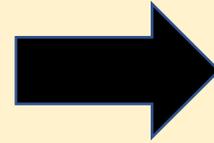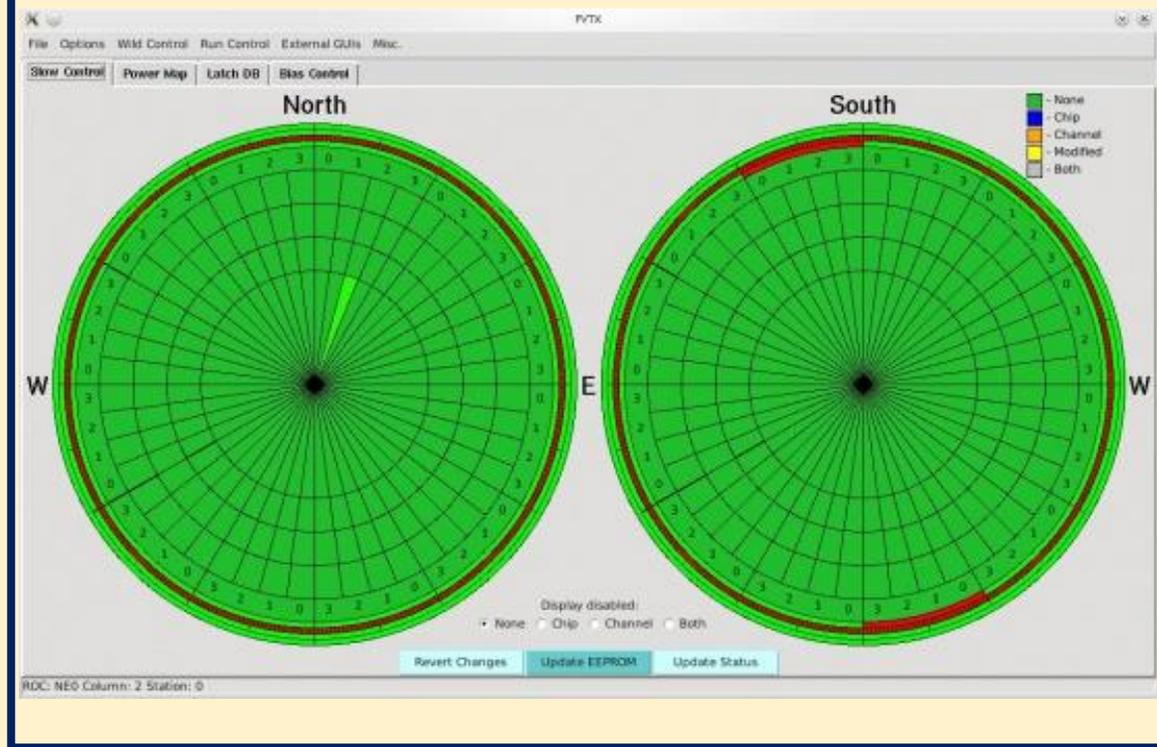# EXPERT GUI

Hikaru Imai

(RBRC/Rikkyo Univ.)

Abstract

- I would like to talk about expert GUI

- introduce plan of specification design and development status at present

My task and goal

FVTX Expert GUI (PHENIX)

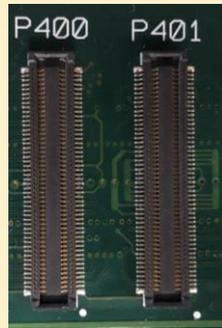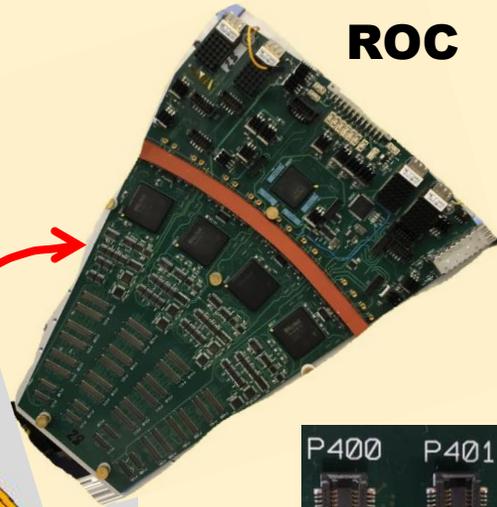**INTT Expert GUI (sPHENIX)**

?

My task is to convert and rewrite FVTX Expert GUI to INTT Expert GUI which can handle all ladders

