

# SIP Modification Checker

## Technical Reference

Version 1.04.00

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Status	Released

## Document Information

### History

Author	Date	Version	Remarks
Markus Schwarz	2014-05-07	1.00.00	Initial version
Markus Schwarz	2015-11-19	1.01.00	Adapted to new tool version
Markus Schwarz	2016-03-23	1.03.00	Adapted to new tool version 1.03.00
Markus Schwarz	2018-02-16	1.04.00	Adapted to new tool version 1.04.00

### Reference Documents

No.	Source	Title	Version
[1]			

### Scope of the Document

This technical reference describes the general use of the tool SipModificationChecker.

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## 1 Component History

The component history gives an overview over the important milestones that are supported in the different versions of the component.

Component Version	New Features
1.00.00	Initial Version
1.03.00	Adapted layout of report Missing files are treated as errors PDF files are now considered.
1.04.00	Adapted analysis logic Support *.pdf, *.plugin *.arxml

Table 1-1 Component history

## 2 Introduction

This document describes the functionality of the tool SipModificationChecker.

### 2.1 Overview

The SipModificationChecker is a tool that supports the Tier1 and OEM to determine if and where the (source code) files delivered from Vector were unintentionally changed.

The SipModificationChecker

- > is a command line based tool.
- > checks sources below a user-selectable root directory against information given in a reference file.
- > checks if and which of the relevant delivered files are contained below that directory.
- > checks if and which files have been modified.
- > reports the “modification state” as ERRORLEVEL and within a HTML report.

### 2.2 Background

This tool aims to find changes that were unintendedly introduced by the customer in the delivered Vector source code.

## 2.3 Workflow

### 2.3.1 At Vector

- > Vector creates the list of relevant files, i.e. all (source code) files that are relevant to not be modified
- > Vector calculates a check code for each of these files and creates the SipCheckCodeFile
- > Vector delivers the embedded sources, the SipCheckCodeFile and the SipModificationChecker

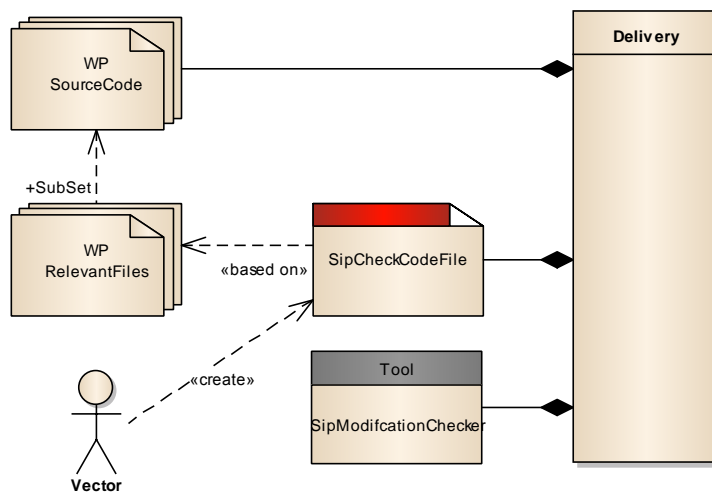


Figure 2-1 Workflow at Vector

### 2.3.2 At Tier1/OEM

- > The Tier1/OEM run the SipModificationChecker, configure their root path and load the SipCheckCodeFile from Vector. The tool provides information if the local sources found below the selected root directory are un-modified.

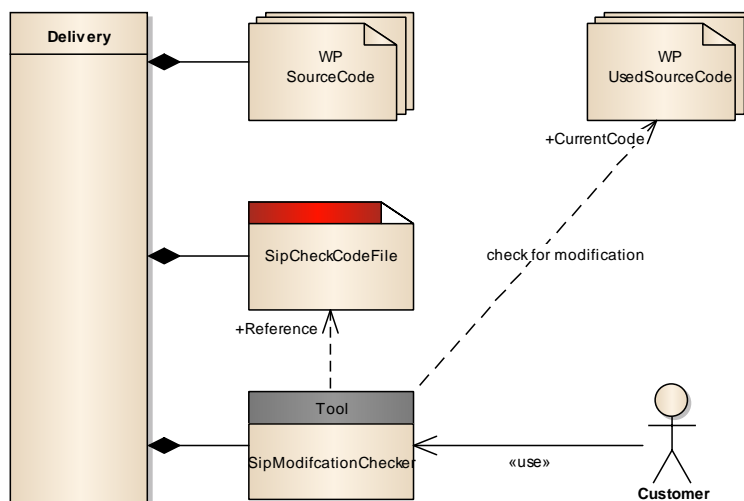


Figure 2-2 Workflow at Tier1/OEM

## 3 Functional Description

### 3.1 Command Line Usage

The analysis can be executed from command line.

