# Using the Sony MVS8000 Protocol Extensions

The normal MVS8000 protocol uses eight "Tally Enables", which can be assigned to any switcher destination in the Sony MVS8000 Engineering Setup menus.

The MVS8000 protocol Extension allows switcher destinations to be tallied directly, similarly to the tally of a GV4000 or Kalypso switcher. The destinations available under the protocol extension are:

| **Primary Group** | **PP Group** | **ME1 Group** | **ME2 Group** | **ME3 Group** |
|---|---|---|---|---|
| ***PP*** | PPBKGDA | ME1BKGDA | ME2BKGDA | ME3BKGDA |
| ***ME1*** | PPBKGDB | ME1BKGDB | ME2BKGDB | ME3BKGDB |
| ***ME2*** | PPK1FILL | ME1K1FILL | ME2K1FILL | ME3K1FILL |
| ***ME3*** | PPK1SRC | ME1K1SRC | ME2K1SRC | ME3K1SRC |
| AUX1 | PPK2FILL | ME1K2FILL | ME2K2FILL | ME3K2FILL |
| AUX2 | PPK2SRC | ME1K2SRC | ME2K2SRC | ME3K2SRC |
| AUX3 | PPK3FILL | ME1K3FILL | ME2K3FILL | ME3K3FILL |
| AUX4 | PPK3SRC | ME1K3SRC | ME2K3SRC | ME3K3SRC |
| AUX5 | PPK4FILL | ME1K4FILL | ME2K4FILL | ME3K4FILL |
| AUX6 | PPK4SRC | ME1K4SRC | ME2K4SRC | ME3K4SRC |
| AUX7 | PPUTIL1 | ME1UTIL1 | ME2UTIL1 | ME3UTIL1 |
| AUX8 | | | | |
| AUX9 | | | | |
| AUX10 | | | | |
| AUX11 | | | | |
| AUX12 | | | | |
| AUX13 | | | | |
| AUX14 | | | | |
| AUX15 | | | | |
| EPVW | | | | |
| FM1 | | | | |
| FM2 | | | | |

Each of the first four destinations are permanently routed to all of the buses in one of the groups in columns 2 through 5.

The extended MVS8000 protocol provides no means of determining the contribution of each of the P/P and M/E sub-buses to the on-air tally. For this reason it is recommended that tally be developed directly from destinations other that the first four, and that on-air tally and next -to-air tally be generated using one of the eight Tally Enables rather than using the protocol extension. In particular the protocol extension is most useful for generated Aux-bus tally.

The inputs reported by the MVS8000 protocol extension *are not the same as the inputs reported by the Tally Enable protocol*. The Tally Enable protocol reports all 128 primary and internal inputs. The protocol extension reports a subset of 64 inputs, and the reported numeric value of these inputs necessarily differs from the value of the same inputs reported by the Tally Enable protocol.

For this reason the inputs reported by the protocol extension are reported with input names "E1", "E2", "E3" etc. rather than the usual "1", "2", "3', to distinguish them from the inputs reported by the Tally Enable protocol. The two sets of inputs then need to be married using virtual inputs and resource interconnects. For example:

| Source | End #1 | End #2 |
|---|---|---|
| DA::CAM01 | SWR::1 | SWR::E4 |
| DA::CAM02 | SWR::1 | SWR::E5 |
| DA::CAM03 | SWR::1 | SWR::E6 |

To determine the inputs reported under the MVS8000 protocol extension:

1. Create a test UMD with control string XPT(SWR::AUX1)
2. On the MVS8000 switcher aux panel, select AUX1.
3. Punch up each of the aux bus inputs and take note of the “Ex” number reported by the test display. These values can then be used to create the switcher input interconnect table.

*Sending Names to the Switcher*

It is possible to send input names to be displayed on the switcher input buttons:

1. Create a resource item with an “N” -prefixed name e.g. N1, N2, etc.
2. Program the name or a short control expression into either the long or short name (long name recommended). The other name (short or long) must be left blank.

For example, programming an input N1 with resource item long name TSX(RTR::001[1],A) would allow the button name on the switcher to track the router input selecting on router output 001[1].

*Getting Names from the Switcher*

It is possible to extract names for the extension protocol inputs (“E1”, “E2” etc.), however the Sony switcher currently appears to ignore the requests for these, which causes receive timeouts and disrupts the proper operation of the interface. Until this issue is sorted out with Sony, the names extraction function is by default disabled in the extension protocol interface. The names extraction function can be enabled with the following global message:

_SYSVAR_COMM_PARAMETER=<port-1>,MVS8000: NameRx=on