YAT :: Design :: Send Extended by Same applies to all other I/O providers MKY.IO.Ports.SerialPort YAT.Gui.Forms. YAT.Model. YAT.Settings. YAT.Domain. YAT.Domain. MKY.IO.Serial. System.IO.Ports. YAT.Domain. Win32 UART Device Terminal Terminal Parser RawTerminal SerialPort SerialPort Validate the command Enter a command Parse and thus validate the command "ABC" text : string Set command The UI Thread is a singleton, thus, synchronization right "ABC" here will ensure a proper Send text: string sequence of the commands Send command Disadvantage: Get command Asychronicity has to be Implemented for each I/O provider Enqueue Send text Asynch Advantage: Only text terminals User of I/O provider doesn't have to will add an EOL care about asynchronicity **UI/Main** "ABC<CR><LF>" **Thread** Add EOL text : string \h(41 42 43 13 10) Asych to allow handling Parse and convert of manual flow control data : byte[] Send into byte array and break conditions **Thread** Send byte array Enqueue / Asynch ' Send DataSent event RawData\$ent event RawData\$ent event RawDataSend event 1/0 **Thread** "ABC" "ABC<CR><LF>' \h(41 42 43 13 10) Write User Parser Send Terminal data : byte[] text: string text : string Tx RiDir Design criteria Rx Prio 1: Provide functionality as required by YAT Prio 1: Ensure that there ar neither dead-locks nor race-conditions Prio 1: Ensure performance > No loss of data > Respnsivness of the user interface Prio 2: Use of data-full events > Easier to use > Ensures that there can be multiple recipients per event Prio 3: Ensure highest performance possible > Use a separate threads can improve performance on multi-core systems