

使用说明书 控制器管理用软件 型号 EYASW1



重要信息

使用本产品之前,请先仔细阅读说明书,并妥加保管,以便日后使用。

原版说明书:英文
原版说明书译本:其他语言

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前言

使用时

本产品使用Windows操作系统的计算机。
请准备可支持以下环境的终端。

运行环境

支持操作系统	Windows 10 (64bit) 以上
支持计算机 (CPU 性能)	2.0 GHz 4核或2核, 逻辑处理器4以上
所需内存	8 GB 以上
推荐硬盘容量	SSD 100 GB 以上
推荐分辨率	1024×768 以上
接口	光驱 (安装软件时使用) USB Type-A (用于许可验证) Ethernet 端口 (与控制器通信)
所需软件环境	.NET Core 3.1

- 部分计算机即使满足运行环境也无法使用。
- 根据所用计算机的使用环境等不同, 本书的说明内容、画面与实际的内容、画面可能会有差异, 敬请谅解。
- 本书的内容如有更改, 恕不另行通知。
- 禁止擅自转载本书内容的部分或全部。
- 本书中使用的插图均为示意图。

使用说明书的获取方法

请从以下网页下载本产品的最新版使用说明书及相关资料。

【仅欧盟适用】

<https://www.panasonic-powertools.eu/en/assembly/downloads>

【仅亚洲适用】

<https://panasonic.net/electricworks/ecm/powerelctrictools/download/>

关于商标

- Microsoft 和 Windows 是美国 Microsoft Corporation 在美国及其他国家的注册商标或商标。
- 依据 Microsoft Corporation 的指南使用画面照片。

其他记载的各种名称、公司名称、产品名称等为各公司的商标或注册商标。另外, 本文中部分™、®未注明。

关于本产品

本产品是与控制器连接并收集数据的软件。
不仅可自动收集紧固履历数据,还可进行简单的数据分析。



01 最多管理 10 台控制器

02 紧固履历数据分析功能

03 工具信息管理功能

使用前

操作

通过有线 LAN 将安装有本产品的计算机与控制器连接后使用。

最多可注册 10 台控制器。

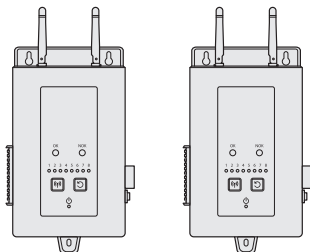
※ 注册工具数量最多为 80 台 (8 台 × 10 台)。



【本产品】控制器管理应用软件



工具主体
(最多 80 台)



控制器
(最多 10 台)

