



# DEBUG GUI DEMO

Subtitle goes here

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# Debug GUI Objective

- We aim to provide a self-contained debug tool for spica5 and future products
- Firmware developers are able to
  - fine tune critical DSP parameters
  - and transparently diagnose internal HW status

# We will show

1. **Emulator** launch on the *veloce* sever
2. **Remote connection** to Emulator via Debug GUI
3. **PMR/POR** set up using script
4. **Debug GUI's** features and data plot



# 1. Emulator launch on the *veloce* sever

## Copy emulation image (on DC5)

```
mlogin -noterm
proj_swgrp spica5n00d
cd /proj/spica5n00d/wa/your_user_name
cp -rf /proj/spica5n00d/wa_emu/gcasuccio/wa_emul/emulation_4PMR_4POR_v3 ./
```

## Run emulation image (on SJ7)

```
mlogin -eda
proj_swgrp spica5n00d
setenv WORKAREA /proj/spica5n00d/wa/your_user_name/your_emulation_image/pytest/design_1xport
cd $WORKAREA
source env.csh
velrun -c -comod_host sjc7-m5-cm04 -sgq icomodel:8c:5m
```

Then  
run

Wait for resource allocation success to obtain veloce resource IP & Port, which is used by GUI to connect via socket

## 2. Remote connection to Emulator via Debug GUI

# GUI Release Package

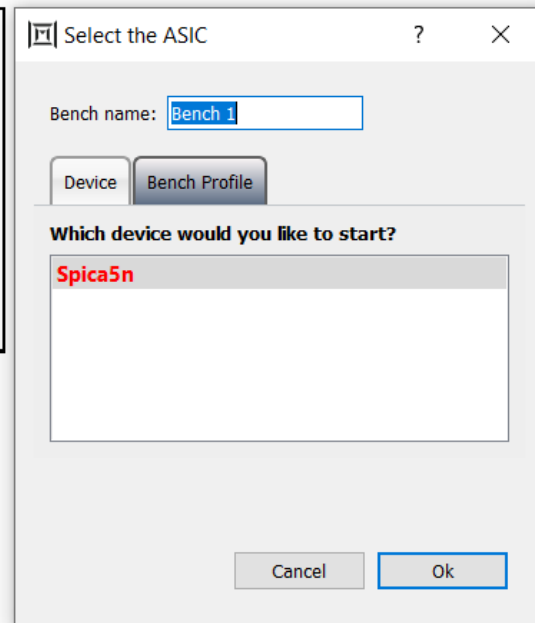
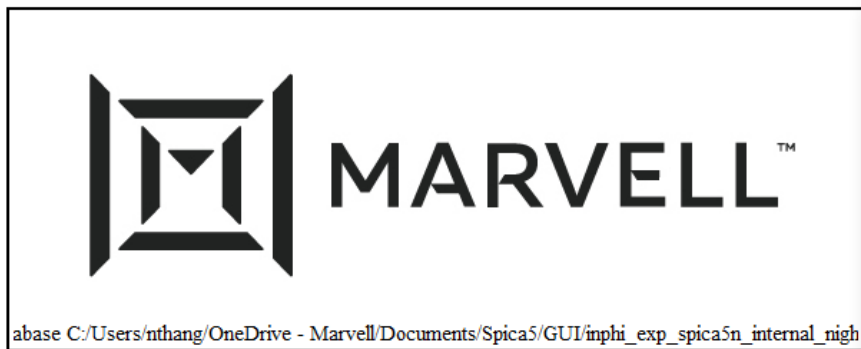
- Download Link

[http://sw.inphi-corp.local/~swott-jenkins/projects/inphi\\_explorer/hsc/builds/debug/spica5n/latest/](http://sw.inphi-corp.local/~swott-jenkins/projects/inphi_explorer/hsc/builds/debug/spica5n/latest/)

