



# **MST Raster SDK**

A MS Technology Product



**Digital Imaging and Document Management Solutions**

## **Developer Guide**

Version 1.54.00

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# Packages and their Classes

## 1. MST.Annotations

### 1.1 Class MST Annotation

#### 1.1.1. All Implemented Interfaces

- java.awt.image.ImageObserver
- java.awt.MenuContainer
- java.io.Serializable
- javax.accessibility.Accessible

#### 1.1.2. Field Summary

Modifier and Type	Field
static java.lang.Object	annBoundary
java.lang.String	annUserName
MST.Annotations.ANTAnnotation	antAnnotation
boolean	bHorizontal
boolean	bInvertHorizontal
boolean	bInvertVertical
boolean	bOHorizontal
boolean	bOVertical
boolean	bVertical
boolean	checkdecoding
static java.awt.Point	collinearPoint1
static java.awt.Point	collinearPoint2
java.awt.Point	endPoint
int	endX
int	endY
int	height
boolean	ISANNSELECTED
boolean	isFilenetAnnotation
boolean	m_bNOFill
boolean	m_bRotateWithImg
boolean	m_bTransparent
int	m_nAngle
int	m_nBorderTolerance
int	m_nBorderWidth
int	m_nColor
int	m_nCurAnnNum
int	m_nEndOX

int	m_nEndOY
int	m_nFillColor
int	m_nHeight
int	m_nOBorderTolerance
int	m_nOBorderWidth
int	m_nOHeight
static MST.Annotations.MSNoteDialog	m_NoteDialog
int	m_nOWidth
int	m_nOXEnd
int	m_nOXStart
int	m_nOYEnd
int	m_nOYStart
int	m_nPageNo
int	m_nPenColor
int	m_nPenWidth
int	m_nPrevColor
int	m_nPrevWidth
int	m_nRotation
int	m_nStartOX
int	m_nStartOY
int	m_nTotAnnotations
int	m_nWidth
int	m_nXEnd
int	m_nXStart
int	m_nXtempend1
int	m_nXtempstart1
int	m_nXXStart
int	m_nYEnd
int	m_nYStart
int	m_nYtempend1
int	m_nYtempstart1
int	m_nYYStart
char[]	m_pchObjectName
MSTAnnotation	m_pNext
MSTAnnotation	m_pNextPage
MSTAnnotation	m_pPrevious
static MST.Annotations.MSAnnotationTextField	m_TextField
java.lang.Object	multiPointAnnBoundary
double	mZoomFactor
int	nAnnIndex
static MST.Annotations.MSTPenStroke	objStroke
boolean	oldbHorizontal
boolean	oldbVertical
java.awt.Rectangle	oldRect

java.awt.Rectangle	ORect
int	polym_nWidth
java.awt.Rectangle	rect
int	SELECTEDINDEX
java.awt.Shape	shape
static java.util.Vector	stampImageIndex
java.awt.Point	startPoint
int	startX
int	startY
java.awt.Rectangle	tempORect
java.lang.String	textLine
java.lang.String	timeStamp
int	totalNoOfPoints
java.lang.String	userID
static java.util.Vector	vctrStroke
java.util.Vector	vOPenSegments
int	width
java.util.ArrayList	xPolyCordsList
java.util.ArrayList	yPolyCordsList

### 1.1.3. Constructor Summary

- MSTAnnotation()

### 1.1.4. Method Summary

Modifier and Type	Method and Description
void	addTextArea() This method add TextArea Component for editing text Annotation
void	CalculateWingPoints() calculate arrow wing points co-ordinates w.r.t.
void	CreatePenPoints()
void	drawAngleAnnotationOnImagePanel(java.awt.Graphics g) This method draw angle annotation.
void	drawPenOnImagePanel(java.awt.Graphics g) This method draw pen annotation.
void	drawPolygonOnImagePanel(java.awt.Graphics g) This method will draw polygon annotation.
void	drawPolyLineOnImagePanel(java.awt.Graphics g) This method draw polyLine annotation.
MSTAnnotation	finalizeAngleAnnotation() This method finalize angle annotation

MSTAnnotation	finalizePen() This method finalize pen annotation
MSTAnnotation	finalizePolygon() This method finalize polygon annotation
MSTAnnotation	finalizePolyLine() This method finalize polyLine annotation
int	getAngle() get current roation value of annotation
int	getBorderColor() Get border color value of Annotation
int	getBounderyBorderWidth() Get annotation border width
static MST.Annotations. MSNoteDialog	getDefaultNoteDialog() This method display Note dialog drawing component
java.awt.Rectangle	getDrawRect()
java.awt.Point	getEndPoint() Get annotation End point
int	getFillColor() Get fill color value of Annotation
int	getPageNumber() Get Page number on which annotation exist
java.util.Vector	getPenPoints() This method get pen annotation drawing points
java.awt.Rectangle	getRectangle() Get Annotation containing Rectangle
java.awt.Point	getStartPoint() Get annotation starting point
boolean	getStrikeout() Get strikeOut property for annotation
java.awt.Rectangle	getTempRect() Get annotation containing Rectangle
java.lang.String	getText() get Text of the annotation
int	getType() Get Annotation type
boolean	getUnderline() Get underline property for annotation
int	getWingAngle() Get arrow wing ratio
float	getWingRatio() Get arrow wing ratio
boolean	isInvertHorizontal()
boolean	isInvertVertical()
boolean	isNoFill() This method keeps information of background color

