



## TASKING Product Version Numbering Version Numbers and Build Numbers

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**TASKING BV**

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## Revision History

Version	Date	Comments
1.1	2021-02-12	First draft version
1.2	2021-02-24	Updated criteria for a patch Ready for Review
1.3	2021-02-24	Approved

# 1. Introduction

This document describes the version numbering that TASKING uses for its products. It describes the different types of product releases, product and tool version numbers and build numbers.

## 2. Version Numbering

### 2.1 Major, Minor and Revision numbering

A standard version number consists of the following components:

- Major number (X)
- Minor number (Y)
- Revision number (Z)

A standard version number is written as:

**v**X.Y**r**Z

The **v** and the **r** are always included in the number. The version number is visible in the product in the installation, readme files, tool version banners and About boxes.

The following table contains examples correct and incorrect version numbers.

Not correct	Correct
Version 2.3r1	v2.3r1
v 4.0 rev. 3	v4.0r3
V2.5R1	v2.5r1
Release 7.5r1	Release v7.5r1

The usage of the version number is:

Component	Range	Description
Major Number (X):	0	Preliminary versions – not recommended for use
	1 – 99	Released version, changes when release has major new features
Minor Number (Y):	0 – 9	Changes when minor new features are added
Revision Number (Z):	p, p1 – p9	Prototype versions
	a, a1 – a9	Alpha versions
	b, b1 – b9	Beta versions
	0, 01 – 09	Obsolete and no longer allowed. In the old standard this was used for beta versions.
	1 – 99	Changes for revision updates, usually these are only bug fixes and very small features.

Thus the life cycle of a product may look like:

Life cycle name	Version name example
Prototype	v1.0rp
Second prototype	v1.0rp1
Alpha	v1.0ra
Beta	v1.0rb
First production version	v1.0r1
Beta version	v2.0rb
Second beta version	v2.0rb1
Production version	v2.0r1
...	...

The actual major/minor/revision numbers for a product release are defined in consultation with product marketing.

## 2.2 Patches

The version number of a patch is the same as the standard version numbering with an added patch number:

**vX.YrZ patch A[.B.C] - OR - vX.YrZpA[.B.C]**

Additions .B and .C are optional.

The numbers for A.B.C are in the following range:

- patch A or pA (A= 0-999)
- patch A.B or pA.B (B= 0-99)
- patch A.B.C or pA.B.C (C= 0-99)

The above patch syntax is only used for referral in the installation of the patch and for example in documentation and readme files and on the website and in marketing/sales communication.

The patch number does not occur in the tool version banners or About boxes.

## 2.3 Version Numbering for a New Release

### 2.3.1 Update in Major (X) or Minor (Y) Version Number (vX.Y)

An update in Major or Minor version number depends on the magnitude of the changes. This is purely a marketing decision.

When the following is changed/added/improved in a product release, the new version will either be a Major or Minor number update:

- New features
- New processor architecture

Bug fixes can be included.

The included installer installs a full product.

### 2.3.2 Update in Revision (Z) Version Number (vX.YrZ)

When the following is changed/added/improved in a new product release, the new version will be a Revision number update:

- Small improvements
- New devices

Bug fixes can be included.

The included installer installs a full product.

### 2.3.3 Update in Patch (A) Version Number (vX.YrZpA)

When the following is changed/added/improved in a new release, the new version will be a Patch number update:

- Bug fixes
- Configuration items like support for new devices of already supported architectures
- Small improvements with the following criteria:
  - The fix of a bug for the patch requires functionality to be added or requires optimization changes
  - Existing functionality or behavior of the tools shall not be affected
  - The existing safety manual shall still be valid after applying the patch.

Only updated tools and files are part of the installation of a patch.

### 2.3.4 Hot-fixes

A hot-fix is a means of providing a quick fix for a problem to a customer, without the need to go through full product release processes. A hot-fix shall never be used for production code.

For a hot-fix there is no update in version number. In a hot-fix the version number is suffixed with (hot-fix):

**vX.YrZpA (hot-fix)**

A hot-fix is only used for:

- Bug fixes
- Configuration items like support for new devices of already supported architectures

Only updated files are part of the installation.

Note: A hot-fix is temporary and the bug fix will be added to the next patch or release.

### 3. Build Numbers

Build numbers are used to identify when the product was built. The build number is a positive integer number, based on date and time the build was started. Products that are built since April 2016 have build numbers that consist of 8 digits, YYMMDDQQ as follows:

Digits	Range	Description
YY	00 - 99	2 digits describing the year since the start of the 21 <sup>st</sup> century
MM	01 - 12	2 digits describing the month, January = 01
DD	01 - 31	2 digits describing the day of month
QQ	00 - 95	2 digits describing the time, in 15 minutes increments

Example of build numbers:

Build started	Build number
January 1, 2018 at 0:00	18010100
January 1, 2018 at 0:17	18010101
March 1, 2021 at 23:55	21030195
May 13, 2016 at 10:03	16051340

The build number is present in tool version banners and readme files.

Products prior to April 2016 have a build number that consists of a number of digits with or without some dots that reflects the version of the software in the version control system. These old style build numbers are present in tool version banners of older products.

Examples of old style build numbers are:

Old style build numbers
Build 083
Build 156.1.7
Build 952