

Advantech AE Technical Share Document

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Category	<input checked="" type="checkbox"/> FAQ <input type="checkbox"/> SOP	Related OS	Microsoft Windows7
Abstract	3 rd party software may read and write WebAccess tags through User Program API		
Keyword	WebAccess, User Program & API		
Related Product	N/A		

■ **Problem Description:**

User Programs are custom programs written in Visual C++ or Visual Basic using Microsoft Development tools. These use the Applications Programming Interface (API) supplied with Advantech WebAccess. The API makes calls to the SCADA Node and these user programs must run on the SCADA node.

Note: only support 32-bit operation system.

■ **Function Explanation:**

Visual C, Visual Basic users can develop their own interface to Advantech WebAccess using WebAccess Bwdllobj or viewdll.dll. Bwdllobj also supports VB 6.0, VBScript, JScript, and VB.NET.

Note - JScript and VB Script are also supported by ACTION Commands used by Local Scripts and Global Scripts in Advantech WebAccess.

Visual C and Visual Basic use these Applications Programming Interfaces as the API for User-developed programs. The following commands are not needed for most applications. A User programs make calls to the viewdll.lib. The viewdll.h, viewdll.lib, viewdll.dll, and webvsid.dll are located in the WebAccess\node directory.

In order to resolve “stack overflow” issue when VB programs are used to call viewdll.lib, a new COM object is added to Advantech WebAccess. The functions defined in the new viewdll.bas illustrate how to use this new object. To use this viewdll.bas directly, please add this file into VB project and call the functions directly.

The following explanation will focus in viewdll.dll

1. **viewdll.h**

```

1. Tag ID
struct VIEWDLL_ID
{
struct VIEWDAQ_ID id386;
char tagname[32];
};

```

```

2.Tag Value
union fl
{
double fval;
__int64 lval;
char *txt;
double *fpt;
};

```

Function	Explanation
int VD_API VdIsKrlRunning();	check whether Kernel is running or not
void VD_API VdBwSpool(char *msg);	Send Debug message to BWSpool
int VD_API VdBroadWinKrlInit();	Init DLL
void VD_API VdBroadWinKrlFree();	Free DLL
int VD_API VdBroadWinKrlStatus();	get Kernel status
int VD_API VdGetBroadWinPath(int mode, char *path);	Get WebAccess path
void VD_API VdGetSerialNumber(char *buf);	Get WebAccess serial number
int VD_API VdBroadWinLatestAlarmTag(char *tag);	Get latest alarm point
int VD_API VdBroadWinLatestAlarmTagUnack(char *tag);	Get latest unack alarm point
struct tm VD_API * VdBroadWinGetTm(void);	Get WebAccess current time
void VD_API VdBroadWinTimeNow(struct tm *time_now);	Get WebAccess current time
int VD_API VdGetTagNo();	get tag number
int VD_API VdGetTaglist(char *tagbuf, int tagsize, int start, int num);	get WebAccess Tag List
int VD_API VdGetAlarmTagNo();	get Alarm number
int VD_API VdGetAlarmTaglist(char *tagbuf, int tagsize, int start, int num);	getAlarm Tag List
int VD_API VdBroadWinInitTagGroupClosed(char *taglist, int size, int no);	Close group
void VD_API VdBroadWinFreeTagGroupClosed(int gpno);	Close group
void VD_API VdBroadWinSetActiveTagGroupClosed(int gpno);	Close group
int VD_API VdBroadWinGetActiveTagGroupClosed();	Close group
int VD_API VdBroadWinInitTagGroup();	Open group
void VD_API VdBroadWinSetActiveTagGroup(int gpno);	Open group
int VD_API VdBroadWinGetActiveTagGroup();	Open group
void VD_API VdBroadWinFreeTagGroup(int gpno);	Open group
int VD_API VdBroadWinGetId(struct VIEWDLL_ID *id, char *tag);	get Tag ID
int VD_API VdBroadWinGetValue(struct VIEWDLL_ID *id, union fl *flval, int *alm);	Get Tag Value
GetValueText(struct VIEWDLL_ID *id, char *text, int *alm);	Get Tag Value (Text)
void VD_API VdBroadWinSetValue(struct VIEWDLL_ID *id, union fl *flval);	Set Tag Value
void VD_API VdBroadWinSetValueText(struct VIEWDLL_ID *id, char *text);	Set Tag Value (Text)

Note: for group function, each group has tag number limitation up to 4096 tags.

2. Program Structure

- i. VdBroadWinKrlInit
- ii. VdBroadWinInitTagGroupClosed
- iii. VdBroadWinSetActiveTagGroupClosed
- iv. VdBroadWinGetId
- v. VdBroadWinGetValueText or VdBroadWinGetValue
- vi. VdBroadWinSetValueText or VdBroadWinSetValue
- vii. VdBroadWinFreeTagGroupClosed(gpno)
- viii. VdBroadWinKrlFree
- ix. Must run in C:\WebAccess\Node

3. How to use – Set Value

Set Value

Write a file with following format:

TagName1=Value1

TagName2=Value2

TagName3=Value3

.

TagNameN=ValueN

Save file to SetValue.txt, the following is content

AO-01=100

AO-02=200

Run and will be able to set AO-01 value to 100 and set AO-02 value to 200

Bwgetset 0 SetValue.txt

Note: 0 stands for Set Value

4. How to use – Get Value

Get Value

Save GetValue.txt, the following is content

AO-01

AO-02

Run following command:

Bwgetset 1 GetValue.txt

Able to read both AO-01 and AO-02 values, and save both values to

GetValue_Val.txt

Note: 1 stands for Get Value