	of Text Annotation
boolean	isTransparent() This method keeps information of transparency of annotation
void	RotateAnnotation(int nRotation, int nWidth, int nHeight) This method rotates annotation
long	SetAll(MST.Annotations.ANNOTATIONVALUES st AnnValues)
void	setBorderColor(java.awt.Color borderColor) Set border color of Annotation
void	setBorderWidth(int nBorderWidth) Set annotation border width
void	setDraggedPoints(int nXDiff, int nYDiff, int nBoundaryType) Set points of Annotation while resizing annotation
void	setEndPoint(java.awt.Point p) Set annotation end point
void	setFillColor(java.awt.Color fillColor) Set Fill color of Annotation
void	setFont(java.lang.String font) set Font of Annotation Drawing (Text,Stamp,Note Annotation)
void	setHorizontal(boolean flag) Set horizontal
void	setMovedRect() This method will set annotation panel while moving annotation
void	setPageNumber(int pageNumber) set Page Number w.r.t.
void	setPoints_Arrow(int nXStart, int nYStart, int nXEnd, int nYEnd) set Arrow annotation points
void	setPoints(int nXStart, int nYStart, int nXEnd, int nYEnd) set Annotation start and end point for panel
void	setPresentValues() store annotation co-ordinates after releasing annotation while resizing the annotation
void	setStartPoint(java.awt.Point p) Set annotation starting point
void	setStrikeout(boolean isStrikeout) Set strikeOut property for annotation
void	setText(java.lang.String txt) Set text of annotations(e.g.
void	setType(int type)



	Set annotation type
void	setUnderline(boolean isUnderline) Set underline property for annotation
void	setVertical(boolean flag) Set vertical
void	setWingAngle(int nAngle) Set arrow wing angle
void	setWingRatio(int nRatio) Set arrow wing ratio
void	ZoomAnnotation(double scale) This method will zoom annotations

## 1.2 Class MST Annotation Document

### 1.2.1. Field Summary

Modifier and Type	Field
static java.util.Vector	annotation
MSTAnnotationPage[]	m_AnnPages

### 1.2.2. Constructor Summary

- MSTAnnotationDocument(int pages)  
Description: creates an object of MSTAnnotationDocument.

### 1.2.3. Method Summary

Modifier and Type	Method and Description
boolean	CheckValidModca(java.io.InputStream annotationStream, byte[] data)
java.util.Vector	getFilenetAnnotation(java.io.InputStream annStreamFilenetNet)
MSTAnnotation[]	getFilenetAnnotations(java.io.InputStream annStream, java.lang.String string)
void	GetRevByte(byte[] pu8IntRev, int nNum)
void	GetRevInt(byte[] pu8IntRev, int nNum)
void	GetRevInt(byte[] pu8IntRev, int nNum, boolean abcd)
void	GetRevInt(byte[] pu8IntRev, long nNum)
int	getWingRatio(MST.Annotations.MSTArrowProperty arrowAnnotation)
MSTAnnotationDocument	loadAnnotation(java.lang.String filePath) Load annotation data from XML (i.e.
MSTAnnotationDocument	loadAnnotation(java.lang.String filePath, float nXResolution, float nYResolution)
void	loadAnnotationsset(java.io.InputStream annotationStream, java.lang.String format, int xRes, int yRes)
void	loadFilenetAnnotation(java.io.InputStream annStream, float nXResolution, float nYResolution, java.lang.String repo)
static java.lang.String	printBytes(byte[] array, java.lang.String name)
boolean	saveAnnotationCM8(java.lang.String filePath, MSTAnnotationDocument msAnnDoc, float nXResolution, float nYResolution)
boolean	saveFilenetAnnotation(java.lang.String filePath, MSTAnnotationDocument msAnnDoc, float nXResolution, float nYResolution)

boolean	saveXMLAnnotation(java.lang.String filePath, MSTAnnotationDocument msAnnDoc) Save annotation data into XML (i.e.
void	writeArrow(MST.Annotations.MSTArrowProperty arrowAnnotation)
void	writeCircleBox(MSTAnnotation pageAnnotation)
void	writeFilenetArrow(MST.Annotations.MSTArrowProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetCircle(MST.Annotations.MSTRectangleProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetHighlight(MST.Annotations.MSTRectangleProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetLine(MST.Annotations.MSTLineProperty lineAnnotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetNote(MST.Annotations.MSTNoteProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetPen(MST.Annotations.MSTPenProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetPolygon(MST.Annotations.MSTPolygonProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetPolyline(MST.Annotations.MSTPolylineProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetRectangle(MST.Annotations.MSTRectangleProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetStamp(MST.Annotations.MSTStampProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
void	writeFilenetText(MST.Annotations.MSTTextProperty Annotation, java.lang.String filePath, java.io.OutputStream outputStream)
int	writeFont(java.awt.Font f, int type)
void	writeLine(MST.Annotations.MSTLineProperty lineAnnotation)
void	writeNOP(java.awt.Rectangle rect, int pagenumber)
void	writeNote(MST.Annotations.MSTNoteProperty noteAnnotation)
void	writePage_AnnotationNumber(int nPageNumber, int