使用许可

软件使用许可协议

1. 权利

客户有权使用本软件,但并不意味着本软件的著作权转移给客户。

2. 使用设备限制

本软件的每个安装包仅可安装在1台计算机上,不可在多台设备中使用。未经本公司允许,禁止擅自复制本软件的一部分或全部。

3. 解析、变更及修改

请勿对本软件进行解析、变更或修改。如因客户解析、变更或修改本软件而引发某种缺陷,本公司概不保修。

4. 规格变更

本软件的规格如有变更,恕不另行通知。

5. 免责

对于因使用本软件引起的客户损失及第三方对客户的要求,若非本公司及销售店等的故意或重大过失而造成的,本公司及销售店等概不承担相应责任。

6. 出口管理

若客户将本软件带出非购买国家,请遵守购买国家和目的地国家的出口管理相关法规。

7. 其他

若客户违反上述使用条件,将自动结束本软件使用权的许可。此时,客户应废弃本软件。

使用注意事项

使用注意事项

为了最大限度地发挥计算机的处理能力,请准备可使用本产品的专用计算机。

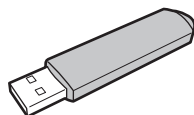
若与其他软件同时使用,可能会因处理负荷而造成显示时间等方面性能下降。

附件

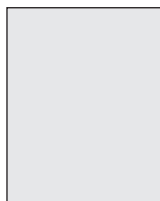
■ CD-R×1张



■ 验证用USB加密狗×1个



■ 宣传册×1份

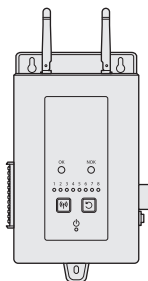


另售件

使用本产品时,请另行准备工具主体和控制器。



工具主体



控制器

系统配置

连接对象控制器 型号一览

项目	控制器	工具主体	
可注册型号	EYARW1 EYFRW2	EYADA112WA/WB* ¹ EYADA218WA/WB EYFMH1/EYFMH2	EYADA212WA/WB EYADA407WA/WB EYFNH1* ¹

※ 发售时的对象型号。

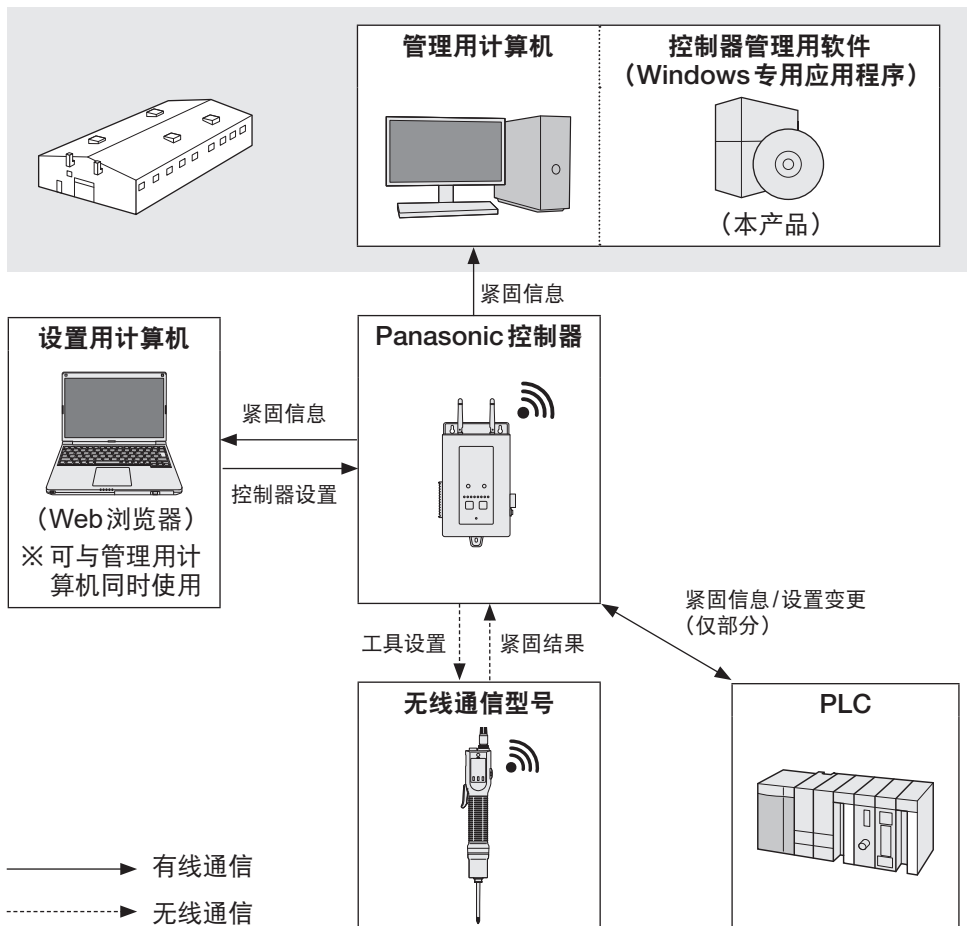
※ 也包括末尾号码不同的选配型号。

※¹ 仅支持 Ver1.01.00 以上版本。

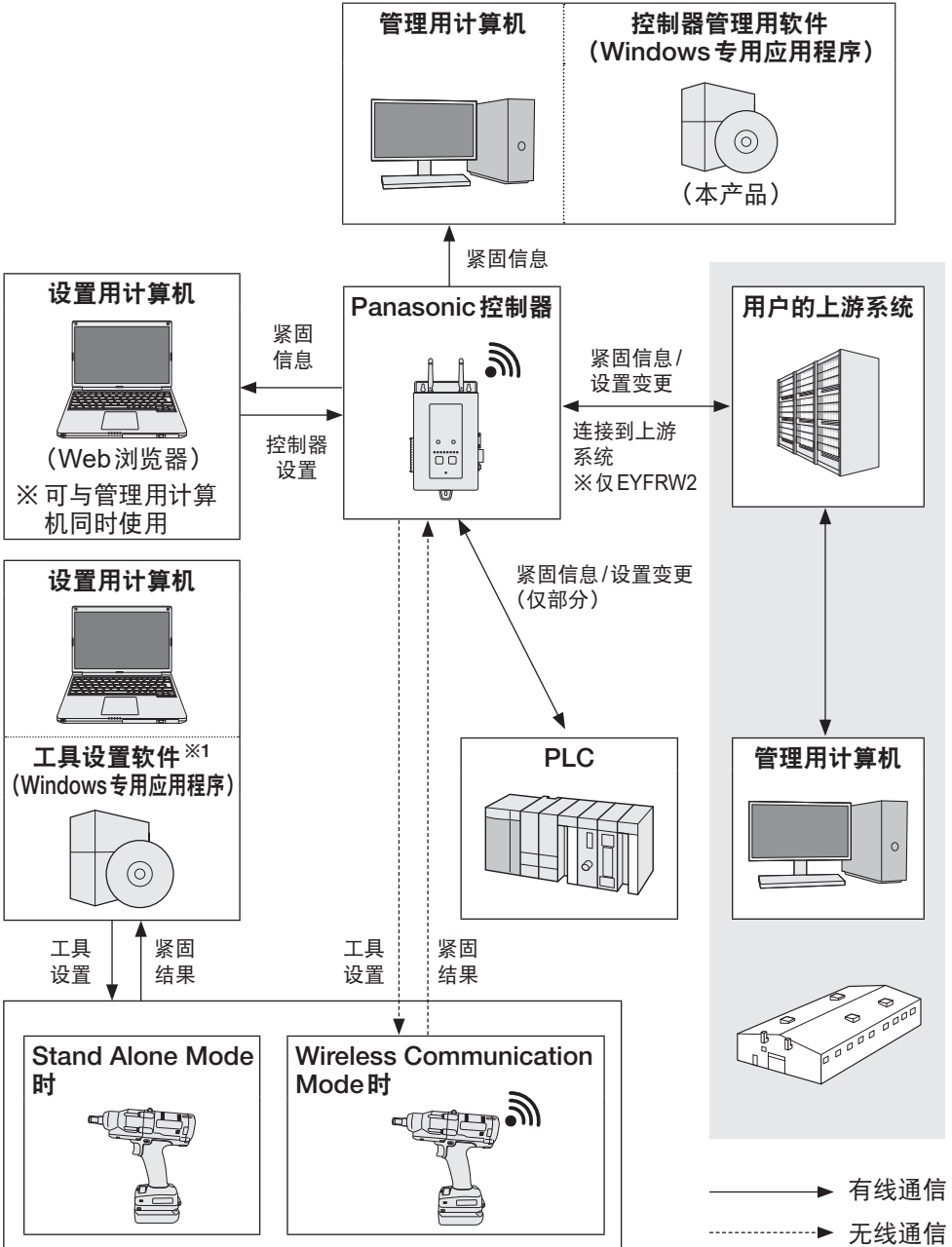
系统相关图

有线连接 Panasonic 控制器, 收集/管理紧固履历数据的软件。

■ EYARW 和 EYADA 的组合



■ EYFRW 和 EYFMH/EYFNH 的组合



※1 请从本公司网页下载“工具设置软件”。 **参见 P2**

对象功能一览、使用注意事项

不同对象工具的支持功能一览

不同工具型号可使用的功能会有限制。请参见以下内容。

工具型号		EYFMH1 EYFMH2 EYFNH1※1	EYADA112WA※1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB※1 EYADA212WB EYADA218WB EYADA407WB	
控制器型号		EYFRW2	EYARW1		
紧固履历数据收集		○ (包括波形数据)	○	○	
工具管理		○	○	○	
分析功能	比较分析	NOK率	○	○	
		反转作业	—	○	
	时序分析	扭矩值	○	○	—
		紧固作业时间	○	○	○
		实际转速	—	○	○
OK判定率	○	○	○		

※1 仅支持 Ver1.01.00 以上版本。

使用注意事项

收集的数据保存在计算机的内部存储器上。
请根据您使用的计算机的硬盘剩余容量进行备份,如输出为 CSV 文件等。

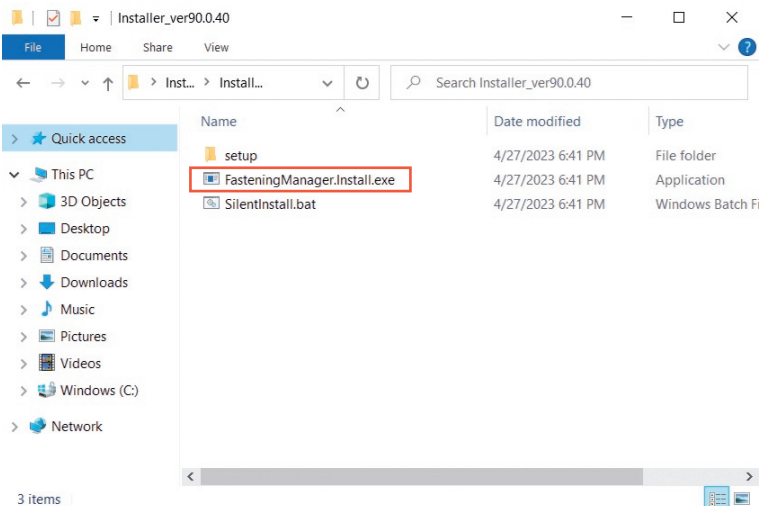
本产品也可以从控制器的设置菜单删除未收集的数据,因此请定期获取数据,以防遗漏。

※ 本产品在启动中也可自动获取数据,因此建议定期启动。

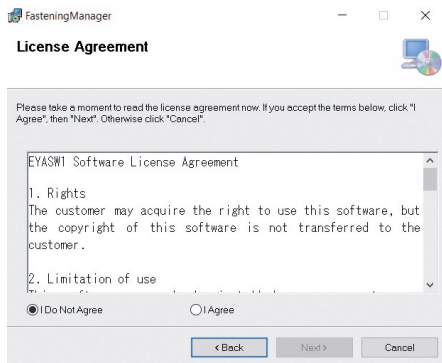
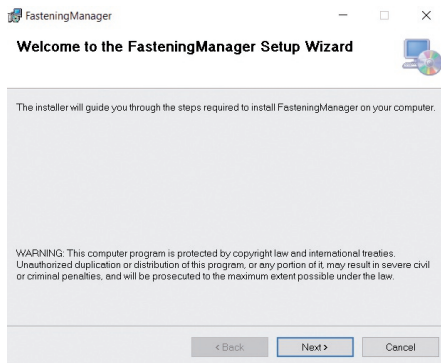
使用前的准备

软件的安装

请将附带的CD-R放入光驱,双击并执行安装程序文件夹中的“FasteningManager.Install.exe”。



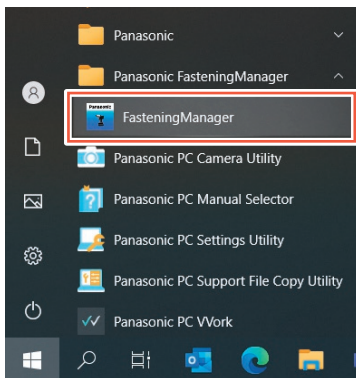
根据安装向导安装软件。
同意使用许可后,即可安装。



使用前的准备 (续)

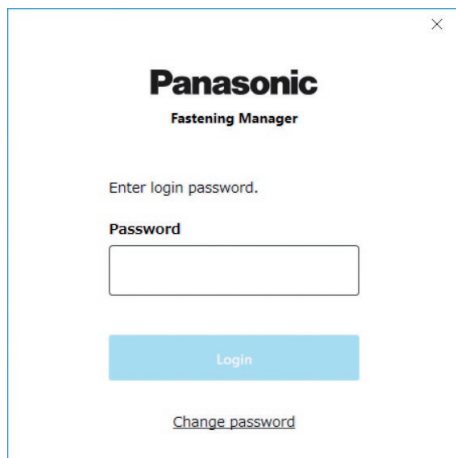
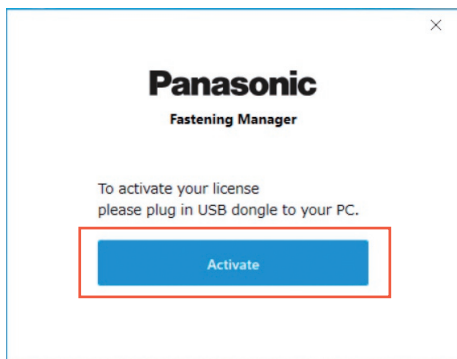
软件的启动

安装完成后,请从 Windows 开始菜单启动软件。



USB 验证、密码验证

使用软件时,需要使用USB 加密狗进行验证。
请将本产品附带的USB 加密狗插入计算机,然后按下[Activate]。
验证完成后,移至登录密码的输入画面。



【注意】
请妥善保管 USB 加密狗,以免遗失。

首次登录密码

首次登录密码如下。

首次登录密码	abcABC123
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更改密码

首次登录后,请从以下画面更改密码。

※ 密码请务必使用8个字符以上,且为大写字母、小写字母、数值、符号中的3种组合以上。
※ 可使用的符号如下。

~	!	@	#	\$	%	^	&	*
()	+	¥		_	}	{]
[<	>	.	,	/	?	`	

Change password

To change the password,
please enter the current password and the
new password.

