



## Configurable System Software **MOVIVISION®**

The New Freedom in Materials Handling  
Technology



```
public byte[] CustomBytes(byte[] r_para)
{
    if (r_para != null)
    {
        if (r_para.Length > 0)
        {
            int amount_segments = r_para[0];
            int amount_bytes = amount_segments * 64;

            if (amount_segments > 0)
            {
                byte[] temp_bytes = new byte[r_para.Length * 64];

                // To parse Array.Copy(r_para, amount_bytes,
                r_para = temp_bytes;
                if (r_para.Length > 0)
                {
                    // standard 8 drives
                    amount = amount * 8;
                    if (r_para.Length - 64 > 0)
                    {
                        if (amount_segments > 0)
                        {
                            byte[] temp_bytes = new byte[amount];
                            temp_bytes = new byte[amount];
                            Array.Copy(r_para, amount_bytes,
                                temp_bytes, 0, amount);
                        }
                    }
                    // standard 8 drives
                    if (r_para.Length - 64 > 0)
                    {
                        byte[] temp_bytes = new byte[amount];
                        Array.Copy(r_para, amount_bytes,
                            temp_bytes, 0, amount);
                    }
                }
            }
        }
    }
}
```

## MOVIVISION®: The New Freedom in Materials Handling Technology

The system is running without any problems. Rotary tables, conveyor trolleys, overhead trolleys and automated guided vehicles are moving. Plant utilization is at an optimum level. Despite the use of intelligent, decentralized drive technology, however, only a time-consuming planning and startup phase can ensure this ideal situation.

**SEW-EURODRIVE meets this challenge with a new and intuitive software solution: MOVIVISION®**

MOVIVISION® allows system manufacturers and operators to startup the materials handling system of their plant, a drive system or an individual drive

quickly and easily without special programming skills and with a minimum expenditure of time. Even during the production process, the operator can always respond to manufacturing modifications without tying up human resources to a disproportionately high extent.

MOVIVISION® supports project planning and manages system data. It also takes over parameter setting, startup and diagnostics of the system. The configurable materials handling functions of MOVIVISION® render time-consuming programming obsolete. This simplifies maintenance of the system significantly. Continuous

monitoring and diagnostics are also ensured during production. With its three power levels

- Movement
- Function
- Coordination






MOVIVISION® solves every drive task in materials handling technology.

Driving the world – with innovative drive solutions for all branches of industry and for every application. Products and systems from SEW-EURODRIVE for any application – worldwide. SEW-EURODRIVE products can be found in a variety of industries, e. g. automotive, building materials, food and beverage as well as metal-processing. The decision to use drive technology “made by SEW-EURODRIVE” stands for safety regarding functionality and investment.



# MOVIVISION®

## MOVIVISION® – Tasks and Advantages at a Glance:

Task	Advantages of the MOVIVISION® solution:
 <ul style="list-style-type: none"> <li>– Designing and project planning of the system</li> </ul>	<ul style="list-style-type: none"> <li>– Intelligent software reduces hardware variants and costs</li> <li>– Standardization of conveyor functions</li> <li>– Reuse of existing materials handling functions, up to a representation of the system layout</li> </ul>
 <ul style="list-style-type: none"> <li>– Administration and management of the system</li> </ul>	<ul style="list-style-type: none"> <li>– Central data storage with catalog function</li> <li>– Decentralized (distributed) intelligence for optimum information flow</li> <li>– Client-server structure: Enables several users to access the database simultaneously from different locations</li> <li>– Individually assigned access authorizations</li> <li>– Cataloging of conveyor functions and parameter records for reuse</li> <li>– Integrated language switching: German and English, other languages as an option</li> </ul>
 <ul style="list-style-type: none"> <li>– Configuration of the system</li> </ul>	<ul style="list-style-type: none"> <li>– Parameter setting instead of programming: Simple project planning and configuration of drives, systems and materials handling applications</li> <li>– Use of existing materials handling functions due to simple parameter setting</li> <li>– Scalable use, from simple drives up to the complete materials handling system of the plant</li> </ul>
 <ul style="list-style-type: none"> <li>– Startup of the system</li> <li>– Simplified system maintenance</li> </ul>	<ul style="list-style-type: none"> <li>– Setting and testing the materials handling functions is possible without PLC connection</li> <li>– Saves a lot of time and effort</li> <li>– Quick unit replacement due to automatic parameter download</li> <li>– Higher system availability</li> </ul>
 <ul style="list-style-type: none"> <li>– Diagnostics of the system</li> <li>– Operation and monitoring of the system</li> </ul>	<ul style="list-style-type: none"> <li>– Detailed diagnostics, e.g. error message in plain text, animated display of operating states</li> <li>– Remote maintenance</li> <li>– Information display</li> <li>– Integrated event log</li> <li>– High degree of response flexibility with respect to production and manufacturing modifications</li> </ul>



## System Overview and Operating Principle

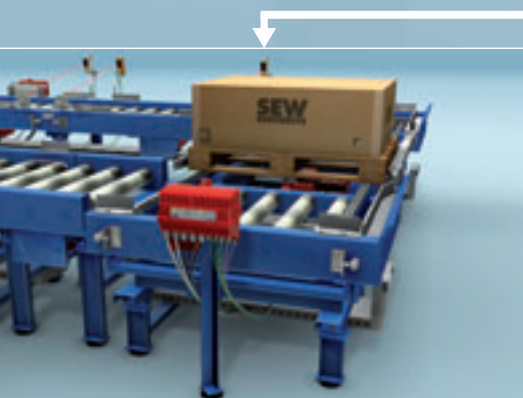
The combination of central data storage and decentralized intelligence makes MOVIVISION® the comfortable software solution in materials handling technology. The decentralized intelligence simplifies and shortens the complex communication paths between all hardware and software components of the system. Fastest possible bus cycle and response times on every level ensure a permanent flow of information and commands.