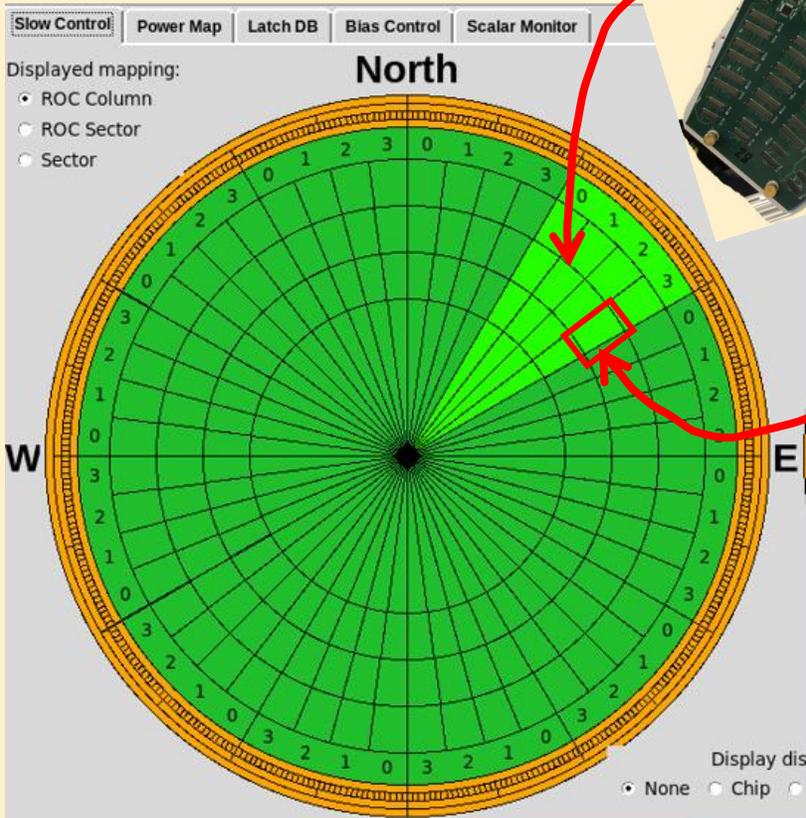# Primary GUI panels for INTT Expert GUI

- **ROC panel as FVTX Expert GUI**

- **Barrel Ladder panel**

- **Data fiber latch status panel**

Executive summary of FVTX Expert GUI

- **ROC panel as FVTX Expert GUI** ←

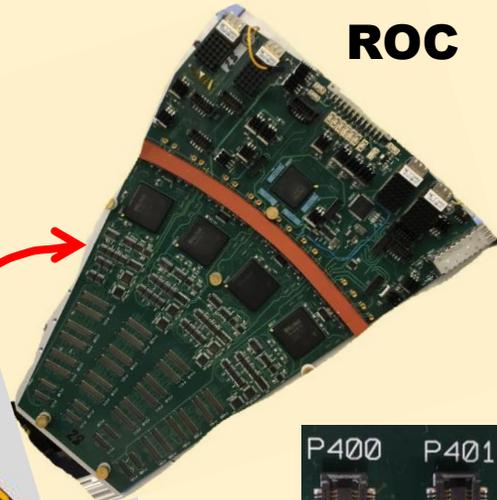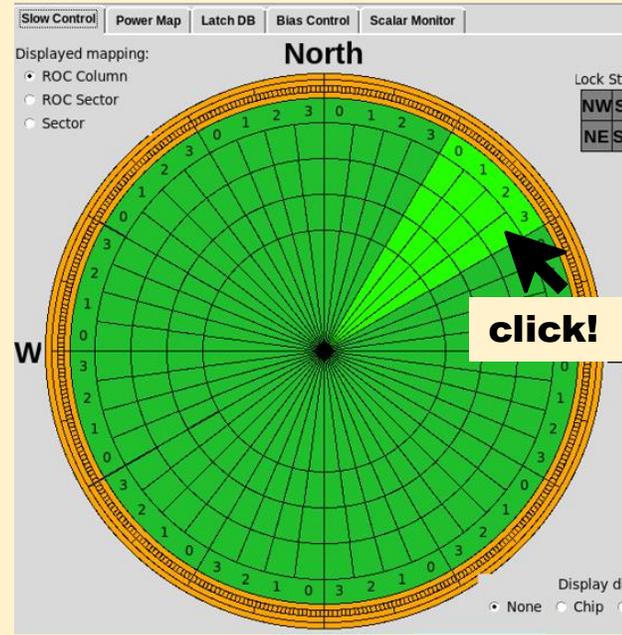- **Barrel Ladder panel**

- **Data fiber latch status panel**

ROC

PORT

Executive summary of FVTX Expert GUI

- **ROC panel as FVTX Expert GUI** ←

- **Barrel Ladder panel**

- **Data fiber latch status panel**

ROC

PORT

Executive summary of FVTX Expert GUI

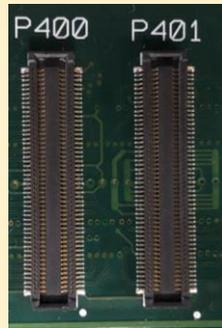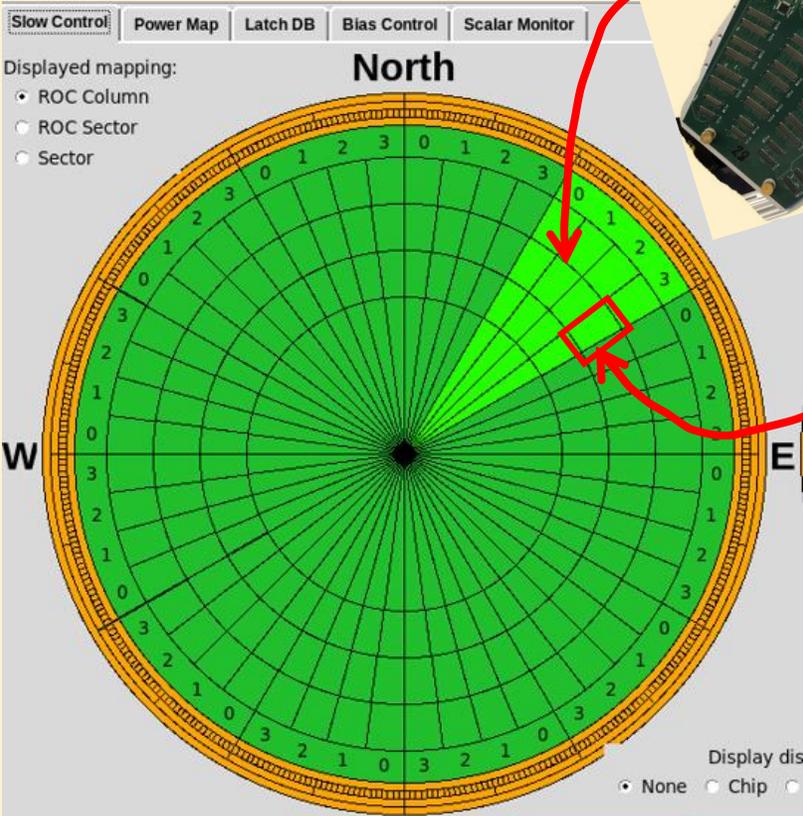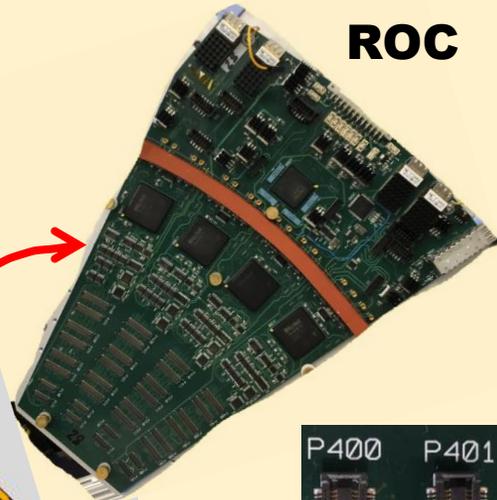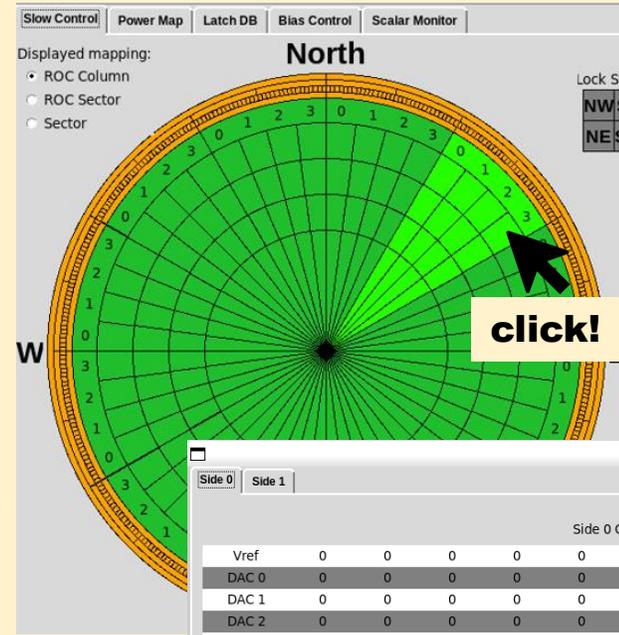- **ROC panel as FVTX Expert GUI** ←

