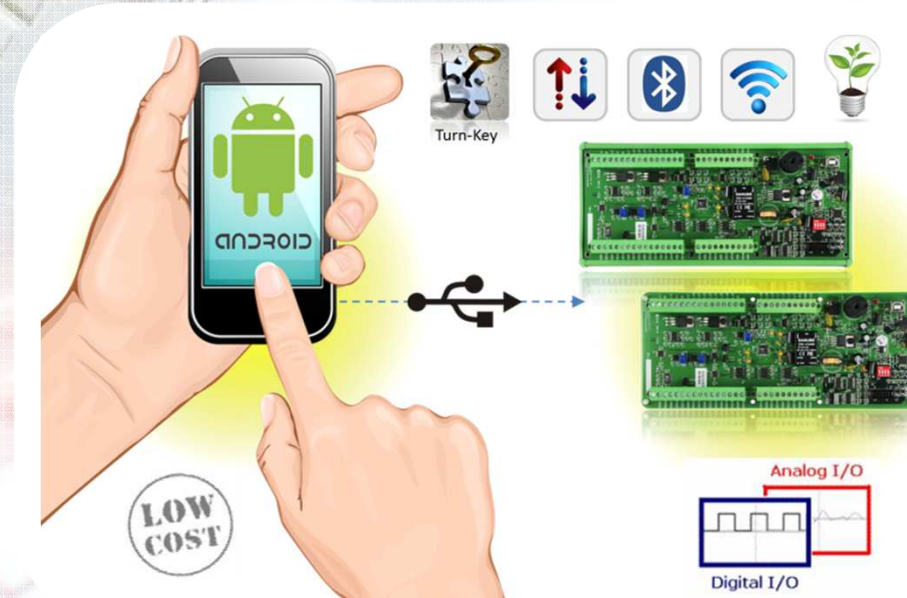


Mobile Data Acquisition Control System from Decision Group



Decision Group Inc.,
www.usb-industrial.com

Rapid Growth of Convenient PDA/Smart Phone

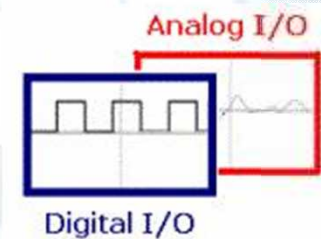
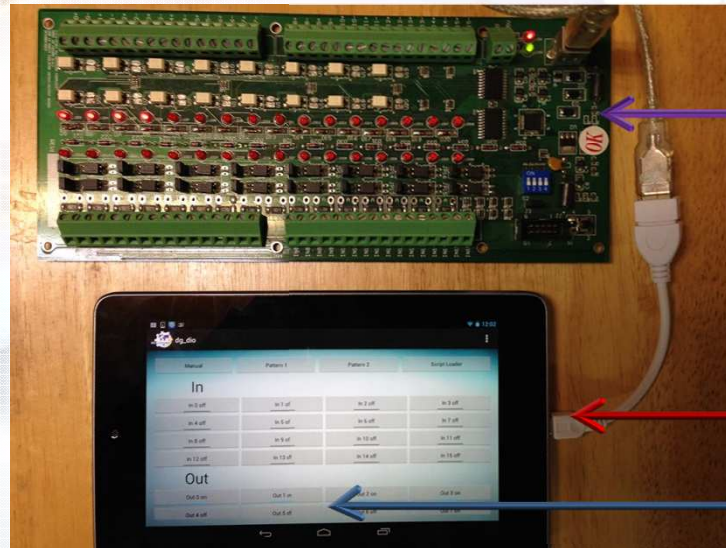
- Smart mobile device sales report announced by Canalyism in 2012 indicated that the annual growth rate was 62.7% on smart phone, and double the size to 264.2% on tablet PC from Q4/2010 to Q4/2011.
- On the other hand, PC worldwide shipment in Q4/2012 was 90.3M sets, 4.9% recession compared to Q4/2011, according to Gartner primary analysis. This trend would be on and on hereafter.

