



Security Advisory 2025-001



Status: February 10, 2025

Remote Code Execution due to Buffer Overflow in MOVITOOLS® MotionStudio



Table of Contents

1 General information 4

1.1 Disclaimer 4

1.2 Product names and trademarks 4

1.3 Copyright notice 4

1.4 Document history 4

2 Remote Code Execution due to Buffer Overflow in MOVITOOLS® MotionStudio 5

2.1 Problem 5

2.2 Details 5

2.3 Affected products 5

2.4 Unaffected products: 5

3 General corrective measures 6

4 Product-specific information and measures 7

4.1 Checking the software version 7

4.2 Updating the software 7

4.3 Checking the ICP files 8

1 General information

1.1 Disclaimer

This document is intended solely to provide information to our customers. The contents have been created with the greatest care, and efforts are made to ensure that they are as up to date as possible. However, SEW-EURODRIVE accepts no liability for the information provided being correct, complete, or up to date. It is published without recognition of any legal obligation.

The proposed corrective measures are for general informational purposes. Whether or to what extent these are applicable to your application environment is subject to your review of the specific conditions on site.

1.2 Product names and trademarks

The product names mentioned in this documentation are trademarks or registered trademarks of the respective titleholders.

1.3 Copyright notice

© 2025 SEW-EURODRIVE. All rights reserved. Copyright law prohibits the unauthorized reproduction, modification, distribution and use of this document – in whole or in part.

1.4 Document history

This customer information is updated on an ongoing basis as soon as new information becomes available and the most recent version can be found at www.sew-eurodrive.de.

Version	Date	Changes
1	January 23, 2025	Initial document
2	February 10, 2025	Details of the information

2 Remote Code Execution due to Buffer Overflow in MOVITOOLS® MotionStudio

2.1 Problem

Safety researchers from Trend Micro's Zero Day Initiative have discovered a security vulnerability in MOVITOOLS® MotionStudio. When parsing a specially prepared file, a stack-based buffer overflow occurs. This vulnerability allows attackers to execute code on the system.

2.2 Details

The vulnerability occurs when parsing ICP files of the IPOScompiler. The problem arises due to a lack of proper validation of the file size, which causes a stack-based buffer overflow. This allows an attacker to execute code in the context of the current process.

2.3 Affected products

Users who use the IPOS compiler are affected. The IPOScompiler is included in the following products:

- MOVITOOLS® MotionStudio Complete, version 6.60 or earlier
- MOVITOOLS® version 6.60 or earlier

Check which software version you are using as described under "Checking the software version" (→ [7](#)).

2.4 Unaffected products:

The following products are not affected:

- MOVITOOLS® MotionStudio Compact
- MOVITOOLS® and MOVITOOLS® MotionStudio as of version 6.60 SP1

Check which software version you are using as described under "Checking the software version" (→ [7](#)).

3 General corrective measures



- Unused active network connections generally increase the security risk. Limit network access to the devices to minimize the risk of attacks.
- Unless absolutely necessary, devices/systems should be disconnected from the higher-level network.
- Prevent unauthorized people or devices from gaining access to affected devices and network segments in which affected devices are being operated.
- If you access the devices with a laptop, use a point-to-point Ethernet connection. Do not connect the laptops to the network.
- SEW-EURODRIVE recommends that you generally reduce the group of people who can execute engineering tools and transfer potentially harmful files by means of the user management of the system.

4 Product-specific information and measures

4.1 Checking the software version

MOVITOOLS®
MotionStudio

For MOVITOOLS® MotionStudio, you can display the software version used as follows:

When starting the software	In the software
<ol style="list-style-type: none"> 1. Start the software. <p>⇒ A window with the version number opens.</p>  <p style="text-align: right;">55224852363</p>	<ol style="list-style-type: none"> 1. Select the menu command [Help] > [Info]. <p>⇒ A window with the version number opens.</p>  <p style="text-align: right;">55224849419</p>

MOVITOOLS®

For MOVITOOLS®, you can check the software version used as follows:

1. Navigate to the file `mtmanagr.exe` in the Explorer. As standard, you can find the file under the following path:
 - ⇒ `C:\Program Files (x86)\SEW\MOVITOOLS\Bin`
2. Right-click the file and select the [Properties] menu command.
 - ⇒ If you are already using version 6.60 SP1, the creation date that is displayed is February 3, 2025, 16:00.

If your software version is affected (see "Affected products" (→ 5)), follow the measures in the following chapters.

4.2 Updating the software

Update MOVITOOLS® MotionStudio to version 6.60 SP1 or later.