	nAnnNumber)
void	writePen(MST.Annotations.MSTPenProperty penAnnotation)
void	writeStamp(MST.Annotations.MSTStampProperty stampAnnotation)
void	writeText(MST.Annotations.MSTTextProperty textAnnotation)

## 1.3 Class MST Annotation Page

### 1.3.1. Field Summary

Modifier and Type	Field
java.util.Vector<MSTAnnotation>	annotationCollection

### 1.3.2. Constructor Summary

- MSTAnnotationPage()

### 1.3.3. Method Summary

Modifier and Type	Method and Description
MSTAnnotation	createAnnotation(int type) initialize MSTAnnotation object w.r.t.

## 2. MST.Imaging.Convert

### 2.1 Class MSTConvert

#### 2.1.1. All Implemented Interfaces

- MST.Imaging.Convert.MSTConvert

#### 2.1.2. Field Summary

Modifier and Type	Field
static MST.Imaging.Convert.MSTech.DocumentServiceProvider	DocEngine

#### 2.1.3. Constructor Summary

- MSTConvert()

#### 2.1.4. Method Summary

Modifier and Type	Method and Description
java.lang.Boolean	Convert(java.lang.String SrcFileName, java.lang.String DestFileName, MST.Imaging.Convert.OutputType outputtype) Exports the file in specified output type.
boolean	Convert(java.lang.String srcFileName, java.lang.String DestFileName, MST.Imaging.Convert.OutputType outputtype, java.lang.String Annotations, MST.Imaging.Convert.SaveOptions options) Exports the file in specified output type.
java.lang.Boolean	Convert(java.net.URL SrcUrl, java.lang.String DestFileName, MST.Imaging.Convert.OutputType outputtype) Exports the file in specified output type.
java.lang.Boolean	Convert(java.net.URL Url, java.lang.String DestFileName, MST.Imaging.Convert.OutputType outputtype, java.lang.String Annotations, MST.Imaging.Convert.SaveOptions options)
java.lang.Boolean	IsCompressionSupported(MST.Imaging.Convert.OutputType oType, MST.Imaging.Convert.Compression oCompression, int bitDepth) Checks weather the compression supported for particular file format or not.

java.lang.Boolean	Merge(java.lang.String[] SrcFileName, java.lang.String DestFileName, MST.Imaging.Convert.OutputType outputtype) Merges the files in specified output type.
java.lang.Boolean	Merge(java.lang.String[] SrcFileName, java.lang.String DestFileName, MST.Imaging.Convert.OutputType outputtype, java.lang.String[] Annotations, MST.Imaging.Convert.SaveOptions options) Merges the files in specified output type.

## 3. MST.Imaging.Document

### 3.1 Class MSTDocument

#### 3.1.1. All Implemented Interfaces

- IMSTFileFormat

#### 3.1.2. Field Summary

Modifier and Type	Field
java.io.ByteArrayInputStream	bin
static MST.Imaging.Document.MSTech.DocumentServiceProvider	DocEngine
java.awt.Image[]	imageArray

#### 3.1.3. Constructor Summary

- MSTDocument() (default constructor It initializes the MSTImage object and initialize the engine object).

#### 3.1.4. Method Summary

Modifier and Type	Method and Description
FileFormat	Detect() Gives the file format for the corresponding IMSTFileFormat object.
boolean	DropDocument() All the reference of the corresponding document are made null.
boolean	Export(java.io.FileOutputStream fos, OutputType outputtype) Exports the file in specified output type.
boolean	Export(java.io.FileOutputStream fos, OutputType outputtype, java.lang.String Annotations, SAVEOPTION options) Exports the file in specified output type.
boolean	Export(java.lang.String DestFileName, OutputType outputtype) Exports the file in specified output type .
boolean	Export(java.lang.String DestFileName, OutputType outputtype, java.lang.String Annotations, SAVEOPTION options) Exports the file in specified output type.



int	getCompression() Gives the value of compression of loaded image.
java.lang.String	getFileName() Gives the name of the file loaded into the MSTImage object.
java.io.InputStream	getFileStream() Gives the Inputstream of the file.
java.lang.String	getMimeType(int fileType)
IMSTPage	GetPage(int pageNo) This method loads the page data into the IMSTPage object.
IMSTPage	GetPage(int pageNo, PageInfo pgInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getPageCount() Gives the number of pages in the file.
boolean	GetPageInfo(int[] pageNo, PageInfo[] pageInfo) Gives the information about the given array of pages.
boolean	GetPageInfo(int pageNo, PageInfo pageInfo) Gives the information about a specific page.
IMSTPage[]	GetPages(int fromPage, int toPage, java.util.List<PageInfo> listPageInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getSize() Gives the size of byte array of the loaded file.
boolean	Load(java.io.InputStream stream) This method loads the image data into the MSTImage object.
boolean	Load(java.lang.String fileName) This method loads the image data into the MSTImage object.
boolean	Load(java.net.URI uri) This method loads the image data into the MSTImage object.

