IEC 61850 PIS-10 Software Stack

Advanced Functionality – Update Function

Application Note

Document 500-0033 v.1.00

Introduction

The PIS-10 IEC 61850 software library allows the applications programmer to specify multiple points (data attributes) to update the values within the Server. The purpose of this application note is to explain how to use the `IEC61850_Update(…)` function in setting the values for multiple data attributes simultaneously.

```
enum IEC61850_ErrorCodes IEC61850_Update ( IEC61850                              server,
                                           struct IEC61850_DataAttributeID *     ptDAID,
                                           const struct IEC61850_DataAttributeData * ptNewValue,
                                           unsigned int                          uiCount
                                         )
```

Update a given Object of tObjectID with value of ptNewValue.

Parameters:

[in]	**server**	Server object to update
[in]	**ptDAID**	Array of IEC61850_DataAttributeID structures. This array idendifies the points that are to been updated. This array need to be the same lenth as the ptNewValue array.
[in]	**ptNewValue**	Array of struct IEC61850_DataAttributeData structures. This holds the new vaule of the object identified in the ptDAID array. This array need to be the same lenth as the ptDAID array.
[in]	**uiCount**	The number of IEC61850_DataAttributeID and struct IEC61850_DataAttributeData structures in the array pointed to by ptObjectID and ptNewValue respectably.

Returns:

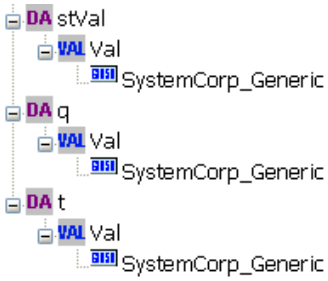
IEC61850_ERROR_NONE on success
otherwise error code

Please refer to our navigable online API User Documentation http://systemcorp.com.au/PIS10API/index.html for more information on other API functions and data structures.

How to Use Update Function for Multiple Data Points

The `IEC61850_Update(…)` function has support for passing multiple data attributes at one time. This can be used to allow an application to write several associated data attributes into the stack. For example, using an ‘stVal’ that has a quality ‘q’ and a time ‘t’ data attribute associated to the stVal. When updating the stVal value the quality ‘q’ and the time stamp ‘t’ data attributes may also be updated in the same function call.

To update the points together simultaneously, all data attributes must have a DAID associated with them in the CID file for the Server:



Step 1. Create an array of the DAID type you are using with a number of elements equal to the number of points you want to enter at one time.

Step 2. Create an array of DataAttributeData types that will contain the values you want to store.

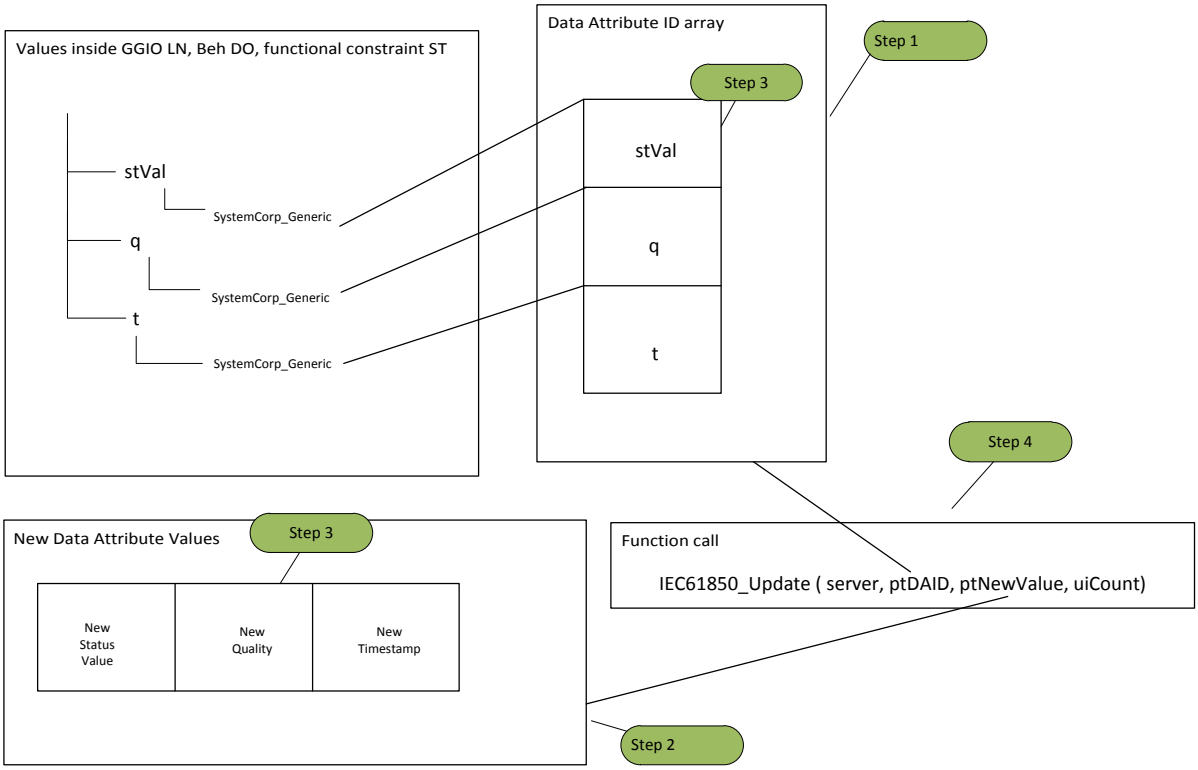
- Make sure that the size of the array matches the size of the DAID array.

Step 3. Set the values inside the arrays for all the elements you wish to update.

- you can update multiple different types of data with this function call

Step 4. Finally call the IEC6180_Update(…) function and pass the arrays as you would a normal pointer to the single structure, the final parameter of the function call is the number of elements in the array.

- Usually, this would be 1 if you were only passing in one point worth of data.



If you need assistance

All technical questions must be sent to our support email address: **support@systemcorp.com.au**
Upon receiving your question(s), it will get logged in our support system and you will receive and acknowledgement which will include a tracking number(s), e.g. M#040321. Please refer to your tracking number(s) when you are following up about enquiry.