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EEVblog Electronics Community Forum » Products » Test Equipment » Enabling options for R&S test equipment


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 Author

Topic: Enabling options for R&S test equipment (Read 41569 times)


volvo_nut_v70 and 1 Guest are viewing this topic.

CJay

Super Contributor



Posts: 3238

Country: 

MOUAW



Enabling options for R&S test equipment

« on: December 07, 2016, 10:05:18 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Does any one know if R&S are amenable to providing 'keys' for software options to hobbyists who own older equipment?

I've a CMU200 on which I'd like the K29 AMPS option to be enabled as it'd allow me to rid my tiny bench of some clutter but obviously, as a hobbyist, the cost would be a massive issue so if R&S need me to have a deep wallet it won't be possible.

[Report to moderator](#) 


MOUAW

rfbroadband

Supporter



Posts: 178

Country: 



Re: Enabling options for R&S test equipment

« Reply #1 on: December 08, 2016, 02:27:36 am »

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they will most likely not do that. If you are not a regular customer that spends n* 10k or >100k each year....you won't even get a meaningful discount.

[Report to moderator](#) 

CJay

Super Contributor



Re: Enabling options for R&S test equipment

« Reply #2 on: December 08, 2016, 02:31:41 am »

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Quote from: rfbroadband on December 08, 2016, 02:27:36 am

they will most likely not do that. If you are not a regular customer that spends n* 10k or >100k each year....you won't even get a meaningful discount.

Posts: 3238
Country:

M0UAW

Ah nuts, still, nothing ventured, nothing gained. I'll email them and ask how much it would cost but it's a 15+ year old piece of kit.

I might have to revisit some of my old hobbies.

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M0UAW

The following users thanked this post: [Kendhill57](#)

nctnico
Super Contributor



Posts: 16911
Country:

Re: Enabling options for R&S test equipment

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« **Reply #3 on:** December 09, 2016, 12:04:46 am »

I once asked about the decoding options for an older oscilloscope (RTM1500 series IIRC) but they cost more than the scope so never mind.

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There are small lies, big lies and then there is what is on the screen of your oscilloscope.

CJay
Super Contributor



Posts: 3238
Country:

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #4 on:** December 09, 2016, 01:53:42 am »

Oh well, shame.

digs out copy of IDA and Sourcer

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M0UAW

tmbinc
Regular Contributor

Posts: 172

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #5 on:** December 13, 2016, 10:29:35 am »

R+S's response to support for the CRTU-RU was basically "sorry, we don't have that software anymore, you're out of luck". It wasn't that they didn't _want_ to help me (in their words), but that they couldn't. (I'm not sure if that was the complete truth, though.)

I wished they could have helped me. Instead, I had to help myself...

```
from Crypto.Cipher import ARC2
import struct

for l in open("SWOPT.DAT"):
    if len(l) == 17:
        a, b = struct.unpack("<II",
ARC2.new("Revision\0").decrypt(l.strip().decode("hex")))
        print "SN: %d - %08x" % (a, b)
```

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The following users thanked this post: [nowlan](#), [artag](#), [MindBender](#), [CJay](#)

dcarr
Regular Contributor

Posts: 90

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #6 on:** December 13, 2016, 10:34:27 am »

Question: Is the actual software for the options included on the base system?

(ie: They didn't have to mail you a disk with the new code on it?)

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eliocor
Supporter

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #7 on:** December 14, 2016, 07:44:53 am »



Posts: 364
Country:

CJay
Super Contributor



Posts: 3238
Country:

M0UAW

eb4eqa
Regular Contributor

Posts: 73

AudioplatinumService
Contributor

Posts: 37
Country:

CJay
Super Contributor

Not sure it can help you, but some time ago I found this (see attachment).
Maybe it can be used also for other devices....

Rohde & Schwarz FSP option generator.zip (640.37 kB - downloaded 1304 times.)

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The following users thanked this post: BravoV, MindBender, CJay

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #8 on: December 22, 2016, 10:35:49 pm »

OK, so it's Python, it runs after importing pycrypto to my Raspberry Pi, needed a minor tweak I think related to the difference between DOS and Linux EOL/LF handling but the output appears valid.

I get output which is my serial number and then an option number I can tie up to installed options, trivial to work out the option number from this code.

I think I'm safe to assume I need to encipher 01D000C3 using my serial number as key (or vice versa) to obtain the option key for K29 and this is where I'm stuck as I'm struggling to understand the python code and how it decrypts, let alone how to reverse the process and obtain a valid ciphertext key.

What's also worrying me at the moment is that there's no 'installed version' for K29 so I have a sinking dread that K29 software may not actually be on the machine unless it's hidden somewhere in an archive and needs to be installed by Version Manager?

Also very curious about the 'FM Stereo' option in there if anyone has any knowledge of it?

Report to moderator

M0UAW

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #9 on: December 22, 2016, 11:13:34 pm »

Hi,

No idea about the Stereo option, but I do have K29 in my CMU200. If you need me to check something or get some files, I'll be happy to do it. Always interesting.

Regards,
Roberto

Report to moderator

The following users thanked this post: CJay

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #10 on: December 23, 2016, 12:05:34 am »

Hi guys.. Nice to saw here some progress. I have R&S UPL and I Am also interested in some sw options.

@CJay Can you give me more information how do you make setup on RPi?

Cheers,
Damir

Sent from my iPad using Tapatalk

Report to moderator

Audioplatinum Service
www.embrioproduct.com
A clean desk is the sign of a sick mind...

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #11 on: December 23, 2016, 01:14:25 am »



Posts: 3238
Country:

MOUAW

Quote from: AudioplatinumService on December 23, 2016, 12:05:34 am

Hi guys.. Nice to saw here some progress. I have R&S UPL and I Am also interested in some sw options.
@CJay Can you give me more information how do you make setup on RPi?

Cheers,
Damir

Sent from my iPad using Tapatalk

I only used a Pi to run the Python code provided by TMBInc earlier in this thread because Python is included with the Raspbian image and it's very simple to install the PyCrypto software so I went with the easiest option available to me.

It would have been non trivial for me to install Python and PyCrypto on my laptop, though if you're proficient with Python I'm sure it would be very simple to install.

The only change I had to make to the code was to change

```
if len(l) == 17:
```

to

```
if len(l) == 18:
```

because I think the way DOS and Linux terminate lines is different. Or perhaps there's a difference between CMU and CRTU SWOPT.DAT files

I'm really not a programmer so it's going to be a voyage of discovery for me to unpick what is almost definitely a very simple python script and reverse it to make myself a key generator.

[Report to moderator](#)

MOUAW

The following users thanked this post: AudioplatinumService

Jackob

Contributor

Posts: 9
Country:

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #12 on:** December 23, 2016, 04:53:48 am »

CJay - I am curious; how did you figure out that you need to encipher 01D000C3 to obtain the option key for K29?

BR, Jakob

[Report to moderator](#)

CJay

Super Contributor



Posts: 3238
Country:

MOUAW

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #13 on:** December 23, 2016, 05:19:44 am »

If I've understood the code and its output correctly, the licenses decode to serial number - option code where option code is 0xx0003C and xx is the hex representation of the decimal option number.

So, K29 would be 01d0003C

I could be way off the mark though.

[Report to moderator](#)

MOUAW

oh2ftu

Contributor

Posts: 21
Country:

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #14 on:** December 23, 2016, 07:11:29 am »

Hi,
I have a CMU200 with the K29 option enabled.
Below is the contents from swopt.dat:

Code: [Select]

```
FEEC0364A639F575  
A2AF0325E648F54D
```

```

4D8CB38F128844B2
0A4080E5DDB3F339
08678B2806514740
D710C80B984FFD23
8E1182008AE45EB2
42D23B964CE7C522
DE8BC25F5305D1EB
6E1701C72B5F9256
6B53740D41CF8780
DBBE31F8EAE9C22

```

And the options installed are
K21-K24, K27-K29, K42, K43, K53, K84, K85. Serial 837109/035

From another,

Code: [Select]

```

917D1CFF38E8F2C1
AC15C4AFBA26733A
D87CDA77974C9514
BE238053BEA30B16
75AE27EBF3F52E40
DFB718A6C9D85764
11B26D02CEE94BEA

```

and options:
K21-K24, K42, K43 and K45. Oh, and serial 103086.

« Last Edit: December 23, 2016, 07:14:10 am by oh2ftu »

Report to moderator Logged

artag
Frequent Contributor

Posts: 346
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #15 on: December 23, 2016, 10:28:57 am »

So that gives

```

SN: 837109 - 01500023
SN: 837109 - 01600023
SN: 837109 - 01700023
SN: 837109 - 01b00023
SN: 837109 - 01c00023
SN: 837109 - 01d00023
SN: 837109 - 01800023
SN: 837109 - 02a00023
SN: 837109 - 05400023
SN: 837109 - 05500023
SN: 837109 - 03500023
SN: 837109 - 02b00023

```

and
SN: 103086 - 01500002
SN: 103086 - 01600002
SN: 103086 - 01700002
SN: 103086 - 01800002
SN: 103086 - 02b00002
SN: 103086 - 02a00002
SN: 103086 - 02d00002

Not having a CMU200, I don't understand what you mean by 'Serial 837109/035' - but the 035 turns up again as 0023. So what does 002 on the second example refer to ?

« Last Edit: December 23, 2016, 11:04:13 am by artag »

Report to moderator Logged

artag
Frequent Contributor

Posts: 346
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #16 on: December 23, 2016, 11:09:07 am »

For those, like me, with little experience of python, that fragment can be expressed less tersely as :

Code: [Select]

```

from Crypto.Cipher import ARC2
import struct
KEY = "Revision\0" # decryption key for the data
STRUCT_TWO_UNSIGNED_INTS = "<II"
for line in open("SWOPT.DAT"):
    if len(line) == 17:

```

```

cipher = ARC2.new(KEY) # a new ARC2 cipher with the right key (ARC2 is a symmetric block cipher,
ciphertext = line.strip().decode("hex") # Decode our ciphertext from hex, removing whitespace fro
plaintext = cipher.decrypt(ciphertext) # Decrypt the cyphertext using the key
a, b = struct.unpack(STRUCT_TWO_UNSIGNED_INTS, plaintext) # unpack two unsigned ints from the pla
print "SN: %d - %08x" % (a, b)

```

(courtesy of a more knowledgeable person elsewhere)

[Report to moderator](#) [Logged](#)

oh2ftu

Contributor

Posts: 21

Country:



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #17 on:** December 23, 2016, 07:34:13 pm »

In what format should the code be entered? just as 01500023 or must the hexadecimal version?
I'm not into crypto so I can only get a basic understanding of what the python does. How would one create new keys if I need them in hexadecimal format?
Apparently the decrypt is essential to do first, then crypt them again?

[Report to moderator](#) [Logged](#)

CJay

Super Contributor



Posts: 3238

Country:

MOUAW



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #18 on:** December 23, 2016, 09:46:18 pm »

At the moment I'm just trying to write code which will verify what we have, simply entering the results from a known good pair generated from an existing enabled option, encrypting it and testing it against the input for a match. Once that works it'll generate new option keys as well.

it'll need to be manually edited to suit the required option but that'll be plenty for my needs, someone else can polish it to take command line options etc.

My available time is running out until after the holidays so it'll have to take a place on the back burner for a little while if I can't work it out today.

I'd like to complete this myself, good motivation to get a grip on Python but of course, if someone else works it out (and I'm sure it's trivial as it seems 'all' that needs to be done is work out how to get the plaintext into the ARC2 routine) given the information we have) then I will be happy too.

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MOUAW

artag

Frequent Contributor



Posts: 346

Country:



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #19 on:** December 23, 2016, 09:46:31 pm »

The decrypt does give the 0023 or whatever, from your existing licences. I don't see that you'd need to do it for any other reason than proving the process. It would be better to know how to derive the 23 (or 2, or C3 ..) directly, so you don't need an existing licence to make a new one.

The encrypt process would be something like :

- make a record consisting of serial number, option number, suffix (23 etc) in binary
- encrypt it using the RC2 cypher and the key 'Revision'
- convert to ascii
- add to the license file

[Report to moderator](#) [Logged](#)

CJay

Super Contributor



Posts: 3238

Country:

MOUAW



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #20 on:** December 23, 2016, 10:00:50 pm »

That last byte (or perhaps two bytes) would seem to be the /xxx part of the serial number, mine is 836072/060 and the last byte of what I'm calling the option code is 3C, 060 decimal, the last byte of OH2FTU's matches the /035 of his serial number.

The SWOPT.DAT file will probably exist on all machines and have at least one or two licences in it, but even if it's empty it should be possible to create an 'option code' from the full serial number and the desired option.

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MOUAW

 **artag**
 Frequent Contributor

 Posts: 346
 Country: 

 **Re: Enabling options for R&S test equipment** Say Thanks Reply Quote
 « **Reply #21 on:** December 23, 2016, 10:29:40 pm »

This seems to do the reverse :

```
Code: [Select]
from Crypto.Cipher import ARC2
import struct

serial = 103086
serial2 = 2
option = 45

record = struct.pack("<II", serial, serial2 + (option <<20))
encyphered = ARC2.new("revision\0").encrypt(record)
print encyphered.encode("hex")
```

produces





11b26d02cee94bea

i.e. the last entry in oh2ftu's list

« Last Edit: December 23, 2016, 10:47:34 pm by artag »

[Report to moderator](#) 

The following users thanked this post: MindBender, philipz, CJay, ZL1CVD, oh2ftu

 **CJay**
 Super Contributor


 Posts: 3238
 Country: 

 **Re: Enabling options for R&S test equipment** Say Thanks Reply Quote
 « **Reply #22 on:** December 23, 2016, 10:47:33 pm »

If that's the case I think we have a winner. 😊😊

My CMU is at home and I'm unable to get to it until later but I'll be able to test it later.


« Last Edit: December 23, 2016, 10:52:11 pm by CJay »

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MOUAW





 **artag**
 Frequent Contributor

 Posts: 346
 Country: 

 **Re: Enabling options for R&S test equipment** Say Thanks Reply Quote
 « **Reply #23 on:** December 23, 2016, 10:48:14 pm »

Check it with some existing options for your machine first

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 **CJay**
 Super Contributor


 Posts: 3238
 Country: 

 **Re: Enabling options for R&S test equipment** Say Thanks Reply Quote
 « **Reply #24 on:** December 23, 2016, 10:53:47 pm »

I will, unfortunately I'm unable to install python on this machine but I will run my options through it first and report back.

[Report to moderator](#) 

MOUAW

 **oh2ftu**
 Contributor
 Posts: 21
 Country: 

 **Re: Enabling options for R&S test equipment** Say Thanks Reply Quote
 « **Reply #25 on:** December 23, 2016, 11:10:33 pm »

I'm unable to reproduce the keys found for the /035 - serial. Any advice?
The newer machine is no longer in my possession 😞

Best regards

I set serial2 as 35 instead of 035 and bang! it works!

« Last Edit: December 23, 2016, 11:13:32 pm by oh2ftu »

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The following users thanked this post: CJay

CJay
Super Contributor



Posts: 3238
Country:

MOUAW

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #26 on: December 23, 2016, 11:21:02 pm »

Well that's exciting 😊

Many thanks to everyone who's provided information and code, this will definitely be one of my favourite Christmas presents this year.

I can't wait to get home and try it on my CMU now.

Anyone got any ideas what Option K14 does?

Report to moderator Logged

MOUAW

artag
Frequent Contributor

Posts: 346
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #27 on: December 23, 2016, 11:27:30 pm »

Quote from: oh2ftu on December 23, 2016, 11:10:33 pm

~~I'm unable to reproduce the keys found for the /035 serial. Any advice?
The newer machine is no longer in my possession. 😞~~

~~Best regards~~

I set serial2 as 35 instead of 035 and bang! it works!

Looks as though python (like C) interprets a leading 0 as meaning 'octal'. So 035 is 29 decimal.

Report to moderator Logged

CJay
Super Contributor



Posts: 3238
Country:

MOUAW

Re: Enabling options for R&S test equipment

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« Reply #28 on: December 24, 2016, 03:10:43 am »

Well, I can confirm it works.

Sadly it seems the AMPS software may not be on my CMU. More exploration needed.

OF2HTU, when you enabled options what happened?

Report to moderator Logged

MOUAW

oh2ftu
Contributor

Posts: 21
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #29 on: December 24, 2016, 03:26:32 am »

Quote from: CJay on December 24, 2016, 03:10:43 am

Well, I can confirm it works.

Sadly it seems the AMPS software may not be on my CMU. More exploration needed.

OF2HTU, when you enabled options what happened?

Hi,
The AMPS (K29) should be just easily enabled as anything else. You'll find it under the menu select - button.

I sold my other (without) K29 about 12hrs before this thread activated the day before yesterday. Had I known the outcome, I would've sold the one I now have left.
All the software is there. A reboot is required.

