



Modem Engine

The Modem Engine



- § Provides Modem communication functionality
- § Depends on the underlying modem device
 - Internally packaged single path modem
 - Speeds up to 115200 in the OMNI 33XX
 - Speed of 2400 in the OMNI 37XX

Note: Refer the modem manual for a detailed listing of all the modem commands

Modem Engine API



§ Open and Initialize modem with `xmdm_init()`

```
int hModem = 0;  
int rate      = Rt_2400;  
int format = Fmt_A7E1;  
int max_wait = 30;  
  
hModem = xmdm_init(hModem, DEV_COM3, clockHdl,  
    max_wait, rate, format );
```

Modem Engine API



§ Wait for a Line with `xmdm_checkline()`

```
while (xmdm_checkline(mdmHdl) != SUCCESS)
{
    if (act_kbd_pending_test(KEY_CANCEL))
        return (BRANCH_EXIT);
    display ("WAITING FOR LINE");
}
```

Modem Engine API



§ Dial with `xmdm_get_line_dial()`

```
status = xmdm_get_line_dial(mdmHdl,  
    szPhoneNum, &iWriteRetVal, hClock,  
    max_wait);
```

Modem Engine API



§ Send Data

```
status = xmdm_send_data (mdmHdl, packet,  
    strlen(packet), max_xmit_time);
```

§ Receive Data

```
status = xmdm_receive_data(mdmHdl, buffer,  
    min_len, max_len, timeout);
```

How to switch to SDLC



§ Example:

```
struct Opn_Blkc ob;  
do {  
    dtr_type[0] = DTR_RTS_ON;  
    bytes = set_serial_lines(modem_h, dtr_type);  
    SVC_WAIT(50);  
} while (bytes != 0);  
  
ob.rate = Rt_115200;  
ob.format = Fmt_SDLC | Fmt_DTR | Fmt_RTS;  
ob.protocol = P_sdmc_mode;  
ob.trailer.sdmc_parms.address = 0x30;  
ob.trailer.sdmc_parms.option = P_sdmc_sec;  
  
SetModemParameters(modem_h, ob);
```

LAB Exercise



LAB10: modem communication

Refer to sample application

`c:\verixvaps\act2000\samples\Xmodem`