Current Password

New Password

New password (re-enter)

■ 忘记密码时

请先卸载软件,然后重新安装。

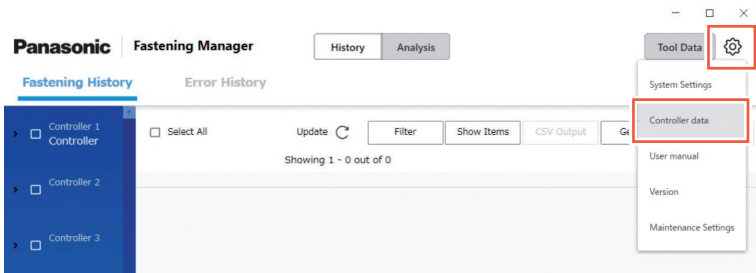
密码将被初始化。

※ 请勿删除数据库。

管理控制器

管理控制器

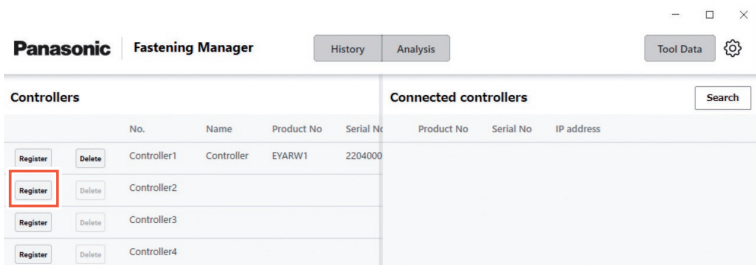
使用本产品从控制器收集紧固履历数据时,需要注册控制器。
从画面右上方的“选项”按钮中选择[Controller data]。



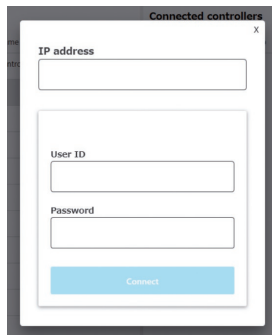
※ 可以用[直接输入 IP 地址]和[从网络上搜索] 2 种方法注册要管理的控制器。

注册控制器① 直接输入 IP 地址

从画面左侧的[Controllers]中选择[Register]按钮。



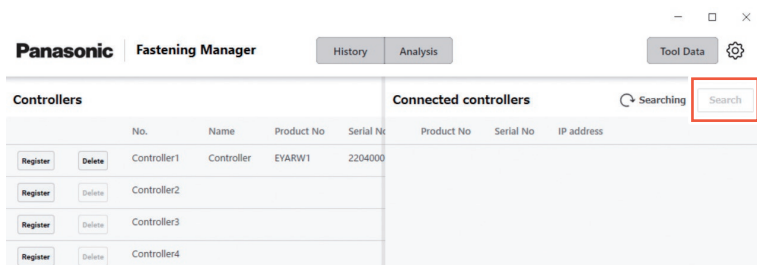
在以下画面中输入控制器的[IP address]、[User ID]、[Password]。
※ [User ID]、[Password]请指定为在控制器中注册的管理员帐号。



※ 计算机请设置为与控制器相同的网络。

注册控制器② 从网络上搜索

从画面右侧的[Connected controllers]中选择[Search]按钮。



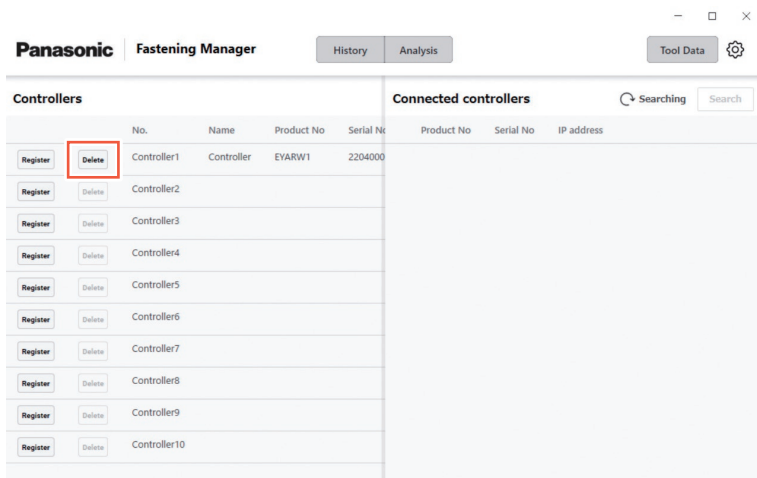
显示网络上存在的控制器。
选择[Add]。

【注意】

控制器请使用固定 IP 地址。如为 DHCP (自动分配) 设置, IP 地址可能会因控制器的重新启动而发生变更, 导致无法连接。

删除注册的控制器

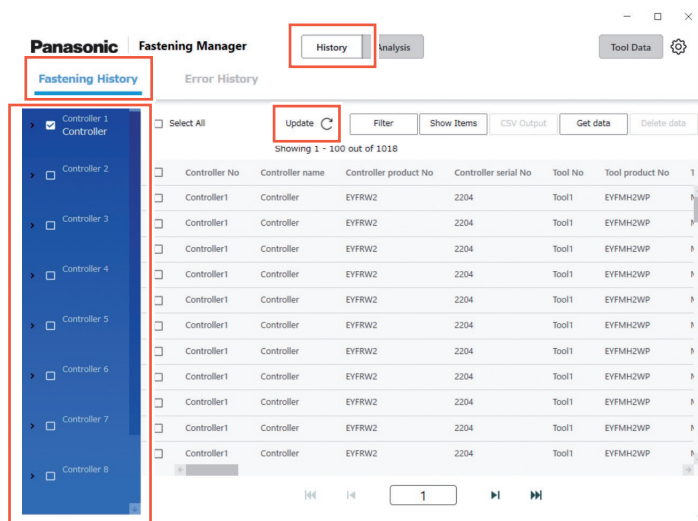
删除注册的控制器时, 请从 [Controllers] 中选择 [Delete]。



确认紧固履历数据

紧固履历数据的显示

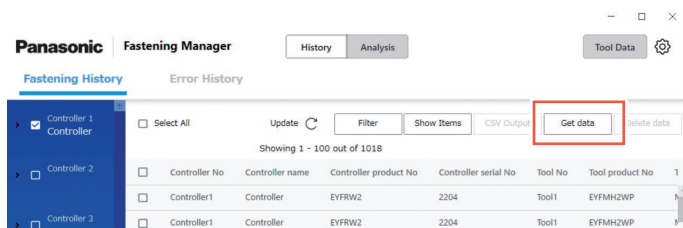
可以确认注册的控制器所收集的紧固履历数据一览。
选择 [History]、[Fastening History]，从控制器 / 工具列表中选择显示对象。
选择 [Update] 后，即可显示最新数据。



软件启动中，按一定间隔（每5分钟）自动收集数据。

紧固履历数据的获取（手动）

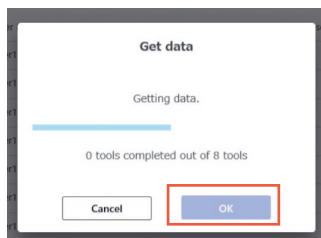
可手动获取紧固履历数据。
选择紧固履历画面中的 [Get data]。



显示 [Get data] 弹窗。
完成后，选择 [OK]。

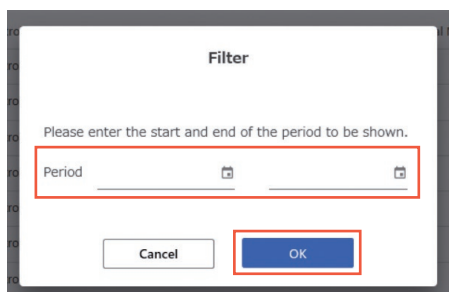
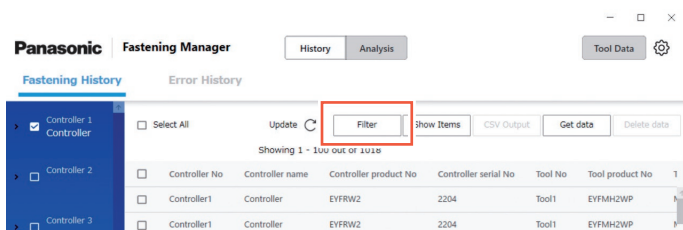
【注意】

若一次性获取的数据量庞大，则数据获取可能需要较长时间。



设置数据显示过滤器

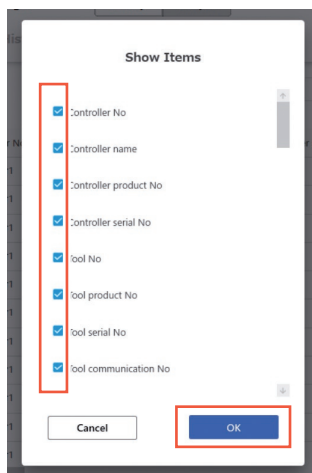
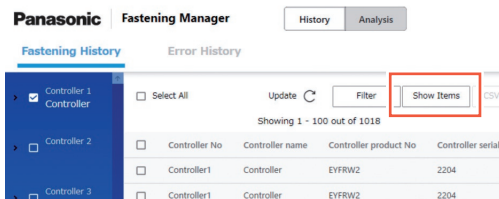
可以按期间指定要显示的数据。
选择紧固履历画面中的 [Filter], 指定 [Period] 后选择 [OK]。



※ 设置好的过滤器将被保留。

设置显示项目

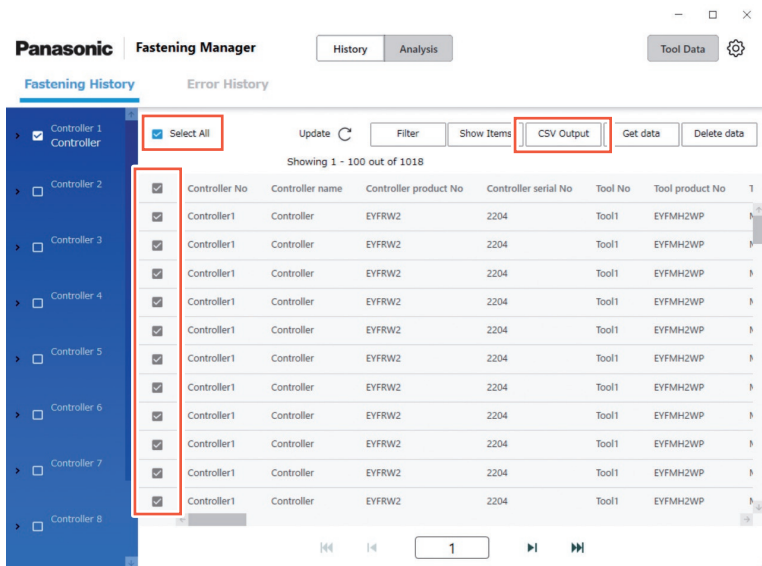
可以设置要显示的数据项目。
选择紧固履历画面中的 [Show Items], 勾选对象项目后选择 [OK]。