- **Barrel Ladder panel**

- **Data fiber latch status panel**
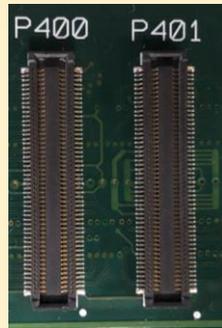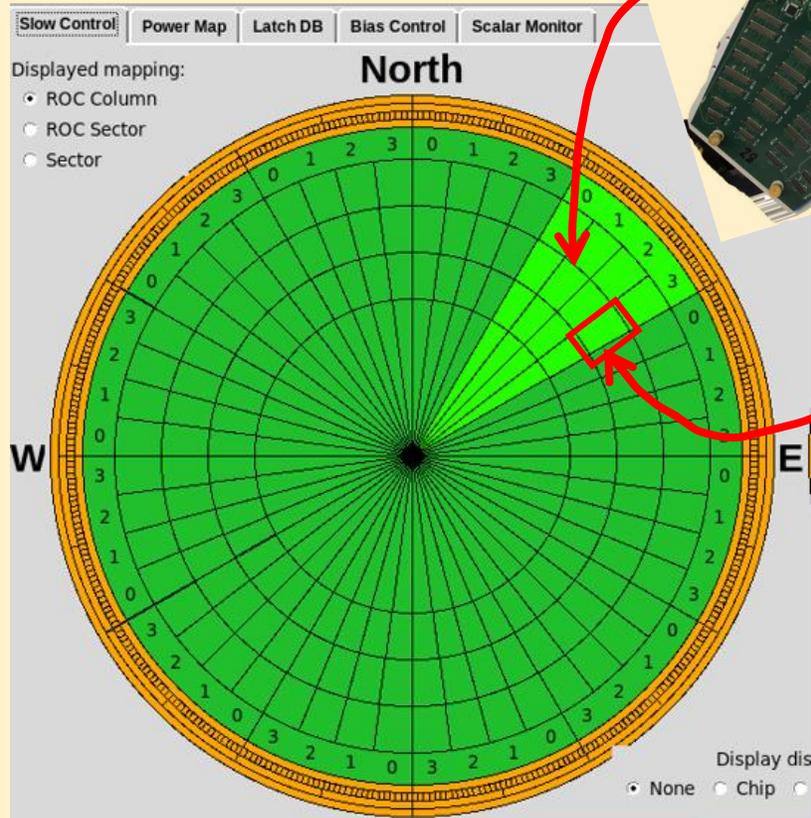
ROC

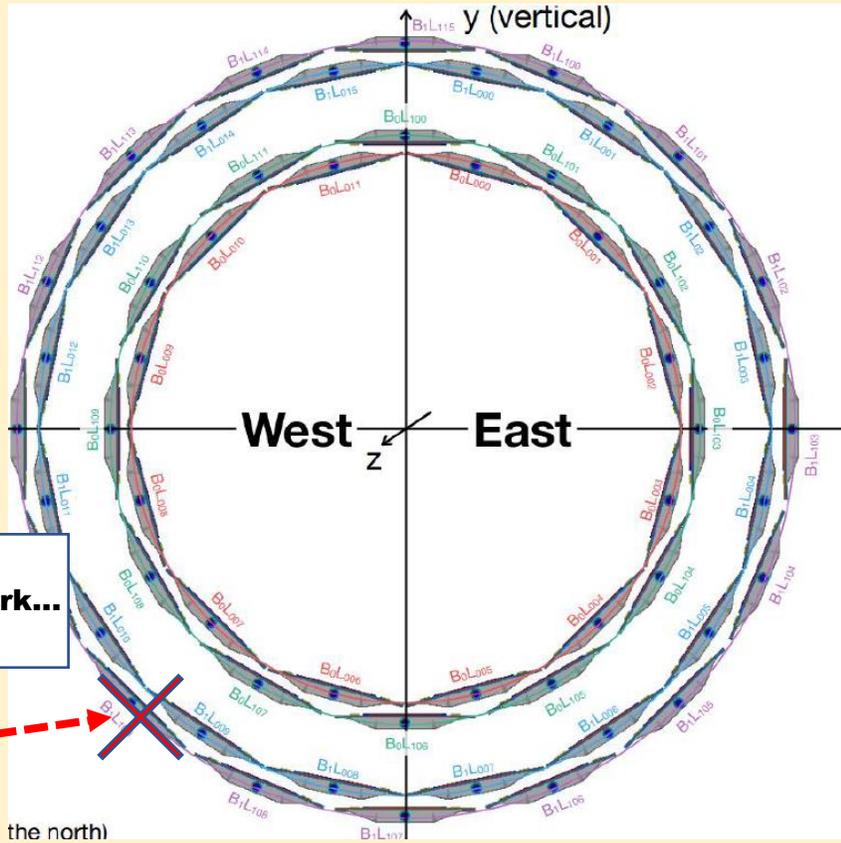PORT

pop up a wedge control panel

click!