## 3.2 Class MSTDocumentPage

### 3.2.1. All Implemented Interfaces

- IMSTPage

### 3.2.2. Field Summary

Field
BitCount
Height
QualityFactor
Rotation
Scale
Width
XResolution
YResolution

### 3.2.3. Constructor Summary

- MSTDocumentPage (Rotate rotation, double scale, ResizeQuality qualityFactor, double width, double height, int bitCount, double resolution, double resolution2, java.awt.image.BufferedImage bi, java.io.InputStream inputStream)

### 3.2.4. Method Summary

Modifier and Type	Method and Description
boolean	Draw(java.awt.Graphics g, java.awt.Component a) Draws the image on the given graphics object.
IMSTLetters	ExtractText() Returns the object of class MSTLetter for searching the string .
java.awt.Rectangle[]	Find(java.lang.String Text, boolean MatchCase) Returns the array of the rectangles for the given text that is to be searched.
int	get_BitCount() Returns the bit depth of the image.
float	get_Height() Retuens the height of the image.
int	get_pageNo() Return the page no.
ResizeQuality	get_QualityFactor()
Rotate	get_Rotation()

	Returns the rotation of the image.
double	get_Scale() return the scale of the image.
float	get_Width() Returns the width of the image.
float	get_XResolution() Gets the X-resolution.
float	get_YResolution() Sets the Y-resolution.
java.awt.image.BufferedImage	GetPageImage() Return the bufferedImage of specified page.
java.io.InputStream	GetPageStream() Return the inputstream of specified page.
void	set_BitCount(int bitCount) set the bit depth of the image.
void	set_Height(float height) Sets the height of the image.
void	set_pageNo(int pageNo) Sets the page no.
void	set_QualityFactor(ResizeQuality qualityFactor)
void	set_Rotation(Rotate rotation) Sets the rotation value of the image.
void	set_Scale(double scale) set the scale of image.
void	set_Width(float width) Sets the width of the image.
void	set_XResolution(float resolution) Sets the X-resolution.
void	set_YResolution(float resolution) Sets the Y-resolution.
boolean	SetPageImage(java.awt.image.BufferedImage image) sets the bufferedImage of specified page.
boolean	SetPageStream(java.io.InputStream stream) set the inputstream of specified page.

### 3.3 Class MSTPdf

#### 3.3.1. All Implemented Interfaces

- IMSTFileFormat

#### 3.3.2. Field Summary

Modifier and Type	Field
java.io.ByteArrayInputStream	bin
static MST.Imaging.Document.MSTech.DocumentServiceProvider	DocEngine
MST.Imaging.Document.MSTech.Document	hDocument
java.awt.Image[]	imageArray
static MST.Imaging.Convert.MSTech.DocumentServiceProvider	DocEngine

#### 3.3.3. Constructor Summary

- MSTPdf()

#### 3.3.4. Method Summary

Modifier and Type	Method and Description
FileFormat	Detect() Gives the file format for the corresponding IMSTFileFormat object.
boolean	DropDocument() All the reference of the corresponding document are made null.
boolean	Export(java.io.FileOutputStream fos, OutputType out puttype) Exports the file in specified output type.
boolean	Export(java.lang.String DestFileName, OutputType o utputtype, java.lang.String Annotations, SAVEOPTION options) Exports the file in specified output type.
void	gateWay(java.util.List objList, java.io.OutputStream destFileName, FileFormat fileFormat)
java.lang.String	getFileName() Gives the name of the file loaded into the MSTImage object.
java.io.InputStream	getFileStream() Gives the Inputstream of the file.
java.lang.String	getMimeType(int fileType)

IMSTPage	GetPage(int pageNo) This method loads the page data into the IMSTPage object.
IMSTPage	GetPage(int pageNo, PageInfo pgInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getPageCount() Gives the number of pages in the file.
boolean	GetPageInfo(int[] pageNo, PageInfo[] pageInfo) Gives the information about the given array of pages.
boolean	GetPageInfo(int pageNo, PageInfo pageInfo) Gives the information about a specific page.
IMSTPage[]	GetPages(int fromPage, int toPage, java.util.List<PageInfo> listPageInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
java.lang.String	getPdfAnnotation(java.lang.String n) This is to get the pdf annotation in the form of xml file.
int	getSize() Gives the size of byte array of the loaded file.
boolean	Load(java.io.InputStream stream) This method loads the image data into the MSTImage object.
boolean	Load(java.lang.String fileName) This method loads the image data into the MSTImage object.
boolean	Load(java.net.URI uri) This method loads the image data into the MSTImage object.
boolean	setPdfAnnotation(java.lang.String xmlFilePath) This is to embed the pdf annotation exported from the xml file.