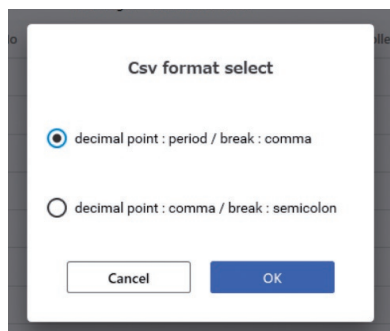
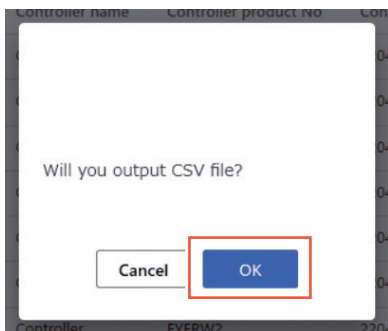
确认紧固履历数据 (续)

输出为CSV文件

可以用CSV文件格式输出紧固履历数据。
在紧固履历画面勾选对象数据后,选择[CSV Output]。
※可全选。

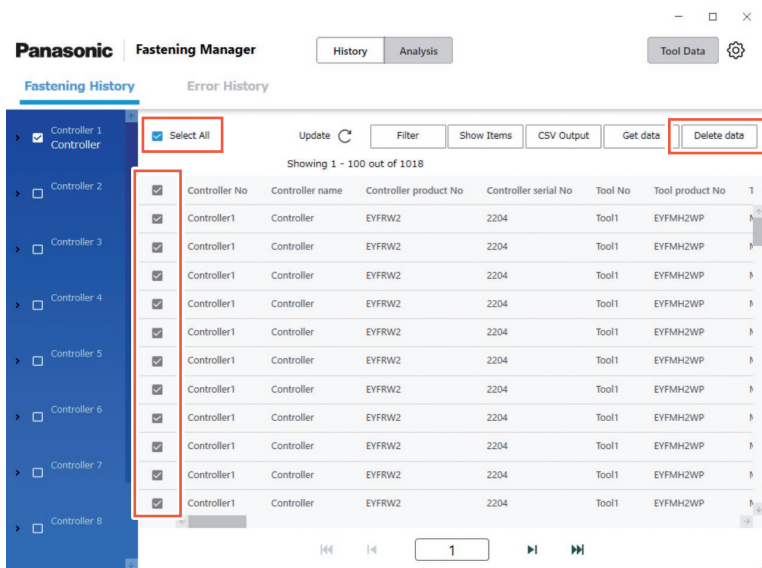


选择[OK],则在计算机上输出数据。
※ CSV文件格式可进行如下选择。



删除紧固履历数据

可以删除紧固履历数据。
在紧固履历画面勾选对象数据后,选择 [Delete data]。
※ 可全选。



删除通过本产品收集在计算机数据库中的数据。
控制器内的数据不可删除。

对数据库可以管理的数据数量或数据容量有限制。
如果数据数量接近上限或计算机硬盘容量不足,请在输出为 CSV 文件等之后删除数据,
确保剩余容量。

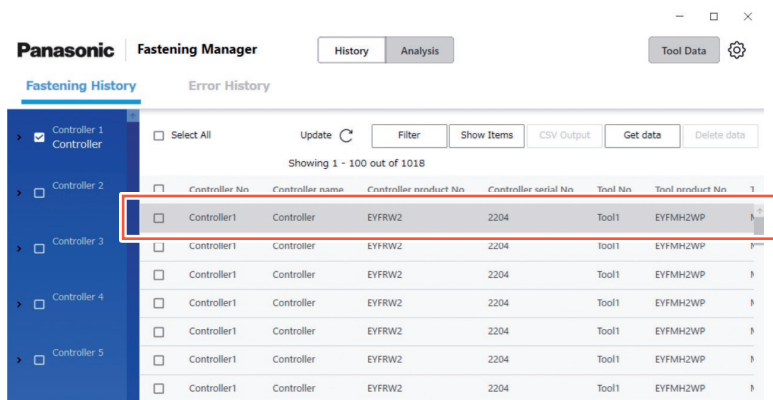
※ 自动定期进行上述操作时,请参见“维护功能”。

参见 P32

确认紧固履历数据 (续)

显示波形数据 ※仅EYFMH/EYFNH和EYFRW的组合

将波形数据保存到紧固履历数据中时,可通过本产品进行确认。
请双击紧固履历数据行。



如下显示波形数据。
可以选择显示[X-axis]、[Y-axis]、[Scale]。

另外,如果选择[Output],则也可以输出为CSV文件格式。



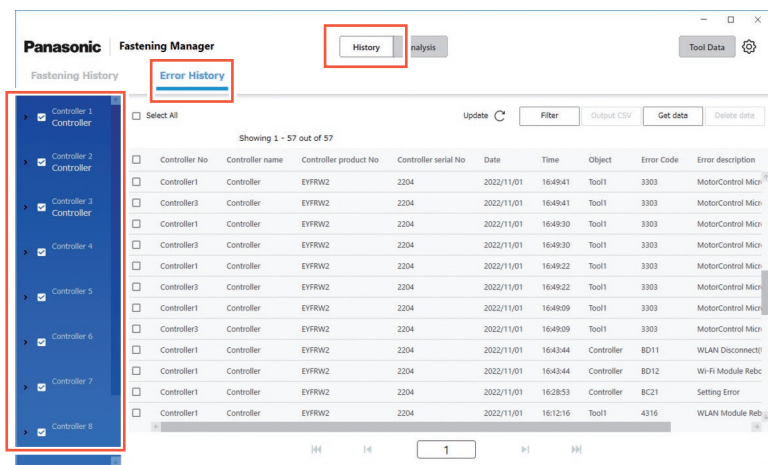
【注意】

波形数据的容量较大(每次紧固的时间较长时等)时,数据获取及数据显示可能需要较长时间。

确认错误履历数据

错误履历数据的显示

可以确认注册的控制器收集的错误履历数据一览。
软件启动中,按一定间隔(每5分钟)自动收集数据。



其他设置

和紧固履历数据一样,可进行以下操作。
操作方法与紧固履历数据相同。

- 错误履历数据的获取(手动)
- 设置数据显示过滤器
- 输出为CSV文件
- 删除错误履历数据

分析作业履历

分析功能的概要

分析功能可对控制器收集的紧固履历数据进行分析、显示。

※ 分析对象仅限于计算机硬盘中的数据。

关于各功能的内容,请参见以下内容。

功能	内容说明
比较分析	比较显示紧固不良 (NOK) 及拧松/返工 (反转) 较多的作业。 可用于捕捉工序中应改进的作业。
NOK率	按工具以柱形图显示NOK判定率(紧固不良)。
反转作业	以柱形图显示反转作业(拧松/返工)的紧固数量。
时序分析	以时序显示同一工具的紧固结果的变化。 可用于管理零配件变化、工具劣化等。
扭矩值	以折线图(分布图)显示每个紧固的结果扭矩(扭矩换算值)。
紧固作业时间	以折线图(分布图)显示每个紧固的紧固作业时间(作业时间)。
实际转速	以折线图(分布图)显示每个紧固的实际转速(旋转次数)。
OK判定率	以折线图(分布图)显示紧固OK判定率。

关于分析功能的对象工具

根据工具型号不同,可分析的内容不同。

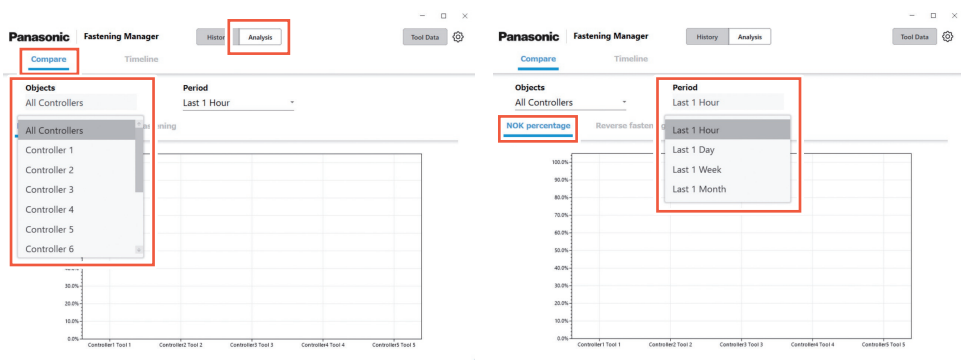
※ 如果分析对象数据中有多个工具型号,则仅显示对象工具型号的信息。

工具型号		EYFMH1 EYFMH2 EYFNH1※1	EYADA112WA※1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB※1 EYADA212WB EYADA218WB EYADA407WB	
控制器型号		EYFRW2	EYARW1		
分析功能	比较分析	NOK率	○	○	○
		反转作业	—	○	○
	时序分析	扭矩值	○	○	—
		紧固作业时间	○	○	○
		实际转速	—	○	○
		OK判定率	○	○	○

