

## Measuring Instrument Certification Division

### SOFTWARE

#### Application for type examination of a measuring instrument Guidelines for preparing application file

### GENERAL REQUIREMENTS

1. The documents described below must be supplied in addition to the documents specified in the type examination file preparation guidelines for each category of measuring instrument. This guideline sheet concerns only the documents specific to the software integrated in the measuring instrument concerned, and supplements the file preparation guidelines for this measuring instrument.
2. You may be asked for additional documents during examination of the application file.

### STRUCTURE OF FILE SECTION CONCERNING SOFTWARE

#### 1. Data sheet

The data sheet must list the following characteristics of the software:

- § the name and version number of the software
- § the programming language used
- § the name of each file of the software, for PC-compatible instruments
- § the name of each module of the software
- § a brief description of the functionalities of each module
- § the names of the modules covered by legal metrology
- § a description of the communication interfaces used for legal metrology
- § a list of the checksums calculated by the software and their value for the modules covered by legal metrology.

#### 2. Technical documents

- § a detailed description of the modules covered by legal metrology, based on logic diagrams of the software functionalities
- § a description of the security components of the software or its modules, specifying the methods implemented for protecting the metrological data and parameters that are stored and transmitted
- § a description of the functions covered by legal metrology, the configuration parameters and the instrument controls
- § a description of the calculation algorithms (eg. price calculation, pulse counting, etc.) and the rounding-off rules
- § a description of each dialogue menus (use and installation)
- § a description of the access rights to the various functionalities accessible via the user/installer interface.

### 3. Additional documentation

The following must also be supplied:

- § a copy of the software (on a CD-ROM or a USB key)
- § an executable external application (in order to verify the different checksums of the software and its source code in its original electronic format in the case of PC-based operation).

**Note:** The source code of the part of the software covered by legal metrology may be requested, if required.

### 4. Software instruction manual

The instruction manual must be comprehensive and written in English or French.

**Note:** This document may be the manual for the measuring instrument in which the software is incorporated.

### 5. Documents to be annexed to the type examination approval

In addition to the documents mentioned in the guidelines for each category of measuring instrument, the descriptive sheet must specify the devices used to secure the software.