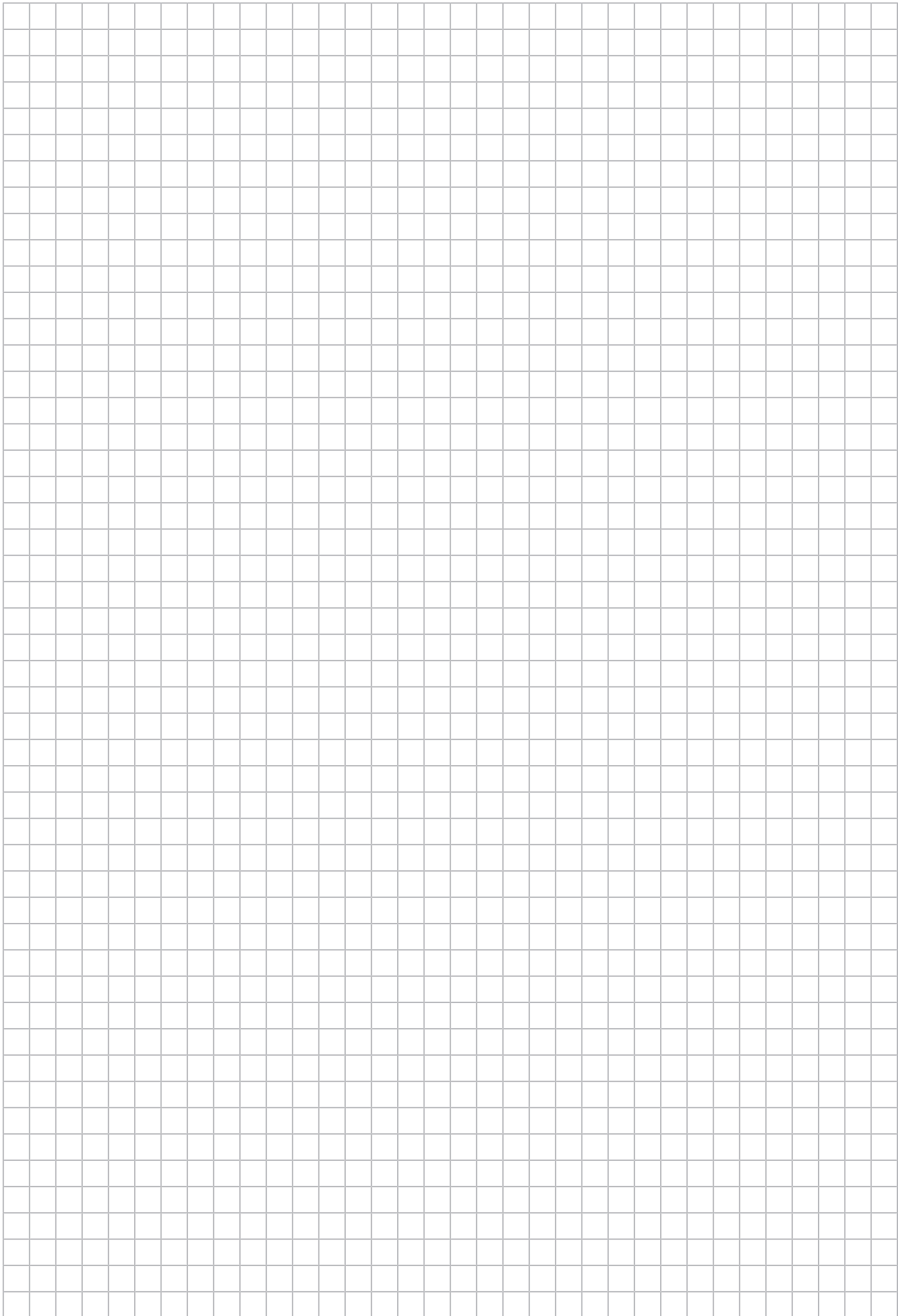
Proceed as follows:

