

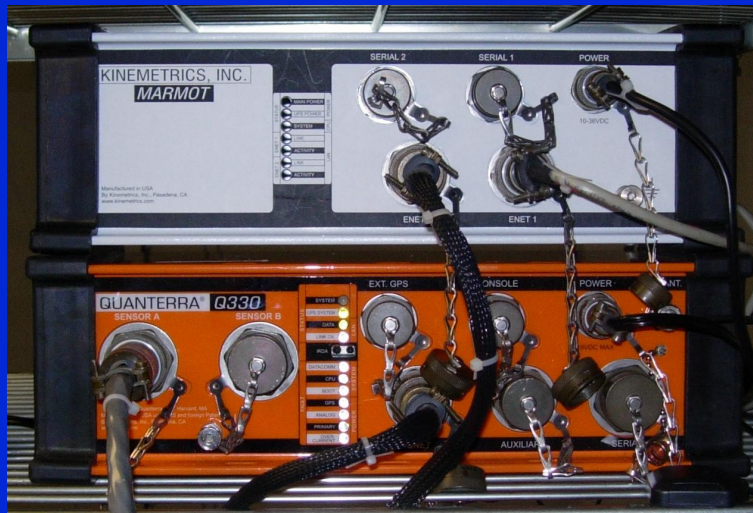
Marmot

Second Generation Antelope Device Server



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From Past to New Design!



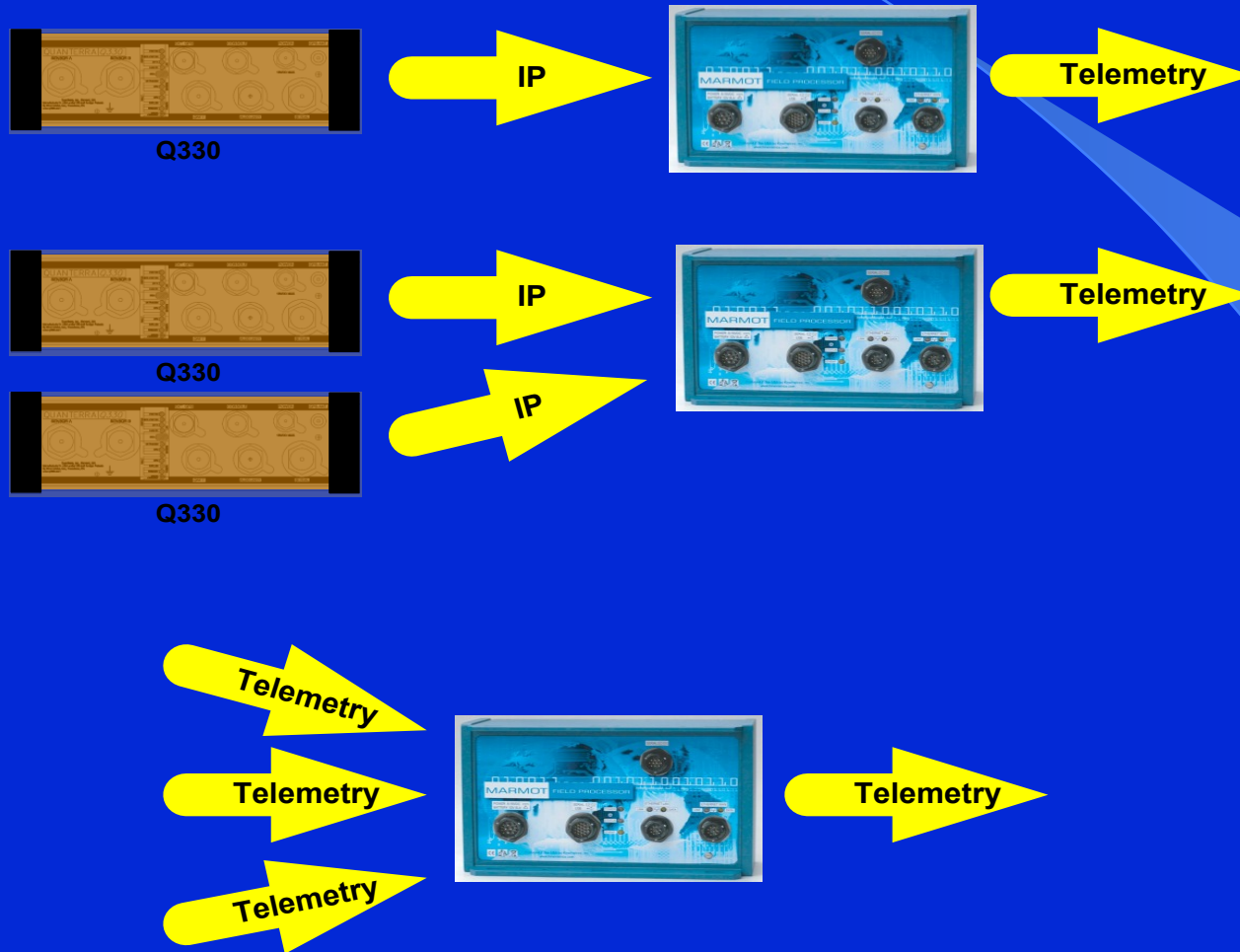
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Marmot