Innovative Mobile Data Acquisition Control Solution



Decision Group Mobile Data Acquisition Control Kit:

1. Decision Group USB - AD/DA, Digital I/O Interface
2. Android System (above 3.2)
3. Mobile Smart Device with USB-host





Advantages of Automatic Control on PDA/Smart Phone Platform

1. Complete Functionality:

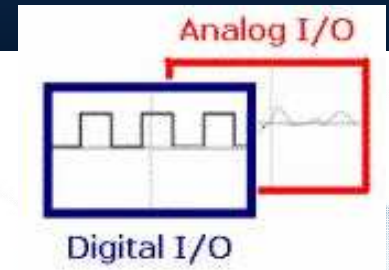
**the same as an Industry PC with CPU,
Flash Memory, RAM and touch panel for I/O**

2. Reasonable Cost:

**USD\$ 100-150 for a PDA/Smart Phone device,
but USD\$ 1600 to 3000 for an industry PC**

3. Durable Power: **low power consuming, and charged by mobile power bank for long term operation**

4. Mobility: **small and light for portability and movement**





Advantages of Automatic Control on PDA/Smart Phone Platform

5. *Expandable:*

link with PC and other devices, power charged via USB-HUB

6. *Network:*

with blue tooth, WiFi, 2G and 3G connection for access network

7. *Plug & Play:*

easily maintenance, deployment and operation

8. *Software Integration:*

Decision Group offers below resources for programming

- a. Android APP with functionalities of friendly GUI, watchdog and offline alarm...etc
- b. ICONIC Programming Tool
- c. Free Training Program

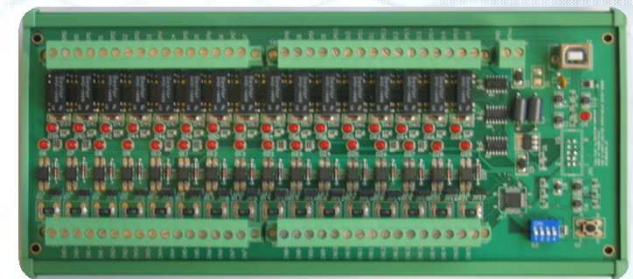
Interface Specification -1

Digital I/O Module



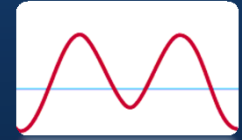
Full spectrum of Digital input/output channel support (DIO) with 4, 8, 16, 32, 64 channels

- **Maximum channel support by single system: 1920**
- **Output range: 0~30V**
- **Input range**
 1. **Optocoupler type: 35V, 30mA**
 2. **Relay type A: 100V DC, 500mA**
 2. **Relay type B: 220V AC/ 150V DC, 1A**



Interface Specification -2

AD/DA Modules

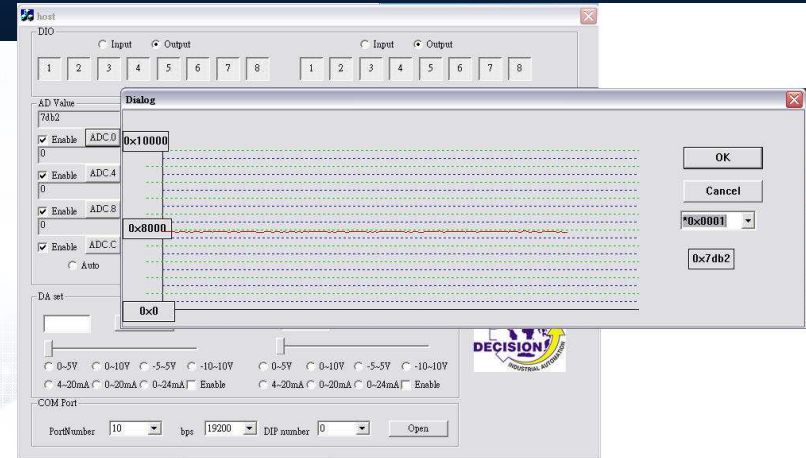


16 Bit A/D and D/A modules

A/D input voltage range:

- 0 TO +5 V (10 V p-p),
- 0 TO +10 V (20 V p-p) for unipolar,
- -5 V TO +5V (20 V p-p),
- -10 V TO +10V (40 V p-p) for bipolar.