Report to moderator Logged

CJay

Super Contributor



Posts: 3238

Country:

MOUAW

 **Re: Enabling options for R&S test equipment**

« Reply #30 on: December 24, 2016, 03:29:15 am »

Say Thanks

Reply

Quote

even after the reboot I only see a tick and no 'Version' so I don't think it's present but I do have another two disk images I can explore.

Did yours have a version number before you enabled it?

Report to moderator



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MOUAW

 oh2ftu

Contributor

Posts: 21

Country:

 **Re: Enabling options for R&S test equipment**

« Reply #31 on: December 24, 2016, 03:40:49 am »

Say Thanks

Reply

Quote

Quote from: CJay on December 24, 2016, 03:29:15 am

even after the reboot I only see a tick and no 'Version' so I don't think it's present but I do have another two disk images I can explore.

Did yours have a version number before you enabled it?

Try to run a system upgrade from the bootup-menu

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The following users thanked this post: TopLoser

 grw1983

Newbie

Posts: 4

Country:

 **Re: Enabling options for R&S test equipment**

« Reply #32 on: December 28, 2016, 02:52:22 am »

Say Thanks

Reply

Quote

Hi,

maybe this may help:

<https://bitschubbser.org/nextcloud/index.php/s/6TCghFbYMsbkfph> (PW: eevblog)

This is the r+s software for CMU200: Base, Bluetooth, AMPS, GSM.

Completely untested (may even be that these are the wrong files) because I don't have a PCMCIA-card for my unit yet.

Regards,

grw

EDIT: New link to the archive!

« Last Edit: January 05, 2017, 06:23:10 am by grw1983 »

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The following users thanked this post: CJay

 grw1983

Newbie

Posts: 4

Country:

 **Re: Enabling options for R&S test equipment**

« Reply #33 on: December 29, 2016, 08:56:20 am »

Say Thanks

Reply

Quote

Okay,

everybody just downloading, nobody replying. So here it goes:

I was able to activate the AMPS-module with the "keygen" and by installing the IS1MV5.20.exe package.

Note:

The files from the IS1MV5.20.exe need to be in a directory called "IS1MV5.20" for the CMU200 versionmanager to find them. AND you need to install the corresponding base-package first.

Greetings

Report to moderator



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The following users thanked this post: CJay, richnormand

CJay

Super Contributor

Re: Enabling options for R&S test equipment

« Reply #34 on: December 29, 2016, 07:00:41 pm »

Say Thanks

Reply

Quote



Posts: 3238
Country:

M0UAW



AudioplatinumService

Contributor

Posts: 37
Country:



I'm waiting on a PCMCIA to CF adapter to try installing those packages so I am guilty of downloading and not replying, did you have to 'install' from PCMCIA or were you able to put it on the HDD directly?

[Report to moderator](#)

M0UAW

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #35 on:** December 29, 2016, 07:38:22 pm »

Hi guys,

I have R+S UPL unit, OS is DOS 6.22 and options numbering is similar like on cmu200. No SWOPT.DAT file in system, but I make some progress with python scripts here. I have some option codes from same unit/different serial number, and one code for option in my unit. Then I make with this script

Code: [\[Select\]](#)

```
from Crypto.Cipher import ARC2
import struct

serial = 103086
serial2 = 2
option = 45

record = struct.pack("<II", serial, serial2 + (option <<20))
encyphered = ARC2.new("Revision\0").encrypt(record)
print encyphered.encode("hex")
```

entry and I put this in SWOP.DAT file, and run next script

Code: [\[Select\]](#)

```
from Crypto.Cipher import ARC2
import struct
KEY = "Revision\0" # decryption key for the data
STRUCT_TWO_UNSIGNED_INTS = "<II"
for line in open("SWOPT.DAT"):
    if len(line) == 17:
        cipher = ARC2.new(KEY) # a new ARC2 cipher with the right key (ARC2 is a symmetric block cipher,
        ciphertext = line.strip().decode("hex") # Decode our ciphertext from hex, removing whitespace from
        plaintext = cipher.decrypt(ciphertext) # Decrypt the cyphertext using the key
        a, b = struct.unpack(STRUCT_TWO_UNSIGNED_INTS, plaintext) # unpack two unsigned ints from the pla
        print "SN: %d - %08x" % (a, b)
```

Output from this script is my serial number(serial is correct), but code is not ok for my unit. Maybe somebody know how make script working from valid licence codes? I am stuck here...

Unit serial:849260/015
option B21: 19559
option B22: 42997
option B10: 14917
option B4 : 15747

Cheers,
Damir

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A clean desk is the sign of a sick mind...

Jackob

Contributor

Posts: 9
Country:



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #36 on:** December 30, 2016, 07:11:19 pm »

A side note - the keygen in Reply #7 of this thread seems to work for R&S FSU, FSQ, FSP and FS1Q series on spectrum & signal analyzer; (at least).

[Report to moderator](#)

stones

Newbie
Posts: 2
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #37 on: December 30, 2016, 08:26:29 pm »

Quote from: Jakob on December 30, 2016, 07:11:19 pm

A side note - the keygen in Reply #7 of this thread seems to work for R&S FSU, FSQ, FSP and FSIQ series on spectrum & signal analyzer; (at least). 😊

Do you now how to customize the option keys in the option_list[] for FSIQ Options or other devices?

Report to moderator Logged

Jakob

Contributor
Posts: 9
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #38 on: December 30, 2016, 10:01:30 pm »

Based on how the C-file is written no customization of the keys is needed.

Just edit in your analyzer serial number into main.c -file to the line stating "char SerString [] = {"xxxxxx/xxx"}; // Serie dello strumento". When you compile and run the program it will list all keys which may work in your analyzer.

You can also experiment by changing all the "FALSE" statements to "TRUE" in the table of "Acceptable Options" in the beginning of the main.c file and test which ones of all the options work in your analyzer.

E.g. running Tiny C Compiler (TCC) in a PC in command prompt window ("TCC -run main.c") should give the list of your option keys.

BR, Jakob

Report to moderator Logged

CJay

Super Contributor



Posts: 3238
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #39 on: December 30, 2016, 10:14:40 pm »

Handy info perhaps, enabling 'K14 FM Stereo' allows the RF signal generator on the CMU to generate mono, Left and Right FM stereo signals but it doesn't appear as an 'installed' option with version number, just as 'enabled' and you then have extra modulation options.

Handy if you're servicing HiFi etc.

Report to moderator Logged

MOUAW

nctnico

Super Contributor



Posts: 16911
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #40 on: December 31, 2016, 05:16:27 am »

Quote from: Jakob on December 30, 2016, 07:11:19 pm

A side note - the keygen in Reply #7 of this thread seems to work for R&S FSU, FSQ, FSP and FSIQ series on spectrum & signal analyzer; (at least). 😊

Any ideas about other equipment like oscilloscopes?

Report to moderator Logged

There are small lies, big lies and then there is what is on the screen of your oscilloscope.

grw1983

Newbie
Posts: 4
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #41 on: January 01, 2017, 01:30:05 am »

Quote from: CJay on December 29, 2016, 07:00:41 pm

I'm waiting on a PCMCIA to CF adapter to try installing those packages so I am guilty of downloading and not replying, did you have to 'install' from PCMCIA or were you able to put it on the HDD directly?

Hi, sorry for the "late" reply. I installed using a PCMCIA-CF-card adapter, directly via PCMCIA. I actually don't know how to access the CMU200-files externally.

Report to moderator Logged

Brainbox

Contributor



Posts: 29
Country:

dhillman

Contributor

Posts: 27
Country:

Jackob

Contributor

Posts: 9
Country:

rickells

Contributor

Posts: 33
Country:

slurry

Regular Contributor



Posts: 157
Country:

slurry

Regular Contributor



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #42 on: January 01, 2017, 02:25:05 am »

The way I did it was installing Norton Commander on the CF card and boot the CMU in Dos mode. Then its easy to access or copy files to CF.

Report to moderator Logged

I, who know nothing

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #43 on: January 01, 2017, 06:08:18 am »

Quote from: Jackob on December 30, 2016, 07:11:19 pm

A side note - the keygen in Reply #7 of this thread seems to work for R&S FSU, FSQ, FSP and FSIQ series on spectrum & signal analyzer; (at least). 😊

This strikes me as very interesting. I've been working with the SMIQ's i960 firmware and complicated addressing scheme.

Does anyone know the origin of the 'Seed Keys' in main.c?

Report to moderator Logged

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #44 on: January 01, 2017, 06:35:25 am »

Sorry - no idea where the keygen with the seed keys come from - except that they were posted by eliocor. Would love to have similar tool for RTO-series of oscilloscopes.

BR, Jackob

Report to moderator Logged

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #45 on: January 03, 2017, 03:43:49 am »

CJay,

I am trying to contact you about your Aeroflex IFR 3414 GHz Signal Generator repair. I have an Aeroflex IFR 3416, same or very similar problems.

rickells

« Last Edit: January 04, 2017, 05:47:46 am by rickells »

Report to moderator Logged

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #46 on: January 03, 2017, 09:37:14 am »

I set them all to "TRUE" and went through all options on my FSEB30, most of them where accepted as valid keys but none of them seemed to work.

Looking in the >runtime>ini>options file on the HDD the options revealed nothing useful with the generated keys, it was mostly unintelligible so i wiped almost everything away.

I would be happy to try out another set of keys

Report to moderator Logged

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #47 on: January 03, 2017, 09:42:38 am »

Quote from: Jackob on December 30, 2016, 07:11:19 pm



Posts: 157
Country:

stones

Newbie
Posts: 2
Country:

radiorick

Newbie
Posts: 3
Country:

radiorick

Newbie
Posts: 3
Country:

CJay

Super Contributor



Posts: 3238
Country:
MOUAW

Brainbox

Contributor



Posts: 29
Country:

A side note - the keygen in Reply #7 of this thread seems to work for R&S FSU, FSQ, FSP and FSIQ series on spectrum & signal analyzer; (at least). 😊

Are you sure about the FSIQ you mention, maybe it has newer HW and thus have the same setup of SW options as the FSU, FSQ and FSP. 🙄

Report to moderator

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #48 on: January 03, 2017, 08:03:42 pm »

Works fine with my FSIQ 😊 The first 17 Keys are valid.

Report to moderator

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #49 on: January 07, 2017, 05:39:32 am »

Hi Everyone, Having some issues trying to enable some of the SW opts, Perhaps I am doing something wrong, One unit SN 835687/054 and the other is SN 114603 (Not seeing the "/xxx"). Anyway I could use a bit of guidance to enable the sw opts I would like to use. Just having some issues figuring out the whole crypto. I tried several RC2 methods but am not getting anywhere. Thanks

RR

Report to moderator

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #50 on: January 09, 2017, 05:24:59 am »

Cancel last request for Help. Found the issue.

RR

Report to moderator

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #51 on: January 14, 2017, 02:30:57 am »

Well, K29 is an excellent addition to my CMU200, now I need a GPIB interface and some way of programming it so I can produce test reports 😊

Seriously though, thanks to everyone who chipped in with help and code here, it's helped a lot of people and made my CMU into an even better instrument than it was before and I'm having a lot more fun with it now.

Next mission is to extend it below 10MHz with an external mixer 😊

Report to moderator

MOUAW

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #52 on: January 14, 2017, 02:53:55 am »

Quote from: CJay on January 14, 2017, 02:30:57 am

Next mission is to extend it below 10MHz with an external mixer 😊






I am working on the same mission:


<https://www.eevblog.com/forum/rf-microwave/rs-userservice-manuals-cmu200-and-crtu/msg1024073/#msg1024073>

My first thought was to lift the input by 10 MHz, which is available at the reference output. After all I am working now at a lift by 100 MHz, which is more convenient with available input filters and offers a wider input span of 100 Hz - 90 MHz.

Report to moderator

I, who know nothing

 **CJay**
 Super Contributor


 Posts: 3238
 Country: 
 MOUAW


 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #53 on: January 14, 2017, 04:50:04 am »

This probably needs another thread or at least to be tacked into one of the other existing ones but MSRay has done it, he used the sig gen on the CMU as a 1GHz LO for an external ADE-1 mixer which worked nicely from what I can tell.

I've ordered some ADE1 mixers and have managed to scrounge a PCB from a generous member of a mailing list so once I've received that I might start a new thread with test results.

Report to moderator  Logged

MOUAW

 **msraya**
 Supporter

 Posts: 101
 Country: 
 EA7EE


 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #54 on: January 14, 2017, 09:40:26 pm »

Sorry, I'm out working... Very interesting thread...

I not have the CMU200 right now in house, but I have the files, and I tested my SWOPT.DAT with the python script in the post #5 in Windows with python(x,y) not problem.. My SWOPT.DAT info match exactly with my serial number in IDENTITY.TXT and options..

I have:


- SN: 10XXXX - 01500002 --> K21 GSM900, R-GSM, and E-GSM mobile station signaling/non-signaling test software
- SN: 10XXXX - 01600002 --> K22 GSM1800 (DCS) mobile station signaling/non-signaling test software
- SN: 10XXXX - 01700002 --> K23 GSM1900 (PCS) mobile station signaling/non-signaling test software
- SN: 10XXXX - 01800002 --> K24 GSM850 mobile station signaling/non-signaling test software
- SN: 10XXXX - 02A00002 --> K42 GPRS test software extension for all GSM test software packages
- SN: 10XXXX - 02B00002 --> K43 EGPRS classic (EDGE) signaling test software for all GSM test software packages
- SN: 10XXXX - 02C00002 --> K44 Dual transfer mode: simultaneous CS and PS connection for all GSM packages
- SN: 10XXXX - 02D00002 --> K45 AMR test software extension for all GSM test software packages

I will try next week K29.. Here we go!! ;-)

Thank You all!
Manuel

Report to moderator  Logged

 **ernemo**
 Newbie
 Posts: 4
 Country: 


 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote




« Reply #55 on: January 15, 2017, 11:51:55 pm »

Hello, I'm new and a little bit inexperienced. I have bought a CMU200 and I would like to use the option K29. My problem is where do I find the SWOPT.DAT file? How can I read it? If I can download it, can I publish it on the forum so that one of you can give me the key to activate the option K29?

Thank you very much.

Ernesto

Report to moderator  Logged

 **CJay**
 Super Contributor


 Posts: 3238

 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #56 on: January 16, 2017, 04:22:58 am »

You don't need the SWOPT.DAT file, you just need the serial number of your CMU and a way to edit and run the Python code.

Country:

MOUAW



Report to moderator Logged

MOUAW

ernemo

Newbie

Posts: 4

Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #57 on: January 16, 2017, 04:45:08 am »

Thanks for your reply. My serial number is 111264. And now what do I do? Do I need to write the keygen of the post #21 in pycrypto? I'm sorry but I don't really know what to do. 😞
Thanks
Ernesto

Report to moderator Logged

CJay

Super Contributor



Posts: 3238

Country:

MOUAW



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #58 on: January 16, 2017, 08:51:05 pm »

Your serial number will be something like 111264/xxx, you need this full serial number.

You then need to edit the python code so that it reflects your serial number but if the last part of your serial, xxx, starts with a 0 it must be omitted, change 'yy' to the option number you wish to enable

In your case, for option 29

```
serial = 111264
serial2 = xxx
option = 29
```

Report to moderator Logged

MOUAW

The following users thanked this post: ernemo

msraya

Supporter



Posts: 101

Country:

EA7EE



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #59 on: January 17, 2017, 02:29:36 am »

Ernesto, for your information:

1. Download and Install python(x,y), use google for download link 😊
2. Open program and select in Applications "IPython QT console" and click the green checkmark to run it.
3. In the console window that open, cut and paste the following code line by line (press enter after you paste each line), change XX for your second serial number, you can get it from the IDENTITY.TXT file (the soft has option to generate it):

```
from Crypto.Cipher import ARC2
import struct
```

```
serial = 111264
serial2 = XX
option = 29
```

```
record = struct.pack("<II", serial, serial2 + (option <<20))
encyphered = ARC2.new("Revision\0").encrypt(record)
print encyphered.encode("hex").upper()
```

4. Note the resulting code on paper.
5. In the CMU200 exit from program to MSDOS(Alt-F4) and go to the location of SWOPT.DAT file, i don't remember, you will need a keyboard 😊.
6. Make a backup of file (I always make a backup of entire disk before make modifications).
7. Use the MSDOS edit command with the file and put the code at end of file. Save the file.
8. Restart the equipment.

It's very easy, right?

By the way, I think it is possible to enter the code directly in the program as an option of system menu.

Regards
Manuel

« Last Edit: January 17, 2017, 02:45:39 am by msraya »


Report to moderator  Logged

The following users thanked this post: philipz, ernemo


 **axel**

Contributor

Posts: 5

Country: 



 **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« Reply #60 on: January 17, 2017, 07:31:40 am »

To bypass editing the file and to enter the code directly, the menu is "Setup" under the System box -> Options -> your desired option -> enter.

Then enter your generated code and there you go!

To those above enabling K29 - how did you get around the option enabling but the features not appearing? Did it require copying over new files to the internal hard drive?

