REAL TIMES

Circa 1971 an IBM1800 computer was installed at Cowley Assembly Plant. It was the first real-time computer any of us (management and staff of Morris Motors Systems Dept) had encountered. It's role was to inform sub-assembly areas what components they needed to prepare for vehicles coming down the assembly track: wheels/tyres, engines/gearboxes, seats/trim, facias - a system known as Assembly Line Broadcasting.

Painted bodies were manually selected from a store and the oldest document pack matching the body colour/shape/style (LHD/RHD, sun roof, saloon/hatchback etc.) was selected in the selection office. The document pack represented a customer order and included a punched card that had the relevant specification information. The card was passed through a card reader in the office and the spec information was printed out in each sub-assembly area. The relevant components could then be prepared in readiness for the vehicles arrival on the assembly track - JIT, a process name not recognised at the time.

Before the arrival of the IBM1800 an electro/mechanical system was used. This also read the card and printed the information. However, it was "hard wired". Any change to a vehicle spec. (eg new colour) meant someone had to get out the soldering iron! The computerised version meant that a file could be simply changed such that a punch card reference (hole(s) in a column/row) had a new meaning.

At Cowley the system was introduced at the start of production of a new model, the Morris Marina, in a brand new assembly hall. The Marina had two basic body shapes: saloon and fastback. The assembly hall contained two assembly tracks with painted bodies loaded on at the start and finished vehicles driven off at the end of each. The IBM1800 was housed in an air condition room which was part of a two storey office suite mid point along the side of the assembly hall. A systems office was on the ground floor and had to be entered in order to access the computer room.

I cannot remember the 1800s exact spec. It had removable disc packs, a punch card reader and punch, printer and several large (5ft+ high) cabinets housing the computer gubbins. We were able to connect the printer cables that led to the sub-assembly area printers into one of the cabinets. These cables were not insubstantial! They were 32 core cables feeding printer which, themselves, were complex beasts. They had print ribbons that enabled printing in two colours: red or black. Red for one assembly track, black for the other. If a printer failed the message would be routed to the corresponding printer on the other track. Each message had a track/shift/sequence number to assist orderly sub-

assembly. Spare printers could be trolleyed out to replace a failed printer. This was not a quick process as the printers were heavy and the trolleys could not cross the tracks.