



SM EZ Application Note
EZAT-12, Rev. 1, 5/28/2009
Applicable Products: SM EZMotion,
SM Apps Plus modules

**Saving dynamic cam data
from
SM EZMotion
to the
SM Applications Plus module**



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Introduction

Many users will find the Cam tables in the SM EZMotion module to be useful for creating dynamic arrays. These arrays can be modified during program execution, however at the time of release of PowerTools 5.0 (April 2009) there is no way to save the dynamic data and use it in an array format after repowering the drive. NVM can be used to save data through a power cycle, however there is no array capability with any register types saved in NVM

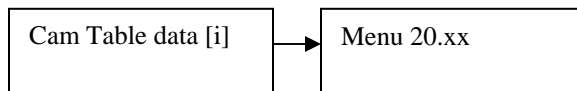
This application note shows the user how to transfer the dynamic cam table data to an SM Applications Plus module for storage in the SM Applications Plus' nonvolatile memory

1. Program Description

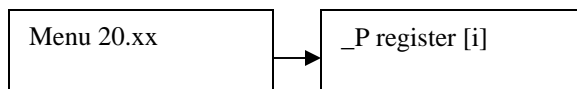
Use the attached SM EZ program and Sypt Pro program folder as a guide line or template for transferring data to/from the SM Apps. The user's actual implementation may need modifications to these programs.

The SM Apps and SM EZ do not have direct access to each other's registers. Menu 20.xx registers are used as a temporary transfer registers, since both modules have access to Menu 20.xx. Multiple 20.xx registers are used for data transfer and hand shaking.

The SM EZ will transfer 1 register at a time to menu 20.xx



The SM Apps will detect the register changes in menu 20.xx and transfer the data to it's nonvolatile _P, _Q, _T registers. See the SM Applications Plus User Guide for details on these registers



The next register is transferred in a looping program until all registers are transferred.

Writing the SM Apps registers to the SM EZ module works the same way except in reverse. All transfer requests are initiated by the SM EZ, the SM Apps simply responds to the request to read or write data.