EDIT

I partly figured it out and I'm trying to get this working. I installed the base as a new version (I can't upgrade from 3.5 for some reason) and added AMPS and Bluetooth as a test. Now it will boot to this new version, get past the loading screen and then exit to a dos terminal saying that it has reached the end of "verm.bat". I'm not too familiar with this unit so I'm at a loss.

EDIT 2

Looks like it's running out of memory. Apparently 64MB isn't enough for version 5.21 firmware. That's disappointing.

« Last Edit: January 17, 2017, 04:22:10 pm by axel »

Report to moderator  Logged

 **msraya**

Supporter



Posts: 101

Country: 

EA7EE



 **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« Reply #61 on: January 17, 2017, 11:04:10 pm »

Yes, the memory is important...

Mine does have 128MB base in a weird configuration...

However i upgrade it with a Infineon 128MB PC133 133MHz 144-Pin SODIMM HYS64V16220GDL-7.5-C2 without problem...

Mine is a sloooooow AMD K6 with INTEL Triton chipset and It has only cache for 64MB of RAM unfortunately. In programm I not noted anything different with 256MB.

Manuel

Report to moderator  Logged


The following users thanked this post: pharbour

 **CJay**

Super Contributor




Posts: 3238

Country: 

M0UAW



 **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« Reply #62 on: January 18, 2017, 12:34:54 am »

I wonder if there'd be any advantage to trying an Intel part in there...


Report to moderator  Logged

M0UAW

 **axel**

Contributor

Posts: 5

Country: 



 **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« Reply #63 on: January 18, 2017, 01:47:44 am »

So am I outta luck trying to get AMPS on my CMU? I wonder if somebody's got the firmware files for the 3.5 version of AMPS lying around.

Upgrading the CPU could be possible but I imagine it's either an AMD socket or even worse, soldered

to the motherboard.

Sent from my iPhone using Tapataalk

Report to moderator Logged

CJay
 Super Contributor

 Posts: 3238
 Country:
 MOUAW

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #64 on: January 18, 2017, 01:51:13 am »

Quote from: axel on January 18, 2017, 01:47:44 am

So am I outta luck trying to get AMPS on my CMU? I wonder if somebody's got the firmware files for the 3.5 version of AMPS lying around.

Upgrading the CPU could be possible but I imagine it's either an AMD socket or even worse, soldered to the motherboard.

Sent from my iPhone using Tapataalk

CPU is socketed and it's pin compatible with the Intel chips of the same era, it's using an Intel 430 chipset too I think, can't remember which chips were compatible though and if there's a speed advantage to fitting an Intel, if there is it'll be marginal I think.

Report to moderator Logged

MOUAW

ernemo
 Newbie
 Posts: 4
 Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #65 on: January 18, 2017, 06:30:15 am »

Thank you all for your answers. I've finally made it . On the right side of my CMU there are some stickers with the activation code of the different options. On these stickers is always repeated the symbols /02. I have used this /02 as the second serial code and it worked. Now I'm waiting my PMCIA adapter for loading the "AMP" software.

Thanks again.
 Ernesto

Report to moderator Logged

2N3055
 Super Contributor

 Posts: 1805
 Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #66 on: January 18, 2017, 08:57:51 am »

AMD K6 was faster than Socket 7 Intels of the time... Fastest K6 was 300MHz.If memory servers me well, upgrade path would be a K6-2+ or K6-3+ if motherboard supports 1.4 - 2.0 volts that the K6-2+ and K6-3+ requires. Original K6 was 3.3V part... Those processors support higher speeds and include L2 cache (128K and 256K)...

Report to moderator Logged

axel
 Contributor
 Posts: 5
 Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #67 on: January 19, 2017, 05:55:11 am »

How hard/possible is ram replacement in these units? I haven't done too much digging other than getting the hard drive out because I still have a tentativeness to messing with expensive test gear.

I'd love to know what hardware configurations the people who are running the 5.21 FW and AMPS have. It seems like the person before me also tried to upgrade the firmware without success, as there are several versions of 5.21 installed and none of them boot properly.

Report to moderator Logged

CJay
 Super Contributor

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #68 on: January 19, 2017, 06:46:48 am »

Well mine's the FMR5 processor module, AMD K6-2/300 CPU and 256MB memory.





Posts: 3238
Country: 
M0UAW
 


So, it seems any processor upgrades would be minor unless the FMR5 supports various multipliers and 100MHz FSB, in that case it may be possible to go as far as 550MHz but I'm not sure how much, if any, benefit it would give me.

Memory is on a single SODIMM, it may be possible to fit more as there are two slots but I don't think it'd support it.

[Report to moderator](#)  [Logged](#)

M0UAW

 **axel**
Contributor
Posts: 5
Country: 
 


 **Re: Enabling options for R&S test equipment**



[Say Thanks](#) [Reply](#) [Quote](#)


« **Reply #69 on:** January 19, 2017, 07:03:24 am »

I've only got 64MB and as I said above I can't even get the newest firmware to run because of that. I've got the K6-300 so I'd imagine I can at least bump it up to 256 since you seem to have that working just fine.

[Report to moderator](#)  [Logged](#)

 **2N3055**
Super Contributor

Posts: 1805
Country: 
 

 **Re: Enabling options for R&S test equipment**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #70 on:** January 19, 2017, 08:54:09 am »

Quote from: CJay on January 19, 2017, 06:46:48 am

Well mine's the FMR5 processor module, AMD K6-2/300 CPU and 256MB memory.

So, it seems any processor upgrades would be minor unless the FMR5 supports various multipliers and 100MHz FSB, in that case it may be possible to go as far as 550MHz but I'm not sure how much, if any, benefit it would give me.

Memory is on a single SODIMM, it may be possible to fit more as there are two slots but I don't think it'd support it.


The K6-2+ has additional L2 cache... I'm sure it would give visible speedup even without faster FSB and on the same clock... also on those you can set multiplier to X2 and get X6 , so 366 MHz on 66MHz bus..

If you can get your hands on it, worth a try...

[Report to moderator](#)  [Logged](#)

 **msraya**
Supporter

Posts: 101
Country: 
EA7EE
 

 **Re: Enabling options for R&S test equipment**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #71 on:** January 20, 2017, 12:14:18 am »

~~Unfortunately I have not been able to make it work.~~

When I install the base package v5.20 and the other packages with the VERM installation utility everything is successful. After the installation of the update, the firmware update of FPGA and other boards occurs. Once done, the new version starts and everything works correctly.

However, upon reboot, the hard drive ends corrupted and the files have random content, so it doesn't boot. I do not know if this is a motherboard problem or a problem with the upgrade process. I have tested it with two different hard disks and it does the same. I think others have same problem.

I also have v5.22 base and gsm and it does exactly the same. So it doesn't work so far.. 

EDIT: I manage to get an image of a CMU200 with base v5.20 installed that an eevblog user send me long time ago. I put the image in my CMU and start it, it show no valid licenses but it works, I put AMPS license. Then I reboot with the PCMCIA on the unit wit the AMPS firmware and It run VERM, it installed the AMPS via upgrade, update FPGA and then it worked after power recycle..

So, I have a working unit with AMPS, I put all the others licenses I have in the new software and it worked... I think the process of base installation is not operational, perhaps due to a VERM upgrade installation error that overwrites hard disk.

I try to adjust a FM transceiver and it worked well, but I cannot compare with my willtek 4032 as I not have both analyzers in the same lab.. However, I found the interface somewhat confused, but it will work with FM and SSB SINAD RX adjustments. Also TX and RX graphical base band frequency response, TX noise, TX deviation and carrier frequency. But I need two tone in the RF modulator to test FM RX as i need also ctcss tone. I found a signaling generator, but not ctcss... I will continue looking for dual tone..

By the way, I found the last original software right on the r&s server:

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR001Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR003Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR004Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR006Z?OpenDocument>

EDIT:

I found this: https://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1cm53/1CM53_0e.pdf It can be used as AMPS software manual...

And now I understand how signaling works, and I think it is possible to modulate RF with external signal, and two or three tones also... I will try tomorrow..

Manuel

« Last Edit: January 20, 2017, 04:02:31 am by msraya »

Report to moderator Logged

The following users thanked this post: Pieh0

grw1983

Newbie

Posts: 4

Country:



Re: Enabling options for R&S test equipment

Say Thanks

Reply

Quote

« Reply #72 on: January 21, 2017, 02:57:55 am »

By the way, I found the last original software right on the r&s server:

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR001Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR003Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR004Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR006Z?OpenDocument>

Sadly no WCDMA-package 😞

Report to moderator Logged

The following users thanked this post: Pieh0

Brainbox

Contributor



Posts: 29

Country:



Re: Enabling options for R&S test equipment

Say Thanks

Reply

Quote

« Reply #73 on: January 21, 2017, 07:52:32 pm »

Great work msraya for finding out all those features.

How did You get access tot this R&S server?
Perhaps I can dig for some other useful info.

Report to moderator Logged

I, who know nothing

msraya

Supporter



Posts: 101

Country:

EA7EE



Re: Enabling options for R&S test equipment

Say Thanks

Reply

Quote

« Reply #74 on: January 21, 2017, 08:47:22 pm »

Quote

How did You get access tot this R&S server?
Perhaps I can dig for some other useful info.

I only used the Google Search Engine and Common Sense 🙄
Unfortunately I do not found more information.
The equipment is old and R&S want you to buy the new equipment that substitutes it.

Quote

Sadly no WCDMA-package 😞

For WCDMA, bear in mind that you also need an additional hardware board option.

I think that, there are three types of communications analyzers:

- 1.- Old Semi-Analog, to use with Analog Communications: Example Willtek Stabilock, R&S CMT and CMS, Marconi 2955
- 2.- Digital ones with IQ Modulation, with Custom protocol communications, to use with digital

modulation as GMS: Example R&S CMU200, HP 8960
3.- Digital Modern for use with All Type communications, providing IQ Arbitrary Waveform modulator, Constellation Analyzer, Software modifiable, Ex: Agilent EXA signal analyzer, ..

I have a type 1 to play with, a type 2, then now I need a type 3.. HI HI... So I need to win lottery..

Manuel

« Last Edit: January 21, 2017, 08:55:27 pm by msraya »

Report to moderator Logged

msraya

Supporter



Posts: 101

Country:

EA7EE



Re: Enabling options for R&S test equipment

« Reply #75 on: January 26, 2017, 06:22:55 am »

Say Thanks Reply Quote

Hello!!

I have all working right now, except Bluetooth... I installed Bluetooth, but it doesn't worked.. In don't know why Perhaps I need some hardware option?

I'm very happy with the addition, but It not work with external modulation... I tried with the connect control option, external AUX1 and external ref and nothing occurs... I don't know if it is some hardware problem or user not selecting appropriate option...

The signaling tones are 3KHz fixed and there are filters too and it is not useful for ctcss... I don't have ctcss nor possibility of have it via external modulation... :-(In my 4032, I have only one audio source, but I can combine it with external audio generator to test ctcss equipment... no problem... but Here no possibility

I also installed some word and adobe acrobat via wifi, also Mozilla. Dual Boot with Windows 2000. If someone want the HD image, please drop a PM to me and I share it, the HD image is very heavy...

Manuel



IMG_20170125_141447.jpg (300.61 kB, 1152x648 - viewed 886 times.)



IMG_20170125_141853.jpg (322.19 kB, 1152x648 - viewed 599 times.)



IMG_20170125_141920.jpg (398.62 kB, 1152x648 - viewed 822 times.)



IMG_20170125_141929.jpg (356.41 kB, 1152x648 - viewed 608 times.)



IMG_20170125_141401.jpg (315.86 kB, 1152x648 - viewed 803 times.)

« Last Edit: January 26, 2017, 06:29:35 am by msraya »

Report to moderator Logged

Brainbox

Contributor



Posts: 29

Country:



Re: Enabling options for R&S test equipment

« Reply #76 on: January 26, 2017, 08:19:59 am »

Say Thanks Reply Quote

Quote

have all working right now, except Bluetooth... I installed Bluetooth, but it doesn't worked.. In don't know why Perhaps I need some hardware option?

Do You have the B53 Hardware option installed?

Report to moderator Logged

I, who know nothing

msraya

Re: Enabling options for R&S test equipment

Supporter



Posts: 101

Country:

EA7EE



« Reply #77 on: January 26, 2017, 08:41:31 am »

Say Thanks Reply Quote

Thank You for answer my question..
Not, I only have B11, B17, B21, B41 and B95 🙄

B53 is Bluetooth® extension; CMU-B21 necessary... But It only appears in options brochure as good to have, but not as compulsory or mandatory.. 🙄 Can be an error and was it necessary?

Manuel

Report to moderator Logged

Brainbox

Contributor



Posts: 29

Country:



Re: Enabling options for R&S test equipment

« Reply #78 on: January 26, 2017, 06:08:08 pm »

Say Thanks Reply Quote

The B53 have to be factory installed, else according to R&S:

"For users who already own a CMU200 radio test set, the CMU-U53 upgrade kit is available to add Bluetooth testing functionality. This option is a particularly cost-effective upgrade path offering maximum-throughput

testing for the existing very large base of CMU200 users. "

« Last Edit: January 27, 2017, 07:18:37 pm by Brainbox »

Report to moderator Logged

I, who know nothing

msraya

Supporter



Posts: 101

Country:

EA7EE



Re: Enabling options for R&S test equipment

« Reply #79 on: January 26, 2017, 10:42:50 pm »

Say Thanks Reply Quote

Ok, Thank You!
I get it 😊
https://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1ma46/1MA46_0E_transmitter_and_rece

I don't need bluetooth right now.. so... no problem...

Manuel

Report to moderator Logged

bobaru

Contributor

Posts: 18

Country:



Re: Enabling options for R&S test equipment

« Reply #80 on: January 29, 2017, 08:50:18 am »

Say Thanks Reply Quote

Hi,

Just picked up a nice CMU200 off the usual auction site. It has the Celeron Mobile 650 processor with 256MB as well as B17, B21, B41, B52, B54, B56, B68, B83, B85 and B96 hardware options. It is nicely optioned, but I am trying to add some software options, mainly the FM Stereo modulation option.

My first problem is finding the second serial number. I have exited to dos and found the SWOPT.dat file, but I am unable to find a file with the second half of the serial number. There are no stickers with the number on the machine. Does anyone know specifically where in the file system to look? I believe someone mentioned an Info??? I perused all of the directories and sub directories, but didn't see anything like that. From what I have read here I should be able to verify the complete serial number using the valid code keys from the SWOPT.dat file in reverse. Is this correct?

My second problem is that I am python illiterate. From what I can gather there seems to be two ways of generating the code keys. The first using the keygen file that was listed in Reply#7. The second by downloading and running pycrypto. Is this correct?

I have access to many computers and operating systems including a Rasp Pi. My main pc is a Windows 10 machine that I have Python 3.4 installed on. I have tried to use both options listed above, but as I have gotten older, my patience level is not what it used to be. 😊

If anyone can lead me in the right direction I would appreciate it. I can provide my serial number #1 and the list from SWOPT.dat if that would be easier.

TIA,

-bob


[Report to moderator](#)  Logged

 **msraya**

Supporter



Posts: 101

Country: 

EA7EE



Re: Enabling options for R&S test equipment

« **Reply #81 on:** January 30, 2017, 04:56:40 pm »

[Say Thanks](#)

[Reply](#)

[Quote](#)

Bob:

You can always generate the IDENTITY.DAT file from the setup or maintenance menu, I can't remember. Inside the file you can find the full serial number and the options of the equipment. My old IDENTITY.DAT file is:

```

/*****/
/*****/
/***** CMU IDENTITY *****/
/*****/
/*****/

```

GENERAL INFORMATION

Serial number: XXXXXX/XXX

CPU and memory:

| | |
|-----------|--------|
| CPU (FMR) | FMR5 |
| Memory | 128 MB |
| BSW/FSW | V5.10 |

Statistics data:

Firmware versions:

RXTX_1 CP-SW 08.50, 2006-05-02

....

And the file continues with much more...

Here is the actual procedure to create the identity.dat file:

1. Once the unit has completed booting, press 'MENU SELECT'
2. Select 'BASE FUNCTIONS' -> 'BASE'.
3. Press the button beside 'SELECT'
4. Scroll down to the second selection 'SYSTEM IDENTITY' and press ENTER
5. Press the button beside 'Test' and then press 'ON'

The unit will then write the file to your memory card under the name of Identity.dat

If you are not using a PCMCIA card then follow the same steps as above and the file identity.dat is written in the internal disk of the CMU.

C:\internal\log\identity.dat.

You can attach a PS2 or USB keyboard and press Alt-F4 to exit to MS-DOS, then go to the c:\INTERNAL\LOG\ and use the MS-DOS command "edit identity.dat" to edit the file and take note of the serial number.

The SWOPT.DAT file is plain text and you can find it in c:\CMU\DATA folder. You can save the keys for your licenses.

