

# **Advantech SE Technical Share Document**

Date	2018 / 12 / 14					
Category	■ FAQ □ SOP	Related Product	FOEE, WebAccess, ADAM-6060			
	Driver Tech Note					
Abstract	How to use WebAccess	ss to turn frequency value to FOEE driver status				
Keyword	FOEE, WebAccess, ADA	ess, ADAM-6060				
Related OS						
		Revision History				
Date	Version	Author	Reviewer	Description		
2018/12/14	V1.0	Eden.Sun		Initial Release		

### Problem Description & Architecture:

How to use WebAccess to turn frequency value to FOEE driver status?

When the edge device upload frequency value to I/O modules (ADAM-6060) for send to edge intelligent server (WebAccess) then transform tag value to 0, 1, 2, 4 and 8, final to give for FOEE cloud.



### Brief Solution - Step by Step:

### ♦ Advantech Adam/Apax Utility software

1. Use the Advantech Adam/Apax Utility software to search device ADAM-6060. (The computer and the device must be in the same Network domain.)



X Advantech Adam/Apax .NET Utility (Win32) Version 2.05.11 (819)

IP2 16:13:20       Bost name       NE061233         P       6:060       Adapter       172:16:13:20         P       6:060       Adapter       172:16:13:20         P       6:060       Adapter       172:16:13:20         P       0:01-1       Connection timeout       2000       ms         P       0:01-2       Connection timeout       2000       ms         P       0:1-3       Send timeout       2000       ms         P       0:0-0       Receive timeout       1000       ms         P       0:0-1       Sens timeout       1000       ms
Connection timeout     172 16 13 20       -30 DI-0     Adaptar:     172 16 13 20       -30 DI-1     Connection timeout     2000       -30 DI-3     Send timeout     2000       -30 DI-5     Receive timeout     1000       -30 DI-5     Receive timeout     1000       -30 D0-0     Sent interval:     1000       -30 D0-1     Scan interval:     100       -30 D0-3     Supervisor password
D1-1         Connection timeout         2000         ms           - 30 D1-2         D1-3         Send timeout         2000         ms           - 30 D1-3         Send timeout         2000         ms           - 40 D1-5         Receive timeout         1000         ms           - 50 D0-0         - 50 D0-1         Scan interval:         1000         ms           - 50 D0-1         Supervisor password         - 50 D0-1         Supervisor password
Constraint         Dist         Send timeout         Dist         mi           Constraint         Dist         Receive timeout         1000         ms           Constraint         Dist         Receive timeout         1000         ms           Constraint         Sean interval;         1000         ms           Constraint         Sean interval;         100         ms           Constraint         Supervisor password;         Interval;         Interval;
Construction         Difference         Receive timeout         1000         ms           Construction         Do-0         Scen interval:         1000         ms           Construction         Scen interval:         1000         ms           Construction         Scen interval:         1000         ms
- M D0-2 - M D0-3 Supervisor pessyual
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Image: Source of the second

#### 2. Select IP-Address (ADAM-6060) to check Modbus Address.

X Advantech Adam/Apax .NET Utility (V/in32) Version 2.05.11 (819)

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	- Cod	(OX)	Hok	lung Registers (4X)	0.0016855			
		Item	Leagth	Base		fiem	Length	Base
₽-6 6060 OCL		Til statue	05	0001	•	Counter Engineery	12	0001
Interpretation in the second secon		DO status	05	0017		Pulse output low level with	12	0013
		Counter writch	24	0033		Pulss output high level width	12	0025
e Others		Clear OCL counter	08	0.301		Set absolute pulse	12	0037
ADAM4500_5510Secies						Set incremental pulse	12	0049
Wireless Sensor Networks						Module name	02	0211
						DI status	01	0301
						DO status	01	0303
						OCL flag	01	0305
						OCL counter	16	0311
							Refresh	Apply



3. Select channel 1 (DI-0) from Device 6060, choose Frequency for DI mode and then Apply mode. (Assume device connect to channel 1)

