

Siard Suite Zip64 Purpose

Purpose of the Project

Zip64File was developed as part of the SIARD project. It is used by the *SiardApi* implementation of the SIARD project in order to read and write SIARD files adhering to the standardized SIARD Format 2.1.

ZIP64

The ZIP format was created by created in 1989 by Phil Katz for [PKZIP](#). It is widely used for compression and as a container of files and folders (e.g. Windows ZIP folders, JAVA JAR files, OpenOffice ODT files, Microsoft Office DOCX files, ...).

The liberal treatment of the ZIP format by its creator has motivated many programmers to develop tools on many platforms which can read and write ZIP files.

Lately the limitations of the „old“ ZIP file format specification (maximum file size 4GB, maximum number of files 65k) were felt to be too constrictive for today's needs. Therefore PKWARE published a [new version of the file format description](#) which permits 64 bit file sizes and 32 bit file counts.

At this point in time most of the third-party utilities and libraries do not support this extension to 64 bits yet. Therefore we have developed a JAVA library as well as a command-line utility which permits reading and writing of files according to the new ZIP64 standard.

Both, the library and the command-line utility implement a subset of the ZIP64 standard. At the moment neither splitting and spanning nor encryption are supported. Both, the library and the utility can read files according to the ZIP32 or ZIP64 standard, but they will only write files according to the ZIP64 standard – even when the content could be accommodated within the limitations of the ZIP32 standard.

The use of the API in *zip64.jar* is documented in its technical documentation. The usage of the command-line tool is documented in this manual.

Addendum 2011/2018

In JAVA 1.7 the built-in JAVA ZIP utilities (*java.util.zip*) finally do support ZIP contents larger than 4 GB. However, they do not permit manipulating large ZIP files in a convenient way (random access file). This has the advantage that the classes in *java.util.zip* can be applied to streams. But it has the disadvantage that a small update may force the writing of many gigabytes. Therefore this library is still supported as an alternative to it.

Zip64File can be used for many other purposes without any relationship with the SIARD project. Therefore it is published as a separate stand-alone project.