### MOVIVISION® configuration and diagnostics tool

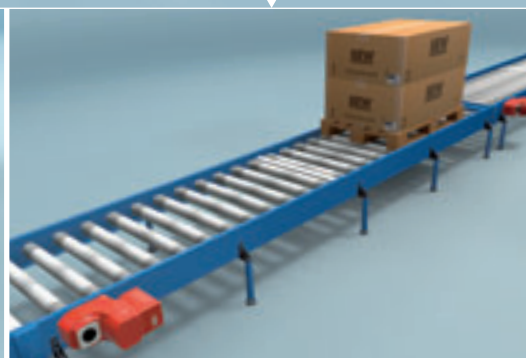


#### MOVIVISION® server

- All data is stored in one central database
- A link to the connected decentralized control components is established
- The data exchange between server and decentralized control components takes place via fieldbus and/or networks
- Only here, parameters are set or changed
- Management and supervision of access authorizations
- High degree of data security and user-friendliness



**Movement**



**Func**

This also allows for an object-oriented view. Each individual user can display the entire production plant, the drive systems or individual drives. User-friendliness is ensured by the easy-to-use MOVIVISION® interface. The user

can perform tasks, e.g. startup or production changes during operation, quickly and easily, at any time and from any location simply by setting parameters. Special programming skills are not necessary.

The user can access the central database of the MOVIVISION® server through the Windows-based configuration and diagnostics tool.



## MOVIVISION® client

The interface displays the data of the decentralized control components visually. Parameter and diagnostic data of each unit is displayed separately. Both nodes are divided into

- Drive level
- Positioning level
- Technological level

It is possible to grant different access rights to the users, e.g. for monitoring, for parameter setting, for initial startup, for replacing units, etc.

## Controller PLC / PPS



tion



Coordination



## 3 Steps to Success: Movement – Function – Coordination

From simple movements to complex coordination: The three power levels of MOVIVISION® provide the optimum solution for each drive function in materials handling technology.

The **“Movement”** power level establishes communication paths and enables an interference-free information flow of all system-relevant data. Simple drive movements, such as roller conveyors, are configured, monitored and diagnosed with the “Movement” power level.

The second power level, **“Function”**, offers preconfigured technology functions for integration and management of application parameters, e.g. RFID or encoder systems.

The **“Coordination”** level provides increased functionality from simple data transfer for parameter settings and diagnostics to control individual drives, materials handling functions and the complete plant. This power level does not only enhance the communication capability of the drive technology, but the “intelligence” of the decentralized drives as well. The drives

can be assigned more and more functions, which takes a great deal of load off the PLC. Trouble-free retrofitting or converting of the system is also ensured by the “Coordination” power level: Quick and easy parameter setting for implementing the new or extended function requirements without losing any time.

## Configurable system software MOVIVISION®

### The power levels

Movement	Function	Coordination
<b>Functionality of MOVIVISION®</b>		
<p><b>for the drives</b></p> <ul style="list-style-type: none"> <li>– Administration and management</li> <li>– Parameter setting</li> <li>– Startup</li> <li>– Diagnostics / monitoring</li> <li>– Remote maintenance</li> <li>– Drive function</li> <li>– Positioning function</li> </ul>	<p><b>for the application</b></p> <p>additionally TecUnits (technology functions, for integrating and managing application parameters, such as RFID, encoder systems, etc.)</p>	<p><b>for the system</b></p> <p>additionally</p> <ul style="list-style-type: none"> <li>– Manual operation</li> <li>– Graphical representation of the controlled system</li> <li>– Integrated visualization</li> <li>– Automatic control (of the system)</li> <li>– Energy management</li> </ul>
<p><b>Application examples</b></p> <p>Single-axis applications, such as: Roller conveyor</p>	<p><b>Application examples</b></p> <p>Single- or multi-axis applications, such as: Rotary table, lateral conveyor, lifting/lowering station, conveyor trolley</p>	<p><b>Application examples</b></p> <p>Complete applications, such as: Push platform with elevating table, electrified monorail system, floor conveyor system</p>
		
		
<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>– Simple implementation and management of positioning functions for conveyor technology</li> <li>– Simple functional connection of I/Os with drives for fast implementation without programming a PLC</li> <li>– Fast and efficient diagnostics</li> <li>– Unit replacement for maintenance via central data storage</li> </ul>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>– Implementation and management of multi-axis conveyor functions without specific PLC programming</li> <li>– Integration of production data</li> <li>– Load is taken off the central PLC and communication paths for faster response times</li> <li>– Load is taken off the local, decentral PLC</li> </ul>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>– Minimized system complexity due to complete management and coordination of conveyor processes</li> <li>– Independent production flows are ensured</li> <li>– Optimized management of product and production data</li> </ul>

## How we're driving the world



**SEW-EURODRIVE**  
Driving the world

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