

S100-3

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Dear INMC,

After receiving INMC News 6, I am prompted by your S100 expansion article to write to you about my own efforts in that direction.

When I started expanding my Nascom 1, my first step was to buy and construct the Nascom buffer board. After this I decided to go my own way and use S100 rather than Nasbus, primarily because of interest in S100, and also because at that time (mid 79) there was no way I could get hold of Nascom 8k memory.

I was lucky enough to be enquiring one day about S100 backplanes in Comp Shop of Barnet and they kindly sold me a blank PCB as used in their own S100 expansion kit. On closer examination of this PCB I noticed that they had, in their design, provided a set of holes at one end of the board to take the standard Nasbus 77 way connector. This PCB was then an ideal basis for Nasbus to S100 conversion.

The PCB was cut accordingly just leaving the three S100 sockets and the Nasbus connector. All address and data bus lines were still intact between the sockets, with only the control bus signals requiring attention. A simple circuit using three IC's was employed to generate the S100 MREAD and MWRITE signals, the MEMEXT signal for Nascom 1, and the DBDR signal for the Nascom buffer board.

The standard power supply was upgraded as suggested by Mr. Curtis in INMC 6, but with the addition of an extra smoothing capacitor and current limiting resistor to provide a true 8V supply for the S100 on board regulators. (The output at my bridge rectifier is approx. 10V and would, without a limiting resistor, result in the regulators getting unnecessarily hot trying to dissipate a further 2V).

No problems were encountered running this set up, with 8k of static memory; and with the recent addition of the excellent Nascom Rom Basic chip (fitted to a surplus S100 board using a single TTL IC to decode the chip enable). The system performs beautifully, with no hardware crashes and a very cool running PSU.

All I now need is a copy of Nas-Sys 1 and I have effectively upgraded to Nascom 2 (the on screen editing facilities of Nas-Sys are an absolute must when editing 8k Basic programs). Perhaps the software experts amongst you will devise an addition to 8k basic, held in RAM to provide these facilities for us poor T4 owners.

I would of course only be too willing to give more information about my conversion to anybody contemplating a similar project, although I suspect that nowadays with the plentiful supply of Nascom memory, users would sensibly opt for a 100% Nascom system.

Yours truly,

Malcolm Bay,  
Bedfordshire.

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