

FATBOX G3 - Zigbee IoT asset configuration guide (v1.0)

Revision log:

Filename : iotasset.txt

Location : \user

A. Introduction

The file 'iotasset.txt' contains the assets configuration that is read by the BOT programs during start up.

B. IOT asset 'KEY,VALUE' general format

Each IOT asset is setup using a BLOCK of 'key, value' pairs (CSV format).

There are five (5) default key names that must be present for each Zigbee IoT asset.

These default key names are reserved and cannot be used for custom key names.

ZIGBEE IoT asset default keys

Default key	Description
TYPE	To define the Zigbee data transfer method (report / read attributes)
NODEID	To define the source network address of the Zigbee device
ENDPNT	To define the source endpoint of the Zigbee node
CLUSID	To define the cluster ID of the functional domain
ATTRID	To define the attribute ID from the set of attributes

Customer can add-on their custom key but limited to a maximum of ten (10) unique custom key only. This means a maximum of 15 keys per asset (i.e. 5 default keys + 10 custom keys).

Each asset must be setup using the same set of unique custom keys.

Space char will be automatically removed, empty line will also be ignored.

Backslash(\) and double inverted commas(") chars cannot be used in 'key, value' setup.

Zigbee IoT asset blocks must start and end with ZCL_START marker and ZCL_STOP marker respectively. It is possible to have more than one set of block marker in the iotasset.txt file.

C. IOT asset 'KEY,VALUE' setup information

TYPE,m

Argument	Value	Description
m	ZR	Data method = report attributes (Reporting-auto)
	ZQ (Future update)	Data method = read attributes (Query-response)

NODEID,n

Argument	Value	Description
n	0000-FFFF (4 hex chars)	Source network address (16-bit short address)

ENDPNT,r

Argument	Value	Description
r	00-FF (2 hex chars)	Source endpoint

CLUSID,s

Argument	Value	Description
s	0000-FFFF (4 hex chars)	Cluster ID

ATTRID,t,x,y

Argument	Value	Description
t	0000-FFFF (4 hex chars)	Attribute ID
x *	INTEGER value multiplier	Value = Value*Multiplier + Adder (decimal)
y *	INTEGER value adder	Value = Value*Multiplier + Adder (decimal)

*optional for INTEGER DATATYPES only, requires both arguments x, y when applied.

LIST OF SUPPORTED DATA TYPES

<DATA TYPE BOOLEAN>

Data Type ID	Length of Data (Octets)	Description
0x10	1	Boolean value, ie 0 or 1

<DATA TYPE INTEGER>

Data Type ID	Length of Data (Octets)	Description
0x20	1	Unsigned 8-bit integer
0x28		Signed 8-bit integer
0x21	2	Unsigned 16-bit integer
0x29		Signed 16-bit integer
0x22	3	Unsigned 24-bit integer
0x2A		Signed 24-bit integer
0x23	4	Unsigned 32-bit integer
0x2B		Signed 32-bit integer

<DATA TYPE FLOATING POINT>

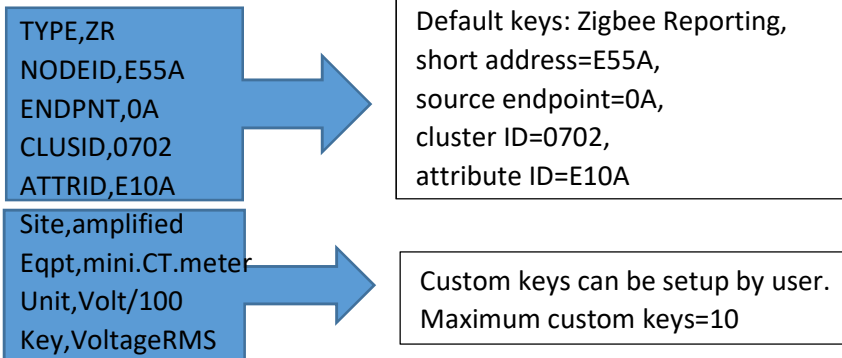
Data Type ID	Length of Data (Octets)	Description
0x39	4	Single precision floating point number.

<DATA TYPE STRING>

Data Type ID	Length of Data (Octets)	Description
0x42	Defined in first octet.	Character string

D. Example setup IOT asset

ZCL_START



TYPE,ZR
NODEID,E55A
ENDPNT,0A
CLUSID,0702
ATTRID,E11C
Site,amplified
Eqpt,mini.CT.meter
Unit,Amp/100
Key,CurrentRMS

TYPE,ZR
NODEID,E55A
ENDPNT,0A
CLUSID,0702
ATTRID,E143
Site,amplified
Eqpt,mini.CT.meter
Unit,HZ/100
Key,Frequency

ZCL_STOP

E. Method to download 'iotasset.txt' file to G3

Save the file inside \user folder of a USB drive labelled 'FATBOX'.

Plug in the USB drive and click the 'Download to FATBOX' button in the 'Management' tab of web configuration.

<EOF>