KEY BENEFITS:

- Rugged, Low Power, Field deployable Linux Computer
- Antelope based local data acquisition, deep buffering and telemetry
- Antelope based local data processing
- Up to 16 GBytes on CF + 4 GBytes SD card
- Multiple interfaces: 2 x Ethernet, 2 x Serial, USB, optional Bluetooth
- Power as low as 0.6 W
- Reports temperature & voltage, Antelope start-up at boot, watchdog
- Including standard protocols, e.g., DHCP, NTP, ssh
- Menu-driven configuration

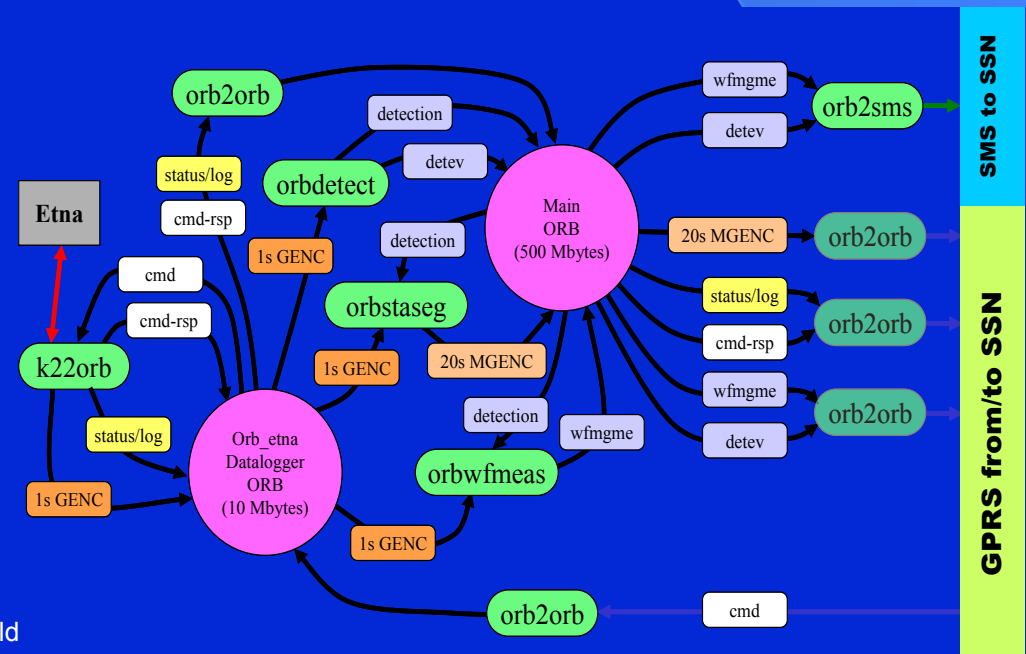
Marmot's Design Philosophy



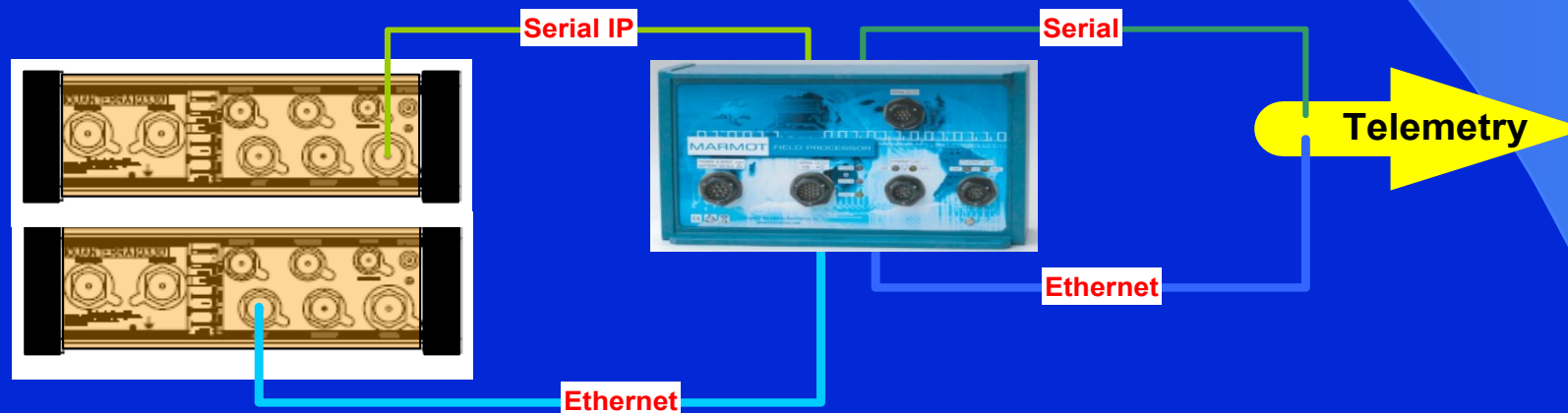
Technical Specifications

| Specification | Description |
|-------------------|---|
| CPU | Intel XScale 400MHz |
| Memory | 256Mb |
