



InputOutput

July 1995

Integrated Displays - Fact or Fantasy?

Increasingly, end users are demanding 'integrated' display systems. As the market for independent software matures, users now feel comfortable in specifying top ends which can communicate with a variety of equipment.

But what exactly do users want from an 'integrated' display system?

First, remember that the primary role of a display system is to provide an interactive management station for an operator. Whether this is presenting graphical information on a mimic page, or allowing him to control a CCTV camera from the display, his requirement is for instantaneous, system-specific data.

Integration is a different process entirely. It is the 'joining together' of the data from disparate systems, generally reading from one system and passing the values into another. For example, a 'room occupied' signal from a hotel booking system needs to be communicated to environmental controls, lighting and other systems.

It is only because PCs have been used to perform both functions that users have been convinced that a common front end is an integrated solution. Not so. The future for the integration industry lies in the network layer. That's why networking products like *Echelon* and *Compass* provide an elegant way forward.

They take the integration load from the PC and put it into the network. The display system can be switched off and the integration process carries on unhindered.

Of course Apex can do it all. Of course you can use networks, and not use them. But the issues of common top ends and the process of integration are altogether separate and need to be argued independently.

There will be no immediate shift to these approaches - many manufacturers are entrenched in *modus operandii* which make a big sea-change impossible in the short term. But the writing is on the wall for traditional integration techniques.

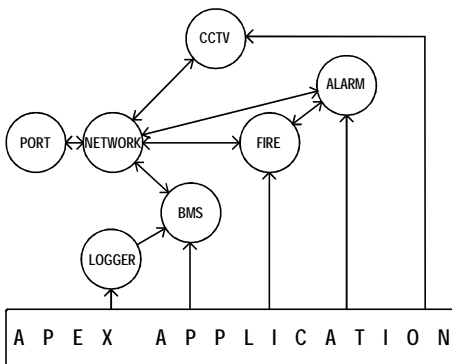
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Apex - the future

The Apex System has now been around for over 3½ years without major revision. With only 4 releases of Apex v1 ever made (every one for enhancement purposes), Apex is one of the most robust software packages on the market. In our drive to constantly improve and enhance Apex, we have taken a hard look at one of the most essential elements of the Apex package - the communications system.

Even now, the Apex technique for handling communications is a highly flexible and powerful way of getting values to and from a wide range of different systems in a consistent manner. The principle of 'network stacks' has not been bettered - until now. Often, the process of 'opening' and 'closing' drivers on a network stack causes a degree of complexity, with the application having to 'understand' which driver is on which stack at which time. In Apex v2, engineers will open drivers and leave them open, making links to and from them as required by tasks in the application.



The Apex v2 application still has as much control over the drivers as Apex v1, but the drivers are more autonomous - here, the *Logger* driver is automatically collecting values from the *BMS* driver without the application being involved.

The *Fire* and *CCTV* drivers are communicating via the *Network* driver, sharing values without the application having to read and write the values on their behalf. The *Alarm* driver is receiving alarms from the *Network* and *Fire* drivers, and so on. For the Apex applications engineer, communications will be faster and more automatic. Applications will run more efficiently, sticking more to display requirements than handling raw communications.

Indeed, many Apex applications could be running concurrently, each performing a different task, and all could make use of the same driver structure, comms port, and so on.

The new driver system (Apex Drivers or *ADV*) even separates the Apex display system from the driver technology, so non-Apex programs can get access to communications. We know that there are engineers developing under *Visual BASIC* and *C* who could well use the ease of hooking into a robust communications structure.

Apex v2 will be made available at the end of August. Not all the existing drivers will be provided at the first release, but will be added in a rolling development programme when required. Apex v1 drivers will be compatible with Apex v2 in the first release, but the intention is to eventually support only Apex v2 drivers. Any new drivers to be developed will be created only with Apex v2 in mind.

Software update

A number of new drivers have recently been made available for the Apex System. These can all be uploaded from *The Shelf*, your very own on-line autodial support service. Because of the large numbers of drivers now available, the *Drivers* section has been re-designed to give access by system types (e.g. Fire, Environmental, Security, etc.). It should make access to the right drivers easier and quicker.

In the fire systems section, there are drivers now available for the *Gent* 3400, *Ziton* ZP5 and *Kidde* (formerly *Dunford-Hepburn*) Procyon fire panels. For industrial controls users, a driver for the *Alfa-Laval* SattControl PLC has just been released. Security systems users can now use the *Menvier* TS2200 intruder detection system with Apex applications. For the environmental controls world, a driver for the *Staefa* NCRS Building Management System has been completed.

STOP PRESS!

The next crop of drivers coming through look likely to be the *Dunham-Bush* chiller control system, *Honeywell* Excel building management system, *Protec* fire system, *Thyssen* lift management system, *Cotag* access system, *BT MessageMaster* pager system and several others. Inevitably, *The Shelf* will be your best source of up-to-date information. Of course, the next issue of *InputOutput* will carry all the latest news.