## 3.4 Class MSTPdfPage

### 3.4.1. All Implemented Interfaces

- IMSTPage

### 3.4.2. Field Summary

Field
BitCount
Height
QualityFactor
Rotation
Scale
Width
XResolution
YResolution

### 3.4.3. Constructor Summary

- MSTPdfPage (Rotate rotation, double scale, ResizeQuality qualityFactor, double width, double height, int bitCount, double resolution, double resolution2, java.awt.image.BufferedImage bi, java.io.InputStream inputStream)

### 3.4.4. Method Summary

Modifier and Type	Method and Description
boolean	Draw(java.awt.Graphics g, java.awt.Component a) Draws the image on the given graphics object.
IMSTLetters	ExtractText() Returns the object of class MSTLetter for searching the string.
java.awt.Rectangle[]	Find(java.lang.String Text, boolean MatchCase) Returns the array of the rectangles for the given text that is to be searched.

## 4. MST.Imaging.FileFormats

### 4.1 Interface IMSTFileFormat

#### 4.1.1. All Implemented Interfaces

- MSTDocument
- MSTImage
- MSTPdf

#### 4.1.2. Field Summary

Modifier and Type	Field
static java.lang.String	FileName
static java.io.InputStream	FileStream
static int	PageCount
static int	Size
static java.net.URI	Uri

#### 4.1.3. Method Summary

Modifier and Type	Method and Description
FileFormat	Detect() Gives the file format for the corresponding IMSTFileFormat object.
boolean	DropDocument() All the reference of the corresponding document are made null.
boolean	Export(java.io.FileOutputStream fos, OutputType outputtype) Exports the file in specified output type.
boolean	Export(java.io.FileOutputStream fos, OutputType outputtype, java.lang.String Annotations, SAVEOPTION options) Exports the file in specified output type.
boolean	Export(java.lang.String DestFileName, OutputType outputtype) Exports the file in specified output type.
boolean	Export(java.lang.String DestFileName, OutputType outputtype, java.lang.String Annotations, SAVEOPTION options) Exports the file in specified output type.
int	getCompression() Gives the value of compression of loaded image.

java.lang.String	getFileName() Gives the name of the file loaded into the MSTImage object.
java.io.InputStream	getFileStream() Gives the Inputstream of the file.
IMSTPage	GetPage(int pageNo) This method loads the page data into the IMSTPage object.
IMSTPage	GetPage(int pageNo, PageInfo pgInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getPageCount() Gives the number of pages in the file.
boolean	GetPageInfo(int[] nPageNo, PageInfo[] pageInfo) Gives the information about the given array of pages.
boolean	GetPageInfo(int nPageNo, PageInfo pageInfo) Gives the information about a specific page.
IMSTPage[]	GetPages(int FromPage, int ToPage, java.util.List<PageInfo> lstPageInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getSize() Gives the size of byte array of the loaded file.
boolean	Load(java.io.InputStream stream) This method loads the image data into the MSTImage object.
boolean	Load(java.lang.String FileName) This method loads the image data into the MSTImage object.
boolean	Load(java.net.URI uri) This method loads the image data into the MSTImage object.



## 4.2 Interface IMSTLetters

### 4.2.1. Method Summary

<b>Modifier and Type</b>	<b>Method and Description</b>
java.awt.Rectangle	GetBounds(int Index)
MST.Imaging.Image. MSTLetter[]	GetLetters()
java.lang.String	GetSelectedText(int Dot, int Mark)

## 4.3 Interface IMSTPage

### 4.3.1. All Implemented Interfaces

- MSTDocumentPage
- MSTImagePage
- MSTPdfPage

### 4.3.2. Field Summary

Modifier and Type	Field
static int	BitCount
static float	Height
static int	pageNo
static ResizeQuality	QuailtyFactor
static Rotate	Rotation
static double	Scale
static float	Width
static float	XResolution
static float	YResolution

### 4.3.3. Method Summary

Modifier and Type	Method and Description
boolean	Draw(java.awt.Graphics g, java.awt.Component a) Draws the image on the given graphics object.
IMSTLetters	ExtractText() Returns the object of class MSTLetter for searching the string.
java.awt.Rectangle[]	Find(java.lang.String Text, boolean MatchCase) Returns the array of the rectangles for the given text that is to be searched.
int	get_BitCount() Returns the bit depth of the image.
float	get_Height() Retuens the height of the image.
int	get_pageNo() Return the page no.
ResizeQuality	get_QualityFactor()
Rotate	get_Rotation() Returns the rotation of the image.
double	get_Scale() return the scale of the image.
float	get_Width() Returns the width of the image.