In message #59 I explain as you can generate the keys with python(x,y) by cut and paste the lines of python code, it is easy.

Manuel

« Last Edit: January 30, 2017, 10:04:29 pm by msraya »

[Report to moderator](#)  Logged

The following users thanked this post: philipz, bobaru, TheDefpom

bobaru

Contributor

Posts: 18

Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #82 on: January 31, 2017, 01:34:43 am »

THANK YOU Manuel! Sometimes I just need things spelled out in order to get me started.

I followed your instructions and was able find the second serial number (mine was 002), downloaded the python x,y program and pasted your instructions in. I deleted the leading zeros from the second serial number and just used 2. The last instruction generated the hex code and I used that and entered it in the options section. This prompted me to reboot and when I did it added the FM Stereo modulation option to the unit. WOO HOO!

I will now take some time to review the other options to see if I want to add any more.

On a side note, my unit didn't come with an optional OCXO. Anyone know of a source for these? I don't really want to purchase another CMU200 just to get the B11 or B12 option.

-bob

Report to moderator

msraya

Supporter



Posts: 101

Country:

EA7EE



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #83 on: January 31, 2017, 06:21:03 am »

Bob:

I think that to search for a B11 or B12 board don't worth it.. as you can get a Rubidium standard from ebay quite cheap (100\$ aprox)..

I do it and It is very useful. I get a EFRATOM LPRO-101 that I use and It have senoidal output with very low phase noise: http://www.ka7oei.com/10meg_rubidium1.html
Also you can get a 10MHz amplifier and supply all the equipment in your lab with the frequency standard..

Manuel

« Last Edit: February 01, 2017, 06:50:13 am by msraya »

Report to moderator

The following users thanked this post: bobaru

Brainbox

Contributor



Posts: 29

Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #84 on: January 31, 2017, 08:49:28 am »

I think MSRAYA is right, You better buy an external clock generator which You can use for all Your equipment.

Me myself us a GPSDO with a accuracy of 10e-14
<http://www.ebay.com/itm/Trimble-65256-57963-B-GPS-precision-clock-thermostat-board-10MHz-oscillator-/162166562432?hash=item25c1e15e80:g:qusAAOSwU-pXrTIIf>
Add a GPS antenna and a 6 V power supply ans You have all You need.

Report to moderator

I, who know nothing

bobaru

Contributor

Posts: 18

Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #85 on: February 01, 2017, 12:17:27 am »

That sounds like a plan. I will research adding a Rubidium standard to the bench. I have other devices that could take advantage of it as well.

Thanks,

-bob

Report to moderator

senseless

Contributor

Re: Enabling options for R&S test equipment

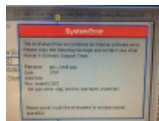
Say Thanks Reply Quote

« Reply #86 on: February 05, 2017, 11:47:40 pm »

Posts: 27
Country: 



Thank you all for your successful investigations. I was able to enable some software options easily. But for some applications, my system is crashing. The basic RF stuff is working just fine, but 3G stuff for example is not starting. Has somebody encountered the same problem in the past? And was able to fix it?




cmu200_system_error.jpg (188.47 kB, 640x480 - viewed 730 times.)

Report to moderator  Logged

bobaru

Contributor

Posts: 18

Country: 



 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #87 on: February 06, 2017, 05:00:13 am »

It could be the hard drive failing. It is one of the achilles heels of this unit. Once you enabled the option it needed to load the file into memory and it is having an issue when it gets to the bad line. Are you able to copy the file from the hard drive to a floppy disk or pcmcia card (whichever your unit has)? When I get a chance I will see if that file is on my unit. Also, how much memory does your unit have? Perhaps loading the file is causing an out of memory condition.


-bob

Report to moderator  Logged

senseless

Contributor

Posts: 27

Country: 



 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #88 on: February 06, 2017, 07:26:43 am »

Quote from: bobaru on February 06, 2017, 05:00:13 am

It could be the hard drive failing. It is one of the achilles heels of this unit. Once you enabled the option it needed to load the file into memory and it is having an issue when it gets to the bad line. Are you able to copy the file from the hard drive to a floppy disk or pcmcia card (whichever your unit has)? When I get a chance I will see if that file is on my unit. Also, how much memory does your unit have? Perhaps loading the file is causing an out of memory condition.


Unfortunately, I do not have a pcmcia card yet, but it is probably a good idea to have one in general.. Nevertheless, I will test if any of my other units has the behavior after unlocking. My unit has the FMR6 processor with 256MB RAM. I guess that should be no problem.

Report to moderator  Logged

oh2ftu

Contributor

Posts: 21

Country: 



 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #89 on: February 19, 2017, 01:26:17 am »

Has someone been able to hack the amps software to allow for other than 30kHz stepping? 12,5kHz would be nice, or why not 5kHz?

Report to moderator  Logged

Velund

Regular Contributor

Posts: 68



 **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« Reply #90 on: February 23, 2017, 01:16:43 pm »

Quote from: grw1983 on January 21, 2017, 02:57:55 am

By the way, I found the last original software right on the r&s server:
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR001Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR003Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR004Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR006Z?OpenDocument>

Sadly no WCDMA-package 😞

All packages and all software manuals is there. I noted this in some other CRTU-related thread.

WCDMA s/w and release notes: <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr007z2?OpenDocument>

WCDMA manual: <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr007m2?OpenDocument>

« Last Edit: February 26, 2017, 02:33:45 am by Velund »

Report to moderator  Logged


The following users thanked this post: Pieh0

 **Fohdeesha**

Contributor



Posts: 45

Country: 



 **Re: Enabling options for R&S test equipment**

« Reply #91 on: March 10, 2017, 06:25:07 pm »

Say Thanks

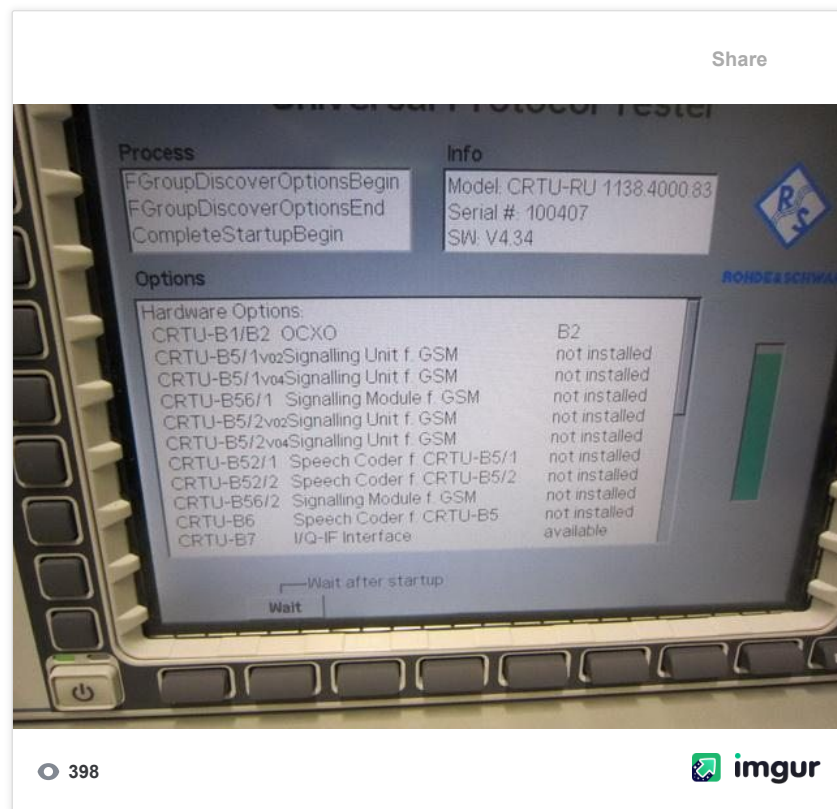
Reply

Quote

Just wanted to give this a little bump and say thanks to everyone in here for all the work figuring this out. Just won 2 CRTU-RU's in an auction and am excited to dick around. I'll be imaging the drives they come with right away just in case, and probably replacing them with some slightly newer IDE drives I have laying around to skip that issue altogether.

I'm pretty sure one of them has the B7 IQ/IF option, I remember reading that's somewhat desirable?

Also, I take it I won't be able to use this unit for GSM? The few pics they sent me show a whole lot of missing hardware options for GSM, I'm guessing those can't magically be licensed? I do know it was used in a WCDMA lab so I'd imagine it does have that hardware, perhaps someone here could use



that? -

EDIT: Just Kidding! Dovebid decided to cancel all winning bids in this particular lot because uh...reasons?

« Last Edit: March 27, 2017, 12:02:52 pm by Fohdeesha »


Report to moderator  Logged

[KD9DAL](#)

 **Pieh0**

Contributor

Posts: 25

Country: 



 **Re: Enabling options for R&S test equipment**

« Reply #92 on: March 25, 2017, 07:55:38 am »

Say Thanks

Reply

Quote

Quote from: Velund on February 23, 2017, 01:16:43 pm

Quote from: grw1983 on January 21, 2017, 02:57:55 am

By the way, I found the last original software right on the r&s server:

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR001Z?OpenDocument>

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR003Z?OpenDocument>

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR004Z?OpenDocument>

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR006Z?OpenDocument>

Sadly no WCDMA-package 😞

All packages and all software manuals is there. I noted this in some other CRTU-related thread.

WCDMA s/w and release notes: <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr007z2?OpenDocument>
WCDMA manual: <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr007m2?OpenDocument>

"This page is only available until 31/12/2017"

Download these and put them somewhere safe!

Report to moderator Logged

tech255

Contributor
Posts: 8
Country:

Re: Enabling options for R&S test equipment

« Reply #93 on: April 25, 2017, 04:14:31 am »

Say Thanks Reply Quote

Thanks to all that have contributed to this subject, it has taken me a while to figure out how to load and run python as i am not a programmer.

So my cmu200 is the 1100.008.30 model which i gather is mainly for calibrating phones on a production line it comes with the base system which seems to include ssb dsb am fm and stereo modulation.

I have tried to unlock some of the options that are available k56 and k64 both wcdma extras i have used the python code isted to generate the option unlock codes.

Serial no 100344

Serial no 30

Opt 56

Returns 98a3997dc1d76c93

I went into the options update section and entered to code it accepted it and asked me to reboot i did all this but the option does not appear.

I am wondering i do have a swopt.dat file but it is listed with 0 bytes its an empty file should there not be keys in there already from the stuff thats already setup.

Report to moderator Logged

smgvbest

Supporter



Posts: 368
Country:

Re: Enabling options for R&S test equipment

« Reply #94 on: May 06, 2017, 11:48:56 am »

Say Thanks Reply Quote

Has anyone looked at enabling options for the SMIQ Vector Signal Generators?
Would love to try to get a few options turned on

Report to moderator Logged

Sandra
(Yes, I am a Woman :p)

RF_fanatic

Regular Contributor

Posts: 56
Country:

Re: Enabling options for R&S test equipment

« Reply #95 on: May 16, 2017, 03:17:17 am »

Say Thanks Reply Quote

Quote from: Velund on February 23, 2017, 01:16:43 pm

Quote from: grw1983 on January 21, 2017, 02:57:55 am

By the way, I found the last original software right on the r&s server:
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR001Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR003Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR004Z?OpenDocument>
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/SR006Z?OpenDocument>

Sadly no WCDMA-package 😞

All packages and all software manuals is there. I noted this in some other CRTU-related thread.

WCDMA s/w and release notes: <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr007z2?OpenDocument>
WCDMA manual: <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr007m2?OpenDocument>

In order to be complete :

The CDMA 2000 MS 5.20 package is here : <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr009z2?OpenDocument>

Does anybody has the install file for the 1xEV-DO 5.20 ?

Report to moderator Logged

Velund
Regular Contributor

Posts: 68

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #96 on: May 16, 2017, 05:24:49 am »

Quote from: RF_fanatic on May 16, 2017, 03:17:17 am

Does anybody has the install file for the 1xEV-DO 5.20 ?

<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr015m?OpenDocument> - manual
<http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/sr015Z?OpenDocument> - install

BTW - <http://www3.rohde-schwarz.com/www/FileTranCS.nsf/alias/DATS?OpenDocument> - It is PC part of CMU-K92 option, GPRS application testing package. Manual is also there.

« Last Edit: May 16, 2017, 05:31:12 am by Velund »

Report to moderator Logged

The following users thanked this post: RF_fanatic

Muxr
Super Contributor

Posts: 1341
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #97 on: May 16, 2017, 09:45:39 am »

I've tried the encode script on my RTM 1054 Oscilloscope without luck. My scope doesn't have a /xxx serial, it only has one number. Also unless I am missing something only software options possible are K1, K2 and K3. But since the input is an integer, I can only enter 1, 2 or 3. So I tried those without luck. I get the error (-02) when trying to activate the produced code.

| Software options | | |
|--|------------|--------------|
| I ² C/SPI Serial Triggering and Decoding (only for R&S®RTM1054) | R&S®RTM-K1 | 1305.0295.02 |
| UART/RS-232 Serial Triggering and Decoding (only for R&S®RTM1054) | R&S®RTM-K2 | 1305.0308.02 |
| CAN/LIN Serial Triggering and Decoding (only for R&S®RTM1054) | R&S®RTM-K3 | 1317.3065.02 |

I don't think this will work with oscilloscopes.

I also have a SMIQ RF generator I will try this on this weekend.

Report to moderator Logged

nctnico
Super Contributor

Posts: 16911
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #98 on: May 16, 2017, 10:00:06 am »

Maybe the scripts needs more tweaking. I can't imagine R&S uses totally different schemes for different equipment. This would upset their entire logistics dealing with option keys.

Report to moderator Logged

There are small lies, big lies and then there is what is on the screen of your oscilloscope.

Muxr
Super Contributor

Posts: 1341
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #99 on: May 16, 2017, 10:04:48 am »

Aye, that's true.. will look into it further.

Report to moderator Logged

ve7xen
Frequent Contributor

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #100 on: June 03, 2017, 03:50:11 pm »



Posts: 654
Country:

Received a CMU200 today in pretty good nick, but not many options, I do have the audio measuring stuff though. It's kind of annoying that the RF generator turns off when you switch to the audio measurement application. What were they thinking??

I tweaked the keygen a bit to hopefully make it easier to use, it prompts for your S/N and generates all (I think) available keys. You can also run it directly from a browser on repl.it. Just click here: <https://repl.it/I4Pp/0> Or find it on the repository below.

I created a repository on my website as well to host documents, firmware, etc. for the CMU200. I've placed some useful files there. If you think there is anything else that belongs, please PM me and I'd be happy to host it. <http://gotroot.ca/cmu200/>

Thanks for the efforts of those in the thread!

« Last Edit: June 03, 2017, 03:53:49 pm by ve7xen »

Report to moderator Logged

73 de VE7XEN

The following users thanked this post: msraya, _Wim_, Muxr, TheDefpom, richnormand, Bicurico, Ringmodulator, i

Skippossauro

Newbie

Posts: 1
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #101 on: June 06, 2017, 03:19:34 am »

Hi,

Today checked installed keys on newer equipment's with Win7 and Win10 installed, and keys are in pure decimal, and have 30 digits long, I've checked FSV, RTO and RTM R&S parts. To generate keys with double length, i.e. 16 byte long I believe other method should be used, right?

Regards,
Skippy

Quote from: ve7xen on June 03, 2017, 03:50:11 pm

Received a CMU200 today in pretty good nick, but not many options, I do have the audio measuring stuff though. It's kind of annoying that the RF generator turns off when you switch to the audio measurement application. What were they thinking??

I tweaked the keygen a bit to hopefully make it easier to use, it prompts for your S/N and generates all (I think) available keys. You can also run it directly from a browser on repl.it. Just click here: <https://repl.it/I4Pp/0> Or find it on the repository below.

I created a repository on my website as well to host documents, firmware, etc. for the CMU200. I've placed some useful files there. If you think there is anything else that belongs, please PM me and I'd be happy to host it. <http://gotroot.ca/cmu200/>

Thanks for the efforts of those in the thread!

Report to moderator Logged

Astrodev

Regular Contributor

Posts: 88
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #102 on: July 15, 2017, 08:18:02 am »

Just got round to trying the interactive version of the generator and it worked when I enabled the K54 Bluetooth Audio Profiles and it worked exactly as expected.

However in getting the DAT files off the instruments I noticed something that on a couple of different instruments the Hex identifier was the same as the last 2 digits of the R&S numeric model number printed on the front panel, is this just a coincidence or is this where it originates to identify different versions of an instrument.

Report to moderator Logged

fisafisa

Regular Contributor

Posts: 69
Country:



Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #103 on: August 21, 2017, 08:17:57 am »

Hi

Anybody tried adding software options to a CRTU unit?

I was able to install the various packages but I do not have the option to enabling them with the code. The only sw options I can enable are K2,K5,K6,K9

Code generation works otherwise.

