AUBO SDK – C language

Safety I/O address and status API

/ Interface Board DI **/**

["I/O Name"] = I/O Address;

["SI00"] = 0X00;
["SI01"] = 0X01;
["SI02"] = 0X02;
["SI03"] = 0X03;
["SI04"] = 0X04;
["SI05"] = 0X05;
["SI06"] = 0X06;
["SI07"] = 0X07;
["SI10"] = 0X08;
["SI11"] = 0X09;
["SI12"] = 0X0A;
["SI13"] = 0X0B;
["SI14"] = 0X0C;
["SI15"] = 0X0D;
["SI16"] = 0X0E;
["SI17"] = 0X0F;
["CI00"] = 0X10;
["CI01"] = 0X11;
["CI02"] = 0X12;
["CI03"] = 0X13;
["CI10"] = 0X14;
["CI11"] = 0X15;
["CI12"] = 0X16;
["CI13"] = 0X17;
["LI00"] = 0X18;
["LI01"] = 0X19;
["LI02"] = 0X1A;
["LI03"] = 0X1B;
["LI04"] = 0X1C;
["LI05"] = 0X1D;

/ Interface Board User DI **/**

["I/O Name"] = I/O Address;

["F1"] = 0X1E;
["F2"] = 0X1F;
["F3"] = 0X20;
["F4"] = 0X21;
["F5"] = 0X22;
["F6"] = 0X23;
["U_DI_00"] = 0X24;
["U_DI_01"] = 0X25;
["U_DI_02"] = 0X26;
["U_DI_03"] = 0X27;
["U_DI_04"] = 0X28;
["U_DI_05"] = 0X29;
["U_DI_06"] = 0X2A;
["U_DI_07"] = 0X2B;
["U_DI_10"] = 0X2C;
["U_DI_11"] = 0X2D;
["U_DI_12"] = 0X2E;
["U_DI_13"] = 0X2F;
["U_DI_14"] = 0X30;
["U_DI_15"] = 0X31;
["U_DI_16"] = 0X32;
["U_DI_17"] = 0X33;

/ Interface Board DO **/**

["I/O Name"] = I/O Address;

["SO00"] = 0X00;
["SO01"] = 0X01;
["SO02"] = 0X02;
["SO03"] = 0X03;
["SO04"] = 0X04;
["SO05"] = 0X05;
["SO06"] = 0X06;
["SO07"] = 0X07;
["SO10"] = 0X08;
["SO11"] = 0X09;
["SO12"] = 0X0A;
["SO13"] = 0X0B;
["SO14"] = 0X0C;
["SO15"] = 0X0D;
["SO16"] = 0X0E;
["SO17"] = 0X0F;
["CO00"] = 0X10;
["CO01"] = 0X11;
["CO02"] = 0X12;
["CO03"] = 0X13;
["CO10"] = 0X14;
["CO11"] = 0X15;
["CO12"] = 0X16;
["CO13"] = 0X17;
["LO00"] = 0X18;
["LO01"] = 0X19;
["LO02"] = 0X1A;
["LO03"] = 0X1B;

/ Interface Board User DO **/**

["I/O Name"] = I/O Address;

["U_DO_00"] = 0X20;
["U_DO_01"] = 0X21;
["U_DO_02"] = 0X22;
["U_DO_03"] = 0X23;
["U_DO_04"] = 0X24;
["U_DO_05"] = 0X25;
["U_DO_06"] = 0X26;
["U_DO_07"] = 0X27;
["U_DO_10"] = 0X28;
["U_DO_11"] = 0X29;
["U_DO_12"] = 0X2A;
["U_DO_13"] = 0X2B;
["U_DO_14"] = 0X2C;
["U_DO_15"] = 0X2D;
["U_DO_16"] = 0X2E;
["U_DO_17"] = 0X2F;

/ Interface Board AI **/**

["I/O Name"] = I/O Address;

["VI0"] = 0X00;
["VI1"] = 0X01;
["VI2"] = 0X02;
["VI3"] = 0X03;

APIs for obtaining I/O status:

```
int rs_get_board_io_status_by_name(RSHD rshd, RobotIoType type, const
char *name, double *val);
/**
* @brief “Obtain IO status according to the IO name of the interface board”
* @param rshd “Manipulator control context handle”
* @param type “IO type”
* @param name “IO name”
* @param val “IO statuts”
* @return RS_SUCC “return 0 as success, others as fail”
*/
```

```
int rs_get_board_io_status_by_addr(RSHD rshd, RobotIoType type, int
addr, double *val);
/**
* @brief “Obtain IO status according to the IO address of the interface
board”
* @param rshd “Manipulator control context handle”
* @param type “IO type”
* @param name “IO name”
* @param val “IO statuts”
* @return RS_SUCC “return 0 as success, others as fail”
*/
```