The plan is to implement the similar object to the INTT ROC control panel

Barrel ladder panel

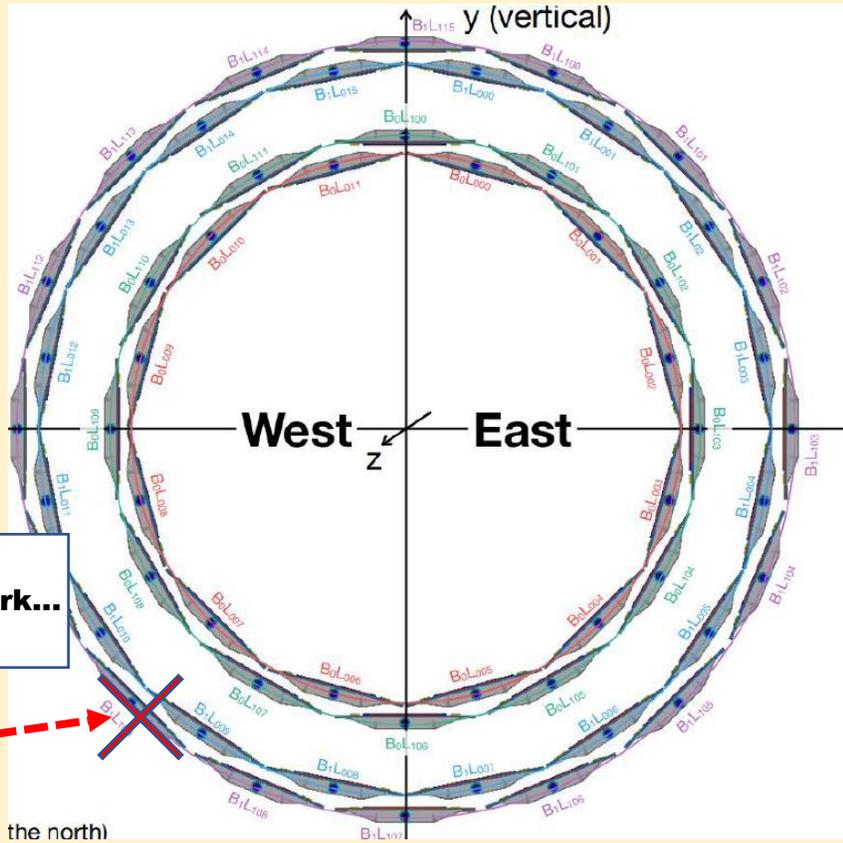**This ladder doesn't work...**

If a bad ladder are found by online monitor ,
we need to do something,
for instance, send reset command to specific ladder .

Barrel ladder panel

This ladder doesn't work...

If a bad ladder are found by online monitor ,
we need to do something,
for instance, send reset command to specific ladder .

It is **difficult** to find port which
are connected to bad ladder.

Barrel ladder panel

 button

This ladder doesn't work...

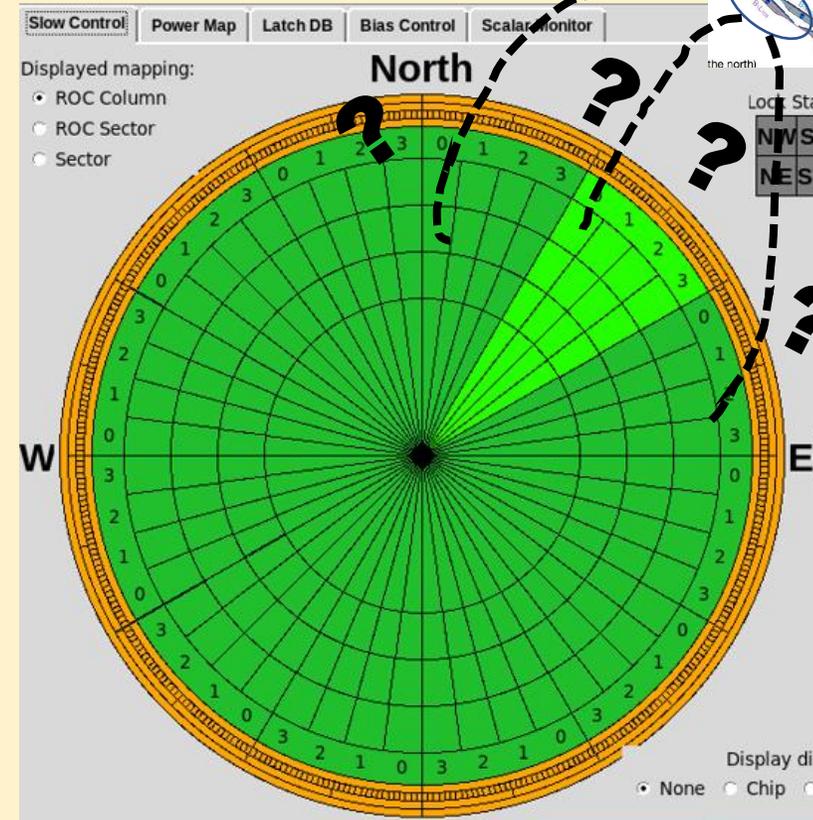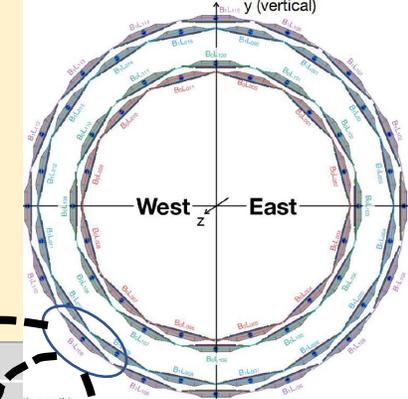To solve this issue, I wanna set the **button** as like barrel.

If a bad ladder are found by online monitor ,
we need to do something,
for instance, send reset command to specific ladder .

Barrel ladder panel

button

This ladder doesn't work...

West z East

the north)

click!

DAC0
DAC1
⋮
⋮

pop up half ladder control panel

If a bad ladder are found by online monitor ,
we need to do something,
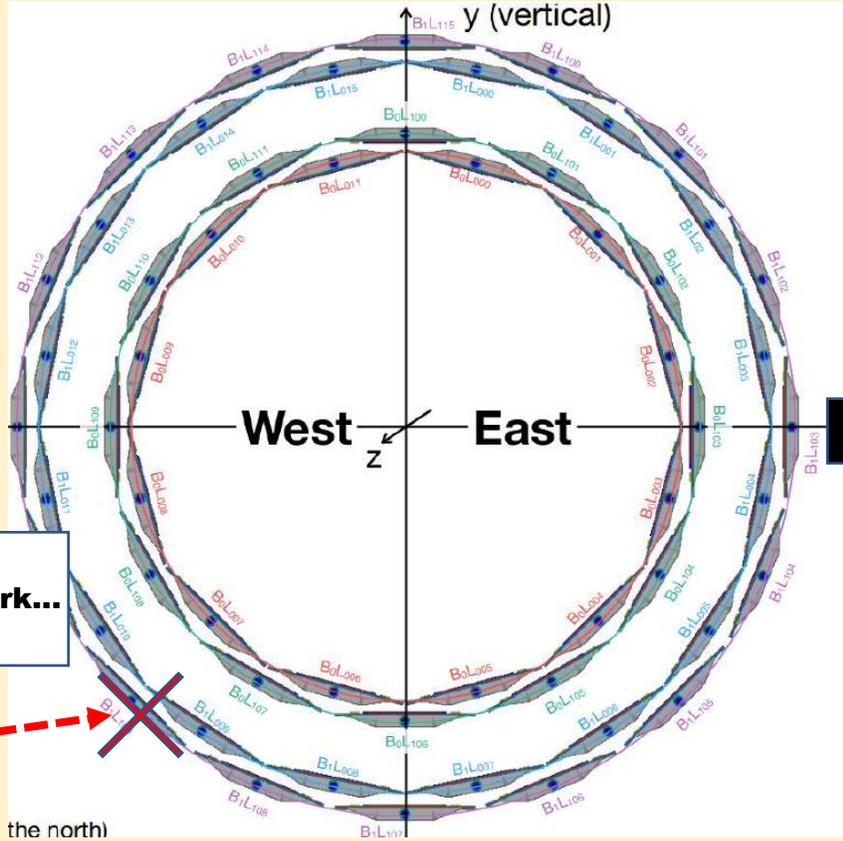for instance, send reset command to specific ladder .