F

« Last Edit: August 21, 2017, 08:42:35 am by fisafisa »

Report to moderator Logged

ps
Contributor
Posts: 15
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #104 on: August 22, 2017, 04:04:39 am »

Quote from: fisafisa on August 21, 2017, 08:17:57 am

I was able to install the various packages but I do not have the option to enabling them with the code.
The only sw options I can enable are K2,K5,K6,K9

You have Option B5/B6 installed? This is required for stand-alone GSM, K20 - K26.

WCDMA does not run on the CRTU-RU (what you probably have), but on the CRTU-PU. This is a separate Protocol Unit with a PC and a couple of DSP boards that connects to the CRTU-RU via the B7 I/Q interface. Usually you have either a stand-alone GSM system (with B5/B6) or an expanded system with B7 and CRTU-PU box.

Report to moderator Logged

fi30216
Newbie
Posts: 4
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #105 on: September 02, 2017, 07:51:29 am »

Hi,

I would like go back to the topic: Enabling options for R&S test equipment.

I have the same problem like AudioplatinumService in re #35 with an R&S UPL Audio Analyzer. I would like to enable the UPL-B6 Option for advanced analyzing.

Unfortunately I can't find out the key methode, but it seems others then for the CMU200. Maybe someone has more experience as I and can help.

The key code are 5 numbers in the rage from 00000 until 65535.

The required inputs are the same like for CMU200:

- 1.) SNumber: new 100404 or old 849260
- 2.) SNumber2 new 1078.2008Kxx (xx = 06 or 16 or 66) or the second part of the old Serial Number xxx
- 3.) Option Number e.g. Option UPL-B4 = "2", UPL-B10 = "3", UPL-B6 = "4"

Sample key codes that I have:

| SN | SN2 | B4 (0) | B21 (1) | B22 (2) | B10 (3) | B6 (4) | B8 (6) | B9 (8) | U81 (9) |
|--------|-----|--------|---------|---------|---------|--------|--------|--------|---------|
| 100404 | 06 | 43505 | | | 44597 | 37262 | | 38524 | |
| 100882 | 06 | 51667 | | | 52759 | | | | |
| 100918 | 06 | 35281 | 65062 | | 36373 | | | | |
| 100103 | 16 | 46338 | | | 45766 | 36221 | 36071 | 35471 | 65007 |
| 100254 | 16 | 18966 | | | 17822 | 15080 | | 13580 | 28134 |
| 100261 | 16 | 38152 | | | 37580 | 43653 | | | |
| 849260 | 015 | 15747 | 19559 | 42997 | 14917 | | | | |
| 833494 | 002 | 33711 | | | 33899 | 48080 | 47690 | | |
| 829567 | 001 | 10410 | | | 10018 | 11306 | | | |
| 826546 | 007 | 51993 | | | 52445 | 62310 | | | |

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The following users thanked this post: fisafisa

fisafisa
Regular Contributor
Posts: 69
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #106 on: September 03, 2017, 08:31:38 am »

HI

I have got two CRTUs
one has :

```
rxtx1          V7.20  17.01.03
rxtx2          V7.20  17.01.03
PMGR_RX_DSP_1
PMGR_TX_DSP_1
PMGR_RX_DSP_2
```

```

PMGR_TX_DSP_2
CMU-B17
CMU-B27
2nd RF Channel
DIG
ADC 1
DDC 1
AUC 1
ADC 2
DDC 2
AUC 2
OCXO 2
NETCLK 1
NETCLK 2
REF_EEP
RXTX2_EEP
DIG_EEP
AUC1_EEP
AUC2_EEP
ADC1_EEP
ADC2_EEP
IQIF_EEP
CMU-B11/B12      B12
Harddisk
PCMCIA
CPU              Intel Pentium III
CRTU-B1/B2      B2
CRTU-B5          +
CRTU-B5-1_V04
CRTU-B5-2_V04
CRTU-B56-1
CRTU-B56-2
CRTU-B6
CRTU-B7
FE (1100.3120.02)
CMUDrv
CMU
K2
K5
K20              not enabled
K21              not enabled
K22              not enabled
K23              not enabled
K24              not enabled
Audio
RF
GSM 400 MS
GSM 850 MS
GSM 900 MS
GSM 1800 MS
GSM 1900 MS

The other has
rxtx1            V7.20  17.01.03
rxtx2            V7.20  17.01.03
PMGR_RX_DSP_1
PMGR_TX_DSP_1
PMGR_RX_DSP_2
PMGR_TX_DSP_2
2nd RF Channel
DIG
ADC 1
DDC 1
AUC 1
ADC 2
DDC 2
AUC 2
OCXO 2
NETCLK 1
NETCLK 2
REF_EEP
RXTX1_EEP
DIG_EEP
AUC1_EEP

```

AUC2_EEP
 ADC1_EEP
 ADC2_EEP
 CMU-B11/B12 B12
 Harddisk
 PCMCIA
 CPU Intel Pentium III
 CRTU-B1/B2 B2
 CRTU-B5
 CRTU-B5-1_V04
 CRTU-B5-2_V04
 CRTU-B56-2
 CRTU-B6
 FE (1100.3120.02)
 CMUDrv
 CMU
 K2
 K20 not enabled
 K21 not enabled
 K22 not enabled
 K23 not enabled
 K24 not enabled
 Audio
 RF
 GSM 400 MS
 GSM 850 MS
 GSM 900 MS
 GSM 1800 MS
 GSM 1900 MS

I guess I should be able to enable options K20-K24 in both?

Thanks

[Report to moderator](#) [Logged](#)

f130216

Newbie

Posts: 4

Country:



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #107 on:** September 03, 2017, 06:53:59 pm »

What is your type number? Normally the RU's have 82 or 83. That is your SN2 for the key generator.

BR

[Report to moderator](#) [Logged](#)

MaartenH

Contributor

Posts: 7

Country:



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #108 on:** September 08, 2017, 05:33:55 am »

Back to installing the AMPS option:

I downloaded IS1MV5.20.exe and put this on the PCMCIA drive.

In the DOS mode I tried to execute this file but the answer was "This program cannot be run in DOS mode" How to execute it ?

[Report to moderator](#) [Logged](#)

Velund

Regular Contributor

Posts: 68



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #109 on:** September 08, 2017, 05:41:14 am »

If memory serves me correctly, it is self-extracting archive, need to be extracted to the root of PCMCIA drive. Then put this drive in turned off CMU, start and enter Version Manager and choose s/w installation.

[Report to moderator](#) [Logged](#)

MaartenH

Contributor

Posts: 7

Country:



Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #110 on:** September 08, 2017, 06:32:35 am »

But the R&S site says:

" Download the file IS1MV5.20.exe on your PCMCIA-Memory card and execute it.

It will create the installation folder "IS1MV5.20" with the necessary files for the software update. After this you can delete the file IS1MV5.20.exe"

Report to moderator Logged

Velund
Regular Contributor

Posts: 68

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #111 on: September 08, 2017, 06:50:18 am »

It is self-extracting archive. Once you execute it from root of PCMCIA (in Windows) - it unpack yourself to a folder on the same drive.

Report to moderator Logged

MaartenH
Contributor

Posts: 7
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #112 on: September 08, 2017, 07:01:18 am »

Clear, but how do I start Windows ?
When I start normally I come direct in the CMU application, from there I can go with (ALT-F4) to DOS, but how to start only Windows ?

Report to moderator Logged

Velund
Regular Contributor

Posts: 68

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #113 on: September 08, 2017, 07:14:05 am »

I used my old laptop PC with Windows 98 to make installation card.

You can try to unpack on PC and move resulting folder to card

Report to moderator Logged

fisafisa
Regular Contributor

Posts: 69
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #114 on: September 08, 2017, 07:57:26 am »

replying to fl30216
subtype is 082

Report to moderator Logged

The following users thanked this post: MaartenH

eliocor
Supporter

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #115 on: September 08, 2017, 08:11:06 am »

Quote

Skippossauro on 2017-06-05, 17:19:34

Today checked installed keys on newer equipment's with Win7 and Win10 installed, and keys are in pure decimal, and have 30 digits long, I've checked FSU, RTO and RTM R&S parts. To generate keys with double length, i.e. 16 byte long I believe other method should be used, right?

A friend of mine owns a SMJ100A unit (discontinued) and I discovered the options key is composed of 15 couples of numbers (no alphabetic chars), so the generator proposed in this discussion is useless. Any hope to find a compatible generator?

Report to moderator Logged

MaartenH
Contributor

Posts: 7
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #116 on: September 08, 2017, 10:25:29 pm »

@ Velund THANKS !

Report to moderator Logged

fl30216
Newbie

Posts: 4
Country:

Re: Enabling options for R&S test equipment

Say Thanks Reply Quote

« Reply #117 on: September 11, 2017, 01:02:47 am »



@fisafisa

It looks like, that it is not possible to enable the K2x (signaling) options in a CRTU-RU device. For enabling any options it must to see in the SETUP --> OPTION menu. If not you can't enable. Maybe it is depend on the HW option. The CMU200 and the CRTU-RU have different HW (B5 vs. B21) and different FW (5.2x vs. 3.23) in it. You know, the CRTU-RU is not a stand alone device, it comes always together with a CRTU-PU (protocol unit). You can see it on your serial number ("part of ...). What you want is using the signaling options of an CMU200, but the signaling options for a CRTU-W (this is the real name of the device combination) is generated in the PU (protocol unit), the RU is controlled be remote.

You can only using the non-signaling and the maintenance possibilities in the RU if its stand alone.

BR

Report to moderator Logged

tmbinc

Regular Contributor



Posts: 172



Re: Enabling options for R&S test equipment

« Reply #118 on: September 12, 2017, 07:17:32 am »

Say Thanks Reply Quote

CRTU-RUs are only paired with CRTU-PU for WCDMA application. For GSM, the CRTU-RU is stand-alone.

The CRTU-RUs paired with PUs have the IQ option (B7 if i remember correctly?), but they don't have the CRTU-RU's GSM signalling options. The CRTU-RUs from stand-alone configurations (CRTU-G) usually don't have the IQ option (unless they were used with an external fading simulator, or interfacing to a phone baseband directly), but did contain the GSM signalling boards.

Now, the CRTU signalling options are detected by the CMU software, but - as far as I know - cannot be used for GSM signalling mode. The CMU software seem to be able to load the FPGAs for these, but it doesn't "unlock" the signalling test options due to missing hardware. (I once patched the executables to show the menu, but access to it crashes; it's definitively not a software licensing/option issue.)

Report to moderator Logged

fisafisa

Regular Contributor



Posts: 69

Country:



Re: Enabling options for R&S test equipment

« Reply #119 on: September 12, 2017, 08:17:47 am »

Say Thanks Reply Quote

If tmbinc is correct, then there is a hardware configuration with a GSM signalling card.

Do you know what card would that be?
Is that a module that slots inside one of the cards?

Report to moderator Logged

tmbinc

Regular Contributor



Posts: 172



Re: Enabling options for R&S test equipment

« Reply #120 on: September 13, 2017, 01:22:32 am »

Say Thanks Reply Quote

I should have been more clear: The GSM signalling hardware for CRTU-RUs is different from the GSM signalling hardware for CMU200. The DOS OPSW only supports the CMU200 version.

(That's the simplified version.)

I think there are different types of GSM signalling options for CMU200 (B21; B21Var14; V21Var02); there's the USU (Universal Signalling Unit) and the ULH (Universal Link Handler). There's also B56Var14 (PowerPC for USU).

Now, for CRTU, there's CRTU-B5-{1,2}_V02 and CRTU-B5-{1,2}_V04 (mine has the CRTU-B5-{1,2}_V04 fitted), as well as the CRTU-B56-2 (PowerPC board; from Windows you can telnet into it and it runs Linux(!)). But these do not allow the signalling tests to be used. I agree that they _sound_ similar to the CMU-200 options, they physically seem to be different; so I believe.

Do we have board photos of them to compare them with the CRTU-RU cards?

Report to moderator Logged

fisafisa

Regular Contributor



Posts: 69

Country:

Re: Enabling options for R&S test equipment

« Reply #121 on: September 16, 2017, 08:04:16 am »

Say Thanks Reply Quote



hi.
Thanks for the info.
Are you able to telnet to them on the standard port?

Running linux... If so we can ask RS to release the source code...
I think it would be really great if we had a more detailed block diagram of the CRTUs..

[Report to moderator](#) [Logged](#)

Wilts01

Contributor

Posts: 8

Country:



Re: Enabling options for R&S test equipment
« **Reply #122 on:** November 09, 2017, 12:26:32 am »

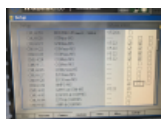
[Say Thanks](#) [Reply](#) [Quote](#)

I have been following this thread with some interest.

I have managed to get the ability to add additional sw modules working on my CMU200. For example, I have got the stereo K14 option working. However, I am having problems getting AMPS (K29) to work.

I started off by putting in the option code for K29 which it accepted. However, no sign of the AMPS option on the menu. I then realised that I should have installed the IS1MV5.20 software which I successfully managed to do. However, I still do not have AMPS working. As you can see from the photo below, the CMU200 seems to see AMPS is there but isn't enabled on Chan 1 (and selecting it makes no difference). Any idea what I have missed? I have the following hardware options B12, B21v14, B54v14, B56v14, B66, B68, B96, U65v04.

Any advice gratefully received



AMPS.jpg (202.08 kB, 800x600 - viewed 374 times.)

[Report to moderator](#) [Logged](#)

Velund

Regular Contributor



Posts: 68



Re: Enabling options for R&S test equipment

« **Reply #123 on:** November 09, 2017, 12:38:12 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: Wilts01 on November 09, 2017, 12:26:32 am

I started off by putting in the option code for K29 which it accepted. However, no sign of the AMPS option on the menu.

You have no AMPS software package installed. Option is activated, but no software to use it in instrument. Installation package is available, so just install it and go ahead.

[Report to moderator](#) [Logged](#)

Wilts01

Contributor

Posts: 8

Country:



Re: Enabling options for R&S test equipment

« **Reply #124 on:** November 09, 2017, 02:30:00 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Thanks. Apologies if I am being stupid but exactly what is the AMPS software? i thought it was part of the IS1MV5.20 package which i have installed. Is there another package I should be installing? If so, where do I get it?

[Report to moderator](#) [Logged](#)

Velund

Regular Contributor



Posts: 68



Re: Enabling options for R&S test equipment

« **Reply #125 on:** November 09, 2017, 02:39:23 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Yes, it is part of the IS1MV5.20 package.
Maybe you have more than one base versions on disk and package was installed with another base?

[Report to moderator](#) [Logged](#)


Wilts01

Re: Enabling options for R&S test equipment

[Say Thanks](#) [Reply](#) [Quote](#)

Contributor

Posts: 8

Country: « **Reply #126 on:** November 09, 2017, 03:04:36 am »

Further update. I have edited SWOPT.dat to remove the option. Rebooted and then put the option code back in. Still no joy with AMPS.

I then tried enabling the IS136 option to prove that the IS1MV5.2 software was working properly. This worked fine. Also, Version Manager reports that IS1MV/AMPS is installed.

One thought - is the B41 option hardware mandatory for AMPS?


Report to moderator  Logged

RF_fanatic

Regular Contributor



Posts: 56

Country:  **Re: Enabling options for R&S test equipment**« **Reply #127 on:** November 09, 2017, 07:56:04 am »

Yes B41 is mandatory for AMPS

Without B41 the AMPS will not be shown in the menu of the CMU regardless if you have an official code for the AMPS option or not.

Just to be sure I have checked it with one of my CMU units with an original AMPS key. When I remove the B41 then the option is gone

I have some spare B41 units for sale but the distance will make it difficult

« Last Edit: November 09, 2017, 08:01:34 am by RF_fanatic »


Report to moderator  Logged

bernroth

Regular Contributor



Posts: 125

Country:  **Re: Enabling options for R&S test equipment**« **Reply #128 on:** November 26, 2017, 08:18:28 am »

Anyone with some luck for other gear like FSL spectrum analyzer? It uses keys with 32 decimal digits. Looks like there is a newer algorithm used in newer gear.



Report to moderator  Logged

Octane

Regular Contributor



Posts: 95

Country:  **Re: Enabling options for R&S test equipment**« **Reply #129 on:** February 04, 2018, 04:02:07 am »

Hi y'all!

