SECTION "A"

FCS POINT DESCRIPTORS

SANDIA'S POINT IDENTIFICATION SCHEME WAS DEVELOPED SO THAT EACH FCS POINT UNIQUELY INDICATES THE TYPE OF SYSTEM AND FUNCTION OF THE POINT. THE SCHEME IS USED TO CREATE A 12 CHARACTER DESCRIPTION FOR AN INSIGHT CABINET POINT LOG. THE 8-CHARACTER SYSTEM TYPE/NUMBER AND POINT TYPE/NUMBER PORTIONS OF THE DESCRIPTION FORM THE POINT LABEL USED BY SANDIA ON ALL CONSTRUCTION DRAWINGS.

DESCRIPTOR FOR NON APOGEE FLOOR LEVEL NETWORK DEVICES

FDDDXXXXX

- 001-999 DEVICE NUMBER
- FLOOR IN THE BLDG. ON WHICH THE DEVICE RESIDES (EX: B, 1, 2, ETC.)
- LAN NUMBER (EX: 1-3)
- LAN DEVICE TYPE
- FID (FIELD INTERFACE DEVICE) PANEL (EX: A, B, C, ETC.)

POINT DESCRIPTOR FOR NON APOGEE HARDWARE POINTS

FSS## PP##XX

- ANY SPECIAL INFORMATION SUCH AS *
- POINT NUMBER (00-99)
- POINT TYPE
- SYSTEM NUMBER
- SYSTEM TYPE
- FID (FIELD PANEL)

* SUCH AS: CP (CALCULATED POINT), DP (DERIVED POINT), SP (SETPOINT), _C (CRITICAL POINT), VC (VIRTUAL ALARM), VP (VIRTUAL POINT)

SYSTEM TYPE DESIGNATORS ARE:

AH	AIR HANDLER
BG	BLDG. GENERAL (CONTROL, ALARM, ETC.)
BR	BOILER HW SYSTEM
CB	CONTAINMENT BOX
CH	CHILLER/CHW SYSTEM
CT	COOLING TOWER
CV	STEAM CONVERTER HW SYSTEM
DX	DIRECT EXPANSION UNIT
EF	EXHAUST FAN SYSTEM
ET	EVAPORATIVE TANK SYSTEM
HX	HEAT EXCHANGER
LI	LIGHTING INVERTER SYSTEM
MA	MAKEUP AIR SYSTEM
PW	PROCESS WATER SYSTEM
SC	SCRUBBER
SF	SERVICE FAN SYSTEM
TU	TERMINAL UNIT
WT	WASTE TANK SYSTEM

POINT TYPE DESCRIPTIONS

OUTPUTS

DIGITAL OUTPUTS (DO)

OC	OPEN/CLOSE CONTROL
SS	START/STOP OR ON/OFF CONTROL

ANALOG OUTPUTS (AO)

DA	DISPLAY OUTPUT, ANALOG
ED	ELECTRONIC DAMPER MOTOR OPERATOR
ES	ELECTRONIC SPEED CONTROL (VFC)
EV	ELECTRONIC VALVE OPERATOR
FC	FAN CAPACITY CONTROL (BLADE/VANE PITCH)
PD	PNEUMATIC DAMPER OPERATOR
PS	PNEUMATIC SEQUENCING CONTROL
PV	PNEUMATIC VALVE

INPUTS

DIGITAL INPUTS (DI)

AA	ALARM, MISCELLANEOUS
AB	ALARM, BOILER
AC	ALARM, CHILLER
AF	ALARM, FIRE
AH	ALARM, HUMIDITY
AL	ALARM, LEVEL
AP	ALARM, PRESSURE
AT	ALARM, TEMPERATURE
AV	ALARM, VIBRATION
LI	EMERGENCY LIGHTING INVERTER
MB	METER, BTU PULSE
ME	METER, ELECTRIC PULSE
MG	METER, GAS PULSE
MS	METER, STEAM PULSE
MW	METER, WATER PULSE
ST	EQUIPMENT STATUS

ANALOG INPUTS (AI)

