

Why does xChannelReset() returns and the protocol stack is still not configured (subsequent functions returning Error: 0x800C0012)?

xChannelReset() does NOT wait until a communication channel (protocol stack) is configured.

This is because of the fact that a communication channel can be configured in 2 ways.

1. configuration via a database
2. configuration via command packets

In case of way 2, an application would have always to wait the complete timeout given in the call to xChannelReset() before it can proceed because

in this case the fieldbus system will never reach the configured state (state RUNNING). By using a default timeout of aprox. 10s (10000ms), each program start-up would take at least 10 seconds and if multiple cards are used, each additional card would extend the start-up time by the same amount.

The implementation of the application program defines the way how the fieldbus system will be configured and therefore the application can decide if it has to wait or not.

Waiting until a communication channel is completely configured can be done by cyclically calling xChannellInfo() after a xChannelReset(). xChannellInfo() returns an information structure containing the so-called *Communication COS Register (ulDeviceCOS)*. This register value contains the READY flag (bit 0) and the RUNNING flag (bit 1) of the communication channel.