float	get_XResolution() Gets the X-resolution.
float	get_YResolution() Sets the Y-resolution.
java.awt.image.BufferedImage	GetPageImage() Return the bufferedImage of specified page.
java.io.InputStream	GetPageStream() Return the inputstream of specified page.
void	set_BitCount(int bitCount) set the bit depth of the image.
void	set_Height(float height) Sets the height of the image.
void	set_pageNo(int pageNo) Sets the page no.
void	set_QualityFactor(ResizeQuality qualityFactor)
void	set_Rotation(Rotate rotation) Sets the rotation value of the image.
void	set_Scale(double d) set the scale of image.
void	set_Width(float width) Sets the width of the image.
void	set_XResolution(float resolution) Sets the X-resolution.
void	set_YResolution(float resolution) Sets the Y-resolution.
boolean	SetPageImage(java.awt.image.BufferedImage image) sets the bufferedImage of specified page.
boolean	SetPageStream(java.io.InputStream stream) set the inputstream of specified page.

## 4.4 Class MSTFileFormat

### 4.4.1. Constructor Summary

- MSTFileFormat()

### 4.4.2. Method Summary

Modifier and Type	Method and Description
IMSTFileFormat	LoadFile(java.io.InputStream stream, IMSTFileFormat oDocument) Loads the file and return the corresponding IMSTFileFormat object.
IMSTFileFormat	LoadFile(java.lang.String FileName, IMSTFileFormat oDocument) Loads the file and return the corresponding IMSTFileFormat object.
IMSTFileFormat	LoadFile(java.net.URI uri, IMSTFileFormat oDocument) Loads the file and return the corresponding IMSTFileFormat object.
boolean	Merge(java.util.HashMap<java.lang.Integer,IMSTFileFormat> objImage, java.lang.String DestFileName, FileFormat fileFormat) Merge MSTDocument/MSTImage/MSTPdf Object in the List to the specified Image File Format
boolean	Merge(java.util.List<IMSTFileFormat> objectFiles, java.io.OutputStream oStream, FileFormat fileFormat) Merge MSTDocument/MSTImage Object in the List to the specified Image File Format
boolean	Merge(java.util.List<IMSTFileFormat> objectFiles, java.lang.String DestFileName, FileFormat fileFormat) Merge MSTDocument/MSTImage Object in the List to the specified Image File Format
boolean	Merge(java.util.Map<java.lang.Integer,IMSTFileFormat> objImage, java.io.OutputStream oStream, FileFormat fileFormat) Merge MSTDocument/MSTImage/MSTPdf Object in the List to the specified Image File Format

## 4.5 Class PageInfo

### 4.5.1. Field Summary

Modifier and Type	Field
int	Height
ResizeQuality	QuailtyFactor
Rotate	Rotation
double	Scale
int	Width

### 4.5.2. Constructor Summary

- PageInfo (int height, int width, double scale, Rotate rotation, ResizeQuality quailtyFactor)

### 4.5.3. Method Summary

Method
equals
getClass
hashCode
notify
notifyAll
toString
wait, wait, wait

## 4.6 Class SAVEOPTION

### 4.6.1. Field Summary

Modifier and Type	Field
int	FromPage
boolean	IncludeAnnotations
boolean	nAllPages
int	nBitdepth
int	nCompression
double	nZoomfactor
int	rotate
int	ToPage

### 4.6.2. Constructor Summary

- SAVEOPTION()

### 4.6.3. Method Summary

Modifier and Type	Method and Description
int	getRotation()
void	setRotation(int rot)

## 4.7 Enum FileFormat

### 4.7.1. All Implemented Interfaces

- java.io.Serializable
- java.lang.Comparable<FileFormat>

### 4.7.2. Field Summary

Modifier and Type	Field
java.lang.String	value

### 4.7.3. Method Summary

Modifier and Type	Method and Description
static FileFormat	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static FileFormat[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

## 4.8 Enum OutputType

### 4.8.1. All Implemented Interfaces

- java.io.Serializable
- java.lang.Comparable<OutputType>

### 4.8.2. Field Summary

Modifier and Type	Field
int	value

### 4.8.3. Method Summary

Modifier and Type	Method and Description
static OutputType	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static OutputType[]	values() Returns an array containing the constants of this enum type, in the order they are declared.



## 4.9 Enum ResizeQuality

### 4.9.1. All Implemented Interfaces

- java.io.Serializable
- java.lang.Comparable<ResizeQuality>

### 4.9.2. Field Summary

Modifier and Type	Field
int	value

### 4.9.3. Method Summary

Modifier and Type	Method and Description
static ResizeQuality	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static ResizeQuality[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

## 4.10 Enum Rotate

### 4.10.1. All Implemented Interfaces

- java.io.Serializable
- java.lang.Comparable<Rotate>

### 4.10.2. Field Summary

Modifier and Type	Field
int	value

### 4.10.3. Method Summary

Modifier and Type	Method and Description
static Rotate	valueOf(java.lang.String name) Returns the enum constant of this type with the specified name.
static Rotate[]	values() Returns an array containing the constants of this enum type, in the order they are declared.

