

Remote control of my amateur radio station over the Internet

This is a short description of how I have done remote control of my radio station over the Internet.

RemoteRig from Microbit has been the basic building block. The current radio is Yeasu FTdx-5000 and the amplifier Expert 2K-FA. Description is as of 18.1.2018.

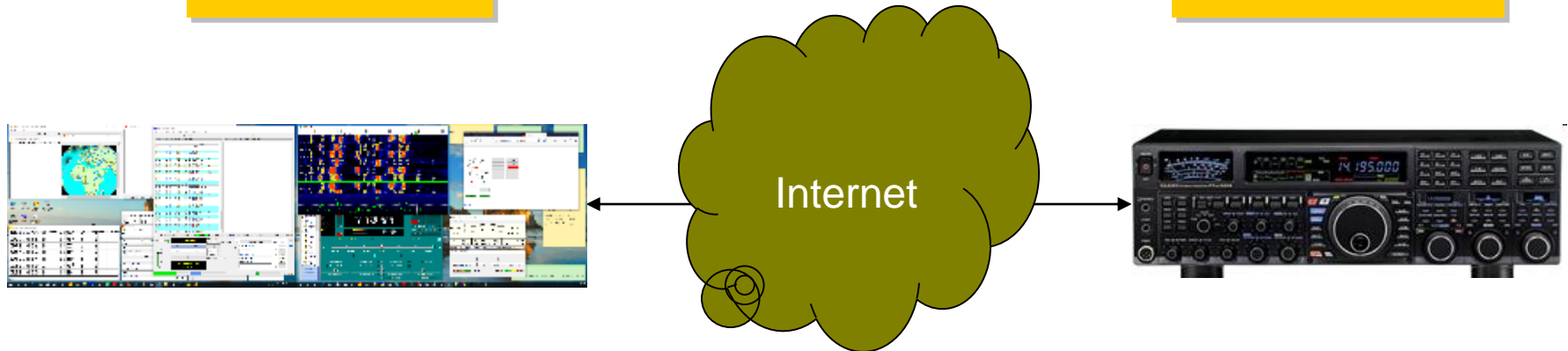
Motivation

- If you have a second home with low noise environment and space for antennas but you would like to operate radio also from your city location, remote controlled station is an ideal solution.
- Building remote station is system engineering. You don't build a radio but quite a complex radio system with automation and integration. It is very interesting.
 - You will learn more about IP and IT-technologies
 - Building such a station provides a lot of home building mini projects. Junction boxes, decoders, connection cables,.
- And it works. Operating convenience can be brought to the same level as working locally at the radios.
- This technology is now so mature that an average ham can apply it.

Remote control over the Internet

Control site

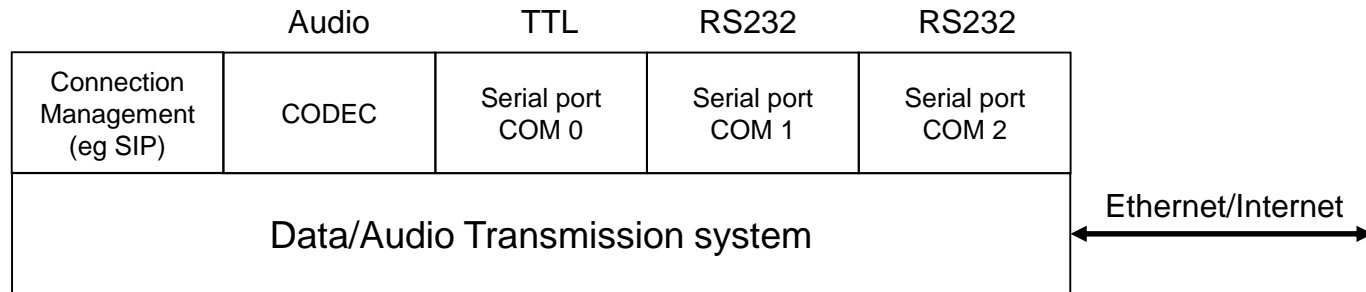
Remote site



Remote controlled functions include:

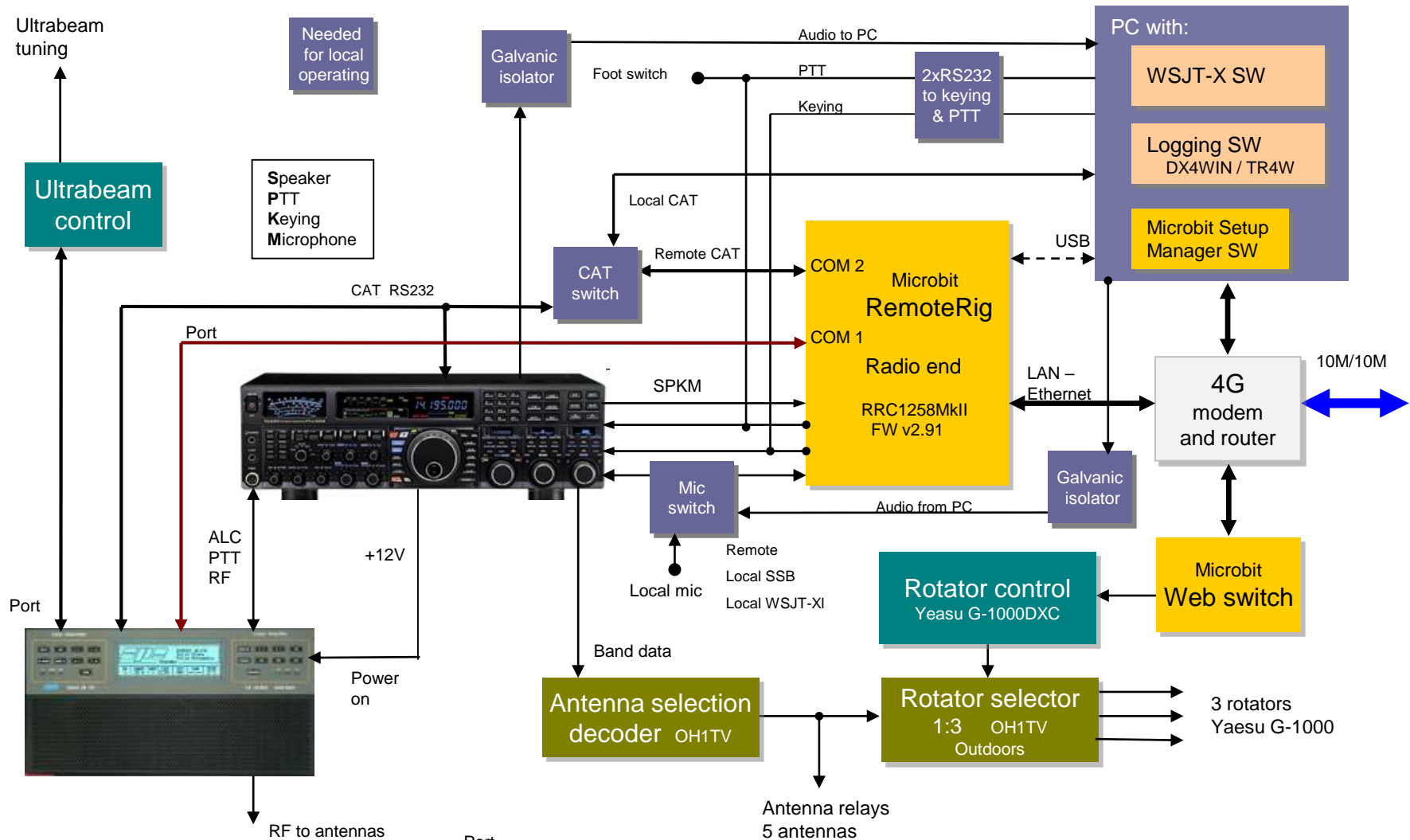
- switching the radio and amplifier on and off
- controlling the radio
- antenna selection is automatic based on radio band and frequency
- Ultrabeam antenna tuning is automatic based on radio frequency
- rotator selection (1/3) is automatic based on antenna selected
- rotator control is with mouse click
- linear amplifier band switching is automatic based on radio frequency
- rebooting is by SMS cell phone