※1 仅支持 Ver1.01.00 以上版本。

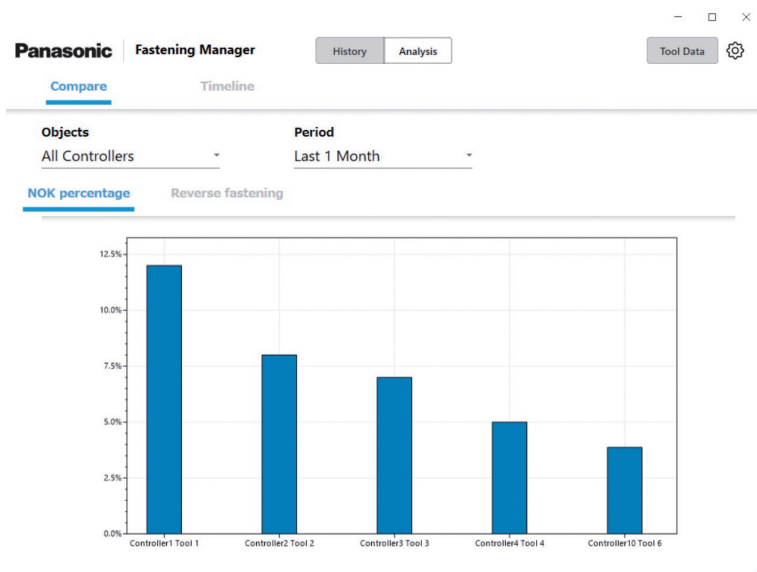
比较分析① NOK率

选择 [Analysis] 选项卡中的 [Compare]。
请选择 [NOK percentage] 选项卡, 按如下内容设置要分析的 [Objects]、[Period]。



Objects	[All Controllers]、[Controller 1]~[Controller 10]
Period	[Last 1 Hour]、[Last 1 Day]、[Last 1 Week]、[Last 1 Month]

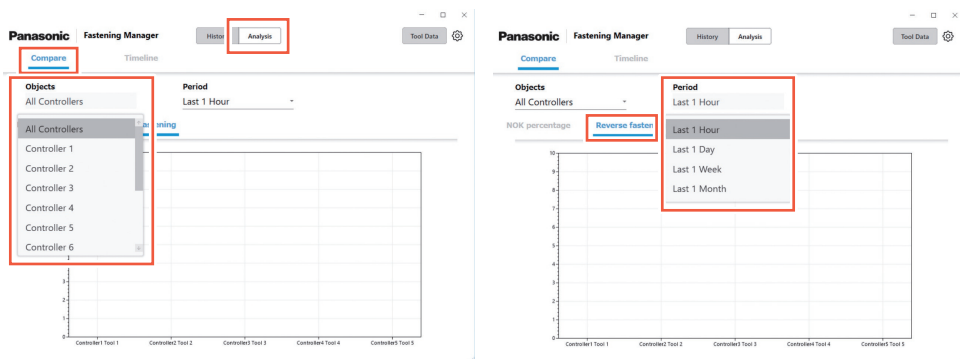
以柱状图显示分析结果。
按顺序从NOK率最高的工具开始依次显示5个(最差的5个)。



分析作业履历 (续)

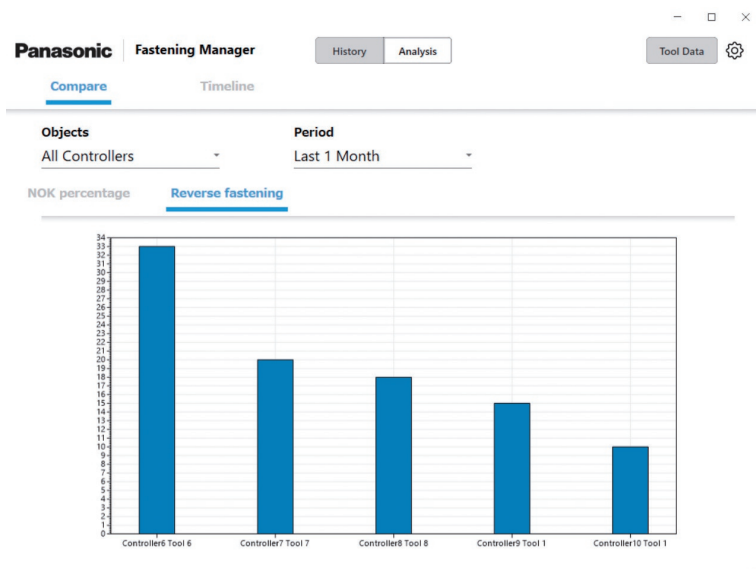
比较分析② 反转作业

选择 [Analysis] 选项卡中的 [Compare]。
请选择 [Reverse fastening] 选项卡, 按如下内容设置要分析的 [Objects]、[Period]。



Objects	[All Controllers]、[Controller 1]~[Controller 10]
Period	[Last 1 Hour]、[Last 1 Day]、[Last 1 Week]、[Last 1 Month]

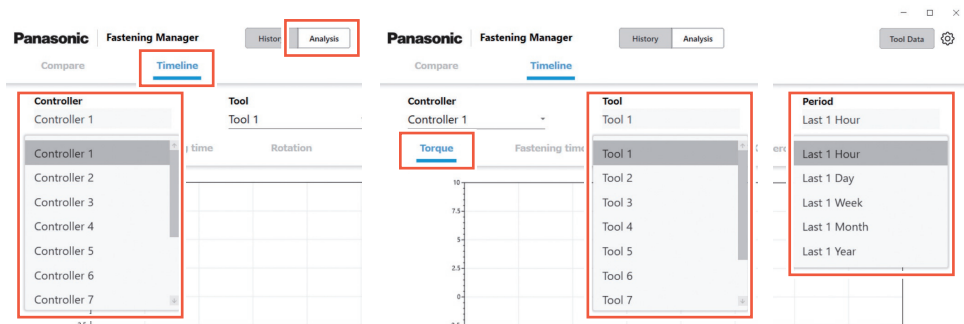
以柱状图显示分析结果。
按顺序从反转作业最多的工具开始依次显示 5 个 (最差的 5 个)。



※ EYFMH1/EYFMH2/EYFNH1 不在显示范围内。

时序分析① 扭矩值

选择 [Analysis] 选项卡中的 [Timeline]。
 请选择 [Torque] 选项卡, 按如下内容设置要分析的 [Controller]、[Tool]、[Period]。



Controller	[Controller 1]~[Controller 10]
Tool	[Tool 1]~[Tool 8]
Period	[Last 1 Hour]、[Last 1 Day]、[Last 1 Week]、[Last 1 Month]、[Last 1 Year]

以折线图 (分布图) 显示分析结果。

根据对象工具型号、对象期间不同, 所显示的数据不同。

工具型号	EYFMH1 EYFNH1※ ¹	EYADA112WA※ ¹	EYADA212WA
	EYFMH2	EYADA218WA	EYADA407WA
对象数据	[Torque Result]	[Converted torque Result]	

※¹ 仅支持 Ver1.01.00 以上版本。

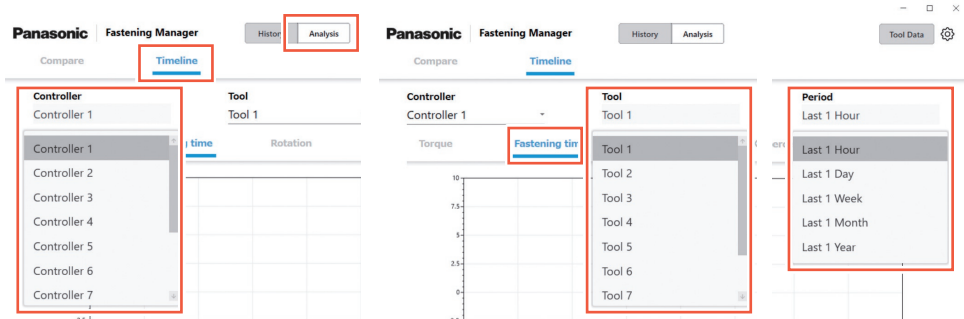


[Last 1 Hour]、[Last 1 Day]	每次紧固的值
[Last 1 Week]、[Last 1 Month]	每日的平均值
[Last 1 Year]	每月的平均值

分析作业履历 (续)

时序分析② 紧固作业时间

选择 [Analysis] 选项卡中的 [Timeline]。
 请选择 [Fastening time] 选项卡, 按如下内容设置要分析的 [Controller]、[Tool]、[Period]。

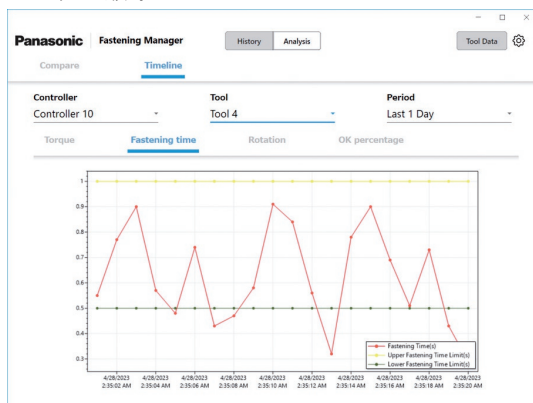


Controller	[Controller 1]~[Controller 10]
Tool	[Tool 1]~[Tool 8]
Period	[Last 1 Hour]、[Last 1 Day]、[Last 1 Week]、[Last 1 Month]、[Last 1 Year]