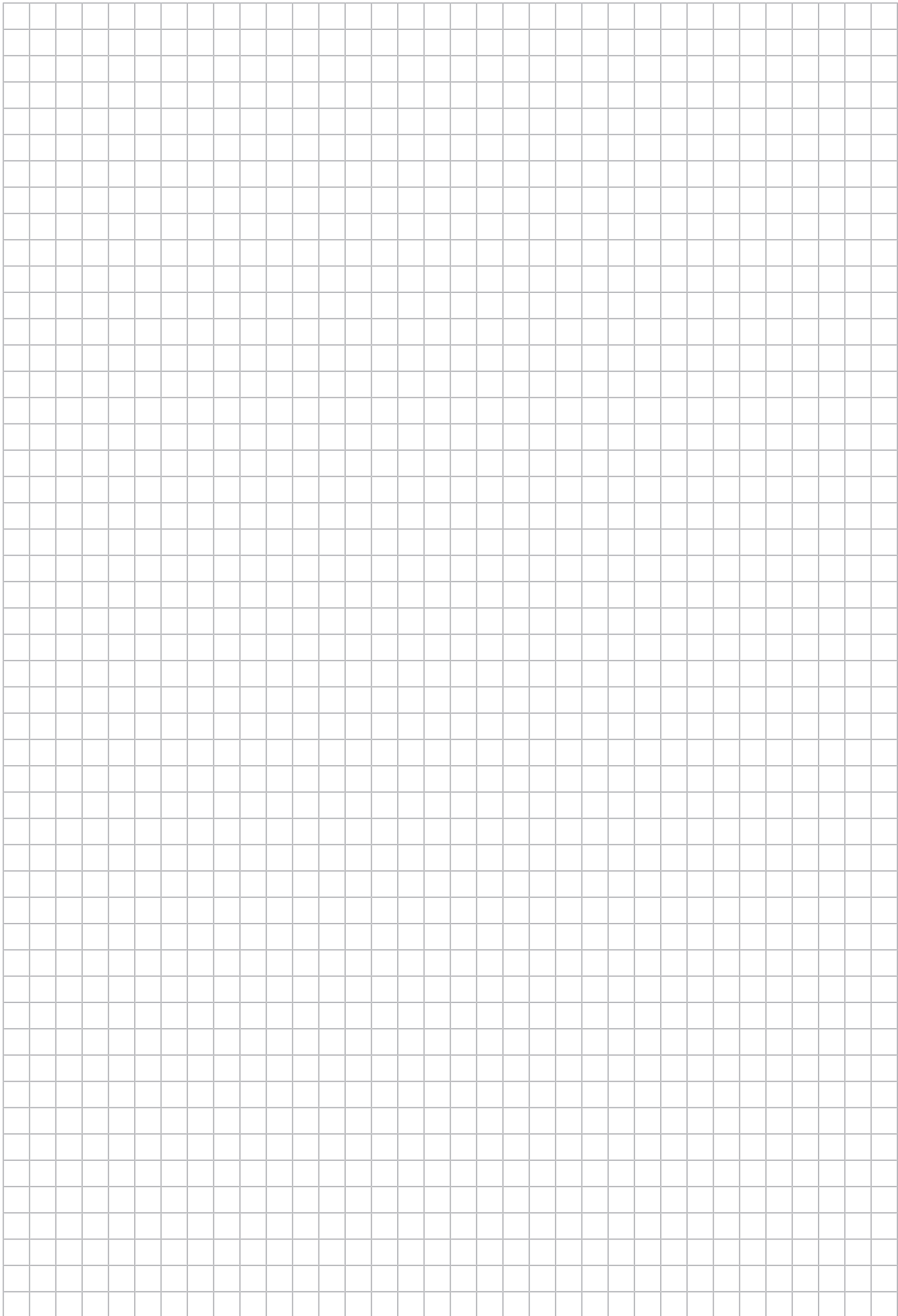
1. Download the installation package from the following link:
 - ⇒ http://go.sew/os/dud/?tab=software&software_group=15
 - ⇒ The provided version is a full version that can be installed via an existing version.
2. Unzip the installation package locally on your hard disk.
3. Run the file `SEWsetup.exe`.
4. Follow the instructions in the installation wizard.
5. Check whether the installation was successful as described in chapter "Checking the software version" (→ 7).