Ask the Doctor

Look, it's all very simple. Dr Mortido knows it all. You don't. Put pen to paper and even the score.

Dear Dr Mortido

The brou-ha-ha about Windows 95? What is all this? Apex will be of course compatible with it?

François Epée, Lyons

Bonjour, François! Our friends at Microsoft would love the world to switch onto Windows 95 when it becomes fully available (it's still in the "beta" stage). Whether there will be a changeover in large numbers is down to user perception of the advantages Windows 95 has to offer. The "damp squib" release of Windows NT (which was originally seen as the ultimate replacement for all Windows products) shows that even big Bill Gates can get it wrong. Whatever happens, you can be sure that Apex will be fully compatible with the lead Windows product - the one people buy pre-installed on their PCs as standard. *Ceci bon, mon ami!*

Dear Dr Mortido

I'm a software house looking for a network structure and I've heard about this marvellous Compass system. Can I get it from Key?

Mike Rafone, Fulham

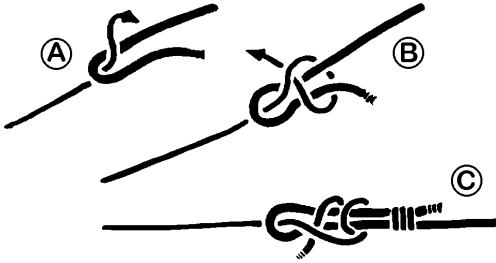
Well Mike, that's probably not the most efficient way. Key has always prided itself on complete independence from all hardware systems suppliers - controllers, networks and so on. The manufacturing and distribution rights to the Compass Network have been transferred to North Communications Ltd, a local specialist in communications technology, allowing Key to be free from recommending a "favoured" system. If you want to contact North, they can be reached on 01273-694422.

Dear Dr Mortido

I've got 2 ropes of unequal thickness. How would I go about tying them together?

Dr. X. Stiletto, Darlington

Because this was carried over from last month, thanks for your patients, Dr Stiletto! The classic solution to this knotty issue is the *Sheet* or *Common Bend* :



Take one end through the loop of the other (A), around the back and under it's own standing part (B). Let the thinner end be the working end. A double Sheet Bend (C) gives extra security, especially if seized. Of course, the Sheep Bend forms the essence of the Scout's bondage friend, the Bowline.

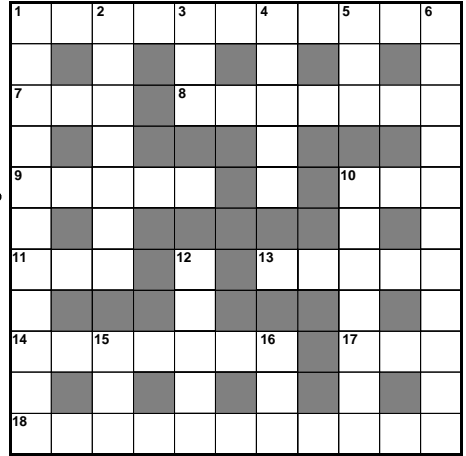
Mortido

*Remember, a problem shared is a problem two people have to cope with, so why not write to the good doctor at the address below. There's a bulging wad of crisp notes for any questions which are published. The doctor reserves the right to the famous "Mortido veto". Dr Mortido is taking a well-earned break from the next issue. But don't fret. To keep up the uncommonly high standard of journalistic output, next month we'll be featuring SYSOP BULLETIN, a special feature from the man who looks after **The Shelf**.*

Coffee time

by Mortido

The good doctor has been extra busy this month. Not only has he developed drivers and answered letters but he's also found the time to tease your grey matter with a fine crozzy. A patronisingly worthwhile prize is available if you can find a solution to this cryptic acrostic. Solution next month (if we can find it).



Across

- 1 Change old temp - even growth (11)
- 7 Vent in Cairo (3)
- 8 Rag amid confused blueprint (7)
- 9 Tune I mixed for band (5)
- 10 Tart one in games lesson (3)
- 11 Smallest time measurement? (3)
- 13 Red bird not available (5)
- 14 Interpreted fish indeed (7)
- 17 Re-tune ton-up engine (3)
- 18 Sells rabbit to get slice of business (6,5)

Down

- 1 Do I drop male to get comms device? (4-2,5)
- 2 Vintage vin rose (7)
- 3 Sound of heavy metal - light? (3)
- 4 Schemes for quiet local area networks (5)
- 5 Tear head off auricle (3)
- 6 Puree matter to make heat level (11)
- 10 Chew a canape to solve all problems (7)
- 12 Boy the French scoop (5)
- 15 Transport in logic array (3)
- 16 Type of prompt for parties (3)

Pearls of wisdom

Hot? Why not carry out your day-to-day chores in the chilled bulk stock area of a major high-street grocery retailer?

Problems with accuracy on your Pentium processor? For more help, call the Intel Technical Support Hotline on 0171-301-9001.009234899218.

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