	ADAM-6060 DI[]	] setting:					
<ul> <li>IT2.16.13.20</li> <li>IT2.16.13.60-(ADAM-6060)</li> <li>IT2.16.13.60-(ADAM-6060)</li> <li>IT2.16.13.60-(ADAM-6060)</li> <li>IT2.16.13.60-(ADAM-6060)</li> <li>IT2.16.13.60-(ADAM-6060)</li> <li>IT2.16.13.60-(ADAM-6060)</li> <li>IT2.16.12.201-(ADAM-6050_D_she</li> <li>IT2.16.12.201-(ADA</li></ul>	DI mode Fesquency valu	Prequency e 0.50 Hz	The second secon	Apply mode	Apply to all		

# ♦ WebAccess/SCADA Software - Project Home

4. Start the Internet Explorer Web Browser to Enter IP address of the project node.





5. Select WebAccess Configuration and Open or Create a Project.

D.		Project Configuration	
		Create New Project	
Project Name	ROBE		
Project Description	Project Descaption		
Project Node IP Address	172361247		
Project Node HTTP Port	0		
Project Primary TCP Port	4592		
Project Timeout	0 1		
Remote Access Code			
Retype Remote Access Code			
Log Changes to System Log	Ves • No		
	0	Solaut for New Project	

6. Select a SCADA Node or use Add SCADA node to create one. (A SCADA node is the PC that will connect to the automation hardware)

	Create New SCADA Node	[Cancel] Submit		
Node Name	POEB ×			
Node Description				
SCADA Node IP Address	172.16.12.47			
Primary TCP Port	4592	Secondary TCP Po	et [14.592	
Node Timeout	0 (Noils Timerit=0, >11)			
Remote Access Code				
Retype Remote Access Code				
Outgoing Esnail (SMTP) Server			Email Port 0	Use SSL/TLS O Yes • No
Email Address				
Email Account Name				
Email Password				
Ratype Email Password				
Email From				
Report Email To				
Report Email Co			1	
Alarm Email To				
Alarm Email Ce				
Repty Alarm Email To Ack	O Yes • No			
Global Script Via Email	OYes • No			
Olobal Script Security Code				
Retype Global Script Security Code	1			
Incoming Email (POP3) Server			Email Port	Use SSL/TLS: Yes * No
Email Account Name				
Email Password				
Retype Esnail Password				
Check Email Every	60 💽 Isconda			

7. Select Add Comport for the SCADA Node, and choose TCPIP for Interface Name in Create New Comport page.



	Create New Comport [Cancel] Submit
Interface Name	TCPP V
Comport Number	2
Description	Description
Scan Time	1 Milliferond Social Oblante Office
Timecut	1000 Idilliferand
Retry Count	1
Auto Recover Teme	60 Jamond
Backup Port Number	0
Scan Devices in Parallel	©Yes •No
	[Cancel] Sobmit

8. Select the Comport to open Comport Properties, select Add Device, and choose ADAM6K for Device Type, fill in IP Address, and write 502 in Port Number in Create New Device page.

	Crea	te New Device [Cancel] Solant
Device Name	ADAM-6060	
Description		
Unit Number	1	
Device Type	ADAM6K 🗸	
	IP Address	172.16.13.60
Primary	Port Number	902
	Device Address	of other than User Nomber
	IP Address	
Secondary	Port Number	
	Device Address	
		[Cascel] Submit

9. Use Add Tag or Add Block to Create New Tag and setting parameters. (Address is 40001, Length is 32, Scaling Type choose Linear Scale-MX+B, and Scaling factor 1 is 0.1.)