Syntax:

```
SipModificationChecker <rootPath> <referenceFile> [-o=<outputHtml>]
  rootPath          path(s) to the directory that is used as base for analysis
  referenceFile      path to the provided reference file
  -o=outputHtml      optional: path to the resulting HTML report
```

Example:

```
SipModificationChecker c:\Example\CodeRootPath
C:\Example\SipModificationChecker.xml
```

If the rootPath or the referenceFile do not exist, the tool outputs a command line message and returns a ProcessError.

Otherwise the tool checks all files provided in referenceFile if they can be found below the rootPath and if they have local modifications compared to the delivery.

#### 3.1.1 Console Output

The tool outputs the results in the console:

```
SipModificationChecker 1.04.00
Check for modifications
  RootPath:      ...
  ReferenceFile: D:\Sample\RefFile.xml
  OutputFile:    D:\Sample\Report_Base.html
  MoveIsError:   Yes
Result:
  Reference: 9 files contained in ReferenceFile from Vector
  Rating:     3 ok
              6 error
  Refer to OutputFile for details
=> ERROR
```



### 3.1.2 Return Error Codes

The tool sets the environmental variable ERRORLEVEL depending on its result:

Return Code	Value	Description
Ok	0	All referenced files are found. They have no modifications.
Error	10	There is at least one file with modifications.
ProcessError	20	The check could not be performed as the input data is not valid (rootPath and/or referenceFile do not exist)

Table 3-1 Command Line Error Codes

### 3.1.3 Report Creation

In addition to the returned error code, the tool creates a HTML report that indicates the status of each file.

Example:

## SipModificationChecker Report

Creation Date: 2016-03-23 11:50:02

This report gives you hints if and where you have unintended modifications of files delivered by Vector.  
It lists all relevant source code and BSWMD files delivered by Vector.  
For each file it is reported if and where the file is found in your project directory and if the file content is unmodified.

### Overview

Vector View	Your View	Result
Date of reference file: 2016-03-23 08:46:20 9 files	Date of analysis: 2016-03-23 11:50:02 0 equal file(s) 0 moved file(s) 0 modified file(s) 0 moved and modified file(s) 0 file(s) not found	error

FileName	Original Location	Your Location	Status	Rating
File_Modified.c	.\File_Modified.c	<a href="#">.\File_Modified.c</a>	modified	error
File_Modified_Moved.c	.\File_Modified_Moved.c	<a href="#">.\Moved\File_Modified_Moved.c</a>	modified	error
File_Modified_Multiple.c	.\File_Modified_Multiple.c	<a href="#">.\Moved\File_Modified_Multiple.c</a>	modified	error
File_Modified_Multiple.c	.\SubFolder File_Modified_Multiple.c	<a href="#">.\Moved\File_Modified_Multiple.c</a>	modified	error
File_NotFound.c	.\File_NotFound.c		not found	error
File_Unmodified.c	.\File_Unmodified.c	<a href="#">.\File_Unmodified.c</a>	equal	ok
File_Unmodified_Moved.c	.\File_Unmodified_Moved.c	<a href="#">.\Moved File_Unmodified_Moved.c</a>	moved	error
File_Unmodified_Multiple.c	.\File_Unmodified_Multiple.c	<a href="#">.\File_Unmodified_Multiple.c</a> (equal) <a href="#">.\SubFolder File_Unmodified_Multiple.c</a> (modified)	equal	ok
File_Unmodified_Multiple.c	.\SubFolder File_Unmodified_Multiple.c	<a href="#">.\File_Unmodified_Multiple.c</a> (modified) <a href="#">.\SubFolder File_Unmodified_Multiple.c</a> (equal)	equal	ok

As default, the HTML report is located in the same directory as referenceFile. It is named like the referenceFile extended with “\_Report.html”.

Example:

The Reference File C:\Example\SipModificationChecker.xml  
leads to report C:\Example\SipModificationChecker\_Report.html

The path and filename of the HTML report can be adapted by the optional command line parameter (see chapter 3.1).

## 3.2 Integration

It is recommended to integrate this tooling into the build environment to get early notifications of modified sources. This also prevents that the different sources are used for build and check.

Use the returned ERRORLEVEL to react on modified files, e.g. abort the build process or inform the user within the build report.

## 4 Glossary and Abbreviations

### 4.1 Glossary

Term	Description

Table 4-1 Glossary

### 4.2 Abbreviations

Abbreviation	Description
SIP	Software Integration Package

Table 4-2 Abbreviations

## 5 Contact

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