AQ	AIR QUALITY
CU	CURRENT
FB	FEEDBACK
FQ	FREQUENCY
FW	FLOW, WATER
HD	HUMIDITY, DUCT
HR	HUMIDITY, ROOM
LT	LEVEL, TANK
MA	AIRFLOW MEASURING STATION
PA	PRESSURE AIR
PB	PRESSURE BUILDING STATIC
PS	PRESSURE STEAM
PW	PRESSURE WATER
PH	WATER PH
PR	PRESSURE GENERAL
SP	SETPOINT, DIAL
TD	TEMPERATURE, DUCT
TG	TEMPERATURE, GAS
TR	TEMPERATURE ROOM
TT	TEMPERATURE, TANK
TW	TEMPERATURE, WATER
WX	WEATHER STATION

FLOOR LEVEL NETWORK (FLN) DEVICE TYPES TERMINAL EQUIPMENT CONTROL DEVICES

CVE	CONSTANT VOLUME EXHAUST
FCU	FAN COIL CONTROLLER
FHC	FUME HOOD CONTROLLER
LOC	LABORATORY OFFSET CONTROLLER
VAV	VARIABLE AIR VOLUME
VFC	VARIABLE FREQUENCY CONTROLLER
RPM	ROOM PRESSURIZATION MONITOR

FOR SITE SPECIFIC SYSTEMS NOT IN THIS LIST, CONTACT SNL FCS ORG. 1084B.

SECTION "B"

POINT ADDRESS FOR "MBC" FIELD INTERFACE DEVICES (FID'S)

POINT ADDRESS EXAMPLE FOR PHYSICAL POINT (NON-APOGEE)

06400145

- MODULE POINT ADDRESS; EACH MODULE SLOT HAS ROOM FOR FOUR PHYSICAL POINT ADDRESSES. THE ADDRESSES ARE NUMBERED FROM RIGHT TO LEFT AND BEGIN WITH THE POINT MODULE ADDRESS KEY NUMBER. REFER TO DRAWING MI5001STD.DGN FID MODULE WIRING DETAILS & MBC CABINET DETAIL FOR MORE INFORMATION.
- ALWAYS "0" FOR MBC POINTS
- CONTROLLER MODULE NUMBER (NODE NUMBER) ASSIGNED BY FCS GROUP
- FIRST DIGIT IS ALWAYS "0"

POINT ADDRESS EXAMPLE FOR VIRTUAL POINT (NON-APOGEE)

06400V45

- 00-99 VIRTUAL POINT ADDRESS
- VIRTUAL POINT TYPE
- ALWAYS "0" FOR MBC POINTS
- CONTROLLER MODULE NUMBER (NODE NUMBER) ASSIGNED BY FCS GROUP
- FIRST DIGIT IS ALWAYS "0"

POINT ADDRESS EXAMPLE FOR LAN POINT (UNBUNDLED POINTS) (NON-APOGEE)

06410145

- 00-99 LAN DEVICE POINT ADDRESS
- FLN DEVICE ADDRESS (01-32)
- FLN NUMBER (1, 2 OR 3)
- CONTROLLER MODULE NUMBER (NODE NUMBER) ASSIGNED BY FCS GROUP
- FIRST DIGIT IS ALWAYS "0"

PHYSICAL AND LAN POINT ADDRESS (APOGEE)

XX X XXX XXXX

- SEPARATOR
- POINT
- DROP NUMBER 0-225
- FLN NUMBER 0-3
- CABINET 01-99

FLN * 0 FOR CABINET HARDWARE POINT, 1-3 FOR FLN DEVICES

DROP * 0 FOR PHYSICAL POINTS, DESIGNATES MODULE ADDRESS KEY NUMBER (001-255). SEE DRAWING MI5001STD.DGN, FID MODULE WIRING DETAILS & MBC CABINET DETAIL FOR MORE INFORMATION.
FOR FLN DEVICE, DESIGNATES LAN DEVICE ADDRESS (001-099).