Or the latest

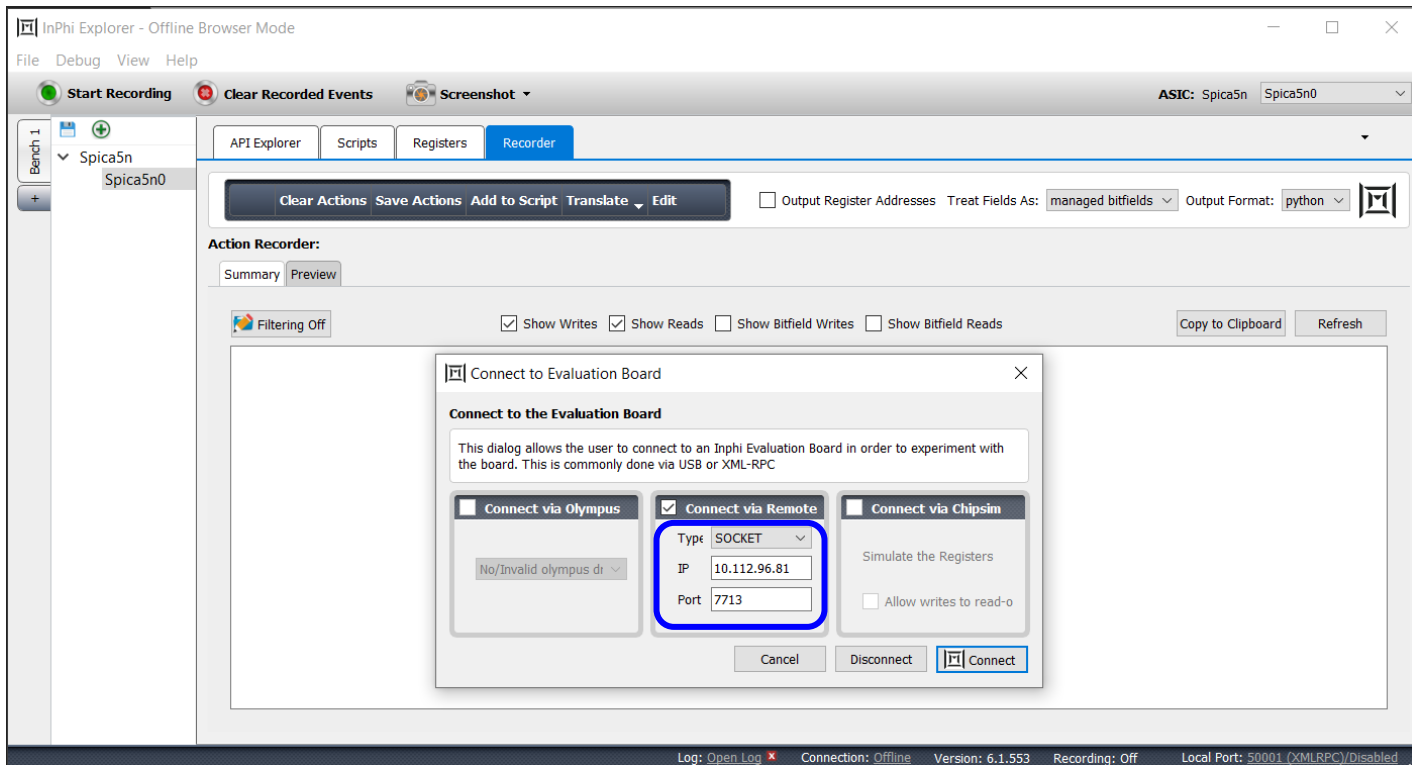
[http://sw.inphi-corp.local/~swott-jenkins/projects/inphi\\_explorer/hsc/builds/debug/spica5n/6.1.576/](http://sw.inphi-corp.local/~swott-jenkins/projects/inphi_explorer/hsc/builds/debug/spica5n/6.1.576/)