Data fiber latch status panel

- ROC panel as FVTX Expert GUI
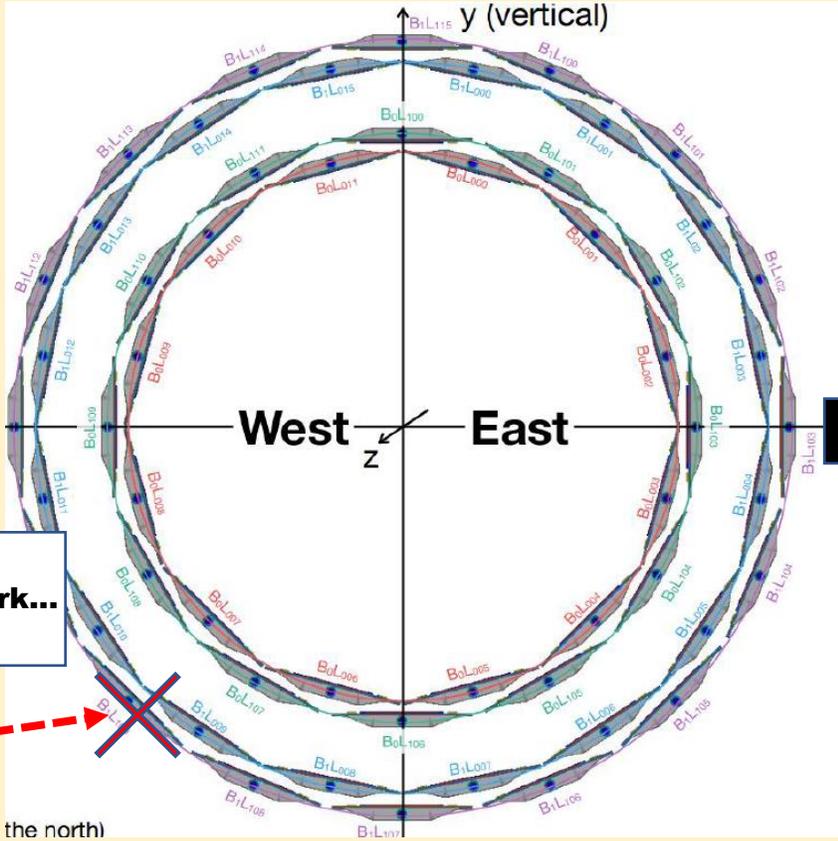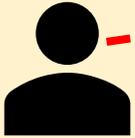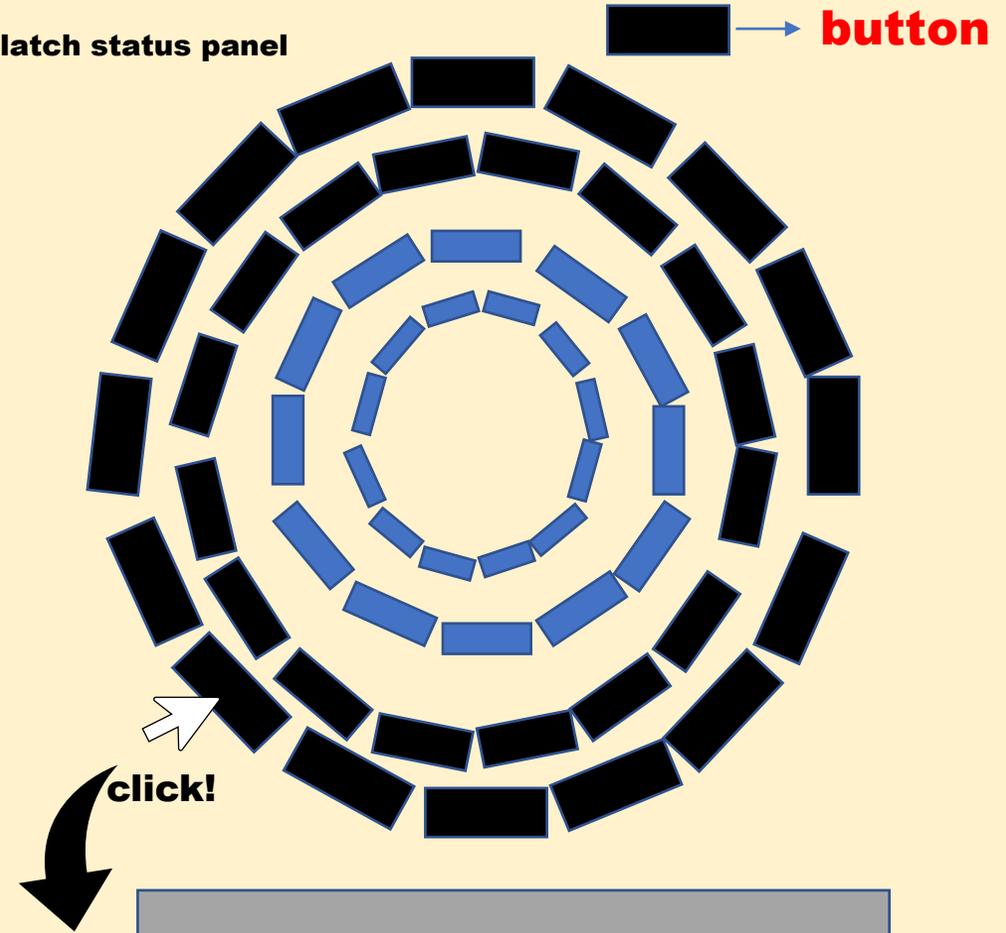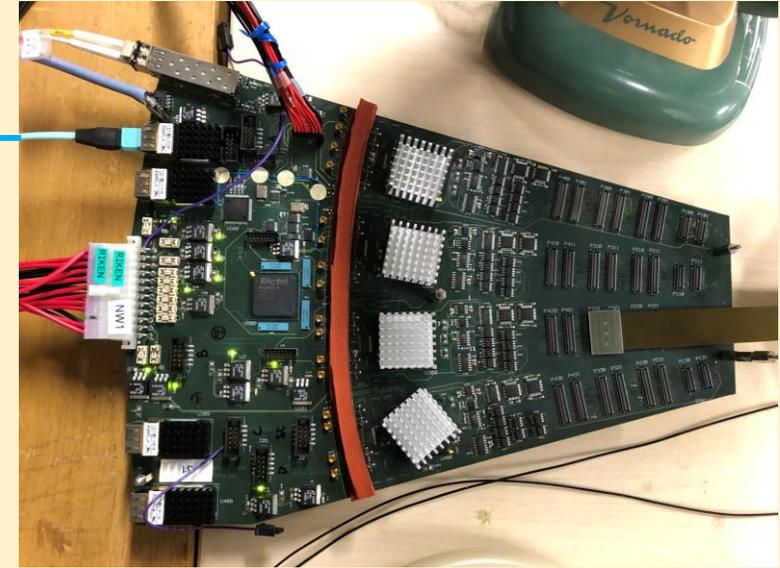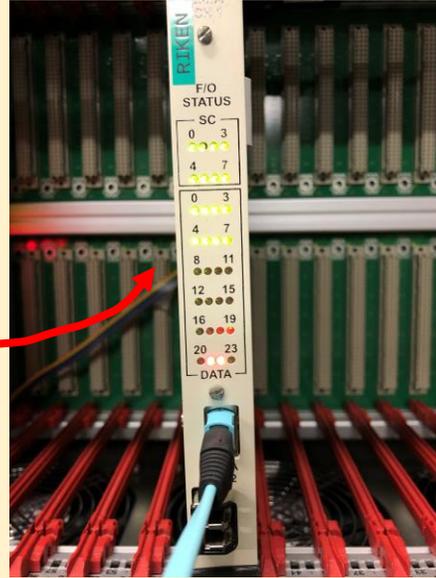
- Barrel Ladder panel