以折线图(分布图)显示分析结果。
 根据对象工具型号、对象期间不同, 所显示的数据不同。

工具型号	EYFMH1 EYFMH2 EYFNH1※1	EYADA112WA※1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB※1 EYADA212WB EYADA218WB EYADA407WB
对象数据	[Fastening time]	[Fastening time]	

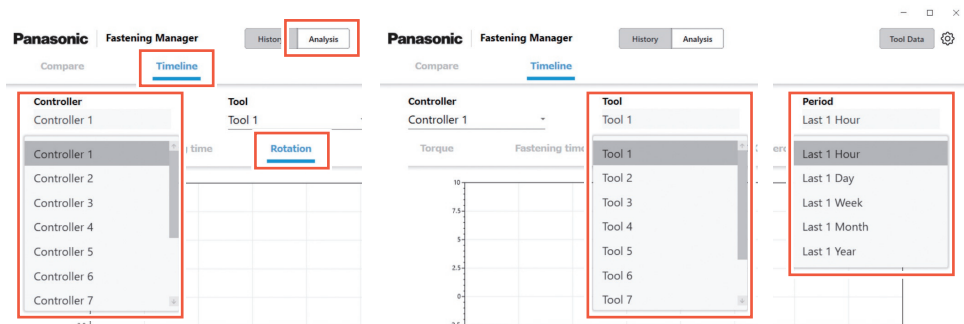
※1 仅支持 Ver1.01.00 以上版本。



[Last 1 Hour]、[Last 1 Day]	每次紧固的值
[Last 1 Week]、[Last 1 Month]	每日的平均值
[Last 1 Year]	每月的平均值

时序分析③ 实际转速

选择 [Analysis] 选项卡中的 [Timeline]。
 请选择 [Rotation] 选项卡, 按如下内容设置要分析的 [Controller]、[Tool]、[Period]。



Controller	[Controller 1]~[Controller 10]
Tool	[Tool 1]~[Tool 8]
Period	[Last 1 Hour]、[Last 1 Day]、[Last 1 Week]、[Last 1 Month]、 [Last 1 Year]

以折线图(分布图)显示分析结果。
 根据对象期间不同, 所显示的数据不同。



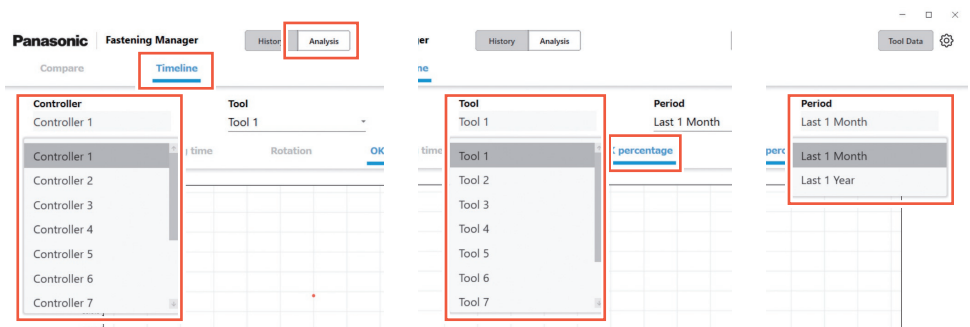
[Last 1 Hour]、[Last 1 Day]	每次紧固的值
[Last 1 Week]、[Last 1 Month]	每日的平均值
[Last 1 Year]	每月的平均值

※ EYFMH1/EYFMH2/EYFNH1 不在显示范围内。

分析作业履历 (续)

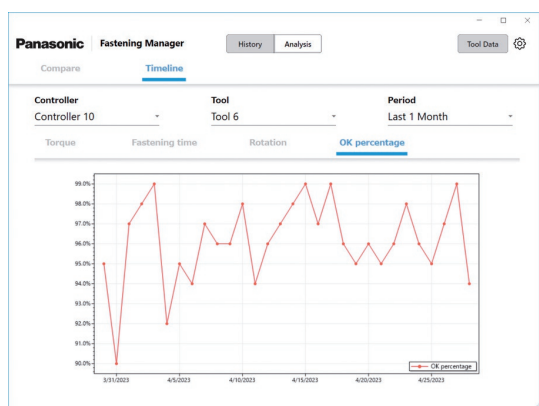
时序分析④ OK判定率

选择 [Analysis] 选项卡中的 [Timeline]。
 请选择 [OK percentage] 选项卡, 按如下内容设置要分析的 [Controller]、[Tool]、[Period]。



Controller	[Controller 1]~[Controller 10]
Tool	[Tool 1]~[Tool 8]
Period	[Last 1 Month]、[Last 1 Year]

以折线图(分布图)显示分析结果。
 根据对象期间不同, 所显示的数据不同。



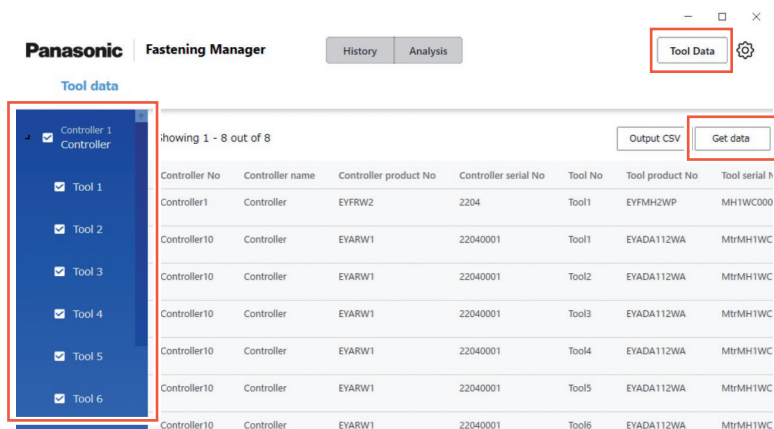
[Last 1 Month]	每日的平均值
[Last 1 Year]	每月的平均值

确认工具管理信息

工具管理信息的确认

可统一管理连接到注册控制器的工具信息。

请选择画面右上方的[Tool Data],从画面左侧的“工具/控制器列表”中选择要显示的工具。按下[Get data]后,更新信息。



显示的内容如下。根据工具型号不同,显示项目不同。

项目	内容
Controller No	控制器的注册No。
Controller name	在控制器UI中设置的控制器名称。
Controller product No	控制器的型号。
Controller serial No	每个控制器的识别号码。
Tool No	在控制器中注册的工具体号。
Tool product No	工具的型号。
Tool serial No	每个工具的识别号码。
Tool Communication No	工具的通信识别号码。
Cumulative Fastening Time	工具的作业累积时间。
Cumulative Pulsing Time ^{※1}	工具的打击累积时间。
Cumulative Number of Pulsing ^{※1}	工具的紧固累积打击数。
Cumulative Number of Fastening ^{※2}	工具的紧固累积数。

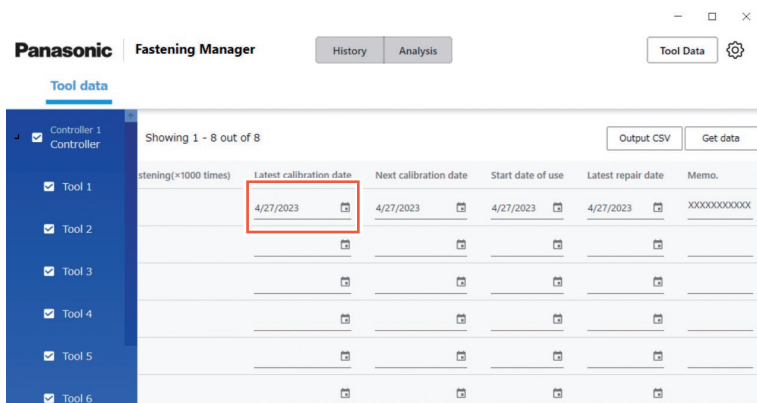
※1 仅 EYFMH1/EYFMH2/EYFNH1。

※2 仅 EYADA112WA/EYADA212WA/EYADA218WA/EYADA407WA/
EYADA112WB/EYADA212WB/EYADA218WB/EYADA407WB。

确认工具管理信息 (续)

使用履历的输入

可以记录工具的使用履历。
请在选择各项目栏后,手动输入。
选择日历标记后,即可通过日历选择并进行输入。

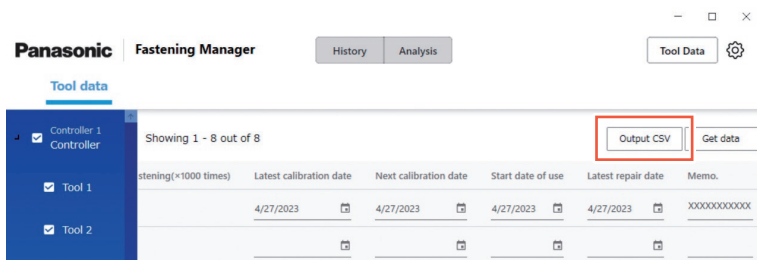


可输入的项目如下。

项目	内容
Latest calibration date	可记录最新的校正日期。
Next calibration date	可记录下次校正计划日期。
Start date of use	可记录工具的使用开始日期。
Latest repair date	可记录工具的最新修理日期。
Memo.	可用于其他备注。

将工具管理信息输出为 CSV

可将工具管理信息输出为 CSV 文件。
请选择 [Output CSV] 指定保存路径。



扭矩检查履历

可记录各工具的扭矩检查履历。
请在工具管理画面双击对象工具行。

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	Tool serial No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	MH1WC000
Controller10	Controller	EYARW1	22040001	Tool1	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool2	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool3	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool4	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool5	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool6	EYADA112WA	MtrMH1WC