# Start Debug GUI





# Configure Socket Connection



### 3. PMR set up using script

# Set Up 4 PRM Instances

Emulator IP & Port Address on Veloce

Ingh Explorer: Connected to SpicaSn via SOCKET - IP: 10.112.96.81 (10.112.96.81), Port: 7713

File Debug View Help

Start Recording Clear Recorded Events Screenshot

SpicaSn SOCKET 7713

Run by Script

Run by GUI

Compile Clear Log Archive

Settings

Choose API library

PMR Set up File

Log info

Startups: loading dep\_debug

draw\_tab remove\_tab

draw\_tab reset\_tab

Startups: loading rapid\_trace

init\_tab dep\_debug\_tool

draw\_tab dep\_debug\_tool done

calling ascript\_engine\_cleanup

2022-09-07 16:05:59,054

2022-09-07 16:05:59,054

2022-09-07 16:05:59,054

2022-09-07 16:05:59,439

2022-09-07 16:05:59,513

2022-09-07 16:05:59,644

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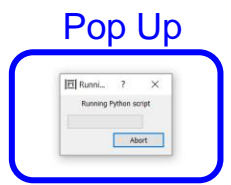
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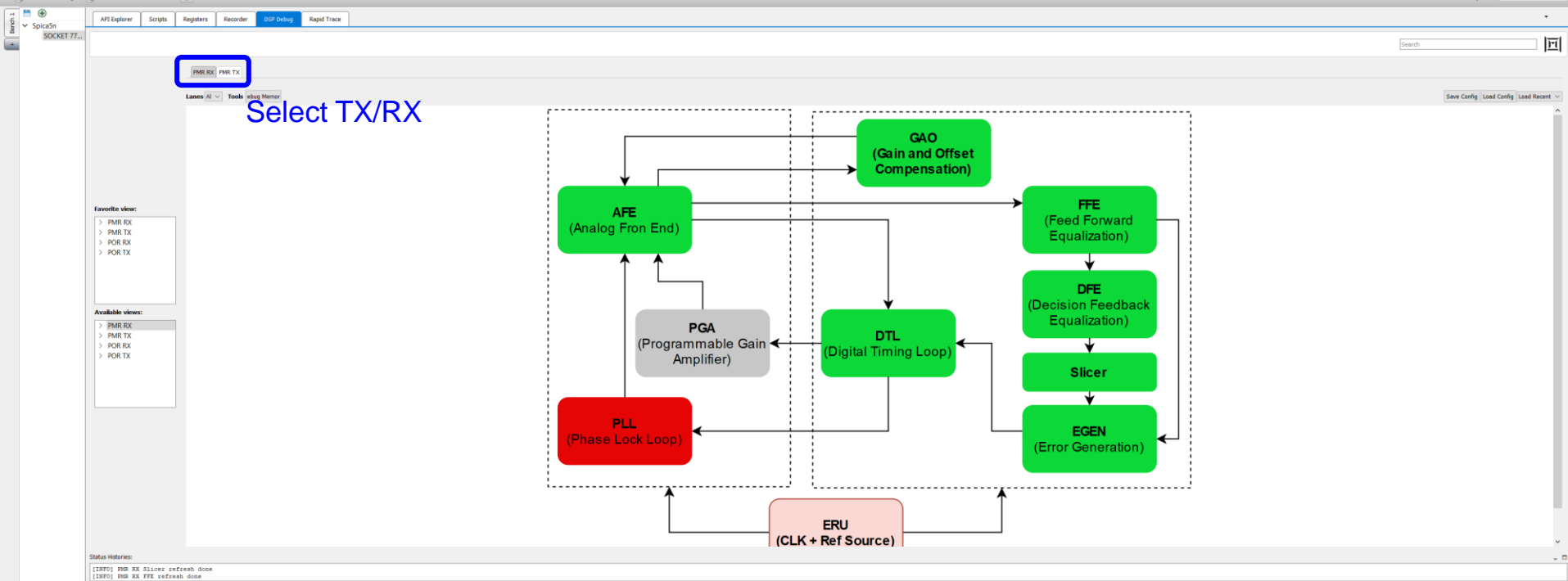
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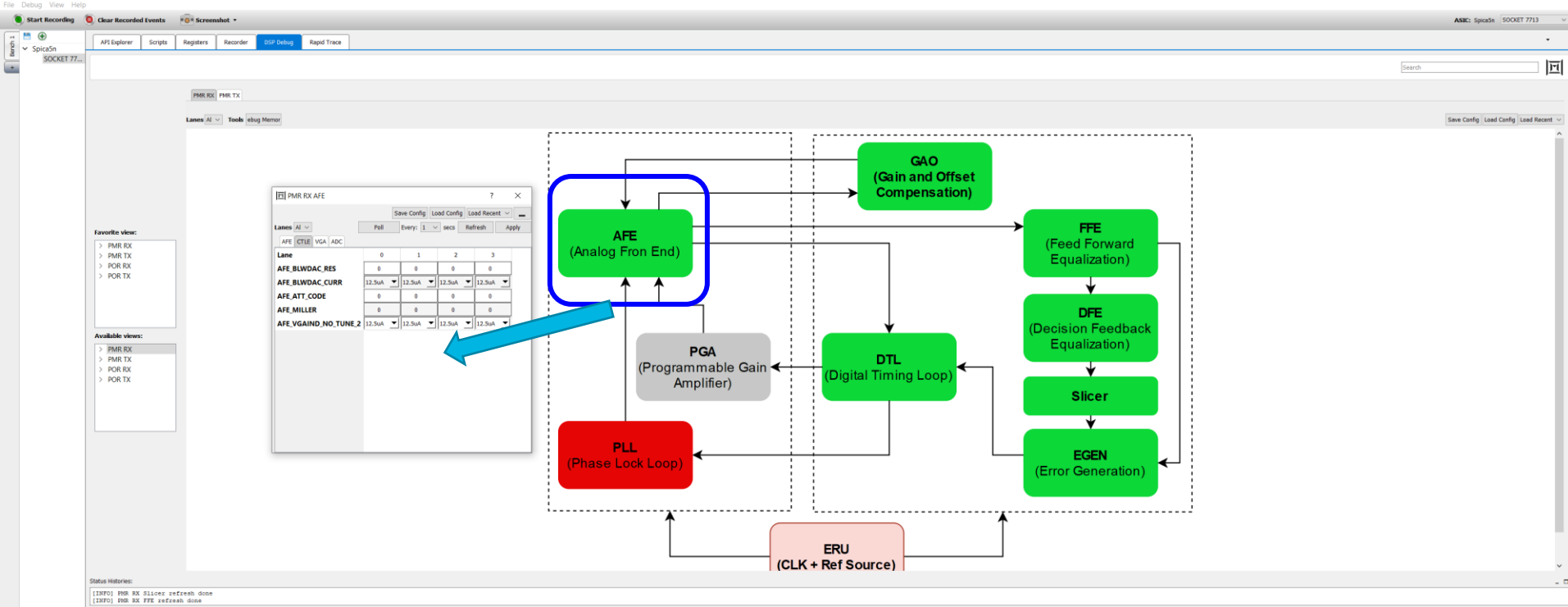
2022-09-07 16:05:59,644





