| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/DataBufferFloat.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/image/DataBufferDouble.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/image/DataBufferInt.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/image/DataBufferFloat.html)    [**NO FRAMES**](http://docs.google.com/DataBufferFloat.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#2et92p0) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#2s8eyo1) | [METHOD](#44sinio) |

## **java.awt.image**

Class DataBufferFloat

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.awt.image.DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html)  
 **java.awt.image.DataBufferFloat**

public final class **DataBufferFloat**extends [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html)

This class extends DataBuffer and stores data internally in float form.

**Since:** 1.4 **See Also:**[DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html)

| **Field Summary** | |
| --- | --- |

| **Fields inherited from class java.awt.image.**[**DataBuffer**](http://docs.google.com/java/awt/image/DataBuffer.html) |
| --- |
| [banks](http://docs.google.com/java/awt/image/DataBuffer.html#banks), [dataType](http://docs.google.com/java/awt/image/DataBuffer.html#dataType), [offset](http://docs.google.com/java/awt/image/DataBuffer.html#offset), [offsets](http://docs.google.com/java/awt/image/DataBuffer.html#offsets), [size](http://docs.google.com/java/awt/image/DataBuffer.html#size), [TYPE\_BYTE](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_BYTE), [TYPE\_DOUBLE](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_DOUBLE), [TYPE\_FLOAT](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_FLOAT), [TYPE\_INT](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_INT), [TYPE\_SHORT](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_SHORT), [TYPE\_UNDEFINED](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_UNDEFINED), [TYPE\_USHORT](http://docs.google.com/java/awt/image/DataBuffer.html#TYPE_USHORT) |

| **Constructor Summary** | |
| --- | --- |
| [**DataBufferFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#DataBufferFloat(float%5B%5D%5B%5D,%20int))(float[][] dataArray, int size)            Constructs a float-based DataBuffer with the specified data arrays. |
| [**DataBufferFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#DataBufferFloat(float%5B%5D%5B%5D,%20int,%20int%5B%5D))(float[][] dataArray, int size, int[] offsets)            Constructs a float-based DataBuffer with the specified data arrays, size, and per-bank offsets. |
| [**DataBufferFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#DataBufferFloat(float%5B%5D,%20int))(float[] dataArray, int size)            Constructs a float-based DataBuffer with the specified data array. |
| [**DataBufferFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#DataBufferFloat(float%5B%5D,%20int,%20int))(float[] dataArray, int size, int offset)            Constructs a float-based DataBuffer with the specified data array. |
| [**DataBufferFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#DataBufferFloat(int))(int size)            Constructs a float-based DataBuffer with a specified size. |
| [**DataBufferFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#DataBufferFloat(int,%20int))(int size, int numBanks)            Constructs a float-based DataBuffer with a specified number of banks, all of which are of a specified size. |

| **Method Summary** | |
| --- | --- |
| float[][] | [**getBankData**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getBankData())()            Returns the data array for all banks. |
| float[] | [**getData**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getData())()            Returns the default (first) float data array. |
| float[] | [**getData**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getData(int))(int bank)            Returns the data array for the specified bank. |
| int | [**getElem**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElem(int))(int i)            Returns the requested data array element from the first (default) bank as an int. |
| int | [**getElem**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElem(int,%20int))(int bank, int i)            Returns the requested data array element from the specified bank as an int. |
| double | [**getElemDouble**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemDouble(int))(int i)            Returns the requested data array element from the first (default) bank as a double. |
| double | [**getElemDouble**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemDouble(int,%20int))(int bank, int i)            Returns the requested data array element from the specified bank as a double. |
| float | [**getElemFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemFloat(int))(int i)            Returns the requested data array element from the first (default) bank as a float. |
| float | [**getElemFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemFloat(int,%20int))(int bank, int i)            Returns the requested data array element from the specified bank as a float. |
| void | [**setElem**](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElem(int,%20int))(int i, int val)            Sets the requested data array element in the first (default) bank to the given int. |
| void | [**setElem**](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElem(int,%20int,%20int))(int bank, int i, int val)            Sets the requested data array element in the specified bank to the given int. |
| void | [**setElemDouble**](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemDouble(int,%20double))(int i, double val)            Sets the requested data array element in the first (default) bank to the given double. |
| void | [**setElemDouble**](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemDouble(int,%20int,%20double))(int bank, int i, double val)            Sets the requested data array element in the specified bank to the given double. |
| void | [**setElemFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemFloat(int,%20float))(int i, float val)            Sets the requested data array element in the first (default) bank to the given float. |
| void | [**setElemFloat**](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemFloat(int,%20int,%20float))(int bank, int i, float val)            Sets the requested data array element in the specified bank to the given float. |