Enabling an Intelligent Planet	
Create New Tag [Cancel]	Submit
Parameter AI V Point (analog)	
Alarm No Alarm 💙	
Tag Name PopuracyValue	
Description AI	
Scan Type Constant Scan 🗸	
Address 40001	
Contenion Code Unight Interv	
Start Bit 0	
Length 32	
Signal Revenue 🔿 Yes 🔹 No	
Scaling Type Linew Scale, MX+B	
Scaling factor 1 0.1	
Scaling factor 2 0	
Log Data O Yes • No	
Data Log Dead Band 3	
Write Action Log • Yes ONo	
Read Only O Yes • No	
Keep Previous Value O Yes • No	
Initial Value 0	
Security area	
Security level 0	
Span high 1000	
Span low 0	
Value Clamp to Span High Clamp to Span I	aw Clamp to Zera
Output High Limit 1000	
Output Low Limit 0	
Eng Unit	
Duplay digita(istager) 4	
Deplay digits(fraction) 2	
Log To ODBC Frequency 0 Second Minute	
Analog Change Log O Yes • No	
Analog Change Log Dead Band	
ODBC Log Data Scores [Default	
Array Size 0	

10. Back to SCADA node under your Project Name in the Project/Node List and select CalcPoint from tool bar.

	Advantech WebAccess Project Manager	Outline Sea Hone Light
Project/Node TOES HansOn PortLanai ADAM.6550 =	Sode Property Delite AM Compart AntPoint California Constituent Soffware TeacPlate RealTeacTread Datal of Teaching Research AlexanDread Real AlexanDread Real Software Real California Data Software Real Real California Data Software Real Real California Data Software Real Real Real California Data Software Real Californi Data Software Real California Data Software Real	Derijal CaelProgram DataTransfer General'ening Madheellereer'aning
Enganes; Value adam6000	Node Description	

11. Select Add Calculation Point to Create New Tag and setting parameters. (Formula is

(A>=0.2?1:0)+(A>=0.5?1:0)+(A>=0.7?2:0)+(A>=0.9?4:0) [0.2, 0.5, 0.7 and 0.9 are the constant values of the device status range interval ,and put the number in ascending order], A is FrquencyValue [This is previously established side point on step 9.])





Calculation Point List	
	Create New Tag [Cancel] Subacit
Parameter	CalcAna V Calculation (analog)
Alarm	No Alam 🖌
Tag Name	DeviceStatus
Description	Description
Evaluate frequency	1. Second
Log Data	O Yes • No
Data Log Dead Band	J
Write Action Log	• Yes 🔍 No
Read Only	O Yes * No
Keep Previous Value	O'Yei * Na
Initial Value	
Security area	0
Security level	0,
Span high	100
Span low	0
Output High Limit	100
Output Low Limit	0
Eng Unit	
Display digits(integer)	4
Duglay digits(fraction)	2
Log To ODBC Frequency	0 ✔ C Second * Minute
Analog Change Log	OYn *Ns
Analog Change Log Dead Band	0 5
ODBC Log Data Source	Def sult 👻
Formula	(A>=0,271.0)+(A>=0.571.0)+(A>=0.972.0)+(A>=0.974.0) ♥
A	FightacyValor
В	
c	
D	
E	
1	
G	
н	

12. Back to SCADA node under your Project Name in the Project/Node List and select Download then Submit, final to start kernel.

	Advant	ech WebAccess Project Mana	ger.		Onightat Help Hone Light
Project/Node FOEE HandOs PartLanas	Veide Properts, Debite AAR Consumer, And Pa- Escol Ta, Escol, Ony Report, Mandaler, Cain May, Kand Report, MUTT Constraints, Series Day, Lines, Day, Dava Davabard, Graph On Neder, FOREL+HanadOn	n Cablein Cambin Stellen Stellen maddalaite Alara Margamer WACammbalan h BatSide DigSide	eerPlan RealTimeTrand Dated name TrantLag KeyMapping I	agTrend Alamaticnup Barapa Vid InportFarenatData DesandCotted	n GleindSorigt EuriPragnas, DetsTrande BACNetionerCastlyMatheoloreerCastly
Finesci Vale adam6000 Calc Print DeciseStatas	🧭 WebAccess 1	REE 247 Weet Velocities Contract	es no feste 1981. Residentia	MCMS-	
Device Oriver	Downlow	Please select Downlo d to Primary SCADA Node [Cancel]	ad options * Yes No itmit	Fur 14392 Email Port 0	Use \$51.71.5 No
ADAMUK ADAMUK ADAMUKASC ADAMUKASC ADAMUKASC ADAMUK ADAMUK ADAMUK ADUD AMUTAC AMUTAC ALIAN ALIAN ALIAN ALIAN					
APAX APAX5380 BA53000	Global Script Incoming Email	Security Code POP3) Server		Email Port	Use \$85./TL8: 100