- Data fiber latch status panel ←

Latch status of a data fiber appears on the LED of a FEM front panel.

Data fiber latch status panel

- ROC panel as FVTX Expert GUI

- Barrel Ladder panel

- Data fiber latch status panel ←

INTT (FELIX)

But, We can not latch status because FELIX is not equipped LEDs.

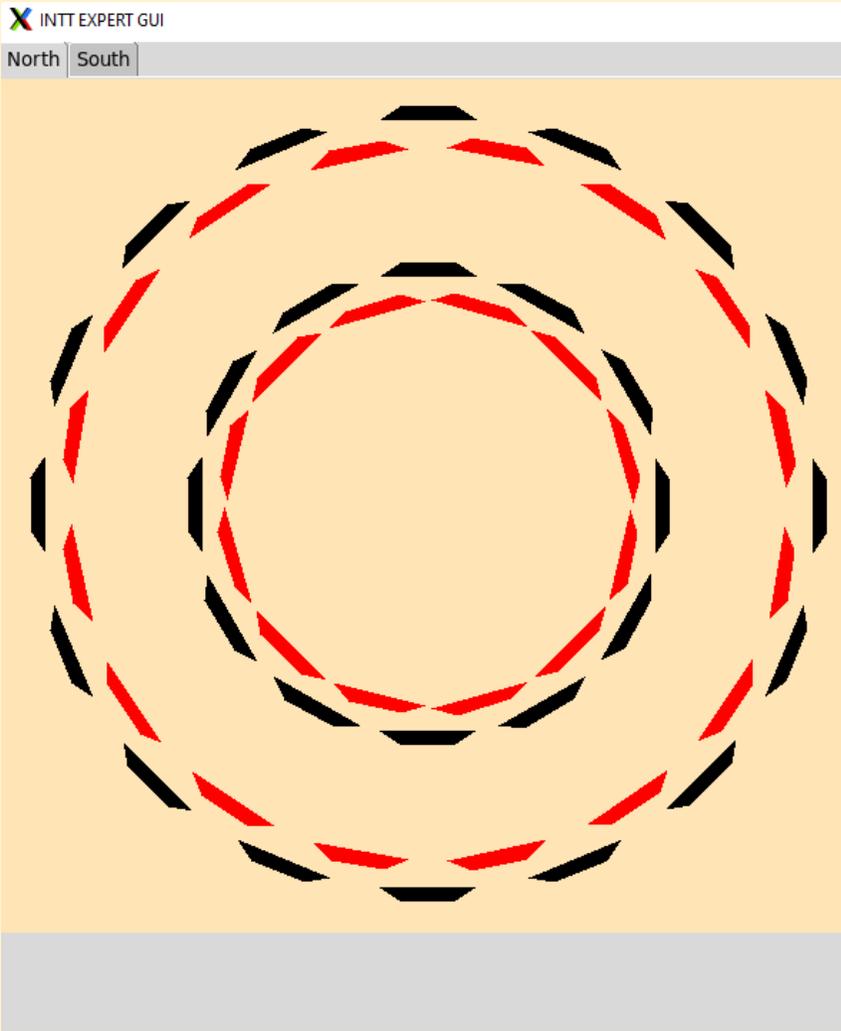This status is to be monitored in the INTT expert GUI.