| **Methods inherited from class java.awt.image.**[**DataBuffer**](http://docs.google.com/java/awt/image/DataBuffer.html) |
| --- |
| [getDataType](http://docs.google.com/java/awt/image/DataBuffer.html#getDataType()), [getDataTypeSize](http://docs.google.com/java/awt/image/DataBuffer.html#getDataTypeSize(int)), [getNumBanks](http://docs.google.com/java/awt/image/DataBuffer.html#getNumBanks()), [getOffset](http://docs.google.com/java/awt/image/DataBuffer.html#getOffset()), [getOffsets](http://docs.google.com/java/awt/image/DataBuffer.html#getOffsets()), [getSize](http://docs.google.com/java/awt/image/DataBuffer.html#getSize()) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### DataBufferFloat

public **DataBufferFloat**(int size)

Constructs a float-based DataBuffer with a specified size.

**Parameters:**size - The number of elements in the DataBuffer.

### DataBufferFloat

public **DataBufferFloat**(int size,  
 int numBanks)

Constructs a float-based DataBuffer with a specified number of banks, all of which are of a specified size.

**Parameters:**size - The number of elements in each bank of the DataBuffer.numBanks - The number of banks in the DataBuffer.

### DataBufferFloat

public **DataBufferFloat**(float[] dataArray,  
 int size)

Constructs a float-based DataBuffer with the specified data array. Only the first size elements are available for use by this DataBuffer. The array must be large enough to hold size elements.

**Parameters:**dataArray - An array of floats to be used as the first and only bank of this DataBuffer.size - The number of elements of the array to be used.

### DataBufferFloat

public **DataBufferFloat**(float[] dataArray,  
 int size,  
 int offset)

Constructs a float-based DataBuffer with the specified data array. Only the elements between offset and offset + size - 1 are available for use by this DataBuffer. The array must be large enough to hold offset + size elements.

**Parameters:**dataArray - An array of floats to be used as the first and only bank of this DataBuffer.size - The number of elements of the array to be used.offset - The offset of the first element of the array that will be used.

### DataBufferFloat

public **DataBufferFloat**(float[][] dataArray,  
 int size)

Constructs a float-based DataBuffer with the specified data arrays. Only the first size elements of each array are available for use by this DataBuffer. The number of banks will be equal to dataArray.length.

**Parameters:**dataArray - An array of arrays of floats to be used as the banks of this DataBuffer.size - The number of elements of each array to be used.

### DataBufferFloat

public **DataBufferFloat**(float[][] dataArray,  
 int size,  
 int[] offsets)

Constructs a float-based DataBuffer with the specified data arrays, size, and per-bank offsets. The number of banks is equal to dataArray.length. Each array must be at least as large as size plus the corresponding offset. There must be an entry in the offsets array for each data array.

**Parameters:**dataArray - An array of arrays of floats to be used as the banks of this DataBuffer.size - The number of elements of each array to be used.offsets - An array of integer offsets, one for each bank.

| **Method Detail** |
| --- |

### getData

public float[] **getData**()

Returns the default (first) float data array.

**Returns:**the first float data array.

### getData

public float[] **getData**(int bank)

Returns the data array for the specified bank.

**Parameters:**bank - the data array **Returns:**the data array specified by bank.

### getBankData

public float[][] **getBankData**()

Returns the data array for all banks.

**Returns:**all data arrays for this data buffer.

### getElem

public int **getElem**(int i)

Returns the requested data array element from the first (default) bank as an int.

**Overrides:**[getElem](http://docs.google.com/java/awt/image/DataBuffer.html#getElem(int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**i - The desired data array element. **Returns:**The data entry as an int.**See Also:**[setElem(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElem(int,%20int)), [setElem(int, int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElem(int,%20int,%20int))

### getElem

public int **getElem**(int bank,  
 int i)

Returns the requested data array element from the specified bank as an int.

**Specified by:**[getElem](http://docs.google.com/java/awt/image/DataBuffer.html#getElem(int,%20int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**bank - The bank number.i - The desired data array element. **Returns:**The data entry as an int.**See Also:**[setElem(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElem(int,%20int)), [setElem(int, int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElem(int,%20int,%20int))

### setElem

public void **setElem**(int i,  
 int val)

Sets the requested data array element in the first (default) bank to the given int.

**Overrides:**[setElem](http://docs.google.com/java/awt/image/DataBuffer.html#setElem(int,%20int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**i - The desired data array element.val - The value to be set.**See Also:**[getElem(int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElem(int)), [getElem(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElem(int,%20int))

### setElem

public void **setElem**(int bank,  
 int i,  
 int val)

Sets the requested data array element in the specified bank to the given int.