POINT * FOR PHYSICAL POINTS, DESIGNATES THE LOCATION OF THE POINT IN THE MODULE. MODULES CAN HAVE 1 TO 4 POINTS DEPENDING ON THE TYPE. POINTS ARE ADDRESSED FROM RIGHT TO LEFT IN A MODULE.
FOR FLN DEVICES, DESIGNATES THE FLN DEVICE POINT ADDRESS (001-099).

SECTION "C"

LOGICAL POINT NAME IDENTIFICATION KEY APOGEE FID

HARDWARE NON-LAN POINTS

0905 X AH01 TD01

- SEPARATOR
- POINT TYPE AND NUMBER. SEE SECTION A
- SYSTEM TYPE AND NUMBER. SEE SECTION A
- FID DESIGNATOR
- BUILDING NUMBER

HARDWARE LAN NAMES (APOGEE)

0905 X VAV XXXX

- SEPARATOR
- UP TO 12 CHARACTERS
- DESCRIPTION ASSIGNED BY APOGEE SOFTWARE
- DEVICE NUMBER
- FLN DEVICE TYPE
- FID DESIGNATOR
- BUILDING NUMBER

VIRTUAL POINT NAME (APOGEE)

0905 X AH01 S 01

- SEPARATOR
- VIRTUAL POINT TYPE NUMBER 01-99 SEE SECTION A
- VIRTUAL POINT TYPE SEE SECTION A
- SYSTEM TYPE AND NUMBER. SEE SECTION A
- FID DESIGNATOR
- BUILDING NUMBER

VIRTUAL TIMERS (APGOEE)

0905 X SECND S

- SEPARATOR
- 8-99 TIMER NUMBER
- DESIGNATES DEVICE IS A TIMER
- FID DESIGNATOR
- BUILDING NUMBER

SECTION "D"

LOGICAL POINT NAME IDENTIFICATION KEY NON APOGEE FID

RCU-P2 POINT NAME EXAMPLE

A90500

POINT NUMBER ON PICKET (TOP TO BOTTOM)	
PICKET NUMBER	(0 - 7)
BLDG NUMBER	(000 THRU 999)
FID DESIGNATOR	(A THRU Z)

MBC LOGICAL POINT NAME EXAMPLE

NGH53A

POINT NUMBER	(00 THRU 9Z)
POINT TYPE	(0 - 8 HARDWARE, A-Z VIRTUAL)
FID DESIGNATOR	(A THRU Z)
BLDG CODE	(AA THRU ZZ)

HARDWARE POINT TYPE KEY

0 = L2SL
1 = LDO
2 = LAO
3 = LDI
4 = LPACI
5 = LAI
6 = LFSSL
7 = LCTLR

VIRTUAL POINT TYPE KEY

A = ALARMS
B = BLDG/SYS RUN CONTROL
C = CALCULATED VALUES
D = DEMAND POINTS
E = ENTHALPY
F = FLOW

VIRTUAL POINT TYPE KEY (CONT'D)

G = MISC GAIN
H = HOLIDAY
J = SSTO VARIABLE
K = ELECTRICAL USAGE (KWH)
L = LEAD/LAG/STANDBY SELECTOR
M = ENHANCED ALARM MODE PTS
N = NIGHT VENT
O = OUTSIDE AIR VALUES
Q = AUTODIAL DISABLE
R = (OPEN)
S = SETPOINTS
T = MIN/MAX/AVG TEMPS, ETC
U = (OPEN)
V = VIRTUAL LDO STATUS
W = WEEKEND
X = CALCULATED VALUES (CONT'D.)

REV	DATE	DESCRIPTION	DWN	CKD	APP
B	10/2001	REVISED	ELG	MFR	GOD
A	8/2001	AS BUILT	ELG		

P.O.
PROJECT NO.

U.S. DEPARTMENT OF ENERGY
KIRTLAND AREA OFFICE — ALBUQUERQUE, NEW MEXICO

SANDIA NATIONAL LABORATORIES

FCS POINT DESCRIPTION

P.O.	0839422
PROJECT NO.	
DRAWN BY	E. L. GORE
CHECKED BY	
SNL ENGR	C. A. EVANS
DATE	10-12-99

MECHANICAL — STANDARD

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