Machine-to-Machine Interface

# VIA board

input : COM

output : COM

Baudrate: 115200

Data:8

Parity: None

Stop bit: 1

TODO:

* add/remove geometry (line, circle, elips, polygon)
* pointer control pake joystick/keyboard over serial ?

revisi:

* Mouse event, board state, set value for ballistics computation (peb 20161023)
* Output format, **$**<data>**\*** (takur 20160202)

## Serial Port Output format :

### New track created

**$TRKINIT,**<ID>\*

Parameter(s)

* ID :

sample command :

$TRKINIT,1\*

### Track state update

**$TRKUD**,<ID>,<X>,<Y>\*

Parameter(s)

* ID :

sample command :

$TRKUD 1,10,-10\*

### remove track

**$RMTRK,**<ID>\*

Parameter(s):

* ID : track ID from TRKUD (active track), or TRKINIT

sample command :

$RMTRK,1\*

## Serial Port Input format :

### insert new text label

**MKLBL** <ID>,<X>,<Y>,<SIZE>,<TEXT>

Parameter(s) :

* ID
* X
* Y
* SIZE
* TEXT : every character after comma

sample command :

MKLBL,1,10,100,1,HEADING : 10 deg.

### remove text label

**RMLBL**,<ID>

Parameter(s):

* ID

sample command :

RMLBL,1

### Simulate Mouse Event

**MOEVT,**<btn>,<flag>,<X>,<Y>

Parameter(s)

* btn : mouse button (left=0; middle=1, right=2, scroll-up=3, scroll-down=4)
* Flag : button state (down=1, up=0, none=-1)
* Klik kiri (MOEVT,0,1,XX,YY) : add target
* Klik kanan (MOEVT,2,1,XX,YY) : remove target
* Mouse move : MOEVT,-1,-1,new X, new Y

sample command :

MOEVT,0,1,10,-10

### Reset Mouse State

**MORST**

Reset mouse position cursor to screen center

Parameter(s)

* N/A

sample command :

MORST

### Get Screen Dimension

**GTWND**

Parameter(s)

* N/A

Reply :

See GLWND

sample command :

GTWND

### Screen Dimension Values

**$GLWND,**left,top,width,height\*

Parameter(s)

* N/A

sample command :

$GLWND,0,0,1920,1080\*

## 

## Sensor Value Input Format :

### Set Laser Range Finder Value

**LRVAL,**value

Parameter(s)

* value : value from LRF sensor (integer 0..16K)

sample command :

LRVAL,1000

### Set Azimuth Value

**AZVAL,**value

Parameter(s)

* value : azimuth value (-180.00..180.00), 0.00 = absolute north, clockwise

sample command :

AZVAL,0.00

### Set Elevation Value

**ELVAL,**value

Parameter(s)

* value : turret elevation value (-90.00 .. +90.00), 0.00 level, top positive

sample command :

ELVAL,0.00

### Set Roll Value

**RLVAL,**value

Parameter(s)

* value : body roll angle (-90.00 .. +90.00), 0.00 tegak ke atas

sample command :

RLVAL,0.00

## 

## 

## Program Control Input Format :

### Stop Program

**KILL**

Parameter(s)

* N/A

sample command :

KILL

### Reset Program

**RESET**

Parameter(s)

* N/A

sample command :

RESET

### Shutdown VIA Board

**SHUTDOWN**

Parameter(s)

* N/A

sample command :

SHUTDOWN

### Restart VIA Board

**RESTART**

Parameter(s)

* N/A

sample command :

RESTART

## Camera State Input Format :

### Set Camera Source

**CMSRC,**camera\_idx

Parameter(s)

* camera\_idx : 0=day, 1=night

sample command :

CMSRC,0

### Set Zoom Level

**ZMVAL,**level

Note:

Only for color

Parameter(s)

* Level : 1..4 (magnification)

sample command :

ZMVAL,1

## 

## 

## Ballistics Computation Output Format :

### Result output

**$BCOUT,**azcorr,elcorr\*

Condition :

* After LRF value is set

Parameter(s)

* azcorr : correction of azimuth value relative to last set value
* elcorr : correction of elevation value relative to last set value

sample command :

$BCOUT,0.00,0.00\*