The RemoteRig concept



Remote site with linear, local operating capability

as of 18.1.2019



18.1.2019

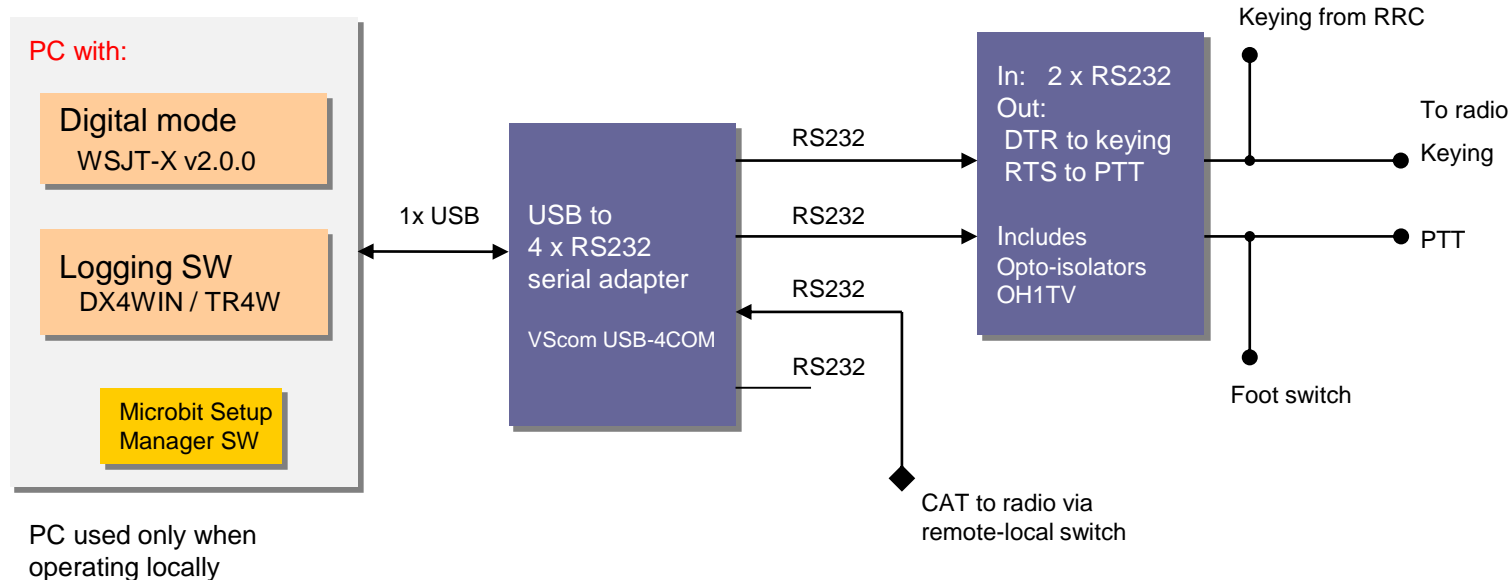
OH1TV

Total 15 "boxes"