| Disk | Up to 16 Gb on CF card + additional internal 4 Gb SD card. Optional Removable 16 Gb CF card |
| Interfaces | 2 Ethernet, 2 Serial, 1 USB, Bluetooth, integrated modem or SS-radio] |
| Input Power | 10-36VDC [8-18VDC] |
| Power Consumption | ~0.6W @ 12VDC |
| Backup Power | UPS build in to support graceful shutdown [supercaps] |
| Auxiliary Data | Temperature, DC Voltage |
| Temperature | -10 to 55°C [-20 to 70°C, optional -40 to 85°C] |
| Telemetry | Supports any Ethernet and serial com-link (TCP/IP, UDP/IP, PPP, SLIP etc.) |
| Timing | NTP (including orb2ntp) |
| Antelope | Embedded |
| Physical | Sealed, Aluminum, 3 x 4 x 6 in |

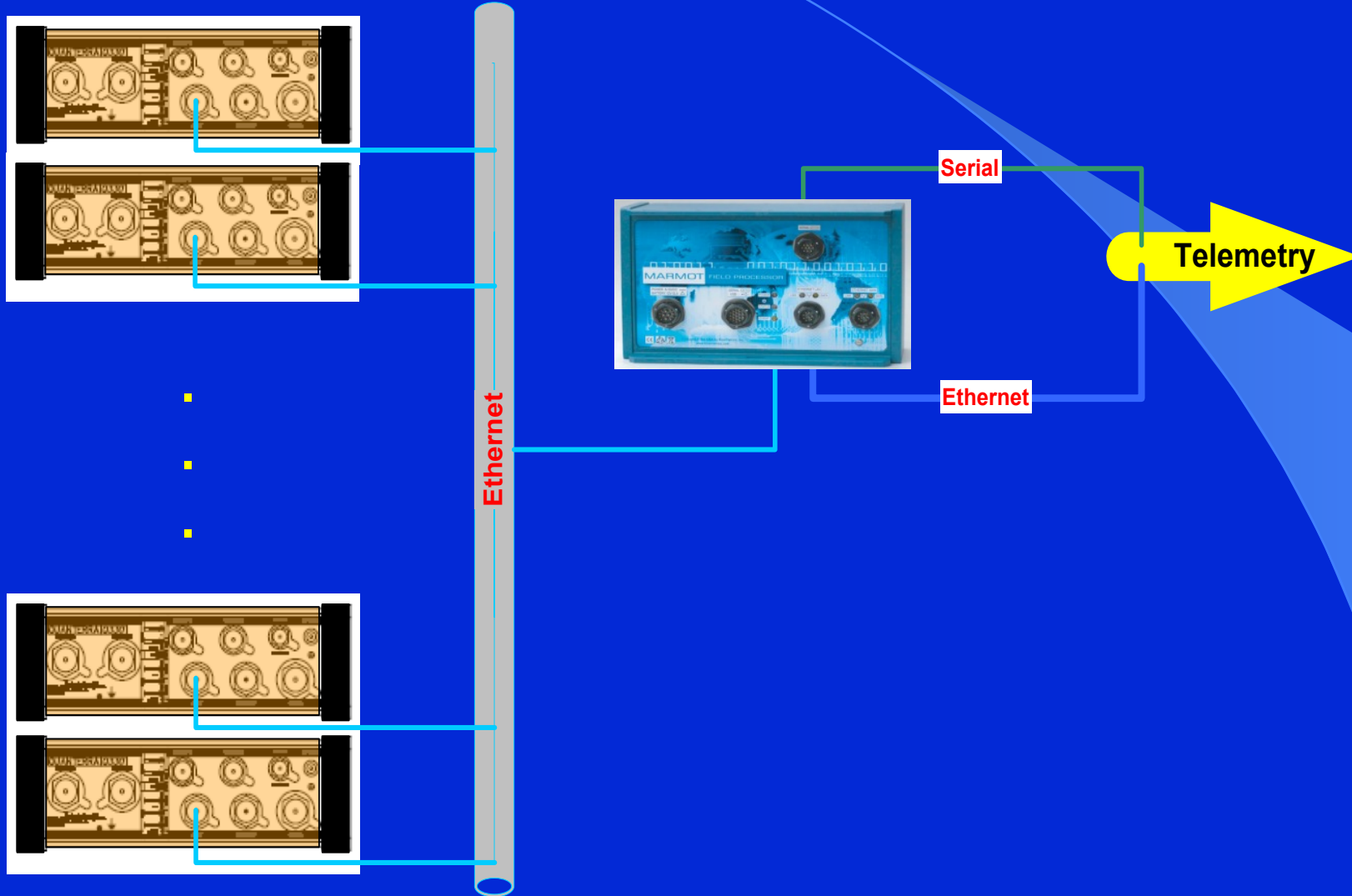
Application: Simple Local Data Acquisition and On-Site Processing



