

How gpredict actual communicates with hamlib:

GPREDICT Einstellungen :: Schnittstellen

Konfigurationsname	Host	Port	Gerätetyp	PTT-Status	VFO Up	VFO Down	LO Down	LO Up
gqrx	localhost	7356	Nur RX	Kein	Main	Sub	0 MHz	0 MHz
hamlib_dummy	localhost	4532	Duplex	PTT	Main	Sub	0 MHz	0 MHz
ic9700	localhost	4532	Duplex	PTT	Main	Sub	0 MHz	0 MHz
IC9700_iss	localhost	4532	Duplex	PTT	VFO A	VFO B	0 MHz	0 MHz
ICOM_IC-R1500	localhost	4532	Nur RX	Kein	Main	Sub	0 MHz	0 MHz

Actual facts from gpredict.

gpredict decide between VFO Up and VFO Down.

VFO Up is always TX VFO and VFO Down the RX VFO.

Gpredict always use F,f to get and set VFO Down (RX).

Gpredict always used I,i to get and set VFO Up (TX).

In Gpredict you can choose between Main and Sub as VFO, or between VFO A and VFO B.

So this selections are possible:

Funkgerätekonfiguration bearbeiten

Name: IC9700\_iss

Host: localhost

Port: 4532

Funkgerätetyp: Duplex TRX

PTT-Status: PTT auslesen

VFO Up/Down: B ↑ / A ↓

LO Down: A ↑ / B ↓ + MHz

LO Up: SUB ↑ / MAIN ↓ + MHz

Benachrichtigung:  AUS  LOS

Buttons: Clear, Cancel, Ok

when choosing Main ^ / Sub v gpredict will init with:

S 1 Main

I is uplink (means tx vfo)

F is downlink (means rx vfo)

when choosing Sub ^ / Main v gpredict will init with:

S 1 Sub

I is uplink (means tx vfo)

F is downlink (means rx vfo)

when choosing  $A \wedge / B \vee$  gpredict will init with:

S 1 VFOA

I is uplink (means tx vfo)

F is downlink (means rx vfo)

when choosing  $B \wedge / A \vee$  gpredict will init with:

S 1 VFOB

I is uplink (means tx vfo)

F is downlink (means rx vfo)

after init it will have a loop to set F and I in a defined intervall.

And it is reading with command f the downlink, maybe the user have dail the frequency knob, so it will pick up the new downlinkfrequenc, calculate the correct uplink and will set this.

So gpredict speaks with all satellites transceivers via hamlib.

(and another hint, because the user can change RX/Downlink frequence via dial knob, so it usual that the transceiver has always the focus on the RX/Downlink VFO, only to read or write the tx vfo, the transceiver should shortly change the focus, but should immediatly switch back. Perfect, would be when there would be ci-v commands to set tx/uplink frequency in a hidden way, were you do not to have change the focus, but i think most transceivers are not on this level. Poor firmware of the transceivers.)