CLASS: MACRO

DESCRIPTION:

The `Macro` class is designed to communicate with a device using AT commands. It encapsulates the logic for sending commands and processing the responses.

CONSTRUCTOR:

- `public Macro(AT at)` : Initializes a new instance of the `Macro` class with a reference to an `AT` object that handles the actual sending of commands.

METHODS:

- `public static void PerformSelfTest(AT.Macro m)` : Executes self-tests on the methods marked with the `AT.SelfTestAttribute` to ensure they are functioning correctly.
- `public void EnterObex()` : Sends `AT^SQWE=3` to enter the OBEX (Object Exchange) protocol mode for binary file transfers.
- `public void ExitObex()` : Sends the escape sequence "+++" and `ATZ` to exit the OBEX mode and reset the device.
- `public string GetConnectionHardwareInterface()` : Sends `AT^SGST` to retrieve the hardware interface details of the connection.
- `public string GetFirmwareUrl()` : Sends `AT^SURL` to fetch the URL for the firmware update.
- `public string GetAreaCodes()` : Sends `AT^SACO?` to obtain the area codes that the device is configured to operate in.
- `public void SwitchHandsFree()` : Sends `ATC` to toggle the hands-free mode of the device.
- `public void Dial(string number)` : Sends `ATD` followed by the phone number to dial the specified phone number.

- `public void DialInternal(string number)`: Sends `ATDI` followed by the number to dial an internal number.
- `public void Answer()`: Sends `ATA` to answer an incoming call.
- `public void HangUp()`: Sends `ATH` to hang up an ongoing call or reject an incoming call.
- `public void Ping()`: Sends `AT` to check if the device is responsive.
- `public void Reset()`: Sends `ATZ` to reset the device.
- `public string GetDeviceType()`: Sends `AT+CGMM` to retrieve the device type identifier.
- `public string GetManufacturer()`: Sends `AT+CGMI` to get the manufacturer's name of the device.
- `public string GetSerialNumber()`: Sends `AT+CGSN` to fetch the serial number of the device.
- `public string GetFirmwareVersion()`: Sends `AT+CGMR` to obtain the firmware version of the device.
- `public string GetDeviceModel()`: Sends `AT^WPPN` to retrieve the model of the device.
- `public string GetCharset()`: Sends `AT^WPCS` or `AT^WPCS?` to get the character set used by the device.
- `public string GetMWI()`: Sends `AT^HMWI?` to fetch the Message Waiting Indicator status.
- `public string GetSupportedMultimedia()`: Sends `AT^HSMM?` to retrieve information about the multimedia capabilities supported by the device.
- `public string GetScreenSizeClip()`: Sends `AT^WPPS CLIP` to get the screen size for the CLIP.
- `public string GetScreenSizeFull()`: Sends `AT^WPPS SCR` to obtain the full screen size of the device.
- `public string GetBatteryState()`: Sends `AT+CBC` to retrieve the current battery state.

- `public string GetSignalState()`: Sends `AT+CSQ` to obtain the signal strength and quality.
- `public string GetInternalName()`: Sends `AT^SHSN?` to fetch the internal name of the device.

NOTES:

- The `AT` type and `AT.Macro` type are not defined within the provided code snippet, so it's assumed they are part of an external library or previously defined in the codebase.
- The `AT.SelfTestAttribute` is likely a custom attribute used to mark methods for self-testing.
- The actual implementation of the `AT` class and how it sends commands to the device is not provided.
- Exception handling is implemented in some methods, indicating that errors are expected and should be managed.
- The `InsideObex` property is toggled in the `EnterObex` and `ExitObex` methods, indicating a state within the class that tracks whether the device is in OBEX mode.

This documentation provides an overview of the `Macro` class's capabilities and the AT commands it uses. For a complete understanding, the actual implementation of the `AT` class and the device's AT command specification would be needed.