The latch data fiber panel is to display the latch status of each data fiber
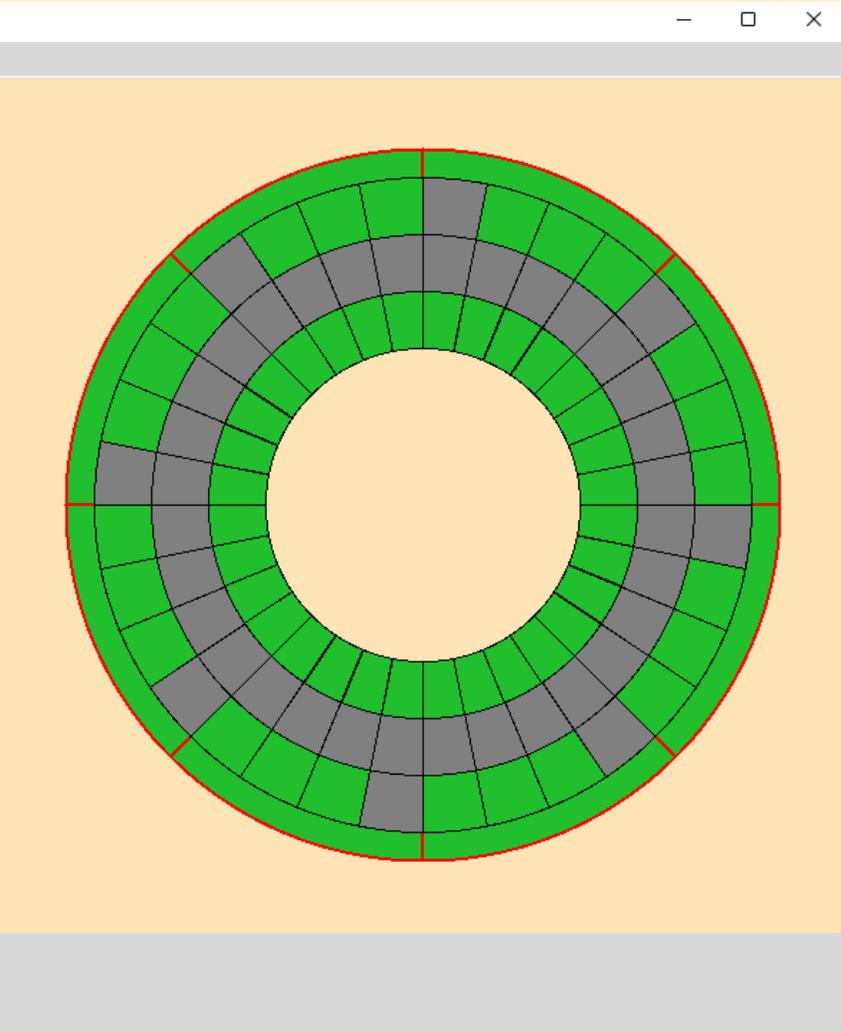
FELIX

OK

ROC 1
ROC 2 ── FELIX1

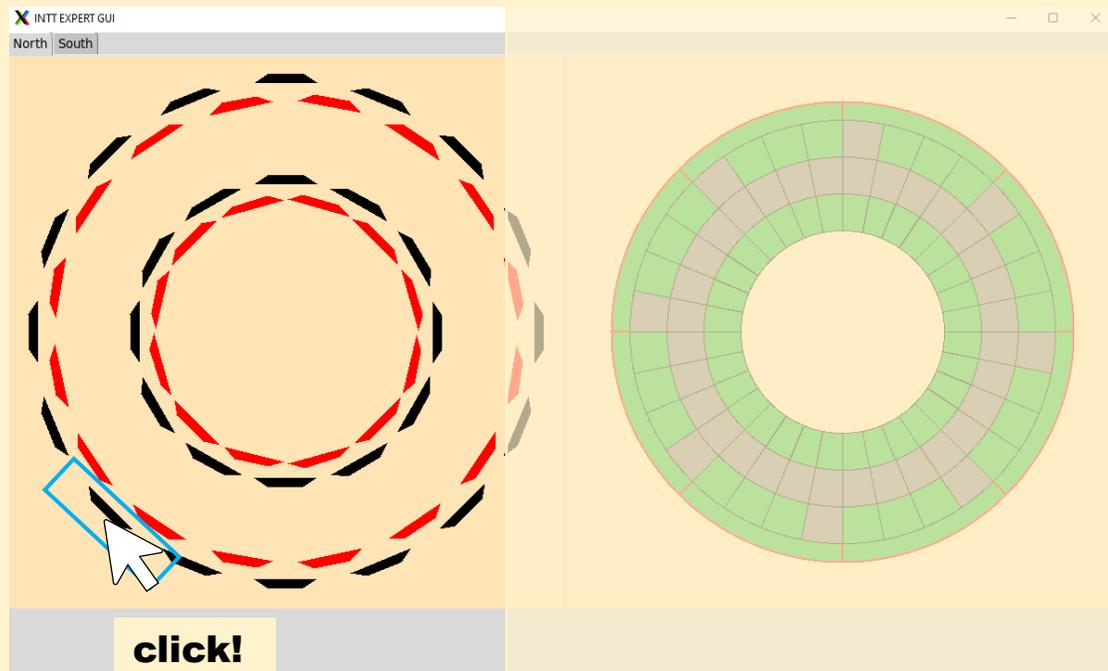OK

OK

ROC 3
ROC 4 ── FELIX2

fail...

INTT Expert GUI
latch data fiber panel
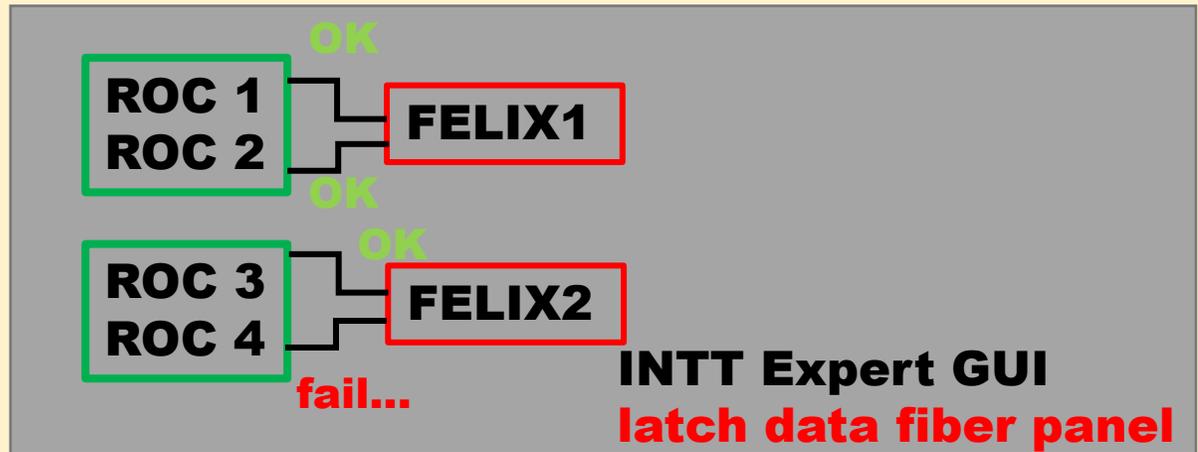
Example

development status at present

barrel ladder panel

roc panel as FVTX Expert GUI

development status at present

click!

pop up a **half ladder** control panel

development status at present

pop up a **chip** control window for individual strip masking

click!

click!

pop up a half ladder control panel

development status at present

The same half ladder control panel can be launched by clicking the barrel ladder of **corresponding** port in the ROC panel