## 4.11 Class MSTException

### 4.11.1. All Implemented Interfaces

- java.io.Serializable

### 4.11.2. Constructor Summary

- MSTException()
- MSTException(java.lang.String message)
- MSTException(java.lang.String message, java.lang.Exception errorData)
- MSTException(java.lang.String message, java.lang.Throwable errorData)

### 4.11.3. Method Summary

Modifier and Type	Method and Description
java.lang.String	name()

## 5. MST.Imaging.Image

### 5.1 Class MSTImage

#### 5.1.1. All Implemented Interfaces

- IMSTFileFormat

#### 5.1.2. Field Summary

Modifier and Type	Field
java.io.ByteArrayInputStream	bin
MST.Imaging.Image.Document	hDocument
MST.Imaging.Image.Page	hPage
java.awt.Image[]	imageArray

#### 5.1.3. Constructor Summary

- MSTImage() (default constructor It initializes the MSTImage object and initialize the engine object).

#### 5.1.4. Method Summary

Modifier and Type	Method and Description
FileFormat	Detect() Gives the file format for the corresponding IMSTFileFormat object.
boolean	DropDocument() All the reference of the corresponding document are made null.
boolean	Export(java.io.FileOutputStream fos, OutputType outputtype) Exports the file in specified output type.
boolean	Export(java.io.FileOutputStream fos, OutputType outputtype, java.lang.String annotations, SAVEOPTION options) Exports the file in specified output type.
boolean	Export(java.lang.String DestFileName, OutputType outputtype) Exports the file in specified output type.
boolean	Export(java.lang.String DestFileName, OutputType outputtype, java.lang.String Annotations, SAVEOPTION options)

	Exports the file in specified output type.
void	gateWay(java.util.List objList, java.io.OutputStream destFileName, FileFormat fileFormat)
int	getCompression() Gives the value of compression of loaded image.
java.lang.String	getFileName() Gives the name of the file loaded into the MSTImage object.
java.io.InputStream	getFileStream() Gives the Inputstream of the file.
IMSTPage	GetPage(int pageNo) This method loads the page data into the IMSTPage object.
IMSTPage	GetPage(int pageNo, PageInfo pgInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getPageCount() Gives the number of pages in the file.
boolean	GetPageInfo(int[] pageNo, PageInfo[] pageInfo) Gives the information about the given array of pages.
boolean	GetPageInfo(int pageNo, PageInfo pageInfo) Gives the information about a specific page.
IMSTPage[]	GetPages(int fromPage, int toPage, java.util.List<PageInfo> listPageInfo) This method loads the page data into the IMSTPage object with the given parameters in PageInfo.
int	getSize() Gives the size of byte array of the loaded file.
boolean	Load(java.io.InputStream stream) This method loads the image data into the MSTImage object.
boolean	Load(java.lang.String fileName) This method loads the image data into the MSTImage object.
boolean	Load(java.net.URI uri) This method loads the image data into the MSTImage object.

## 5.2 Class MSTImagePage

### 5.2.1. All Implemented Interfaces

- IMSTPage

### 5.2.2. Field Summary

Field
BitCount
Height
QualityFactor
Rotation, Scale
Width
XResolution
YResolution

### 5.2.3. Constructor Summary

- MSTImagePage (Rotate rotation, double scale, ResizeQuality qualityFactor, double width, double height, int bitCount, double resolution, double resolution2, java.awt.image.BufferedImage bi, java.io.InputStream iStream)

### 5.2.4. Method Summary

Modifier and Type	Method and Description
boolean	Draw(java.awt.Graphics g, java.awt.Component a) Draws the image on the given graphics object.
IMSTLetters	ExtractText() Returns the object of class MSTLetter for searching the string.
java.awt.Rectangle[]	Find(java.lang.String Text, boolean MatchCase) Returns the array of the rectangles for the given text that is to be searched.
int	get_BitCount() Returns the bit depth of the image.
float	get_Height() Returns the height of the image.
int	get_pageNo() Return the page no.
ResizeQuality	get_QualityFactor()
Rotate	get_Rotation() Returns the rotation of the image.

double	get_Scale() return the scale of the image.
float	get_Width() Returns the width of the image.
float	get_XResolution() Gets the X-resolution.
float	get_YResolution() Sets the Y-resolution.
java.awt.image.BufferedImage	GetPageImage() Return the bufferedImage of specified page.
java.io.InputStream	GetPageStream() Return the inputstream of specified page.
void	set_BitCount(int bitCount) set the bit depth of the image.
void	set_Height(float height) Sets the height of the image.
void	set_pageNo(int pageNo) Sets the page no.
void	set_QualityFactor(ResizeQuality qualityFactor)
void	set_Rotation(Rotate rotation) Sets the rotation value of the image.
void	set_Scale(double scale) set the scale of image.
void	set_Width(float width) Sets the width of the image.
void	set_XResolution(float resolution) Sets the X-resolution.
void	set_YResolution(float resolution) Sets the Y-resolution.
boolean	SetPageImage(java.awt.image.BufferedImage image) sets the bufferedImage of specified page.
boolean	SetPageStream(java.io.InputStream stream) set the inputstream of specified page.

