Class Diagram for Barcode

<<interface>>
BarcodeIO

+scan(BarcodeImage barcodeImage): boolean
+readText(String text): boolean
+generateImageFromText( ): boolean
+translateImageToText( ): boolean
+displayTextToConsole( ): void
+displayImageToConsole( ): void

BarcodeImage extends Clonable

+MAX_HEIGHT: int
+MAX_WIDTH: int
-imageData: boolean[ ] [ ]

+BarcodeImage()
+BarcodeImage(String[ ] strData)
+getPixel(int row, int column): boolean
+setPixel(int row, int column, boolean value): boolean
-checkSize(String[ ] data): boolean
~-isValidCoordinate(int row, int column): boolean
+clone(): BarcodeImage
+displayToConsole(): void

DataMatrix

+BLACK_CHAR: char
+WHITE_CHAR: char
-image: BarcodeImage
-text: String
-actualWidth: int
-actualHeight: int

+DataMatrix()
+DataMatrix(BarcodeImage image)
+DataMatrix(String text)
+scan(BarcodeImage barcodeImage): boolean
+readText(String text): boolean
+getActualWidth(): int
+getActualHeight(): int
-computeSignalWidth(): int
-computeSignalHeight(): int
+generateImageFromText(): boolean
+translateImageToText(): boolean
+displayTextToConsole(): void
+displayImageToConsole(): void
-cleanImage(): void
+displayRawImage(): void
+clearImage(): void
-readCharfromCol(int column): char
-writeCharToCol(int column, int ascii): boolean