO90LX	287.4°		20	nil									144 70 SHF23 SHF13 SHF9

Example view for activated „worked-and-not-qrv-filter“

Read more about the filter function here: 7)k)Tagging other chatters as not-qrv.



k) Tagging other chatters as not-qrV

There are obvious signs of other stations that they are not qrv at special bands. To name an example, if we have a station „DM5D“ in the chat and the name in the chat of this station is „23+ only“, we can assume that DM5D is only qrv at 23cms, 13cms and may up. I got the hint that such a filter is necessary by Franz van Velzen, PE0WGA (tnx!).

However, there is a big amount of other stations which won't write such hints into the name field. You need to ask them for a sked at a band that you want to try. If you ask them for a sked at 144 MHz, they may will answer „sri, only 432 and 1240 today“.

If there is an operator change at your station or you are just tired, your station will maybe ask DM5D several times for a sked at 144 MHz. While the HAM spirit asks us for patience, it's avoidable typing work for DM5D to repeat this answer all the time.

Thatswhy since v1.2 it's possible to tag a selected station as not qrv at each band, if you get this information:

Messages of G8IQL -> Filter: nothing pm to me pm to other public msgs

Time	Call TX	Call RX	Message
------	---------	---------	---------

Kein Inhalt in Tabelle

QTF: 287.4 deg
 QRB: 701.25 km
 Last activity: 14.04 20:27:35 (4 min ago)

<input checked="" type="checkbox"/> tag not qrv 144	<input checked="" type="checkbox"/> tag not qrv 9cm
<input checked="" type="checkbox"/> tag not qrv 432	<input type="checkbox"/> tag not qrv 6cm
<input checked="" type="checkbox"/> tag not qrv 23cm	<input type="checkbox"/> tag not qrv 3cm
<input checked="" type="checkbox"/> tag not qrv 13cm	<input type="checkbox"/> tag not qrv all

Sample view for using NOT-QRV-tags of G8IQL (details)

Show only QRB [km] <= 900.0 Show only QTF: 180.0 deg, 50.0 beamwidth N NE E SE S SW W NW

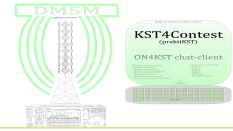
g8iql Hide worked: wkd 144 432 23 13 9 6 3 Inactive stations Hide un-QRV:

Callsign ^	Name	QRA	QTF	QRG	Act	AP [minut...	worked							NOT QRV @	
							144	432	23	13	9	6	3		wk...
(G8IQL)	Martin	IO90LX	287.4°		11	nil									144 70 SHF23 SHF13 SHF9

Sample view for using NOT-QRV-tags of G8IQL (unfiltered Userlist)

Of course, the band filters of the user list also affect the NON-QRV tags. If you activate a hide filter, stations that are not qrv on the filtered band will also be hidden.

These not-qrV tags will be stored at the internal database and thatswhy being recreated in case of restarting kst4Contest. It's resettable via the settings, have a look to 5)j)Worked station database settings.



8) Is there anything else that needs to be written?

The client is still under development and there are some things I want to implement in the future. So stay tuned if you like it.

I am thankful for all reported bugs and hints for what I could implement to increase the usability or the contest workflow.

Special thanks to **Gianluca Costantino, IU3OAR, Alessandro Murador, IZ3VTH, Reczetár István, HA1FV** for testing and reports (some others as well).

Also special thanks to **Konrad Neitzel, DC9DJ** (www.kneitzel.de). Nice OM, who is very active at the java forum. He helped me a lot by recreating the project structure and exporting a deployable software.

Initially it never was planned to publish this software but some people had written to me if they could use it.

a) Some counts...

There are innumerable hours of time in this software and (state today) **20.000 lines of code**.

b) GitHub

Project source is at gitHub.

<https://github.com/praktimarc/kst4contest>

c) Donation creates motivation

I would be also thankful for donations. The motto is: donation causes motivation.

<https://www.paypal.com/paypalme/do5amf>

73 de DO5AMF, Marc

14.05.24