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## ♦ WebAccess/SCADA - Software ViewDAQ

13. Open the ViewDAQ to check Tags value.



Point Info		Point Into		
Tag Name: FrquentryValue Description: AJ Tag Type: SHALOS Dime Type: CONSTANT SCAN Parts I Unit: 0 David: Tamas AIRA-10400 Andreas: 41021 (00:32) Spec Low 0.00	Alambioto 201,00     Alam	Tag Hama: DeviceStarus Description: Description Tag Type: SUBLOG Sear Type: CONSTANT SCAN Port. ~4 (CALCEATION) Space Huge: 100-00 Space Huge: 0.00 Sugarmeeting Unit:	Alami010:20.00           Alami010:20.00           -desc1001:20.01           -desc1001:20.01           -desc1001:20.01           -desc1001:20.01           -desc1001:20.01           -desc1001:20.01           -desc1001:20.01           -desc1001:20.01           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.00           -desc1001:20.01           -desc1001:20.01	
Engineening Unit: Talam: 0.00	edamiloso do 200_00 edamiloso 200_06 edamiloso 200_06 Dencialezatua	Welce: 3.40		
	00 Tag Venduka		001ag Venduka	
	Acounteson Pol 1 Por 4		Acounteston Pol 1 Pol 4	
	Calculation Port 2 Port 5		Calculation For 2 Port 5	
Gots Drange Acknowledge Eat	Canators Port 3 Port 6	Gots Drange Acknowledge Est	Camilarx Pol 3 Pol 6	

Point Info		Point Info	
Tag Ness: ProposaryValue Description: AI Tag Type: ANALOS Ness Type: Construct stan Part: 1 Unit: 0 Device Name: AIMU-050 Andersee: 40005 100:102 Apart Low: 0.00 Taginessing Unit: Value: 8.40	Interest an and           mitage(0.00:101_0.00           within (0.00:101_0.00           within (0.00:101_0.00           within (0.00:101_0.00           within (0.00:100_0.00           within (0.00:100_0.00	Tag Name: DeviceStatue DevictIption: DevictIption Tag Type: ANALOS Name Type (CONSTANT SCAM Part: -2 (EALONIATION) Spen Rash : 300.00 Spen Rash : 0.00 Englinemating Takk: Value: 1.00	2000 45 0 45 0 45 0 5 0 5 0 5 0 5 0 5 0 5
	UD Tag Wee04Q		UD tag VenDAG
	Accuratedon Pol 1 Pol 4		Accumulation Pot 1 Por 4
	Calculation Port 2 Ports		Calculation For 2 Ports
Gots Drange Acknowledge Est	Canataria Post 3 Post 5	Gota Dunge Acknowledge Ext	Constant Fox 3 For 5