Gray ports are not in use

Expert GUI Development Roadmap

1. Conceptual design of INTT Expert GUI (1 week)
2. Development of primary panels (2 weeks)
3. Implementation of slow control commands and readbacks (3 weeks) ← As soon as 2nd Felix server is ready
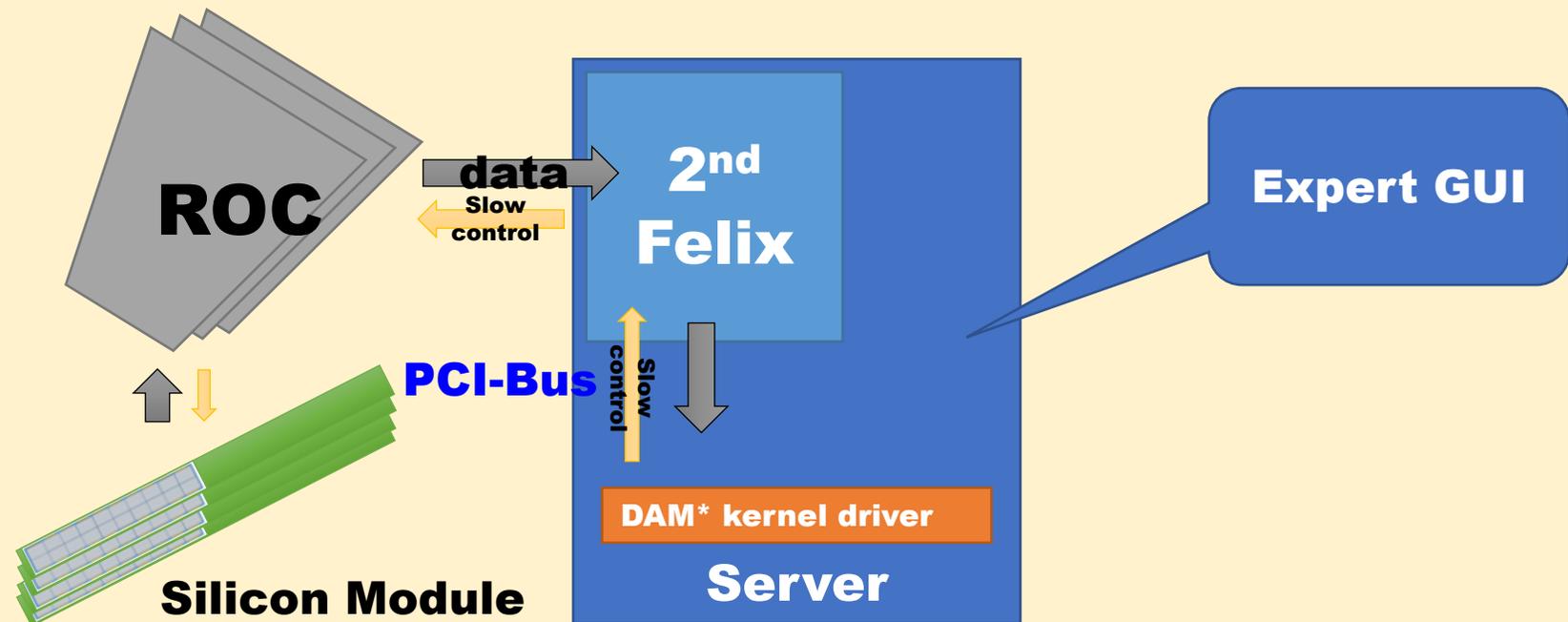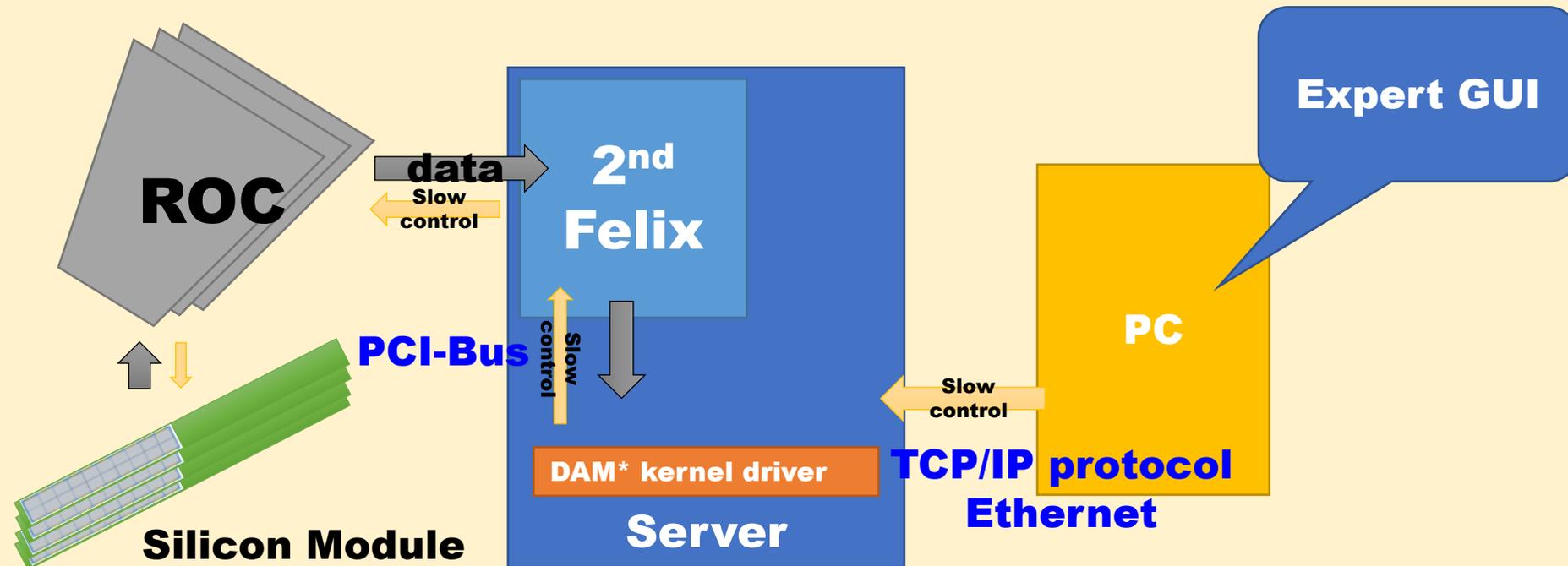
Expert GUI Development Roadmap

1. Conceptual design of INTT Expert GUI (1 week)
2. Development of primary panels (2 weeks)
3. Implementation of slow control commands and readbacks (3 weeks)
4. Remote Control from external PC (mimic 1008 config)

summary and next step

- I have explained specification design and development status at present.

- I do not handle FELIX and ladder with this GUI yet. I attempt to implement this GUI

Thank you!