**Specified by:**[setElem](http://docs.google.com/java/awt/image/DataBuffer.html#setElem(int,%20int,%20int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**bank - The bank number.i - The desired data array element.val - The value to be set.**See Also:**[getElem(int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElem(int)), [getElem(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElem(int,%20int))

### getElemFloat

public float **getElemFloat**(int i)

Returns the requested data array element from the first (default) bank as a float.

**Overrides:**[getElemFloat](http://docs.google.com/java/awt/image/DataBuffer.html#getElemFloat(int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**i - The desired data array element. **Returns:**The data entry as a float.**See Also:**[setElemFloat(int, float)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemFloat(int,%20float)), [setElemFloat(int, int, float)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemFloat(int,%20int,%20float))

### getElemFloat

public float **getElemFloat**(int bank,  
 int i)

Returns the requested data array element from the specified bank as a float.

**Overrides:**[getElemFloat](http://docs.google.com/java/awt/image/DataBuffer.html#getElemFloat(int,%20int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**bank - The bank number.i - The desired data array element. **Returns:**The data entry as a float.**See Also:**[setElemFloat(int, float)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemFloat(int,%20float)), [setElemFloat(int, int, float)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemFloat(int,%20int,%20float))

### setElemFloat

public void **setElemFloat**(int i,  
 float val)

Sets the requested data array element in the first (default) bank to the given float.

**Overrides:**[setElemFloat](http://docs.google.com/java/awt/image/DataBuffer.html#setElemFloat(int,%20float)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**i - The desired data array element.val - The value to be set.**See Also:**[getElemFloat(int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemFloat(int)), [getElemFloat(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemFloat(int,%20int))

### setElemFloat

public void **setElemFloat**(int bank,  
 int i,  
 float val)

Sets the requested data array element in the specified bank to the given float.

**Overrides:**[setElemFloat](http://docs.google.com/java/awt/image/DataBuffer.html#setElemFloat(int,%20int,%20float)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**bank - The bank number.i - The desired data array element.val - The value to be set.**See Also:**[getElemFloat(int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemFloat(int)), [getElemFloat(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemFloat(int,%20int))

### getElemDouble

public double **getElemDouble**(int i)

Returns the requested data array element from the first (default) bank as a double.

**Overrides:**[getElemDouble](http://docs.google.com/java/awt/image/DataBuffer.html#getElemDouble(int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**i - The desired data array element. **Returns:**The data entry as a double.**See Also:**[setElemDouble(int, double)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemDouble(int,%20double)), [setElemDouble(int, int, double)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemDouble(int,%20int,%20double))

### getElemDouble

public double **getElemDouble**(int bank,  
 int i)

Returns the requested data array element from the specified bank as a double.

**Overrides:**[getElemDouble](http://docs.google.com/java/awt/image/DataBuffer.html#getElemDouble(int,%20int)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**bank - The bank number.i - The desired data array element. **Returns:**The data entry as a double.**See Also:**[setElemDouble(int, double)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemDouble(int,%20double)), [setElemDouble(int, int, double)](http://docs.google.com/java/awt/image/DataBufferFloat.html#setElemDouble(int,%20int,%20double))

### setElemDouble

public void **setElemDouble**(int i,  
 double val)

Sets the requested data array element in the first (default) bank to the given double.

**Overrides:**[setElemDouble](http://docs.google.com/java/awt/image/DataBuffer.html#setElemDouble(int,%20double)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**i - The desired data array element.val - The value to be set.**See Also:**[getElemDouble(int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemDouble(int)), [getElemDouble(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemDouble(int,%20int))

### setElemDouble

public void **setElemDouble**(int bank,  
 int i,  
 double val)

Sets the requested data array element in the specified bank to the given double.

**Overrides:**[setElemDouble](http://docs.google.com/java/awt/image/DataBuffer.html#setElemDouble(int,%20int,%20double)) in class [DataBuffer](http://docs.google.com/java/awt/image/DataBuffer.html) **Parameters:**bank - The bank number.i - The desired data array element.val - The value to be set.**See Also:**[getElemDouble(int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemDouble(int)), [getElemDouble(int, int)](http://docs.google.com/java/awt/image/DataBufferFloat.html#getElemDouble(int,%20int))

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/DataBufferFloat.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/image/DataBufferDouble.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/image/DataBufferInt.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/image/DataBufferFloat.html)    [**NO FRAMES**](http://docs.google.com/DataBufferFloat.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#2et92p0) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#2s8eyo1) | [METHOD](#44sinio) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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