I got a CMU 200 a few days ago and I was very lucky with the fitted options:

Model CMU 200-1100.0008.02
SW Version [Basesystem]: V5.22

Software Options:

CMU-K21 GSM900-MS V5.22
CMU-K22 GSM1800-MS V5.22
CMU-K23 GSM1900-MS V5.22
CMU-K24 GSM850-MS V5.22
CMU-K42 GPRS@GSM-MS V5.22
CMU-K43 EGPRS@GSM-MS V5.22

Hardware Options:

CMU-B11 OCXO
CMU-B17 I/Q-IF Interface
CMU-B21V14 Universal Signalling Unit
CMU-B41 Audio Measurement Unit
CMU-B54V14 Signalling Module f. GSM, TDMA, AMPS
CMU-B95 Additional RF Generator
PCMCIA
CMU-U65V04 DSP f. Wideband Measurement
CMU-U99 RF1 with RF2 Level Range

Hardware Equipment:

Front Module: FMR6
CPU: Intel Celeron Mobil
Memory: 256 MB

Firmware Versions:

uP1: V8.50 02.05.06

I would like to try to enable a few more options:
 CMU-K14 Stereo FM Transmitter
 CMU-K20 GSM400 (just for fun)
 CMU-K21 GSM900, R-GSM, E-GSM (Just for fun)
 CMU-K27 IS-136 (fun)
 CMU-K28 IS-136/PCs (fun)
 CMU-K29 AMPS
 CMU-K48 I/Q versus slot
 CMU-K53 Bluetooth

I think I should have all the necessary hardware options for those, right?

The list of software installed on the machine is:
 Base V3.61 — GSM MS V3.62
 Base V5.21 — GSM MS V5.22
 Base V5.22 — GSM MS V5.22 (active)

So I probably need another software package, but can I use the IS1MV5.20.exe package that VE7XEN is so kindly hosting? Or do I need the same version number?

Thanks for all your help!

Michael

[Report to moderator](#)  Logged


 **Velund**

Regular Contributor



Posts: 68



 **Re: Enabling options for R&S test equipment**

« **Reply #130 on:** February 04, 2018, 04:08:32 am »

[Say Thanks](#) [Reply](#) [Quote](#)

You need Bluetooth hardware and installed Bluetooth software to enable BT option. Looks like your CMU is not BT-capable.

Get the last versions you can get and install them.

I made a full image of internal HDD before changing something on my unit, just to be able to get it back to original state if something goes really wrong.

« *Last Edit:* February 04, 2018, 04:13:31 am by Velund »

[Report to moderator](#)  Logged

 **Octane**


Regular Contributor



Posts: 95

Country: 



 **Re: Enabling options for R&S test equipment**

« **Reply #131 on:** February 04, 2018, 04:11:49 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Oh, yes, CMU-B53. I did indeed overlook that, thanks for pointing it out.

Michael


[Report to moderator](#)  Logged

 **Octane**

Regular Contributor



Posts: 95

Country: 



 **Re: Enabling options for R&S test equipment**

« **Reply #132 on:** February 04, 2018, 02:13:00 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: Velund on February 04, 2018, 04:08:32 am

Get the last versions you can get and install them.

I made a full image of internal HDD before changing something on my unit, just to be able to get it back to original state if something goes really wrong.

Yes, I will do that before installing anything. I'm just waiting for the IDE/USB adapter to arrive. I put some codes in and the FM stereo seems to work. AMPS does not yet, so I'll need the software package. I'll try to install IS1MV5.20.exe on my base V5.22 after I have a backup.

Thanks for your help Velund!

Michael

[Report to moderator](#)  Logged

 **Octane**

Regular Contributor

 **Re: Enabling options for R&S test equipment**

« **Reply #133 on:** February 09, 2018, 02:38:35 pm »

[Say Thanks](#) [Reply](#) [Quote](#)



Posts: 95

Country:

**Issue resolved! Reformatting as FAT16 fixed the problem. The weird thing was that Mac OS X said from the beginning that it was FAT16 formatted....hmmm**

So the USB/IDE adapter arrived, I got the HDD out of the CMU 200 and took an image. Put it back and the CMU works. Everything fine so far.

I also got a SanDisk CF to PCMCIA adapter and WD SiliconDrive 2GB PATA CF cards (SSD-C02G-3800).

I made sure that the CF card is formatted with FAT16.

Extracted the IS1MV5.20 folder from the IS1MV5.20.exe and put it onto the CF card.

Put the card into the PCMCIA adapter and plugged it into the left slot on the front of the CMU.

Pressed the power button. The usual beeping happens.

The R&S splash screen with the green rectangle "progress bar" on the bottom appears.

All the rectangles appear the message to enter the "Version Manager" is still there.

The hexagons on the top right keep animating, but nothing else happens.

Same with the right PCMCIA slot.

If the PCMCIA adapter is in the slot I can't get into the version manager by pressing the "Menu Select" button during the 3 quick beeps.

It just does the same thing as before.

I booted up the machine without the card. Then "Alt-F4". I put the card in and tried to change to different drive letters.

At one it crashed with the message "Divide Overflow".

Next I rebooted and got into the BIOS.

The BIOS does not show any drives in addition to the internal one. Is that normal with PCMCIA cards?

I have not used any of those for a very long time and I never used an adapter for CF cards.

Could somebody please check this on his unit?

I then removed the card again, booted into the version manager (not very reliable to get into it in my opinion).

I scanned for additional drives, non-found as expected.

Then I put the card in and scanned again. I got the "Divide Overflow" error again and the machine froze.

I just got onto the DOS prompt again (Alt-F4 after booting) and had the PCMCIA card installed all the time (no CF card yet).

Drive letters D: and E: Fail to read, as expected.

If I put the CF card in and try to change to E: again the weird "Divide Overflow" error happens again with a full freeze.

Any ideas what I'm doing wrong? What could I check?

Thanks in advance guys!

BR,
Michael

Edit: Typo...

« Last Edit: February 09, 2018, 04:09:18 pm by Octane »

[Report to moderator](#) [Logged](#)

riku

Newbie

Posts: 2

Country:

**Re: Enabling options for R&S test equipment**

« **Reply #134 on:** February 10, 2018, 07:25:32 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Hi! i was very luck find this place to talks about cmu.

okey letme ask dump question, i do have same problem as Wilts01 user have, the option K29 AMPS is grey out selection, how to enable it?

I have sticker behind unit where is serial number for that option so it is legite one, software version is 5.10 and i have audio module B41 installed on system, while Wilts01 did not have it.

so where i can enable it? it is installed at somepoint as sticker is there it should suppose to work.

Is only way to upgrade whole unit? because the sticker is still there and and... i have no idea how to upgrade unit, is it just run IS1MV5.20.exe file, or it need some flash method? just cpy file into cmu and run it? found exe file on google couple megs, dunno if that is right one..

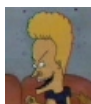
recently i swapped hard drive because old one was almost end of life, i managed clone it, and do image backup from it on desktop pc.

Please, im very novice on this, would appreciate ant tips 🙏

Report to moderator Logged

Bicurico

Frequent Contributor



Posts: 836

Country:



Re: Enabling options for R&S test equipment

« **Reply #135 on:** February 10, 2018, 08:23:06 pm »

Say Thanks Reply Quote

You can only activate software options if they are installed.

So yes, first you install the IS1MV5.20 and then you should be able to activate it with the code from within the SETUP menu.

Or, you just activate everything with the keygen and directly write into the license file with a text editor. However, that is of no use if you don't have the respective HW or SW versions installed. Just activating the options will list them as present, but you get no extra functionality.

Regards,
Vitor

Report to moderator Logged

<http://vma-satellite.blogspot.pt/>

riku

Newbie

Posts: 2

Country:



Re: Enabling options for R&S test equipment

« **Reply #136 on:** February 11, 2018, 02:27:24 am »

Say Thanks Reply Quote

thanks vitor for answer,
however after abit digging i found out base system need be 5.20, and i found only 5.21 on r&s website, it involves i guess upgrade whole system... i dont know even can i upgrade from 5.10 to 5.21 direcly.. oh my this simple thing became just complicated 😞:D

Report to moderator Logged

Bicurico

Frequent Contributor



Posts: 836

Country:



Re: Enabling options for R&S test equipment

« **Reply #137 on:** February 11, 2018, 02:48:44 am »

Say Thanks Reply Quote

The upgrades coexist side-by-side. In this thread there is a link where you can download the v5.20 software with at least some options. Follow the instructions to install it.

You use the software manager to select which is the active installation. After turning the device on, press the MENU SELECT key during boot after the beep.

Important: make a backup of the whole existing HDD, just in case.

Regards,
Vitor

Report to moderator Logged

<http://vma-satellite.blogspot.pt/>

harald_schmitt

Newbie

Posts: 1

Country:



Re: Enabling options for R&S test equipment

« **Reply #138 on:** February 16, 2018, 10:30:16 am »

Say Thanks Reply Quote

hello to all. i have a nice rohde schwarz fph spectrum rider and would like to know if there is a chance to get some license keys / serials for the options.

best regards

harald

Report to moderator Logged

pressurefm

Contributor

Posts: 6

Country:



Re: Enabling options for R&S test equipment

« **Reply #139 on:** March 28, 2018, 07:44:03 am »

Say Thanks Reply Quote

Good afternoon friends! I am a ham radio, there is an R & S FSH3, please help how to activate the options, K2, K3, K4?
Serial number 5 digit, without a fraction. A ready-made key should be only from digits and have 10 characters.

The guys really need your help !!!




Report to moderator  Logged

stabista

Newbie

Posts: 2

Country: 



Re: Enabling options for R&S test equipment

« Reply #140 on: April 02, 2018, 09:12:02 pm »

Say Thanks Reply Quote

Serial number of mine FSH3 is 100561. Model number is 23 (023?). Needed option is K2 (2? i havent option number in hex). I tried to use methods from enabling options threads for other R&S equipment (crypto script for python and script for c (but for that last one i`m also havent hex representation for option codes), in first case got hex code, but need 10 digit.

Report to moderator  Logged

pressurefm

Contributor

Posts: 6

Country: 



Re: Enabling options for R&S test equipment

« Reply #141 on: April 02, 2018, 09:43:37 pm »

Say Thanks Reply Quote

```
//
// Valori Strumento FSP "http://www.rohde-
schwarz.it/it/prodotti/test_and_measurement/spectrum_analysis/FSP-|--|-100-|-6394.html"
//
char KeyString [] = {"0123456789"}; // Opzione originale ottenuta da "Rohde & Schwarz", per
verifica funzionamento Keygen
char SerString [] = {"xxxxxx/xxx"}; // Seriale dello strumento

//
// Programma Calcolo Codici Opzioni FSP
//
int main(void)
{
    unsigned long key;
    unsigned long opzione;

    option_type * option = option_list;

    //
    // Test funzionamento con opzione valida
    //

    // Decodifica Opzione
    opzione = decrypt(KeyString, SerString);

    // Codifica Opzione
    key = encrypt(option->raw_option, SerString);

    //
    // Calcolo tutte le opzioni "Funzionanti" per Seriale
    //

    // Per tutte le opzioni dispinibili
    while (option->raw_option)
    {
        // Controllo se opzione valida
        if(option->valid_option == TRUE)
        {
            // Calcolo chiave
            key = encrypt(option->raw_option, SerString);

            // Stampo valore opzione da immettere nello strumento
            printf("%010lu - %s\r\n", key, option->descr_option);
        }

        // Opzione successiva
        option++;
    }
}
```

Report to moderator  Logged


jacobhl

Newbie

Re: Enabling options for R&S test equipment

« Reply #142 on: May 02, 2018, 11:02:56 pm »

Say Thanks Reply Quote

Posts: 1
Country: 


I have a R&S ZVB8 2 port Vector Network Analyzer, but I can't see any options file (SWOPT.DAT or similar). Under 'Info', no files are loaded that indicate which file it could be.

I could really use the ZVAB-K2 Time Domain option - does anyone have any good suggestions? The serial-number is 6-digits.


To be honest, I can't even see where I would load a valid software option key.

[Report to moderator](#)  Logged

 **carver**

Contributor



Posts: 5
Country: 


 **Re: Enabling options for R&S test equipment**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #143 on:** May 30, 2018, 08:36:57 am »

Quote from: jacobhl on May 02, 2018, 11:02:56 pm

To be honest, I can't even see where I would load a valid software option key.

check *Option Key Entry* section in manual.
need load xml or input 30 digit key.
both produced from unique DeviceKey and SN,
like for all r&s device, produced over ten years.

« *Last Edit:* May 30, 2018, 05:05:16 pm by carver »

[Report to moderator](#)  Logged

/carv

 **Ice-Tea**

Super Contributor



Posts: 1358
Country: 


 **Re: Enabling options for R&S test equipment**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #144 on:** September 10, 2018, 05:04:07 am »

Hello Gents,

As some of you know, I have a stack of CMU200's. The herd is, however, thinning so I can no longer just pick one from the stack if a customer requires certain features. I recently sent out a unit with BT and I presume it quite literally fell of a truck as it was damaged upon arrival. I want to send him a new unit obviously but I have none that are in good enough shape *and* have Bluetooth. So, I swapped a board with BT. The HW option is now listed but the SW option is not enabled.

Could anyone help me out by generating the key for me? Would be a great help...

Ice-Tea



[Report to moderator](#)  Logged

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FS: Agilent 54815A, 54825A, R&S CMU200, CRTU, SFU, SMIQ06L, Marconi 6201B, Lecroy WP 950, 9354TM, Tek THS720P, Anritsu MG3671A 2.75G I/Q RF gen, Keithley 238 SMU

 **tv84**

Frequent Contributor



Posts: 674
Country: 


 **Re: Enabling options for R&S test equipment**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #145 on:** September 12, 2018, 06:57:10 am »

Quote from: dhillman on January 01, 2017, 06:08:18 am

Quote from: Jakob on December 30, 2016, 07:11:19 pm


A side note - the keygen in Reply #7 of this thread seems to work for R&S FSU, FSQ, FSP and FSIQ series on spectrum & signal analyzer; (at least). 😊

This strikes me as very interesting. I've been working with the SMIQ's i960 firmware and complicated addressing scheme.

Does anyone know the origin of the 'Seed Keys' in main.c?

I know this is old but just for the records:

The seed keys and the functions used in the FSIQ KG were extracted from the API.DLL. (As an example here is the file from FSIQ_FW_v440_SP3 firmware file).


 API.zip (780.68 kB - downloaded 210 times.)

[Report to moderator](#)  Logged

dl2ocb

Newbie

Posts: 3

Country:  **Re: Enabling options for R&S test equipment**« **Reply #146 on:** September 14, 2018, 09:57:33 pm »[Say Thanks](#)[Reply](#)[Quote](#)



Hello,
does anyone know if the Keygen is usable for the ZVH4 Handheld too ?

[Report to moderator](#) Logged **tv84**

Frequent Contributor



Posts: 674

Country:  **Re: Enabling options for R&S test equipment**« **Reply #147 on:** September 14, 2018, 10:39:28 pm »[Say Thanks](#)[Reply](#)[Quote](#)**Quote from: dl2ocb on September 14, 2018, 09:57:33 pm**



Hello,
does anyone know if the Keygen is usable for the ZVH4 Handheld too ?

The FSQ KG isn't.

[Report to moderator](#) Logged **dl2ocb**

Newbie

Posts: 3

Country:  **Re: Enabling options for R&S test equipment**« **Reply #148 on:** September 17, 2018, 06:53:44 pm »[Say Thanks](#)[Reply](#)[Quote](#)

Tnaks for the Info.

Does anyone know a Keygen for FSH oder ZVH Handheld Instruments fron Rohde&Schwarz ?



I got a ZVH4 and maybe i can supply some DLLs or other needed Files to create a KG.

Lets Keep the nice R&S Stuff alive !!!

[Report to moderator](#) Logged **mbirth**

Contributor

Posts: 7

Country:  **Re: Enabling options for R&S test equipment**« **Reply #149 on:** September 17, 2018, 07:35:29 pm »[Say Thanks](#)[Reply](#)[Quote](#)Quote from: dl2ocb on **Today** at 10:53:44

Does anyone know a Keygen for FSH oder ZVH Handheld Instruments fron Rohde&Schwarz ?



The FSP keygen in this thread also works for the FSH. Use the serial number alone, no "/" and no model number.

Make sure to enable all keys and try them top to bottom until all options are unlocked.

[Report to moderator](#) Logged **dl2ocb**

Newbie

Posts: 3

Country:  **Re: Enabling options for R&S test equipment**« **Reply #150 on:** November 27, 2018, 06:20:30 pm »[Say Thanks](#)[Reply](#)[Quote](#)

Hello,

i tested the KeyGen for FSE/FSIQ to enable Options for the ZVH4 but with no success. I tried with full Serial-Nr. and with only the first part of the S/N.

I dont have a FSHx Model to check if the keygen does its Job on FSHx style analyzers.

Any Ideas out there what to try to free the Beast in the ZVH4 ?

CU
Stefan

[Report to moderator](#) Logged **sm7ovk** **Re: Enabling options for R&S test equipment**[Say Thanks](#)[Reply](#)[Quote](#)

Newbie

Posts: 1

Country: « **Reply #151 on:** December 05, 2018, 07:15:49 pm »

Hello,

Tried the codes on my FSIQ and some of them are only accepted as correct but without any action. I also got one option that I would like to remove, frequency to 41GHz and it doesn't work without the correct hardware, anybody know how to remove?

My intention was to get K3 and K4 options but this seems to need some extra diskettes to install. Anybody have these?