Point Info		Point Into	
Tog Name: FrapanaryValue Description: Al Isg Type: ANALOS Muna: Type: CONSTANT SCHA Eart: 1 Unit: 0 Sevice Name: 45041-0000 Address: 45041-0000 Address: 45041-0000 Address: 5001 1001.00 Span Bight 1200.00 Engineering Trit:	Addapido 40: DT_00     standt040: DT_01     standt040: DT_01     standt040: DT_01     standt040: DT_03     standt040: DT_04     standt040: DT_04     standt040: DT_04     standt040: DT_04     standt040: DT_04     standt040: DT_04     standt040: DT_03     standt040: DT_03	Tag Hame: DeviceNtance Description: Description Teg Type: ANALOS Suma Type: Constrant stua Fort: -0 (CALTEATION) Spen. Exp : 100.00 Spen. Exp : 0.00 Engues.Exp : 0.00	Attack/040:107_00 - dtack/040:107_00 - dtack/040:107_01 - dtack/040:07_01 - dtack/040:107_01 - dtack/
Value: 8.4D	Indianalos: pol_os Bencicadores Indianalos Indiano Indiano Indiano Indiano Indiano Indiano Indiano Indiano Ind		adaed040:00:00:00 Dowiesestow Traywancy/Akiwa UD Tag Vee0AQ
	Accumulation Post Post 8		Accumulation Pol 1 Pol 4
	Calculation Port2 Port1		Calculation For 2 Port 1
Gota Ovange Acknowledge Est	Canutant Post 3 Post 5	Gots Ovinge Acknowledge Est	Constant Port Port

Point Info		Point Info	
Tag Ness: ProperaryValue Description: AI Tag Type: ANALOG Ness Type: Constant stan Part 1 Unit: 0 Device Ness: AIAD-000 Andesses: e003 100:021 Nyan Nagn: 1200.02 Apart Low: 0.00 Tagineering Unit: Value: 8.00	atase0000:01,00           atase0000:01,00           atase0000:01,01           atase0000:01,04           atase0000:01,04           atase0000:01,04           atase0000:01,04           atase0000:01,04           atase0000:01,04           atase0000:01,04           atase0000:00,00           atase0000:00,00	Tag Name: DeviceStatus Description: Description Tag Type: ABULOS Suma Type: Contrate scan Bars: -2 (SALTHATION) dpan Ningb: 100.00 Space Less 0.00 Supersenting State Value: 4.00	2000/0010000 atamé000:20,00 atamé000:20,01 atamé000:20,02 atamé000:20,00 atamé000:00 atamé000:00,00 atamé000:00,00 atamé000:00,00 atamé000:00,00 atamé000:00,00 atamé000:00 atamé000:00,00 atamé000:00,00 atamé000:00,00 atamé000:00,00 atamé000:00 atamé00:00
	UD Tag ViewDAG		UD Tag WeedAG
	Accumulation Polit Polit		Accumulation Polit Polit
	Calculation Port 2 Port 1		Calculation For 2 Ports
Gots Drange Acknowledge Ext	Canatarit Port Port Port	Gots Drange Acknowledge Est	Constant Port Port E

Point Info			Point Info		
Tag Name: FrquestryValue Description: AI Tag Type: ANALOS Nume Type: CONSTANT SCAN Batt: 1 Dait: 0 Device Name: AIAH-000 Andrese: 00051101.02 Andrese: 0005101.02 Spac Low 0.00 Taginesting Unit: Value: 8.30	Alternet Control         Alternet Order 201, 00           Alternet Order 201, 01         Alternet Order 201, 01           Alternet Order 201, 01         Alternet Order 201, 02           Alternet Order 201, 02         Order 201, 02           Alternet Order 201, 03         Order 201, 04           Alternet Order 201, 04         Order 201, 04		Tag Name: Description Description: Description Teg Type: ANALOS Name Type: CONSTANT SCAN Fact: SCALULATION Span High: 100.00 Span High: 100.00 Span Lee : 0.00 Hogeneening Tulk	Respective	
	10 tag We Assumation Post 1	Por 4		LID Tag Assumation Post 1	VenDAQ Put 4
	Calculation Pot 2	Ports		Calculation Port 2	Port
Gola Dunge Acknowledge Est	Constant Port 3	Port 5	Gots Drange Acknowledge Ext	Constant Port 3	Port 5

## Pin Definition (in case of serial connection):

■ <u>Reference:</u>