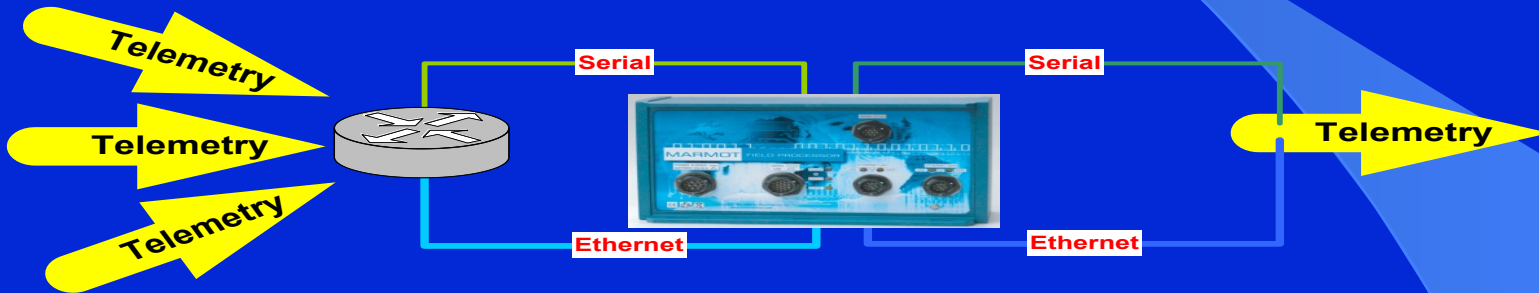
Application: Multiple Local Data Acquisition