Regards 73

Jens

Report to moderator  Logged **vk3st**

Contributor

Posts: 5

Country: **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« **Reply #152 on:** December 12, 2018, 07:30:24 pm »

Hi,

what compiler or assembler is used for the script please?

I have tried Python and a number of others to no avail - all fail.

Maybe old age getting to me but never was a good programmer ;-(


Ian

ian@ian-foster.com

Report to moderator  Logged **hidjedewitje**

Newbie

Posts: 1

Country: **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« **Reply #153 on:** December 12, 2018, 07:50:39 pm »

Has anyone tried unlocking the options on the RTB2000/RTM3000 series oscilloscopes?

I am currently in doubt on whether I should go for a RTB2002 or save up a little more for a Keysight 3000T series. Mainly because the Keysight has the ability to unlock options.


I know Rigol scopes are able to be hacked, but their software seems buggy and slow.

Report to moderator  Logged **eb4fbz**

Regular Contributor



Posts: 90

Country: **Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« **Reply #154 on:** December 12, 2018, 08:47:16 pm »**Quote from: dl2ocb on November 27, 2018, 06:20:30 pm**

Hello,

i tested the KeyGen for FSE/FSIQ to enable Options for the ZVH4 but with no success. I tried with full Serial-Nr. and with only the first part of the S/N.

I dont have a FSHx Model to check if the keygen does its Job on FSHx style analyzers.

Any Ideas out there what to try to free the Beast in the ZVH4 ?

CU
Stefan

I'm interested in ZVH options too Report to moderator  Logged **hafirse**

Regular Contributor



Posts: 58

**Re: Enabling options for R&S test equipment**

Say Thanks Reply Quote

« **Reply #155 on:** December 13, 2018, 01:39:46 am »

Hello,

had a problem with the hardisk and the CPU card, after replacing the CPU with another haddisk from another CMU, now I have another serial number shown from the new CPU card.

How do I get hold of Serial2 if I have replaced the cpu card and the harddisk? if there any way to dump the serial2 number? after replacing the CPU with another haddisk, now I have another serial number shown.

many thanks in advance!


Report to moderator  Logged

 **hafirse**

Regular Contributor



Posts: 58

 **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« **Reply #156 on:** December 13, 2018, 02:55:49 am »**Quote from: tv84 on December 13, 2018, 02:48:46 am**

I can try have a look at the ZVH licenses. For that I would need an example of S/N and one license from a volunteer. pm me.

Hello,

I think I found the answer, it is stated in post #59 in this thread. I only need to execute the Identity menu selection and a file will be generated with the serial1 and serial2.

I will try that .


Thanks anyway!

Report to moderator  Logged **tv84**

Frequent Contributor



Posts: 674

Country:  **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« **Reply #157 on:** December 13, 2018, 06:34:14 am »**Quote from: hafirse on December 13, 2018, 02:55:49 am****Quote from: tv84 on December 13, 2018, 02:48:46 am**

I can try have a look at the ZVH licenses. For that I would need an example of S/N and one license from a volunteer. pm me.

Hello,

I think I found the answer, it is stated in post #59 in this thread. I only need to execute the Identity menu selection and a file will be generated with the serial1 and serial2.

I will try that .

Thanks anyway!



That has nothing to do with ZVH. It's only for CMU, FSU, FSQ, FSP and FSIQ.

Report to moderator  Logged **Ice-Tea**

Super Contributor



Posts: 1358

Country:  **Re: Enabling options for R&S test equipment**

Say Thanks

Reply

Quote

« **Reply #158 on:** December 18, 2018, 12:03:04 am »

Well, I'm trying to bring the script up myself again (HW guy trying to do SW stuff lolzz... yeah...)

I found that I can't get the PyCrypto package to work. Seems to have issues finding some VS install (tried several) and newer versions of Python (yes, also tried older ones). So I gave up on PyCrypto and use PyCryptoDome which should be close to compatible. At least it installs but when running

Code: [Select]

```
from Crypto.Cipher import ARC2
import struct

serial = 103086
serial2 = 2
option = 45

record = struct.pack("<II", serial, serial2 + (option <<20))
encyphered = ARC2.new("Revision\0").encrypt(record)
print encyphered.encode("hex")
```

I get

Code: [Select]

```
C:\Python>python cmu.py
Traceback (most recent call last):
  File "cmu.py", line 9, in <module>
    encyphered = ARC2.new("Revision\0").encrypt(record)
TypeError: new() takes at least 2 arguments (1 given)
```

So, uhm, yeah... some help please?

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FS: Agilent 54815A, 54825A, R&S CMU200, CRTU, SFU, SMIQ06L, Marconi 6201B, Lecroy WP 950, 9354TM, Tek THS720P,

Anritsu MG3671A 2.75G I/Q RF gen, Keithley 238 SMU

KaneTW
 Regular Contributor

 Posts: 235
 Country:

Re: Enabling options for R&S test equipment Say Thanks Reply Quote
 « **Reply #159 on:** December 18, 2018, 12:12:43 am »

Two options:
 1. Use Anaconda
 2. Install a Ubuntu VM and `sudo apt install python-crypto`

You could adapt the other library, but I don't know if it'll cause issues down the line.

Report to moderator Logged

Ice-Tea
 Super Contributor

 Posts: 1358
 Country:

Re: Enabling options for R&S test equipment Say Thanks Reply Quote
 « **Reply #160 on:** December 18, 2018, 05:57:25 am »

Yeah, uh, I'm not going to learn how to use/install a new OS in a VM because I can't get a piece of SW to work. Thanks for the suggestions though...

Anaconda didn't do it for me either.

Actually found this link in this thread:

<https://repl.it/repls/SkeletalDelectableDwarfrabbit>

Didn't work at first, but got it to go!

Report to moderator Logged

[eBay shop with all the gear you need!](#)
 FS: Agilent 54815A, 54825A, R&S CMU200, CRTU, SFU, SMIQ06L, Marconi 6201B, Lecroy WP 950, 9354TM, Tek THS720P, Anritsu MG3671A 2.75G I/Q RF gen, Keithley 238 SMU

Giedrius
 Newbie
 Posts: 2
 Country:

Re: Enabling options for R&S test equipment Say Thanks Reply Quote
 « **Reply #161 on:** December 22, 2018, 01:23:23 am »

Hello,
 Has anyone been able to generate codes for FSL?
 I used the python script to generate code and it produced a hex number. However, the device itself only takes decimal digits (0-9) as input (under install options dialog).
 I tried converting hex code to decimal and entering but that didn't work either.
 Has anyone had better luck with FSL device?

Report to moderator Logged

mbirth
 Contributor
 Posts: 7
 Country:

Re: Enabling options for R&S test equipment Say Thanks Reply Quote
 « **Reply #162 on:** December 22, 2018, 01:59:58 am »

Quote from: Giedrius on **Today** at 17:23:23

Has anyone been able to generate codes for FSL?
 I used the python script

[...]
 Has anyone had better luck with FSL device?

Have you tried the generator from [Reply #7?](#)

Report to moderator Logged

Giedrius
 Newbie
 Posts: 2
 Country:

Re: Enabling options for R&S test equipment Say Thanks Reply Quote
 « **Reply #163 on:** January 24, 2019, 09:18:33 am »

Hello and sorry for the late reply.
 Yes, I tried the generator from reply #7 but the codes did not work.
 I am not sure if I am using the correct serial number.
 I am expecting serial number to be in a form like xxxxxx/yyy. The first part is given by software and a sticker on the back of the device. However, I cannot find the last three digits (yyy) anywhere. I tried various combinations from the stickers on the back of the device, motherboard and RF boards. But

none of them generated working upgrade code.
Do you know where I can find the full number required for the generator - I mean the last three digits (yyy)?
Thank you very much for your help!

[Report to moderator](#) [Logged](#)

mbirth

Contributor

Posts: 7

Country:



Re: Enabling options for R&S test equipment

« **Reply #164 on:** January 24, 2019, 09:48:15 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: Giedrius on **Today** at 01:18:33

I am expecting serial number to be in a form like xxxxxx/yyy. The first part is given by software and a sticker on the back of the device. However, I cannot find the last three digits (yyy) anywhere. I tried various combinations from the stickers on the back of the device, motherboard and RF boards.

For an old FSH it was as easy as using xxxxxx as the serial number. No dash, no nothing. And make sure to set all entries in the option_list to TRUE and try them one after another.

[Report to moderator](#) [Logged](#)

Qw3rtzuiop

Regular Contributor



Posts: 60

Country:



Re: Enabling options for R&S test equipment

« **Reply #165 on:** January 30, 2019, 03:52:47 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Did someone already tried unlocking options of the SMU200A?

[Report to moderator](#) [Logged](#)

hafirse

Regular Contributor



Posts: 58



Re: Enabling options for R&S test equipment

« **Reply #166 on:** February 06, 2019, 10:14:55 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: mbirth on January 24, 2019, 09:48:15 am

Quote from: Giedrius on **Today** at 01:18:33

I am expecting serial number to be in a form like xxxxxx/yyy. The first part is given by software and a sticker on the back of the device. However, I cannot find the last three digits (yyy) anywhere. I tried various combinations from the stickers on the back of the device, motherboard and RF boards.

For an old FSH it was as easy as using xxxxxx as the serial number. No dash, no nothing. And make sure to set all entries in the option_list to TRUE and try them one after another.

But the generated key is a HEX string and the FSH accepts only numbers, how it is possible?
Thanks

[Report to moderator](#) [Logged](#)

mbirth

Contributor

Posts: 7

Country:



Re: Enabling options for R&S test equipment

« **Reply #167 on:** February 06, 2019, 10:32:48 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: hafirse on **Today** at 14:14:55

But the generated key is a HEX string and the FSH accepts only numbers, how it is possible? Thanks

You used the keygen from comment #7, didn't you?

[Report to moderator](#) [Logged](#)

hafirse

Regular Contributor



Posts: 58



Re: Enabling options for R&S test equipment

« **Reply #168 on:** February 07, 2019, 06:07:07 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: mbirth on February 06, 2019, 10:32:48 pm

Quote from: hafirse on **Today** at 14:14:55

But the generated key is a HEX string and the FSH accepts only numbers, how it is possible? Thanks

You used the keygen from comment #7, didn't you?

Hello, No, from connect #21 with Python code.

Report to moderator Logged

mbirth

Contributor

Posts: 7

Country:



Re: Enabling options for R&S test equipment

« **Reply #169 on:** February 07, 2019, 06:28:03 am »

Say Thanks Reply Quote

Quote from: hafirse on **Today** at 22:07:07

Hello, No, from connect #21 with Python code.

Well, then try the one from #7. 😊

Report to moderator Logged

hafirse

Regular Contributor

Posts: 58



Re: Enabling options for R&S test equipment

« **Reply #170 on:** February 07, 2019, 07:48:05 am »

Say Thanks Reply Quote

Quote from: mbirth on **February 07, 2019, 06:28:03 am**

Quote from: hafirse on **Today** at 22:07:07

Hello, No, from connect #21 with Python code.

Well, then try the one from #7. 😊

tried to compile the project in VS2017 using sdk 10 and sdk 8.1, ended up on stdio.h not found when using sdk 8.1 , I am not very famlier with VS...

Report to moderator Logged

ve7xen

Frequent Contributor

Posts: 654

Country:



Re: Enabling options for R&S test equipment

« **Reply #171 on:** February 08, 2019, 09:53:57 am »

Say Thanks Reply Quote

It's just a trivial C program. I compiled it for you.

FSP Keygen.zip (35.13 kB - downloaded 163 times.)

Report to moderator Logged

73 de VE7XEN

hafirse

Regular Contributor

Posts: 58



Re: Enabling options for R&S test equipment

« **Reply #172 on:** February 09, 2019, 07:42:57 am »

Say Thanks Reply Quote

Quote from: mbirth on **September 17, 2018, 07:35:29 pm**

Quote from: dl2ocb on **Today** at 10:53:44

Does anyone know a Keygen for FSH oder ZVH Handheld Instruments from Rohde&Schwarz ?

The FSP keygen in this thread also works for the FSH. Use the serial number alone, no "/" and no model number.

Make sure to enable all keys and try them top to bottom until all options are unlocked.


The FSP keygen has seeds for the options on the fsp but where to get the seeds for options K2,K3 and K4 for the FSH? thanks

Report to moderator Logged

mbirth

Contributor

Posts: 7

Country: 



Re: Enabling options for R&S test equipment

« Reply #173 on: February 09, 2019, 12:47:06 pm »

Say Thanks Reply Quote

Quote from: hafirse on **Yesterday** at 23:42:57

The FSP keygen has seeds for the options on the fsp but where to get the seeds for options K2,K3 and K4 for the FSH? thanks

That's why I said to enable the disabled options in the source code. (set FALSE to TRUE)

"K84 - 1xEV-DO BTS" for the FSP is K1 for the FSH
"K84 - 1xEV-DO MS" for the FSP is K3 for the FSH
The fourth entry in the options list is K2.

K4 I don't know. The device I had was too old and didn't support that option. Just try them one after another and you'll probably find it.

btw: The entry labelled "K7" enables the DEMO mode on the FSH and unlocks all features for a month.

And don't forget to input your serial number in the SerString variable further down, then recompile the thing.

Report to moderator  Logged

hafirse

Regular Contributor



Posts: 58



Re: Enabling options for R&S test equipment

« Reply #174 on: February 11, 2019, 05:39:30 am »

Say Thanks Reply Quote

Thanks 😊

Report to moderator  Logged

tv84

Frequent Contributor



Posts: 674

Country: 



Re: Enabling options for R&S test equipment

« Reply #175 on: February 18, 2019, 08:15:27 am »

Say Thanks Reply Quote

Quote from: mbirth on February 09, 2019, 12:47:06 pm

K4 I don't know. The device I had was too old and didn't support that option. Just try them one after another and you'll probably find it.

Let me try clarify some things (although I don't know much about this).

The list of options extracted from FSP firmware v4.50 API.DLL is the following:

Code: [Select]

| | | | |
|-------|----------------------|-----------------------|-----------------------|
| K5 | GSM/EDGE Application | GSM K5 ANALYZER | FSPSpectrumAnalyzerLI |
| K7 | FM Demodulator #1 #2 | FM DEMODULATOR | FSPSpectrumAnalyzerLI |
| K84 | 1xEV-DO BTS | 1X EV DATA ONLY BTS | FSPSpectrumAnalyzerLI |
| K85 | 1xEV-DO MS | 1X EV DATA ONLY MS | FSPSpectrumAnalyzerLI |
| K90 | FSQ WLAN 802.11a | WLAN | FSQ-Wlan(LI) |
| K72 | WCDMA 3GPP FDD BTS | WCDMA BTS ANALYZER | FSPSpectrumAnalyzerLI |
| K74 | WCDMA HSDPA BTS | WCDMA HSDPA BTS | FSPSpectrumAnalyzerLI |
| K75 | WCDMA HSDPA MS | WCDMA HSDPA MS | FSPSpectrumAnalyzerLI |
| K9 | Power Meter | POWER METER | FSPSpectrumAnalyzerLI |
| K73 | WCDMA 3GPP FDD MS | WCDMA MS ANALYZER | FSPSpectrumAnalyzerLI |
| K90 | FSP WLAN 802.11a | FSP WLAN | FSP_Wlan(LI) |
| K90UP | FSQ WLAN 802.11a,b,g | WLAN UPGRADE | FSPSpectrumAnalyzerLI |
| K76 | TD-SCDMA BTS | TD-SCDMA BTS ANALYZER | FSPSpectrumAnalyzerLI |

They are ordered according to the seeds table (used in the prog to generate licenses).


Also, in that .DLL we can extract a more complete seed (uint32) table than the one used in the original prog (post #7). I attach it below.

Those that are using the program should add the new seeds because they may be needed to enable other Options.

The FSH Option names can be extracted from the FSH firmware's API.DLL. If anyone sends me a

current FSH API.DLL I might extract the complete list of Options.

When adding the Option seeds you should also make them TRUE so that all possibilities are calculated.


 seeds_complete.txt (2.39 kB - downloaded 136 times.)

[Report to moderator](#)  [Logged](#)


goaty

Contributor

Posts: 5

Country: 



 **Re: Enabling options for R&S test equipment**

« **Reply #176 on:** March 15, 2019, 02:55:14 am »

[Say Thanks](#) [Reply](#) [Quote](#)

For FSH3, I looked into the update file which contains GALAXY.Idf, GALAXY2M.Idf and GALAXY3G.Idf.

Seems there is an easteregg there:

```
"
Mines left: %d
Time: %3d
Best time: %3d
Lives: %d
Score: %d
HighScore: %d
Waiting for opponent...
Congratulations, you won!!
Ouch, you lost!!
Your fleet
Opponents fleet
Drop bomb...
Watch out for incoming...
Expose a part of one of your ships...
Watch out for incoming...
"
```

[Report to moderator](#)  [Logged](#)

fisafisa

Regular Contributor



Posts: 69

Country: 



 **Re: Enabling options for R&S test equipment**

« **Reply #177 on:** April 28, 2019, 06:31:15 am »

[Say Thanks](#) [Reply](#) [Quote](#)

HI
I have got an AMIQ waveform generator.
I tried with the options generator but no luck.
Looking at the manual it would seem that the options here are only 8 characters long.
Anybody has an example of option code (together with the serial number)
Maybe it is possible to figure out the algorithm.