显示扭矩检查履历画面。
选择日历标记后添加行,输入设置扭矩和扭矩确认结果。

也可以选择复选框进行删除。
输入完成后,请选择[OK]进行保存。

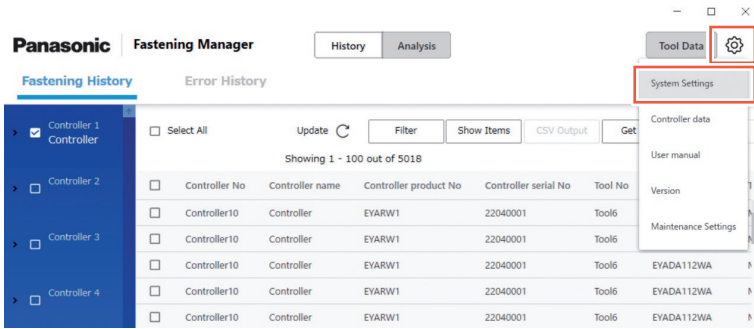
Date/Time	Target torque	Check torque 1	Check torque 2
<input type="checkbox"/> 2023/04/25 20:04	10	9.5	9.8
<input type="checkbox"/> 2023/04/26 20:04	10	10.2	
<input checked="" type="checkbox"/> 2023/04/27 21:04			

Date/Time	Target torque	Check torque 1	Check torque 2
<input checked="" type="checkbox"/> 2023/04/25 20:04	10	9.5	9.8
<input checked="" type="checkbox"/> 2023/04/26 20:04	10	10.2	
<input type="checkbox"/> 2023/04/27 20:05			

系统设置

系统设置的变更

从画面右上方的“选项”按钮中选择[System Settings]。



显示语言的变更

显示语言可选择 [Japanese]、[English]。

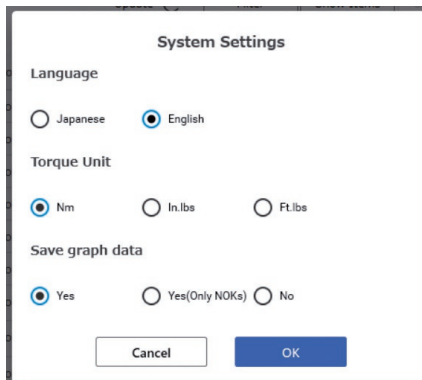
扭矩单位的变更

显示扭矩单位可选择 [Nm]、[In.lbs]、[Ft.lbs]。

保存波形数据设置

可以选择是否收集紧固波形数据。

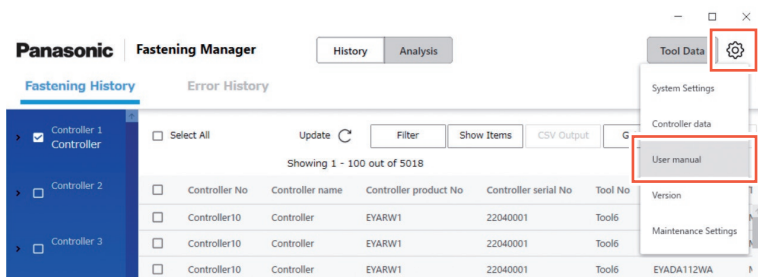
由于数据容量较大,也可以根据所使用的计算机容量及基于数据管理目的,选择 [Yes (Only NOKs)] 或 [No]。



使用说明书、软件版本的确认

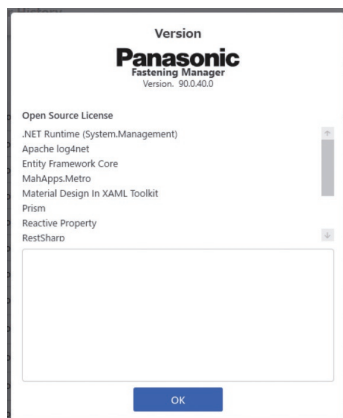
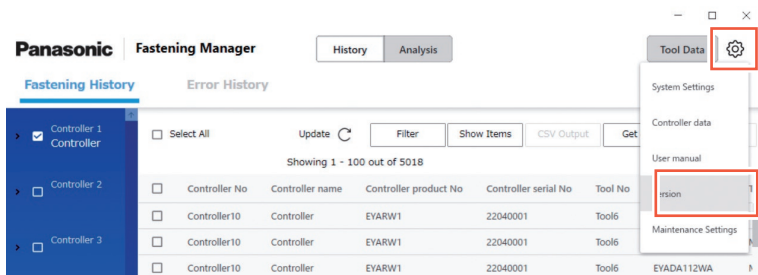
使用说明书的确认

可以显示使用说明书。
请从画面右上方的“选项”按钮中选择 [User manual]。



软件版本的确认

可以确认软件版本。
请从画面右上方的“选项”按钮中选择 [Version]。



数据库的管理限制 (使用限制的基准)

本产品可最多可收集4000万条紧固履历数据。
此外,在收集波形数据时,根据数据量,有如下限制。
由于收集不能超出最大容量,因此在根据需要进行CSV输出后,需要定期删除数据。
可以使用维护功能自动执行上述操作。

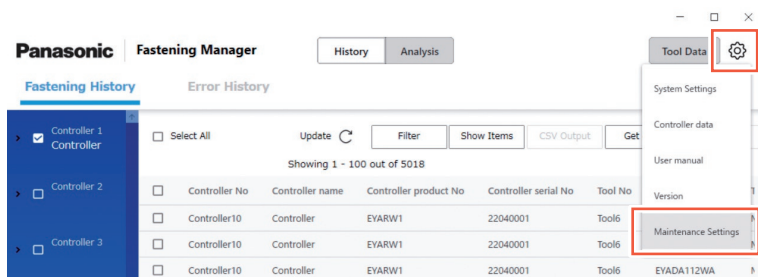
最大保存数量	工具 80 台 5,000 条/日 (每台工具)	工具 40 台 2,500 条/日 (每台工具)
40,000,000	100 日	400 日

※ EYFMH 和 EYFRW 的组合时

最大数据容量 25 GB	条数	工具 80 台 5,000 条/日 (每台工具)	工具 40 台 2,500 条/日 (每台工具)
12 秒波形	600,000	1.5 日	6 日
2 秒波形	3,600,000	9 日	36 日
1 秒波形	7,200,000	18 日	72 日

维护功能

可定期自动进行数据库管理。
请从画面右上方的“选项”按钮中选择 [Maintenance Settings]。



【注意】

根据数据量不同,有时可能需要几十分钟。
请留出充裕的时间进行设置。

■ 步骤

- ① 将 [Automated Maintenance] 设为 [ON]
- ② 从 [Weekly]、[Monthly] 中选择实施间隔, 指定星期和时间
- ③ 选择 [Csv format], 设置保存路径
- ④ 完成所有设置后, 选择 [OK] 结束

完成上述设置后, 会在指定时间时将数据自动输出 / 保存为指定保存路径下的 CSV 文件。
此外, 会删除对象数据, 确保数据库的剩余容量。

※ 自动维护时, 需要启动本软件。

※ 希望进行维护时, 也可手动进行。

Database Maintenance

Automated Maintenance

Weekly Monday 0:00

Monthly 1st Monday 0:00

Manual

Maintenance

Csv format select

decimal point : period / break : comma

decimal point : comma / break : semicolon

Csv save folder

C:\Panasonic\FasteningManager\backup Change

Cancel OK

CSV 输出 / 删除的数据范围如下。错误履历不在对象范围内。

设置	输出 / 删除对象数据范围	以文件为单位
Automated Maintenance (Weekly)	超过 3000 万条的 1 周的紧固履历	每日
Automated Maintenance (Monthly)	超过 3000 万条的 1 个月的紧固履历	每日
Manual	3000 万条以上的所有旧紧固履历	每日

数据库的备份和恢复

可以备份及恢复数据库,以防万一发生问题等情况。建议定期执行。

■ 备份步骤

- ① 本产品为启动中的状态时,将会退出
- ② 将安装目标文件夹(※1)中的“FasteningManager.sqlite”复制到USB存储器或外置硬盘等外部存储设备
(由于数量容量可能较大,请准备足够的剩余容量)

■ 恢复步骤

- ① 本产品为启动中的状态时,将会退出
- ② 用备份文件覆盖安装目标文件夹(※1)中的“FasteningManager.sqlite”。

※1 默认安装在“C:¥Panasonic¥FasteningManager¥”中。

更换使用的计算机时(重新安装软件)

更换使用本产品的计算机时,请按以下步骤进行操作。

- ① 从控制器管理画面的[Controllers]中删除所有已注册的控制器
- ② 退出本产品
- ③ 备份当前的数据库
(参见“数据库的备份和恢复”)
- ④ 卸载本产品
(打开“控制面板”,卸载“FasteningManager”)
- ⑤ 在新计算机中安装本产品 **参见 P9**
- ⑥ 恢复在③中备份的数据库
(参见“数据库的备份和恢复”)
- ⑦ 在新计算机中启动本产品 **参见 P10**
- ⑧ 在控制器管理画面上操作[Search/Register] **参见 P12**

