Information Sheet for the Purchased Product

Thank you for purchasing our product. For the following information regarding the product you purchased, please consult the relevant pages.

- **Type, format, and estimated volume of data**
- **Data generation**
- **Storage and retention**
- **Access, retrieve or erase data**
- **Updates on data usage or changes to the product**
- **How to store this information for future reference**

Table of contents

Mobile Robots

OL, LD, MD, and HD Series:

1. Reference material

LD-60/90 Platform User's Manual (I611)

LD-250 Platform User's Manual (I642)

HD-1500 Platform User’s Manual (I645)

OMRON MD Series AMR User’s Manual (I681)

OMRON OL-450S User’s Manual (M109)

FLOW Core User’s Manual (I635)

2. Type, format, and estimated volume of data

- **Type of data: The AMR Processing Core contains various configuration data (robot, controller, sensors, map), application programs, current values, logs (event, diagnostic, error), licenses and so on. For more details, refer to *FLOW Core User’s Manual (I635)* in the Reference Material, which covers further details on the various SW components and applications that reside on the AMR Core.**
- **Data format: For the configuration data, see Sections 3, 4, 5, 7, 9 and 10, and other relevant sections, in *FLOW Core User’s Manual (I635)* in the Reference Material.**
- **Estimated data volume: Data volume will vary with the specific system configuration, including sensor payload on the AMR.**

3. Data generation

- **Real-time data: Real-time data generated by the AMRs include sensor data (scan information from lasers, position, speed, acceleration, etc.) The full scope of values varies depending on each AMR’s configuration as well as the customer environment.**

- **Generation frequency: Depending on the specific platform, control-related data is generated at a rate of 10-100Hz.**

4. **Storage and retention**
    - **Data is stored on physical memory located in the AMR Processing Core (SSD). This data comprises application SW, configurations, maps, logs, and other. Type of data that is stored will depend on the specific system configuration.**
    - **Retention duration: Data stored in the AMT Processing Core's volatile memory will be retained as long as the Unit remains powered. Data in the non-volatile memory will persist until it is erased by the user. Some data, such as log data, is overwritten when file size exceeds a defined limit.**

5. **Access, retrieve or erase data**
    - **Access and retrieve: You can access data through a network connection, through a physical maintenance port on the AMR Processing Core, or by using one of the available graphical user interfaces (MobilePlanner and SetNetGo User Interface). For more details on user interfaces, see Sections 5 and 8 in *FLOW Core User's Manual (I635)* in the Reference Material. For details on physical access, refer to Section 3.4 in the User's Manuals for LD-60/90, LD-250, HD-1500 and MD platforms *(I611, I642, I645, I681)* and Sections 3.4 and 3.5 in the User's Manual for OL-450S platform in the Reference Material.**
    - **Data erasure: Data can be erased using the abovementioned tools for access.**
    - **Terms of use and quality of service: This is not applicable because the products are offered as one-time purchases.**

6. **Updates on data usage or changes to the product**

- **This is not applicable because the products are offered as one-time purchases.**

7. How to store this information for future reference

- **Storing Information: This information is available for download as a PDF on the product's support portal.**

Fixed Robots

Integrated Control Robots:

All user data is stored in NJ-R CPU Unit SD card, except robot motor absolute encoder offsets stored in the robot.

Standard Control Robots:

1. **Reference material**

i4L Robots User's Manual (I658)

i4H Robots User's Manual (I660)

Automation Control Environment (ACE) Version 4 User's Manual (I633)

V+ User's Manual (I671)

T20 Pendant User's Guide (I601)

2. **Type, format, and estimated volume of data**

- Type of data: The Robot CPU Unit contains various configuration data (robot, controller, fieldbus), user programs, current values, event logs, absolute encoder origin offset, calibrations, licenses and so on. For more details, refer to the *Automation Control Environment (ACE) Version 4 User's Manual (I633)* in the Reference Material
- Data format: For the configuration data, see *Section 7* Automation Control Environment (ACE) Version 4 User's Manual (I633) and other relevant sections.
  A User Program is a program that you create. For details, consult *V+ User's Manual (I671)* and *Automation Control Environment (ACE) Version 4 User's Manual (I633)*
- Current values vary depending on the specifications of the controlled robot and each customer's use environment.
- Estimated data volume: The data volume varies depending on the type of data. User programs and current values vary depending on each customer's use environment.

3. Data generation

- Real-time data: Current values vary depending on each customer's use environment and the type of data.
- Generation frequency: Current values vary depending on each customer's use environment and the type of data. Control-related data is generated at 4ms rate.

4. Storage and retention

- All data within the Robot CPU Unit will be stored in the memory of the Robot CPU Unit (internal SD card).
  In addition, you can save configuration data sets and user programs to the same SD card using the backup function.
- Retention duration: Data stored in the CPU Unit's volatile memory will be retained as long as the Unit remains powered. Data in the non-volatile memory will persist until you erase it.