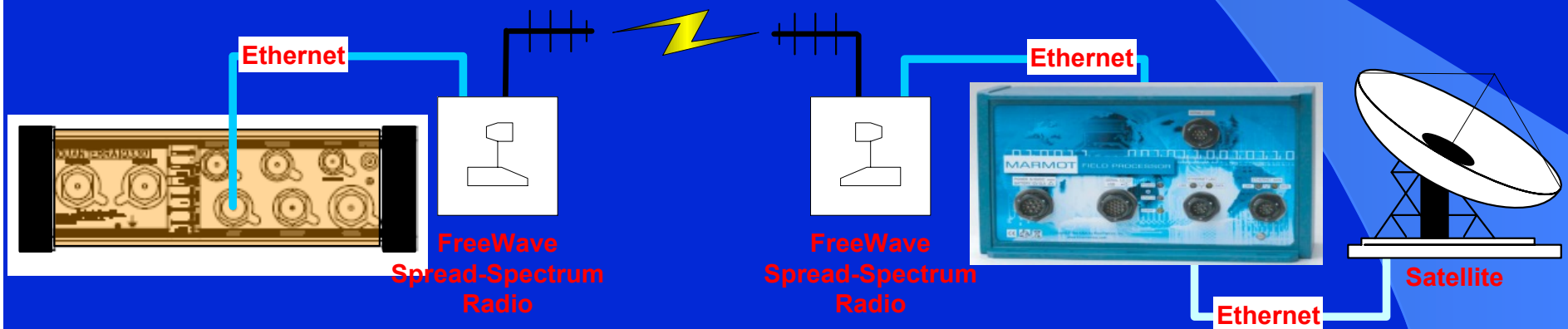
Application: Data Concentrator



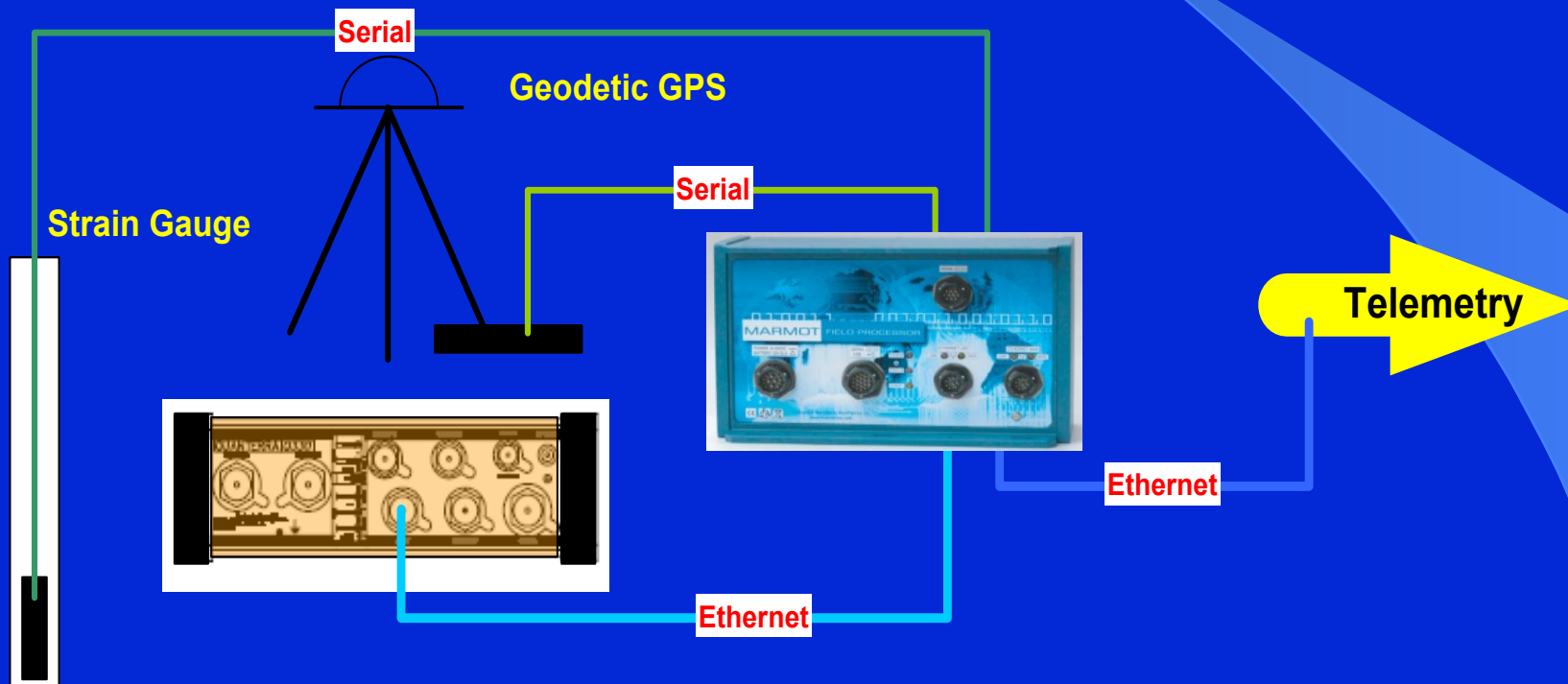
Application: Store-Forward



Application: Remote Station Store-Forward



Application: Integrating Other Equipment



Simple Configuration



Example of Past Generation Marmot Deployments



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AGU 2006: Q330 + Marmot + EpiSensor: Performance, Reliability and Beyond....



**Underwater
Test:**

**24/7 for 5
days and
collecting
data!!**