Thanks

[Report to moderator](#)  [Logged](#)


sky2city

Contributor

Posts: 27

Country: 



 **Re: Enabling options for R&S test equipment**

« **Reply #178 on:** June 12, 2019, 03:56:32 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Hey Guys,

I have a ZVR, SN is 835068/005. and I found the SW sn \R_S\INSTR\INI\OPTOIN.INI
Is't anyone know how to decode it?


```
-----
4056071223; EMBED DEEMBED
0436723430; TIME DOMAIN
1234299954; CONVERTER 4 CHAN
-----
```

[Report to moderator](#)  [Logged](#)

sky2city

Contributor

Posts: 27

Country: 

 **Re: Enabling options for R&S test equipment**

« **Reply #179 on:** June 12, 2019, 04:44:17 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: tv84 on February 18, 2019, 08:15:27 am



Quote from: mbirth on February 09, 2019, 12:47:06 pm

K4 I don't know. The device I had was too old and didn't support that option. Just try them one after another and you'll probably find it.

Let me try clarify some things (although I don't know much about this).

The list of options extracted from FSP firmware v4.50 API.DLL is the following:

Code: [Select]

| | | | |
|-------|----------------------|-----------------------|-----------------------|
| K5 | GSM/EDGE Application | GSM K5 ANALYZER | FSPSpectrumAnalyzerLI |
| K7 | FM Demodulator #1 | FM DEMODULATOR | FSPSpectrumAnalyzerLI |
| | #2 | | |
| K84 | 1xEV-DO BTS | 1X EV DATA ONLY BTS | FSPSpectrumAnalyzerLI |
| K85 | 1xEV-DO MS | 1X EV DATA ONLY MS | FSPSpectrumAnalyzerLI |
| K90 | FSQ WLAN 802.11a | WLAN | FSQ-wlan(LI) |
| K72 | WCDMA 3GPP FDD BTS | WCDMA BTS ANALYZER | FSPSpectrumAnalyzerLI |
| K74 | WCDMA HSDPA BTS | WCDMA HSDPA BTS | FSPSpectrumAnalyzerLI |
| K75 | WCDMA HSDPA MS | WCDMA HSDPA MS | FSPSpectrumAnalyzerLI |
| K9 | Power Meter | POWER METER | FSPSpectrumAnalyzerLI |
| K73 | WCDMA 3GPP FDD MS | WCDMA MS ANALYZER | FSPSpectrumAnalyzerLI |
| K90 | FSP WLAN 802.11a | FSP WLAN | FSP_wlan(LI) |
| K90UP | FSQ WLAN 802.11a,b,g | WLAN UPGRADE | |
| K76 | TD-SCDMA BTS | TD-SCDMA BTS ANALYZER | FSPSpectrumAnalyzerLI |

They are ordered according to the seeds table (used in the prog to generate licenses).

Also, in that .DLL we can extract a more complete seed (uint32) table than the one used in the original prog (post #7). I attach it below.

Those that are using the program should add the new seeds because they may be needed to enable other Options.

The FSH Option names can be extracted from the FSH firmware's API.DLL. If anyone sends me a current FSH API.DLL I might extract the complete list of Options.

When adding the Option seeds you should also make them TRUE so that all possibilities are calculated.

Hi tv84,

I attached a API.DLL form a ZVR. could you decode the option from it?

API.ZVR.txt (1708.04 kB - downloaded 23 times.)

Report to moderator Logged

carver

Contributor



Posts: 5

Country: [Flag]



Re: Enabling options for R&S test equipment

« Reply #180 on: June 12, 2019, 10:06:33 pm »

Say Thanks Reply Quote

Quote from: sky2city on June 12, 2019, 03:56:32 pm

Hey Guys,

I have a ZVR, SN is 835068/005. and I found the SW sn \R_S\INSTR\INI\OPTOIN.INI Is't anyone know how to decode it?

4056071223; EMBED DEEMBED
0436723430; TIME DOMAIN
1234299954; CONVERTER 4 CHAN

maybe
feat_0 = 'HARMONIC MEAS', 'B3', 'Harmonic Measurements'
feat_1 = 'MIXER MEAS', 'B4', 'Mixer Measurements'
feat_2 = 'NONLINEAR MEAS', 'B5', 'Nonlinear Measurements'
feat_3 = 'REF MIXER PORTS', 'B6', 'Reference Mixer Ports'
feat_4 = 'POWER CALIBRATION', 'B7', 'Power Calibration'
feat_5 = '4 PORT MEAS', 'B99', '4-Port Measurements'
feat_6 = 'QUARTZ MEAS', 'BXX', 'Quartz Measurements'

This is an old public algorithm.
test Feat_2+, if all OK - test b3-b4 too,
in newer devices - these numbers(0 or 1) used for demo.

now r&s used new long key.
many know how to create new too,
but no one wants to share it to public))

Code: [Select]

| | | | |
|----------------|--------|------------------------|---|
| sn: 835068.005 | id: 00 | option key: 1542267991 | desc: feat_0 |
| sn: 835068.005 | id: 01 | option key: 2797899109 | desc: feat_1 |
| sn: 835068.005 | id: 02 | option key: 2277388772 | desc: feat_2 |
| sn: 835068.005 | id: 03 | option key: 2328386865 | desc: feat_3 |
| sn: 835068.005 | id: 04 | option key: 0302356071 | desc: feat_4 |
| sn: 835068.005 | id: 05 | option key: 3024766616 | desc: feat_5 |
| sn: 835068.005 | id: 06 | option key: 4252011699 | desc: feat_6 |
| sn: 835068.005 | id: 07 | option key: 4056071223 | desc: TIME DOMAIN, B2, Time Domain Measurements |
| sn: 835068.005 | id: 08 | option key: 0436723430 | desc: CONVERTER 4 CHAN, C4C, 4 Channel Converter |
| sn: 835068.005 | id: 09 | option key: 1234299954 | desc: EMBED DEEMBED, K9, Virtual Embedding Networks |
| sn: 835068.005 | id: 10 | option key: 0493488890 | desc: feat_A |

« Last Edit: June 12, 2019, 10:21:04 pm by carver »

Report to moderator Logged

/carv

tv84

Frequent Contributor



Posts: 674

Country:



Re: Enabling options for R&S test equipment

Say Thanks

Reply

Quote

« Reply #181 on: June 13, 2019, 07:29:24 am »

Quote from: sky2city on June 12, 2019, 04:44:17 pm

Hi tv84,

I attached a API.DLL form a ZVR. could you decode the option from it?

I don't think so. Do you have examples of options for that equipment?

Report to moderator Logged

sky2city

Contributor

Posts: 27

Country:



Re: Enabling options for R&S test equipment

Say Thanks

Reply

Quote

« Reply #182 on: June 13, 2019, 02:25:03 pm »

Quote from: tv84 on June 13, 2019, 07:29:24 am

Quote from: sky2city on June 12, 2019, 04:44:17 pm

Hi tv84,

I attached a API.DLL form a ZVR. could you decode the option from it?

I don't think so. Do you have examples of options for that equipment?

I double checked with ZVR manual, the only K option for ZVR is K9 only, there is nothing to do with this unit.

So I am looking in another one, FSEA30. the datasheet say the K option for FSEA is:

-
- FSE-K4 Phase Noise Measurement Software,
- FSE-K3 Noise Measurement Software
- FSE-K10 GSM Test Software, Mobile
- FSE-K11 GSM Test Software, Base Station
- FSE-K20 GSM Test Software, Edge Mobile
- FSE-K21 GSM Test Software, EDGE Base Station
- FSE-K30 GSM Test Software, 850 GHz band Mobile
- FSE-K31 GSM Test Software, 850 GHz band Base Station
-

Just decoded the SN using "Rohde & Schwarz FSP option generator".

Notice: that I decode all seeds, the comment "Kx xxxx Application Firmware" is not correct, it's for FSP

-
- 3780795724 - K5 - GSM/EDGE Application Firmware
- 0284552823 - K7 - AM/FM/PM Measurement Demodulator
- 4196994763 - B17 - IQ Online
- 0684125256 - None
- 1514211661 - K84 - 1xEV-DO BTS Application Firmware

0579586646 - K84 - 1xEV-DO MS Application Firmware
 3285910640 - None
 1332515167 - FSP-B15 FSP-B70 FS-K7
 1746004935 - K72 prior K74
 0425836556 - None
 3914572062 - K9 - Power Meter
 0367944746 - FSP-B15 FS-K7
 0178533596 - None
 0084427020 - None
 0973137605 - K76 - 3GPP TD-SCDMA BTS Application Firmware
 4058089560 - K77 - 3GPP TD-SCDMA MS Application Firmware
 2816669065 - K30 - Noise Figure Measurement
 0774785927 - K82 - CDMA2000 BTS Application Firmware
 1251526595 - K83 - CDMA2000 MS Application Firmware
 0364322959 - K8 - Bluetooth Application Firmware
 3912188941 - K40 - Phase Noise Measurement
 2043795852 - None
 2216559242 - None
 3509799288 - None
 0667766505 - None
 2179962388 - 31 days trial period
 4232888520 - 78 days trial period
 1998016984 - None
 1665344687 - None
 0081926458 - Frequency Extension
 1876889287 - None
 2554963261 - Trasducer Set
 0989643314 - None
 1367083121 - None
 2589261327 - None
 3754352886 - None
 2349723378 - None
 2713318677 - None
 0242151735 - None
 3807482493 - None
 2651669256 - None
 0586577237 - None
 3525044770 - None
 0034228987 - None
 1143727560 - None
 2616543767 - None
 1636617207 - None
 0959025083 - None
 1318982380 - None
 2600577035 - None

 compare with the options.ini in my FSEA. the first line is the "FSE-K10 GSM Test Software, Mobile".

 Options file in my FSEA:
 3780795724; GSM MTS ANALYZER

My question is which line of the SN is for other option?

 FSE-K4 Phase Noise Measurement Software, 🤔🤔
 FSE-K3 Noise Measurement Software 🤔🤔??
 FSE-K10 GSM Test Software, Mobile 3780795724
 FSE-K11 GSM Test Software, Base Station
 FSE-K20 GSM Test Software, Edge Mobile
 FSE-K21 GSM Test Software, EDGE Base Station
 FSE-K30 GSM Test Software, 850 GHz band Mobile
 FSE-K31 GSM Test Software, 850 GHz band Base Station


another thing I found is that there is no API.dll in my FSEA30. I search all *.ll in hard disk, it seems that "FSEFPNL.DLL" is the suspect one.

« Last Edit: June 13, 2019, 02:31:10 pm by sky2city »

Report to moderator  Logged

Contributor

Posts: 27

Country: 



« Reply #183 on: June 13, 2019, 02:28:09 pm »

Quote from: carver on June 12, 2019, 10:06:33 pm

Quote from: sky2city on June 12, 2019, 03:56:32 pm

Hey Guys,

I have a ZVR, SN is 835068/005. and I found the SW sn \R_S\INSTR\INI\OPTOIN.INI
Is't anyone know how to decode it?

4056071223; EMBED DEEMBED
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1234299954; CONVERTER 4 CHAN

maybe

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feat_6 = 'QUARTZ MEAS', 'BXX', 'Quartz Measurements'
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This is an old public algorithm.
test Feat_2+, if all OK - test b3-b4 too,
in newer devices - these numbers(0 or 1) used for demo.

now r&s used new long key.
many know how to create new too,
but no one wants to share it to public))

Code: [Select]

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| sn: 835068.005 | id: 06 | option key: 4252011699 | desc: feat_6 |
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| sn: 835068.005 | id: 10 | option key: 0493488890 | desc: feat_A |


Got it. thanks for your reply. 😊

Report to moderator  Logged



Contributor

Posts: 27

Country: 



Re: Enabling options for R&S test equipment

« Reply #184 on: June 13, 2019, 02:40:25 pm »

Quote from: jacobhl on May 02, 2018, 11:02:56 pm

I have a R&S ZVB8 2 port Vector Network Analyzer, but I can't see any options file (SWOPT.DAT or similar). Under 'Info', no files are loaded that indicate which file it could be.

I could really use the ZVAB-K2 Time Domain option - does anyone have any good suggestions? The serial-number is 6-digits.

To be honest, I can't even see where I would load a valid software option key.

Hi Jacod,

I don't have the ZVB yet. I download the firmware form RS and than extract all files. there is a DLL file "OptionKeyServices.dll", I guess this Dll is work for the option key.

for the SW option key, you should search *option*.* or *opt*.* in D disk. in my ZVR, it's "Option.ini".

and check the serial-number on "info" hard key manu.

Report to moderator  Logged







Contributor

Re: Enabling options for R&S test equipment

« Reply #185 on: June 14, 2019, 12:58:25 am »

Say Thanks Reply Quote

Posts: 27
Country: 
  

Quote from: sky2city on June 13, 2019, 02:40:25 pm

Quote from: jacobhl on May 02, 2018, 11:02:56 pm

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for the SW option key, you should search *option*.* or *opt*.* in D disk. in my ZVR, it's "Option.ini".

and check the serial-number on "info" hard key manu.

I went through the "OptionKeyServices.dll", it seems that some fuction is base on OpenSSL 0.95 lib.

But I can't find the where the key hidden.

Stuck here

« Last Edit: June 14, 2019, 01:53:53 am by sky2city »

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 **sky2city**

Contributor

Posts: 27
Country: 

 **Re: Enabling options for R&S test equipment**

« Reply #186 on: June 17, 2019, 05:08:57 am »

[Say Thanks](#) [Reply](#) [Quote](#)

Quote from: jacobhl on May 02, 2018, 11:02:56 pm

I have a R&S ZVB8 2 port Vector Network Analyzer, but I can't see any options file (SWOPT.DAT or similar). Under 'Info', no files are loaded that indicate which file it could be.


I could really use the ZVAB-K2 Time Domain option - does anyone have any good suggestions? The serial-number is 6-digits.

To be honest, I can't even see where I would load a valid software option key.

I did some Reverse Engineering of OptionKeyServices.dll. it show that the OptionKeyServices.dll always access the Register table of windows. Maybe the Option key is store in register table.

Pls. check reg table on:
HKEY_LOCAL_MACHINE\SOFTWARE\Rohde&Schwarz\.....




 1.png (95.94 kB, 1600x1068 - viewed 91 times.)

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 **vk3st**

Contributor

Posts: 5
Country: 

 **Re: Enabling options for R&S test equipment**

« Reply #187 on: June 29, 2019, 04:49:02 pm »

[Say Thanks](#) [Reply](#) [Quote](#)

Hi all,
Still frustrated trying to get several option running on our radio club ZVH. Really wanting to activate K1, K9 and K39. I did have a contact with a guy in Russia but the expected cost was way way beyond the budget by many orders of magnitude and was probably more based on a commercial proposition. Have tried all the options with variations mentioned in these pages to no avail. If someone does have a key gen stored away and can provide me with activation codes for Ser No 102660/24 I would be prepared to pay a fee or donate a suitable sum not being a kings ransom for the service. If there is such a person, pm me at vk3st@ian-foster.com please.

[Report to moderator](#)  [Logged](#)

carver
Contributor



Posts: 5
Country:

Re: Enabling options for R&S test equipment

« Reply #188 on: June 30, 2019, 07:57:36 pm »

Say Thanks Reply Quote

as I wrote above,
many have access to R&S tools, me too.
but no one wants to share this tool to public, as R&S too.

Report to moderator Logged

/carv

mbirth
Contributor

Posts: 7
Country:

Re: Enabling options for R&S test equipment

« Reply #189 on: June 30, 2019, 09:35:41 pm »

Say Thanks Reply Quote

Quote from: vk3st on **Yesterday** at 08:49:02

Have tried all the options with variations mentioned in these pages to no avail.

Did you also try the tool from comment #7 but with only the first part of your serial number? (Have to edit the serial number in the source code, then compile and run. Make sure to also set all the options in the source code to TRUE first.)

Report to moderator Logged

vk3st
Contributor

Posts: 5
Country:

Re: Enabling options for R&S test equipment

« Reply #190 on: July 07, 2019, 08:00:26 pm »

Say Thanks Reply Quote

Hi, can you pm me with RS tool info please?
Info@ian-foster.com

Report to moderator Logged

vk3st
Contributor

Posts: 5
Country:

Re: Enabling options for R&S test equipment

« Reply #191 on: July 07, 2019, 08:06:50 pm »

Say Thanks Reply Quote

I looked. At it and could not seem to get it to compile without error.
What is recommended compiler please and sorry but has been many years since compiling scripts etc so am a bit slow in this area.

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