RS LOGIX 5000
RS LINX - brings modules together
Factory talk - master communicate for GUI

RS LOGIX - function block
structured text
Ladder logic - order of operation

alias - rename data tag

EN2T4 Ethernet switch carries chassis info to main ethernet switch (1756)

Point IO AENT (1734)

ADD ON instructions

Index

1. create a project
2. add I/o modules
3. look at I/o data
4. enter ladder logic
5. enter a function block diagram
6. assign alias tags for your devices
7. establish a serial connection to the controller
8. download a project to the controller
9. select operating mode of the controller

1. create a project

1.1 configure the controller

- type
- revision
- name
- chassis
- slot
- path

1.1.1 Naming the controller

- only letters, numbers, underscores
- start with letter or underscore
- ≤ 40 characters
- no consecutive or trailing underscores
- not case sensitive

2. add I/o modules

2.1 select module

- revision
- define

3. look at I/o data

- when a module is added to the configuration folder, the software automatically creates controller-scoped tags for the module

- I/o address format:

location : slot : type . member . (submember) . (bit)

- location : LOCAL = same chassis as controller

: ADAPTOR_NAME = remote bridge module or communication adaptor

- slot : slot number of module in its chassis

- type : I = input
  O = output
  C = configuration
  S = status

- member : specific data from the I/O module
  - digital : data member stores input or output bit values
  - analog : channel member stores data for the channel

- right click Controller tags and choose
  Monitor Tags

CCompt

QWP - quarter-wave plate - convert linear polarization to circular

1 - periscope

2 - optic module - driven by digilock box through RF amp and tank to drive up amplitude

LabView reads digilock settings and sends to EPICS

Digilock 110 used for controls

L lens
L lens

M mirror mounts
M

QPD quad photo diode

3 rotating half wave plate - rotates polarization

4 polarizing beam splitter

PM power meter

M mirror mount for steering to

M mirror mount steers beam right

PM power meter - low power

Ir iris

L lens

5 PDH cube beam splitter - cleans up polarization

6

7 QWP quarter wave plate - circular polarization generator

M steering mirror

QPD quad photo diode

8

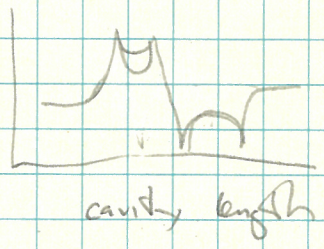
9. periscope - upper periscope and lower periscope

mirror 2 up/down right/left } upper mirror

mirror 1 lower mirror

raise beam 13" to go into beam pipe

Pound drever hall



12 fast photo diode

11 mirror - partial reflector -

10 half wave plate - attenuate signal

13 passive dump

6 half wave plate adds eliptical

15 retro - reflected photo - diode

14 mirror

QPD (14) } monitors trajectory
QPD }

16 Exit line periscope - harmonic beam sampler

17 camera - measure spot shape

PM - power meter

19 rotatable gland laser polarizer

18 photo diode