



WiX managed SDK

WixToolset.Dtf.Compression namespace

CompressionEngine Class

# CompressionEngine Class

Base class for an engine capable of packing and unpacking a particular compressed file format.

## Methods

Method	Description
<code>Dispose()</code>	Disposes of resources allocated by the compression engine.
<code>Dispose(disposing)</code>	Disposes of resources allocated by the compression engine.
<code>Finalize()</code>	Disposes the compression engine.
<code>FindArchiveOffset(stream)</code>	Gets the offset of an archive that is positioned 0 or more bytes from the start of the Stream.
<code>GetFileInfo(stream)</code>	Gets information about all files in an archive stream.
<code>GetFiles(stream)</code>	Gets the list of files in an archive Stream.
<code>IsArchive(stream)</code>	Checks whether a Stream begins with a header that indicates it is a valid archive.

Method	Description
<code>OnProgress(e)</code>	Called by subclasses to distribute a packing or unpacking progress event to listeners.
<code>Unpack(stream, path)</code>	Reads a single file from an archive stream.

## Properties

Property	Description
<code>CompressionLevel</code>	Compression level to use when compressing files.
<code>UseTempFiles</code>	Gets or sets a flag indicating whether temporary files are created and used during compression.

## Events

Event	Description
<code>Progress</code>	Occurs when the compression engine reports progress in packing or unpacking an archive.

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# Dispose() Method

Disposes of resources allocated by the compression engine.

## Declaration

```
public void Dispose()
```

# Dispose(disposing) Method

Disposes of resources allocated by the compression engine.

## Declaration

```
protected void Dispose(  
    bool disposing  
)
```

## Parameters

Parameter	Type	Description
disposing	bool	If true, the method has been called directly or indirectly by a user's code, so managed and unmanaged

Parameter	Type	Description
		resources will be disposed. If false, the method has been called by the runtime from inside the finalizer, and only unmanaged resources will be disposed.

## Finalize() Method

Disposes the compression engine.

### Declaration

```
protected void Finalize()
```

## FindArchiveOffset(stream) Method

Gets the offset of an archive that is positioned 0 or more bytes from the start of the Stream.

### Declaration

```
public System.Int64 FindArchiveOffset(  
    System.IO.Stream stream  
)
```

## Parameters

Parameter	Type	Description
stream	System.IO.Stream	A stream for reading the archive.

## Return value

`System.Int64` The offset in bytes of the archive, or -1 if no archive is found in the Stream.

## Remarks

The archive must begin on a 4-byte boundary.

## GetFileInfo(stream) Method

Gets information about all files in an archive stream.

## Declaration

```
public IList<WixToolset.Dtf.Compression.ArchiveFileInfo> GetFileInfo(  
    System.IO.Stream stream  
)
```

## Parameters

Parameter	Type	Description
stream	System.IO.Stream	A stream for reading the archive.

## Return value

`IList<WixToolset.Dtf.Compression.ArchiveFileInfo>` Information about all files in the archive stream.

## Exceptions

Exception	Description
T:WixToolset.Dtf.Compression.ArchiveException	The stream is not a valid
archive.	

## GetFiles(stream) Method

Gets the list of files in an archive Stream.

## Declaration

```
public IList<System.String> GetFiles(  
    System.IO.Stream stream  
)
```

stream	System.IO.Stream	A stream for reading the archive.
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## Return value

`IList<System.String>` A list of the paths of all files contained in the archive.

## Exceptions

Exception	Description
T:WixToolset.Dtf.Compression.ArchiveException	The stream is not a valid
archive.	

## IsArchive(stream) Method

Checks whether a Stream begins with a header that indicates it is a valid archive.

## Declaration

```
public bool IsArchive(  
    System.IO.Stream stream  
)
```

## Parameters

Parameter	Type	Description
stream	System.IO.Stream	Stream for reading the archive file.

## Return value

**bool** True if the stream is a valid archive (with no offset); false otherwise.

# OnProgress(e) Method

Called by subclasses to distribute a packing or unpacking progress event to listeners.

## Declaration

```
protected void OnProgress(  
    ArchiveProgressEventArgs e  
)
```



## Parameters

Parameter	Type	Description
e	ArchiveProgressEventArgs	Event details.

## Unpack(stream, path) Method

Reads a single file from an archive stream.

## Declaration

```
public System.IO.Stream Unpack(  
    System.IO.Stream stream,  
    string path  
)
```

## Parameters

Parameter	Type	Description
stream	System.IO.Stream	A stream for reading the archive.
path	string	The path of the file within the archive (not the external file path).

## Return value

`System.IO.Stream` A stream for reading the extracted file, or null if the file does not exist in the archive.

## Remarks

The entire extracted file is cached in memory, so this method requires enough free memory to hold the file.

## Exceptions

Exception	Description
T:WixToolset.Dtf.Compression.ArchiveException	The stream is not a valid
archive.	

## CompressionLevel Property

Compression level to use when compressing files.

## Declaration

```
public CompressionLevel CompressionLevel { get; set; }
```

# UseTempFiles Property

Gets or sets a flag indicating whether temporary files are created and used during compression.

## Declaration

```
public bool UseTempFiles { get; set; }
```

## Remarks

The value of this property is true by default. Using temporary files can greatly reduce the memory requirement of compression, especially when compressing large archives. However, setting this property to false may yield slightly better performance when creating small archives. Or it may be necessary if the process does not have sufficient privileges to create temporary files.

# Progress Event

Occurs when the compression engine reports progress in packing or unpacking an archive.

## Declaration

```
public System.EventHandler<WixToolset.Dtf.Compression.ArchiveProgressEventArgs> Progress
```

## Value

```
System.EventHandler<WixToolset.Dtf.Compression.ArchiveProgressEventArgs>
```

## See also

- `T:WixToolset.Dtf.Compression.ArchiveProgressType`