## 6. MST.Imaging.ImageProcessing

### 6.1 Class MSTImageProcess

#### 6.1.1. Field Summary

Modifier and Type	Field
java.awt.image.BufferedImage[]	buff

#### 6.1.2. Constructor Summary

- MSTImageProcess()

#### 6.1.3. Method Summary

Modifier and Type	Method and Description
java.awt.image.BufferedImage	autoCropImage(java.awt.image.BufferedImage obj) Gives the minimum image area and crops the rest.
java.awt.image.BufferedImage	brightContrastIntense(java.awt.image.BufferedImage obj, float brightness, float contrast, boolean intensity) Apply Brightness, Contrast and Intensity of an image simultaneously.
java.awt.image.BufferedImage	cropImage(java.awt.image.BufferedImage img, java.awt.Rectangle rec) Crops the area of given height and width from the image.
java.awt.image.BufferedImage	deskewImage(java.awt.image.BufferedImage obj) Performs DESKEW operation on the given BufferedImage object.
java.awt.image.BufferedImage	edgeDetection(java.awt.image.BufferedImage obj, int value) Performs the edge detection on the image.
java.awt.image.BufferedImage	flipImageHorizontal(java.awt.image.BufferedImage obj) Flips the given BufferedImage horizontally.
java.awt.image.BufferedImage	flipImageVertical(java.awt.image.BufferedImage obj) Flips the given BufferedImage vertically.
java.awt.image.BufferedImage	gaussianFilter(java.awt.image.BufferedImage obj) Apply Gaussian Filter on the image.
java.awt.image.BufferedImage	grayScalefilterImage(java.awt.image.BufferedImage obj) Performs GrayScale-filter operation on the given BufferedImage object.
java.awt.image.Buffer	imageBrightness(java.awt.image.BufferedImage obj,



edImage	float value) Adjusts the Brightness of the image.
java.util.ArrayList	imageCompare(java.awt.image.BufferedImage obj, java.awt.image.BufferedImage obj1) Gives the minimum image area and crops the rest.
java.awt.image.Buffer edImage	imageContrast(java.awt.image.BufferedImage obj, float value) Adjusts the Contrast of the image.
java.awt.image.Buffer edImage	imageIntensity(java.awt.image.BufferedImage obj) Adjusts the intensity of the image.
java.awt.image.Buffer edImage	imageSharpness(java.awt.image.BufferedImage obj, int value) Adjusts the sharpness of the image.
java.awt.image.Buffer edImage	imageSmoothness(java.awt.image.BufferedImage obj, int value) Adjusts the smoothness of the image.
java.awt.image.Buffer edImage	invertImage(java.awt.image.BufferedImage obj) Performs INVERT operation on the given BufferedImage object.
java.awt.image.Buffer edImage	noiceReductionfilterImage(java.awt.image.Bufferedi mage obj) Performs noice-reduction operation on the given BufferedImage object.
java.awt.image.Buffer edImage	processImage(java.awt.image.BufferedImage image, MST.Imaging.ImageProcessing.PageInfo pageInfo) Process the image with the specified image operations in the PageInfo object.
java.awt.image.Buffer edImage	resizeImage(java.awt.image.BufferedImage obj, java.lang.Double scale) Resize the image on the given scale.
java.awt.image.Buffer edImage	rotateImage(java.awt.image.BufferedImage obj, Rotate rotationValue) Rotates the given BufferedImage by the specified angle as 90, 180,-90 degree.
java.awt.image.Buffer edImage	WatermarkImage(java.awt.image.BufferedImage SrcImage, java.lang.String WatermarkText, java.awt.Font font, int RotationAngle, float opacity) Apply Watermark on the image.

## 7. MST.Imaging.OCR

### 7.1 Class MSTOCR

#### 7.1.1. Field Summary

Modifier and Type	Field
java.awt.image.BufferedImage[]	buff

#### 7.1.2. Constructor Summary

- MSTOCR()

#### 7.1.3. Method Summary

Modifier and Type	Method and Description
void	<code>copyTextToClipboard(java.awt.image.BufferedImage bufferedImage, java.awt.Rectangle rectangle)</code> This method takes the BufferedImage object and the specified area In the form of rectangle object.then crop the image and extract the text From cropped image and paste that text onto system clipboard.
java.lang.String	<code>extractText(java.awt.image.BufferedImage bufferedImage)</code> this method takes the BufferedImage object.and extract all text from bufferedImage object and return a text of String.
java.lang.String	<code>extractText(java.awt.image.BufferedImage bufferedImage, java.awt.Rectangle rectangle)</code> This method takes the BufferedImage object and the specified area In the form of rectangle object.then crop the image and extract The text From cropped image and return text in form of String object.
java.awt.Rectangle[]	<code>find(java.awt.image.BufferedImage bufferedImage, java.lang.String text)</code> This method takes the BufferedImage object and the Text to be find.