Optimized EME reception with Linrad and WSJT under multi-pol configuration

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Agenda

- Introduction
- Faraday Rotation
- Traditional errors when compare SW and HW
- Multi polarization reception
- Usual wrong statements
- Is WSJT better than MAP65?
- Questions

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Faraday Rotation

- Still a problem in lower bands

- Adaptive polarization, a mature configuration

- Improper configurations produce mix results

input rubbish = output rubbish

To compare SW and HW a properly platform is required

The infamous BNC-T

Please!!!
Don't use to tap your IF

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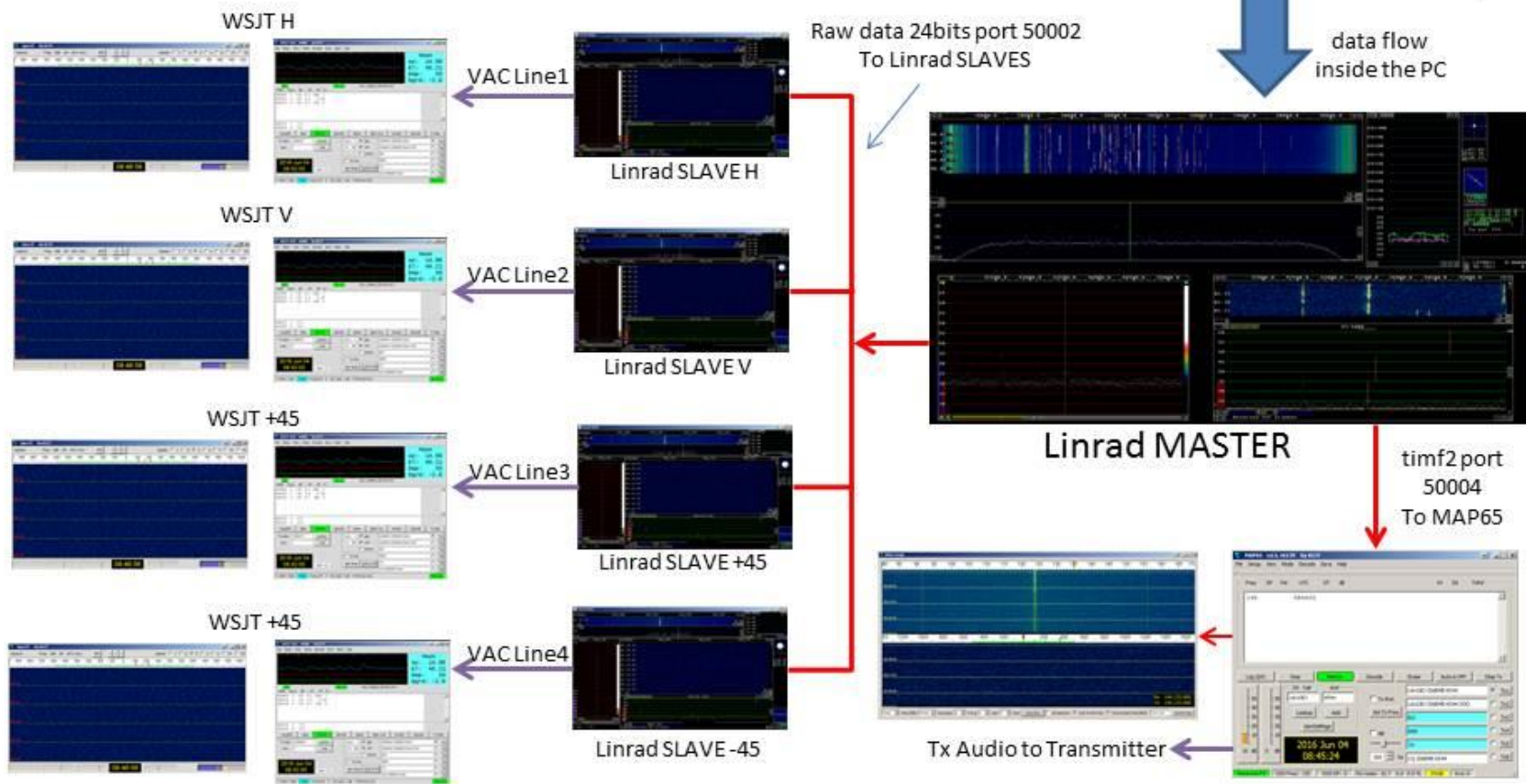Artieda, ZS6EME

Avoid errors when compare SW and HW

- Preserve amplitud and phase in both channels

- Avoid the BNC-T due signal distortions

- Calibrate both channels to preserve the nature of the signals even if all cables are the same,

...most of the time are not the same!!!

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Usual wrong statements

.....I always run both programs in parallel and WSJT Decode down to -30dB when MAP65 stop most of the time In -26dB....

...after doing a properly research for several months, I found WSJT decodes much better than MAP65.....

...I install MAP65 to run in parallel with WSJT and I confirm many times WSJT decodes when MAP65 not, definitve Joe need to do something.......

Is WSJT decode better than MAP65?

I don't think so!!!

JUST 1% WSJT (in S/N from -27dB to -30dB) GIVE A DECODE WHEN MAP65 NOT

Is WSJT decode better than MAP65?

What we don't know is how many non-decodes in MAP65 happens due improperly calibration on the Adaptive polarization system

Dphi calibration on MAP65 will affect the performance, a parameter almost ignored by many operators.

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Conclusions

- Simple observations are not enough to demostrate the performance of any particular HW or SW

- Is a must to keep the integrity of the data to avoid alterations and produce wrong conclusions

- The demand of a stable and well configure test platform is one of the main conditions.

- To do properly comparisons each piece of SW need to be adecuate calibrated (ie. Dphi in MAP65)

- A more refine analisys is requeried to produce confident results

Questions?

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