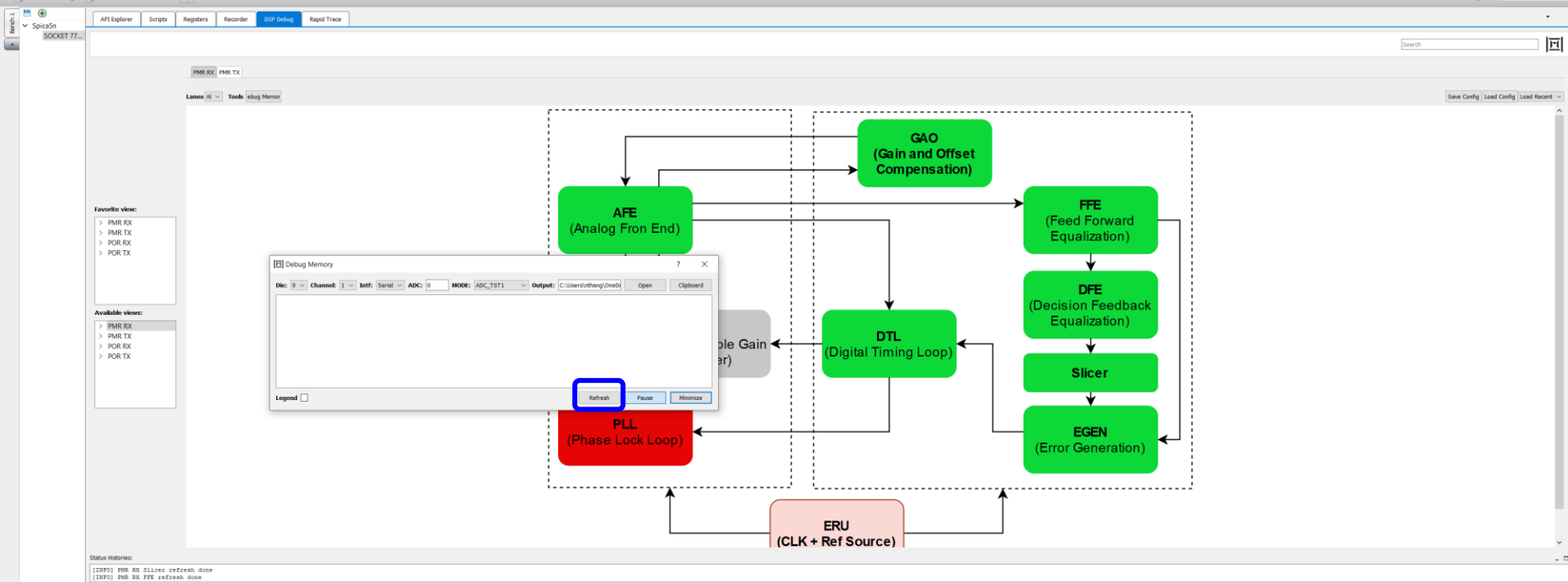
# 4. Debug GUI's features and data plot

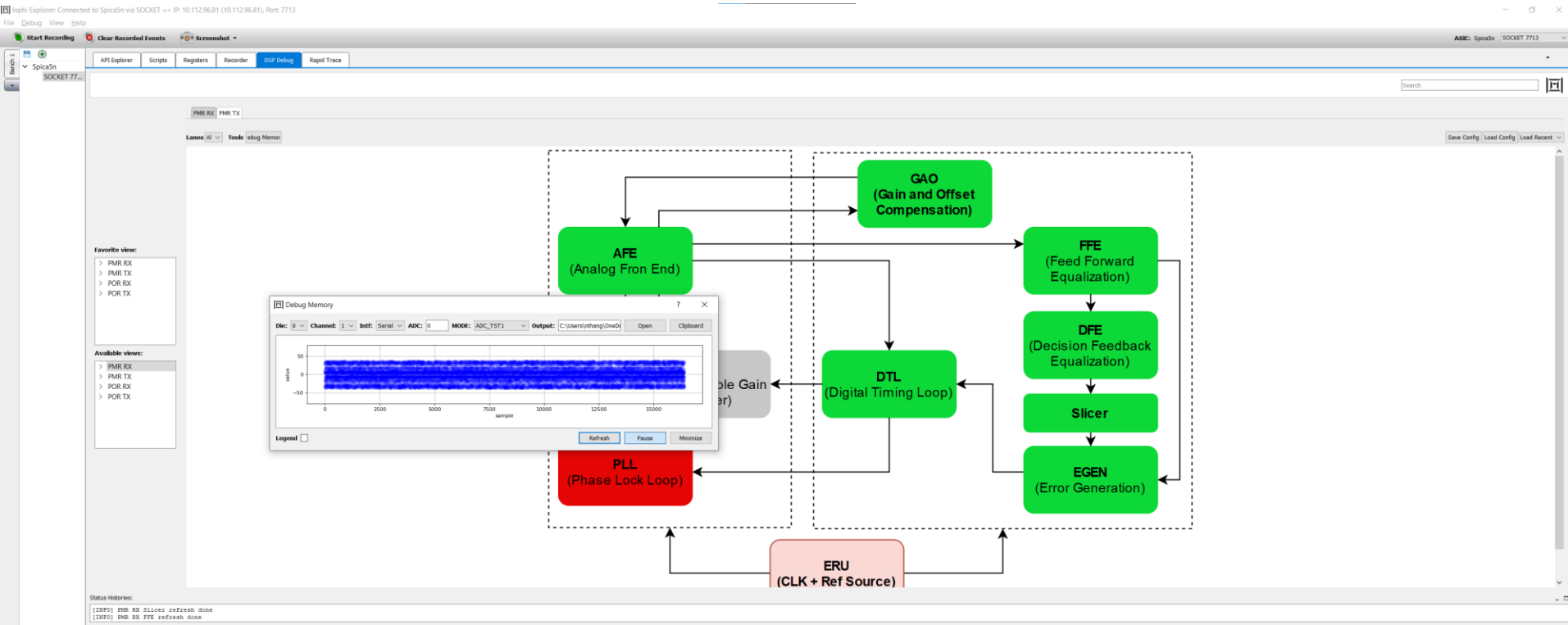








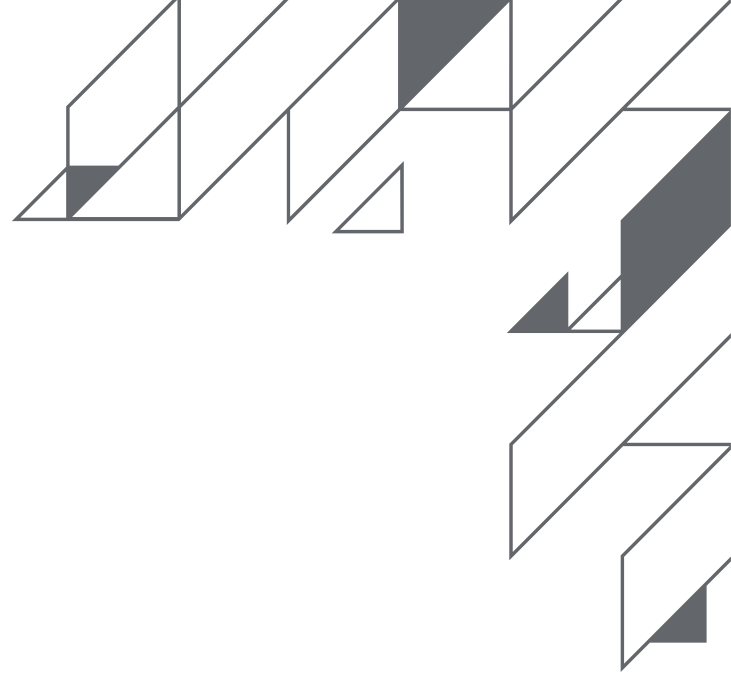




# Conclusion

- Debug GUI demo shows
  - PMR Rx general block
  - Register settings and access via GUI
  - Debug Memory
- Next versions of Debug GUI will include the following features
  - TX PMR
  - PLL
  - ERU
  - ATB
  - PRBS

# Q & A



# Q&A



Thank You



Essential technology, done right™