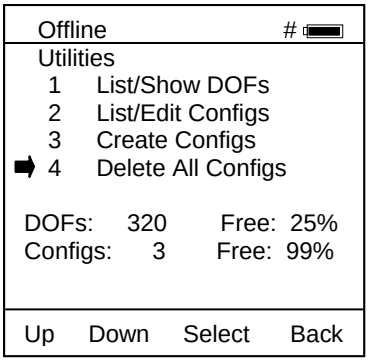
Application Note

Aug, 2006

DOF Memory Maintenance – MFC 4100 and MFT 4005 / 4010

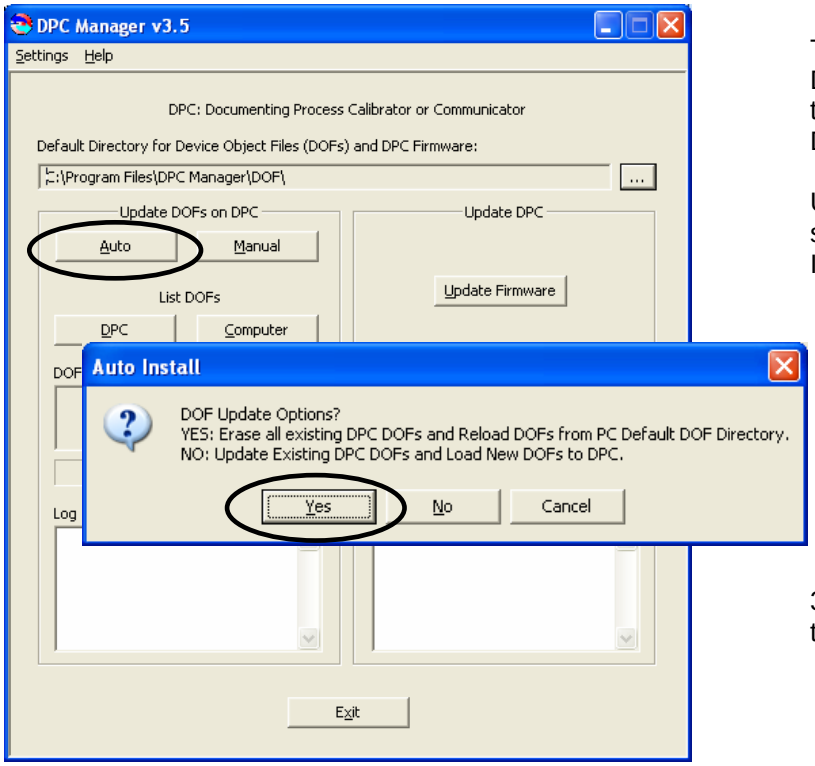
Problem: DOF flash memory in the MFC and the MFT 4010 will become fragmented after many DOF download sessions to add new or update existing DOFs. Fragmentation reduces the total number of DOFs that can be saved in memory (600 DOFs is the nominal capacity of the flash memory). When fragmentation becomes extreme, the MFC will not accept additional DOF downloads even though the number of DOFs stored is far less than 600. Periodic DOF memory maintenance will be needed to optimize DOF memory.

The Offline screen indicates the number of DOF files stored in memory and the percentage of free memory available for additional files. 320 DOFs ideally use about 58% of the available memory, so 42% of DOF memory should be free. The example at right indicates that only 27% of DOF memory is free. This indicates fragmentation.



HART Offline Menu Screen

Solution: To optimize DOF flash memory, it is necessary to delete all DOFs and then reload them all in one session. Connect the MFC to a host PC that has DPC Manager installed (see the DPC Manager Utility section of the MFC or MFT manual for more information). Launch DPC Manager and select the "Manage DPC Device Driver and Firmware Updates" option. Go to the Tool Bar and click on "Settings", then click on the "Advanced" option. The following screen will appear.



The Address Bar should be pointed to the DOF Directory on the host PC. If it is not, use the Browser button to point to the DOF Directory.

Under "Update DOFs on DPC" section on left side, right click on the "Auto" button. An Auto Install dialog box will appear.

Select the "Yes" response to the "DOF Update Options?" question to erase all existing DOFs and re-load DOFs from the PC's DOF directory.

320 DOFs will take approximately 90 minutes to load.

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