Remote site detail, for local operation only

USB > RS232 > keying and PTT

Different SW applications can control PTT and keying

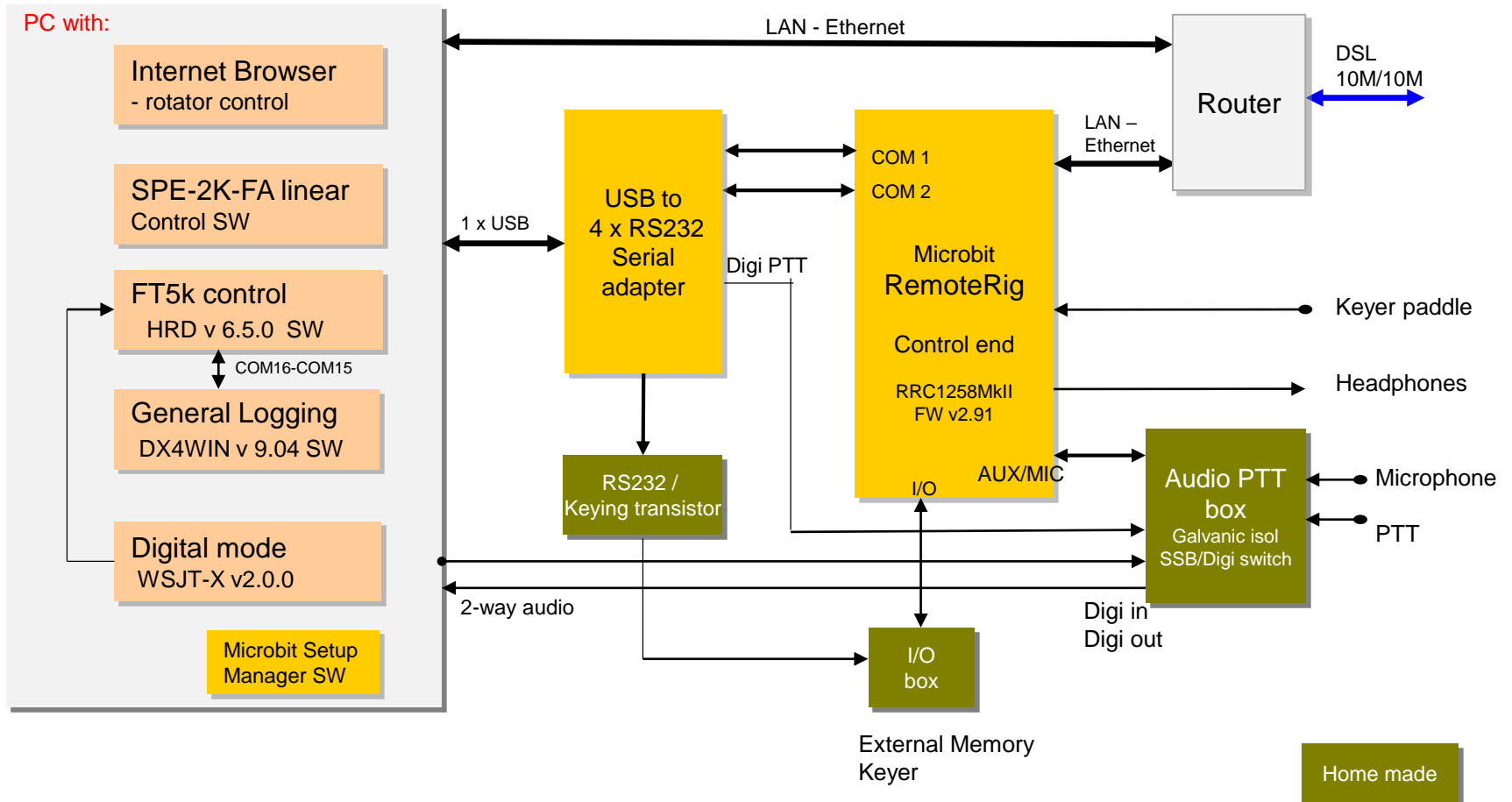


Control site

as of 18.1.2019

Connection to remote station is opened and closed with Browser.

Radio is opened by Remoterig Yeasu feature



Screen shot at the control end

