

## Description for hipecs file system demo project

The hipecs filesystem demo project is a Example for all functions available for the internal filesystem of the hipecs PLC and Core modules of frenzel + berg electronic.

### *Introduction*

For this demo application you need at least a hipecs core module or a hipecs PLC. It is possible to use a external SD card for evaluation.

### *Preparation*

No special preparation necessary.

### *hipecs setup*

When using a frenzel + berg Visu-P Panel, you have to use the COM3 (RS422) interface for the SGI connection to the panel. Baudrate is 460.000 Baud. Check Visu-Panel DIP switches, too.

The "app\_hipecsplc\_filesystem\_v1r1\_en.prj" file is the CoDeSys PLC program for this example. The communication parameters are COM15 and 57600 Baud. **This must be changed to your demands!**

### *Starting and using the demo project*

It is recommended to use the target visualisation to operate the demo application. In the "Filesystem\_VISU" visualization, there are several grey buttons. these buttons trigger the corresponding function once. The blue fields are meant to enter strings for changing filename or enter filecontent. Before opening a file, you have to choose whether the shall be opened for writing, reading or appending. This is done by clicking the corresponding button right of "open File". A green frame indicates the selection when using target visualisation.

### *The different CoDeSys POU's and functions*

#### *PLC\_PRG*

The only action for the PLC\_PRG is to call the filesystem\_Test POU.

#### *filesystem\_Test*

In this POU, all functions of the FBESysFile.lib are used. By clicking a grey button in the visu, the corresponding value is assigned to the File\_step variable. By the IF selection the corresponding function is called and the step is set to 0 again. Every function is only called once. All IF selections are commented.

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Visu

### Filesystem Test

Make sure, SD card is inserted!

|                     |                |            |           |
|---------------------|----------------|------------|-----------|
| Set active Dir      | C:\test        |            |           |
| open File           | read write app | test.txt   | Handle: 0 |
| File Size: 0        |                | Close File |           |
| Write:              |                | Write File |           |
| Read File           |                |            |           |
|                     | -> copy ->     |            |           |
| Delete File         |                |            |           |
| Get File Size No ID |                | 0          |           |
| Get Pos             | 0              |            |           |
| Set Pos             | 0              |            |           |

| Button              | Function   |
|---------------------|--|
| Set active Dir      | Changes the directory, the functions refer to. In the blue box, the directory can be changed.                          |
| open File           | Opens file for either write, read or append. Filename can be entered in blue box on the right. Filehandle is returned. |
| Filesize            | returns Filesize of opened file.   |
| Wite File           | Writes the characters of the blue filed on the left to the opened fille  |
| Read File           | Reads an opened file   |
| -> copy ->          | copies file from the left side to the file on the right side   |
| Delete File         | Deletes the file in the blue box on the right.   |
| Get file size No ID | Returns the size of a file without opening it.   |
| Get Pos             | Returns the position of the write pointer.   |
| Set Pos             | Sets the position of the write pointer.  |