5. Access, retrieve or erase data

- Access and retrieve: You can access data through a network connection, by using Teach Pendant T20 or by using ACE, a programming tool. Please refer to T20 Pendant User's Guide (I601) and Automation Control Environment (ACE) Version 4 User's Manual (I633) for detailed information.
- Data erasure: You can erase data with ACE.
- Terms of use and quality of service: This is not applicable because the products are offered as one-time purchases.

6. Updates on data usage or changes to the product

- This is not applicable because the products are offered as one-time purchases.

7. **How to store this information for future reference**

- Storing Information: This information is available for download as a PDF on the product’s support portal.

SmartController EX, Cobra, Viper, Hornet, Quattro Robots

1. **Reference materials**

eV+ Language User’s Guide (I604)

eV+ Operating System User’s Guide (I606)

Automation Control Environment (ACE) Version 4 User's Manual (I633)

T20 Pendant User's Guide (I601)

SmartController EX User Guide (I602)

eCobra User’s Guide (I593)

Viper User’s Guide (I599)

Hornet User’s Guide (I596)

Quattro User’s Guide (I597)

2. **Type, format, and estimated volume of data**

- Type of data: The controller unit flash memory (SmartController EX SD card or microSD in robot eAIB or eMB) contains various configuration data (robot, controller, fieldbus), user programs, current values, event logs, absolute encoder origin offset, calibrations, licenses and so on. For more details, refer to the *Automation Control Environment (ACE) Version 4 User's Manual (I633)* in the Reference Material.
- Data format: For the configuration data, see *Section 7* Automation Control Environment (ACE) Version 4 User's Manual (I633) and other relevant sections.
  A User Program is a program that you create. For details, consult *eV+*

Language User's Guide (I604) and *Automation Control Environment (ACE) Version 4 User's Manual (I633).*

- Current values vary depending on the specifications of the controlled robot and each customer's use environment.
- Estimated data volume: The data volume varies depending on the type of data. User programs and current values vary depending on each customer's use environment.

3. Data generation

- Real-time data: Current values vary depending on each customer's use environment and the type of data.
- Generation frequency: Current values vary depending on each customer's use environment and the type of data. Control-related data is generated every 4, 8, or 16ms depending on trajectory period setting.

4. Storage and retention

- All data within the controller will be stored in the flash memory (SD or microSD card).
  In addition, you can save configuration data sets and user programs to the same SD card.
- Retention duration: Data stored in volatile memory will be retained as long as the unit remains powered on. Data in the non-volatile memory will persist until you erase it.

5. Access, retrieve or erase data

Access and retrieve: You can access data through a network connection, by using Teach Pendant T20 or by using ACE, a programming tool. Please refer to T20 Pendant User's Guide (I601) and Automation Control Environment (ACE) Version 4 User's Manual (I633) for detailed information.

Data erasure: You can erase data with ACE.

Terms of use and quality of service: This is not applicable because the products are offered as one-time purchases.

6. Updates on data usage or changes to the product

This is not applicable because the products are offered as one-time purchases.

7. How to store this information for future reference

Storing Information: This information is available for download as a PDF on the product’s support portal.

Collaborative Robots

Omron TM Collaborative Robots:

8. Reference materials

Omron TM Collaborative Robot: TMscript Language Manual (Cat. I664)

Omron TM Collaborative Robot: Software Manual TMFlow, Version 2(Cat. I689)**Type, format, and estimated volume of data**

9. Type, format, and estimated volume of data

- Type of data: The CPU Unit contains various configuration data, user programs, current values, event logs, and so on.
- Data format: A User Program is a program that you create. A current value varies depending on the specifications of the controlled object. For others information, refer to the Omron TM Collaborative Robot: TMscript Language Manual (Cat. I664) Section 2 Expression
- Estimated data volume: User programs and current values vary depending on each customer's use environment. Please refer to Omron TM Collaborative Robot: Software Manual TMFlow, Version 2(Cat. I689) Section 2.2.3 TM Robot Operations with TMflow for the CPU Unit's data volume requirement in the specifications.

10. Data generation

- Real-time data: Current values vary depending on each customer's use environment.
- Generation frequency: Current values vary depending on each customer's use environment.

11. Storage and retention

- Data storage location: All data within the CPU Unit will be stored in the memory of the CPU Unit.

- Retention duration: Data stored in the CPU Unit's volatile memory will be retained as long as the Unit remains powered. Data in the non-volatile memory will persist until you erase it.

12. Access, retrieve or erase data

- Access and retrieve: You can access data through a network connection.
- Data erasure: You can erase data through a network connection.
- Terms of use and quality of service: User can check them from TMflow software system information.

13. Updates on data usage or changes to the product

- Changes: This is not applicable because the products are offered as one-time purchases.

14. How to store this information for future reference

- Storing Information: This information is available for download as a PDF on the product’s support portal.

Others

Please refer to the User's Manuals available on our website for the necessary information.