- D/A channels and the resolution is 16 bits.
- D/A Current output ranges: 4 mA to 20 mA, 0 mA to 20 mA, 0 mA to 24 mA ± 0.01 %
- FSR typical total unadjusted error (TUE) ± 3 ppm/ $^{\circ}$ C D/A
- D/A Voltage output ranges: 0 V to 5 V, 0 V to 10 V, ± 5 V, ± 10 V 10% over range ± 0.01 %
- FSR typical total unadjusted error (TUE) ± 2 ppm/ $^{\circ}$ C



Interface Specification – ex

Product list

USB Bus Digital I/O Products							
Products	# I/O	OPTOs Input	OPTOs Output	Relays	AD	RS-232/485 Support	Multi device Support
AUSBSTARTER	8 In / 8 Out				8		
AUSBLABKIT	8 In / 8 Out				8		Yes
AUSB4P/R	4 In / 4 Out	4		4		Yes	Yes
AUSB8P/R	8 In / 8 Out +16In/Out	8		8		Yes	Yes
AUSB8PHOTO	8 In	8				Yes	Yes
AUSB8RELAY	8 Out			8		Yes	Yes
AUSB16P/R	16 In / 16 Out	16		16		Yes	Yes
AUSB16PIO	16 In / 16 Out	16	16	16		Yes	Yes
AUSB16PHOTO	16 In	16				Yes	Yes
AUSB16RELAY	16 Out			16		Yes	Yes
AUSB32PHOTO	32 In	32				Yes	Yes
AUSB32RELAY	32 Out			32		Yes	Yes
AUSB16ADDA	16DIO+16AD+2D A				16	Yes	Yes
AUSBINDUSTRIAL	4 daughter boards					Yes	Yes



System Design and Development

I. APP



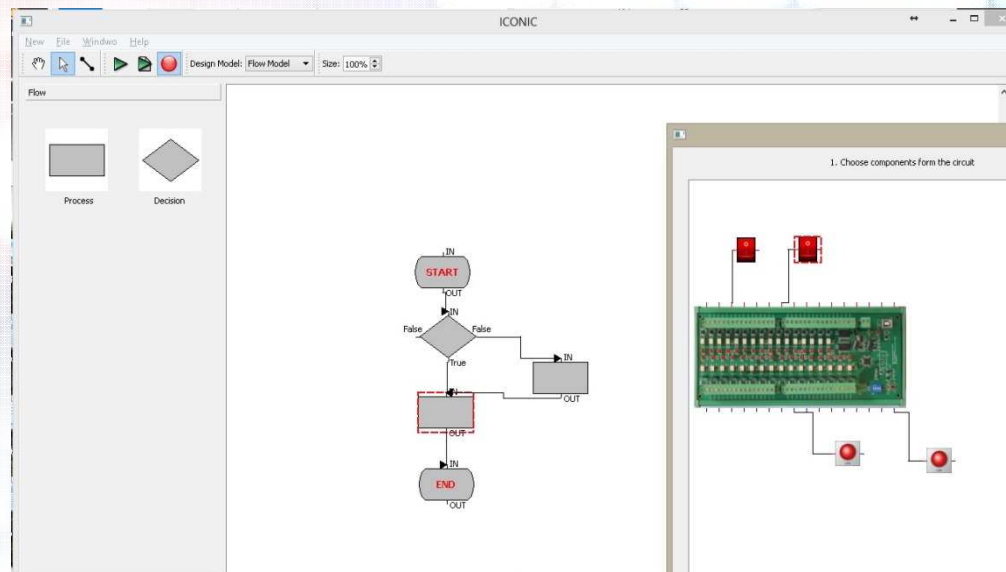
- **Free APP:** By Plug and Play function support, user can bypass coding and installation. APP for automatic control provides friendly GUI, can be downloaded from Google Play, and is running on Android 3.2 above platform
- **Safety:** Safety mechanism with Watchdog, offline alarm...etc.
- **Turn-key Configuration:** Turn-key integration with automatic APP execution in boot time
- **Scripting:** Loads script file to sequentially execute the instructions



System Design and Development

II. Iconic Programming Tool

Decision Group provides free ICONIC Programming Tool from Windows to Android platform. User can develop his own application by drag & drop without longer learning curve.





System Design and Development

III. Training Program

Free Partner Training program offered by Decision Group covers APP development on PC for Android platform with automatic control functions. Please contact with Decision Group for more details.



Contact Information



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