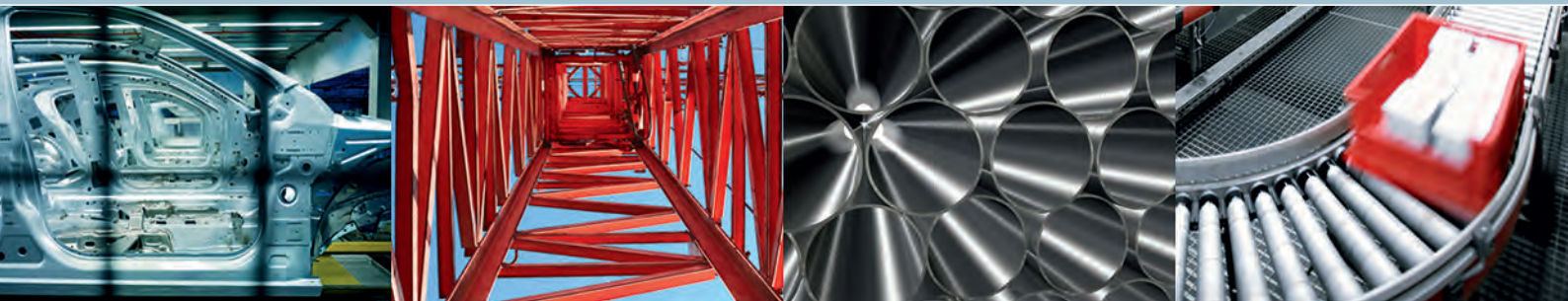
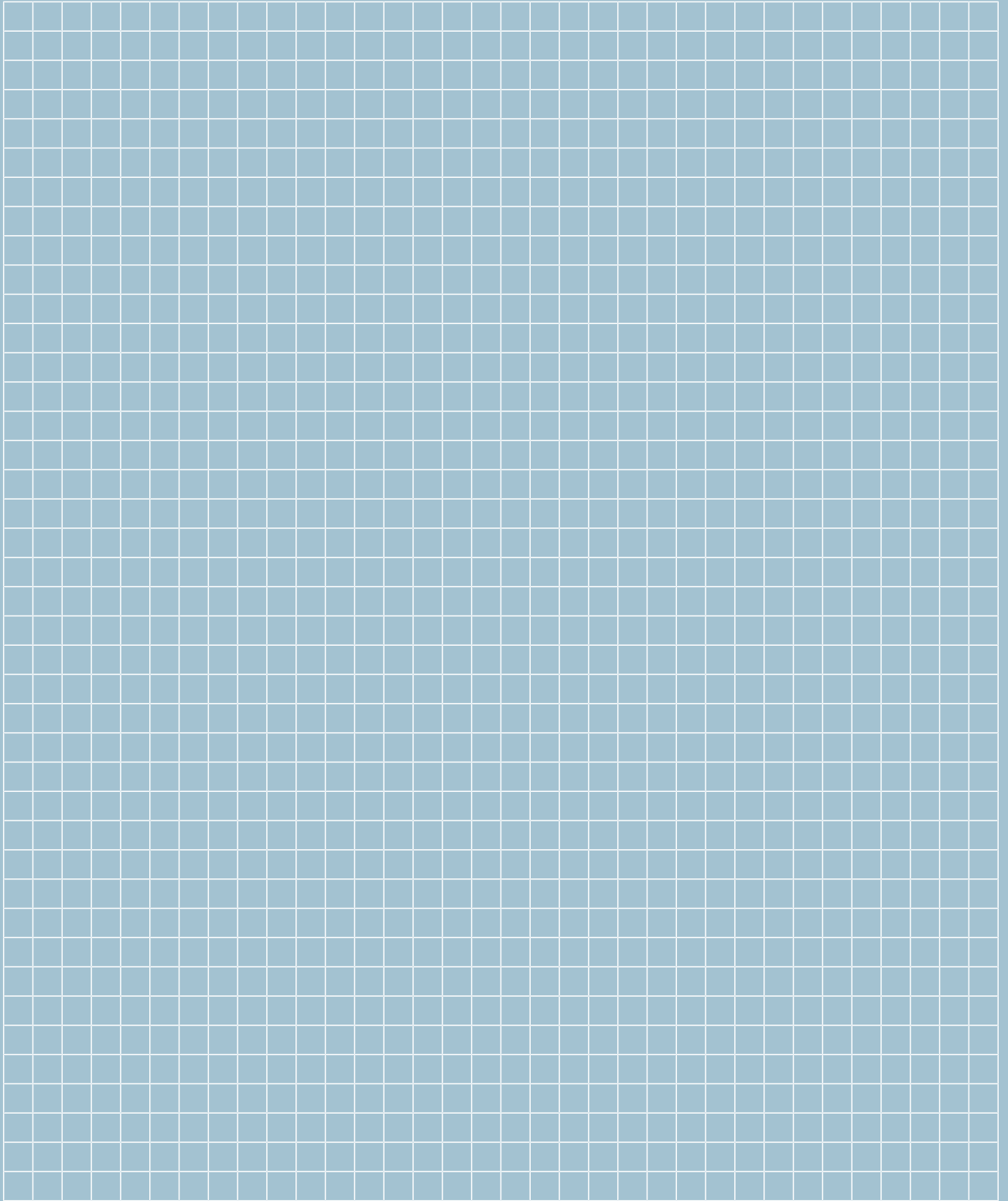
4.3 Checking the ICP files

The IPOS compiler in MOVITOOLS®/MOVITOOLS® MotionStudio does not provide technical support for checking the integrity of the ICP files.

1. As a user, use organizational measures to ensure that only ICP files from trusted sources are used. Do not use ICP files from unverified or unsafe sources. Check ICP files for integrity before use.
2. Make sure that self-created ICP files are saved in a suitable manner for future use.









SEW-EURODRIVE
Driving the world

SEW
EURODRIVE

SEW-EURODRIVE GmbH & Co KG
Ernst-Blickle-Str. 42
76646 BRUCHSAL
GERMANY
Tel. +49 7251 75-0
Fax +49 7251 75-1970
sew@sew-eurodrive.com

→ www.sew-eurodrive.com