【要求】

根据本产品使用许可协议的规定,仅可在1台计算机上进行安装,请严格遵守。
重新在新计算机中安装时,请务必先卸载旧计算机中安装的控制管理用软件。

规格

与控制器连接进行数据收集的软件

■ 运行环境

支持操作系统	Windows 10 (64bit) 以上
支持计算机 (CPU 性能)	2.0 GHz 4 核或 2 核, 逻辑处理器 4 以上
所需内存	8 GB 以上
推荐硬盘容量	SSD 100 GB 以上
推荐分辨率	1024 × 768 以上
接口	光驱 (安装软件时使用) USB Type-A (用于许可验证) Ethernet 端口 (与控制器通信)
所需软件环境	.NET Core 3.1

■ 规格

保存数据数量	紧固履历为最多 4000 万条
可注册控制器台数	最多 10 台
安全	USB 密钥验证
支持语言	日语、英语
附属品	USB 加密狗密钥 × 1
适用控制器型号	EYARW1 EYFRW2 ※ 包括选配型号

软件许可规定

本产品由以下类型的软件构成。

- (1) Panasonic株式会社 (Panasonic) 自主开发的软件
- (2) 第三方持有并授权给 Panasonic 的软件
- (3) 开源软件

对于属于上述(3)的软件,虽基于其可能有用的意图而发布,但本公司不就此作出任何保证,包括关于“商品性”或“针对特定用途的适用性”的默示保证。

部分属于上述(3)的软件使用以下 URL 许可条款中第 4 款所示的再分发代码。不可变更或分发可再分发代码的源代码,以使除外许可证适用于可再分发代码的一部分。

“除外许可证”是指:作为使用、变更或分发代码的条件,要求
(i) 以源代码形式公布或分发代码;
或 (ii) 其他人员可变更代码;
的许可证。

<https://visualstudio.microsoft.com/ja/license-terms/mlt031619/>

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Operating Instructions

Controller Management Software

Model No.: EYASW1



IMPORTANT

Read and follow the safety and operating instructions before using this product.

Original instructions: English
Translation of the original instructions: Other languages

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GETTING STARTED

Operating Environment

Use a PC with Windows OS for this software.
Prepare a device that satisfies the following.

Operating environment

Compatible OS	Windows10 (64 bit) or later
Compatible PC (CPU)	2.0 GHz, 4 or 2 cores, 4 or more logical processors
Storage	8 GB or more
Recommended hard disk capacity	SSD 100 GB or more
Recommended resolution	1024 × 768 or more
Interface	Optical drive (for software installation) USB Type-A (for licence authentication) Ethernet port (for communication with a controller)
Software environment	.NET Core 3.1

- Some PCs are not available even if they meet the operating environment.
- Depending on the use environment etc. of your PC, the descriptions and screens in this Operating Instructions might be different from the actual descriptions and screens. Please be forewarned.
- The contents of this Operating Instructions are subject to change without prior notice.
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How to Access the Operating Instructions

The current version of the software's operating instructions and other resources can be downloaded from the website below.

[Only for EU] <https://www.panasonic-powertools.eu/en/assembly/downloads>

[Only for Asia] <https://panasonic.net/electricworks/ecm/powerelctrictools/download/>

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Intended Use

The software is designed to collect data from a connected controller. It also performs simple data analysis in addition to automated collection of fastening history data.



01 Management of up to 10 controllers

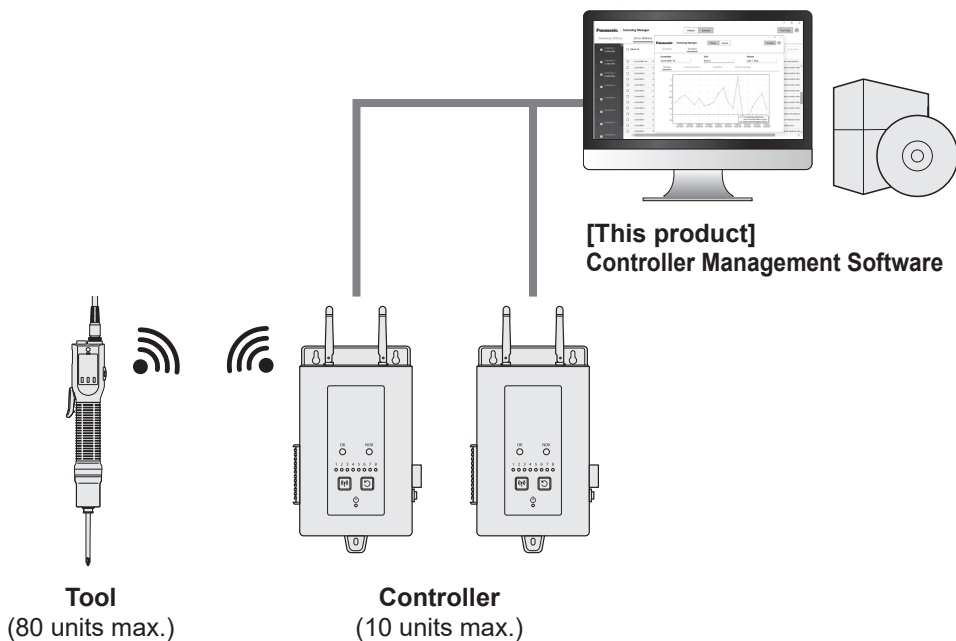
02 Fastening history data analysis function

03 Tool information management function

Setup

Install the software in a PC and connect the PC to controllers via wired LAN. Up to 10 controllers can be registered.

- The maximum number of tools that can be registered is 80 (8 × 10).



LICENCE AGREEMENT

Software Licence Agreement

1. Licence granted

You are granted a right to use the software. However, this does not mean that the copyright of the software is transferred to you.

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7. Other

The software licence will be automatically terminated if you breach the above conditions. In that case, you shall dispose of the software.

NOTES FOR USE

Notes for use

To use the maximum processing performance of a PC, prepare a PC dedicated for the use of this software.

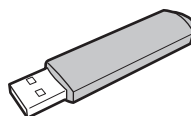
Sharing a PC with other software may increase processing load, resulting in low performance, for example a slower display speed.

Included Items

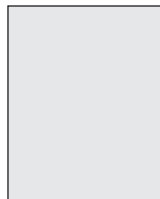
■ CD-R × 1



■ USB dongle for activation × 1



■ Flyer × 1

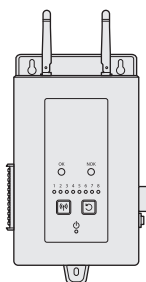


Separately Sold Items

Prepare tools and controllers to use with the software.



Tool



Controller

SYSTEM CONFIGURATION

Supported Controller Models List

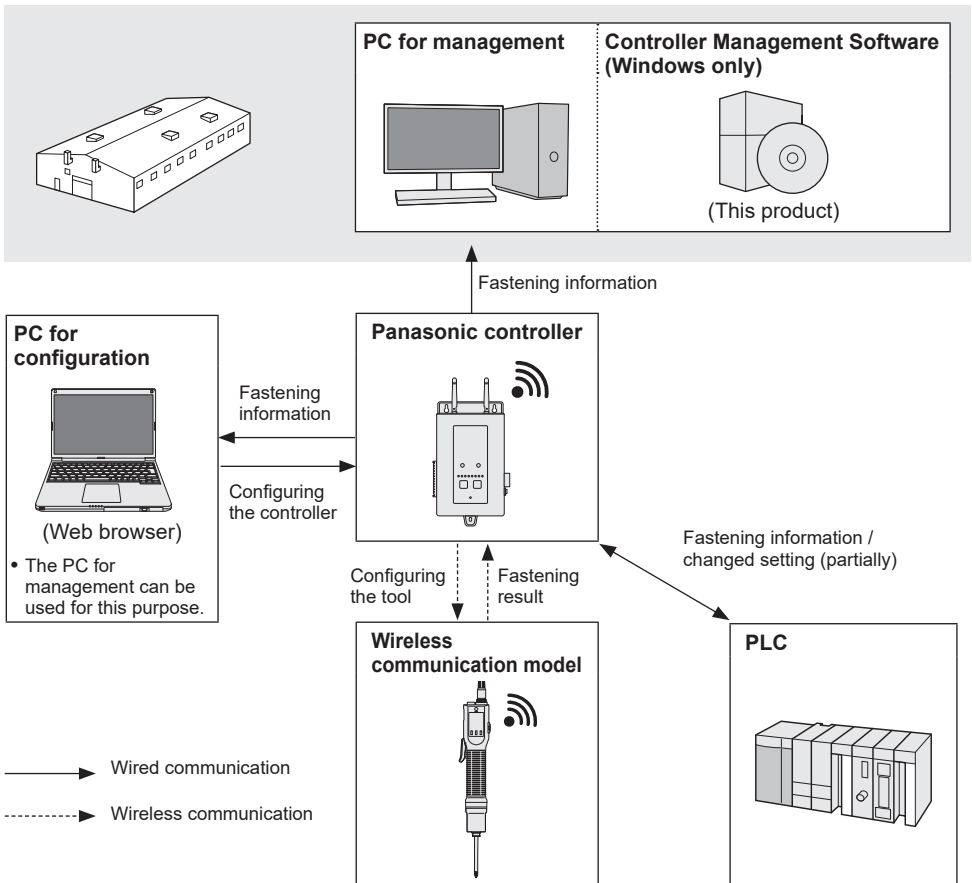
Item	Controller	Tool	
Models that can be registered	EYARW1 EYFRW2	EYADA112WA/WB*1 EYADA218WA/WB EYFMH1/EYFMH2	EYADA212WA/WB EYADA407WA/WB EYFNH1*1

- The model numbers are those as of the time of sale.
- Varieties with different suffixes are also included.
- *1 This is only supported by the version 1.01.00 or later.

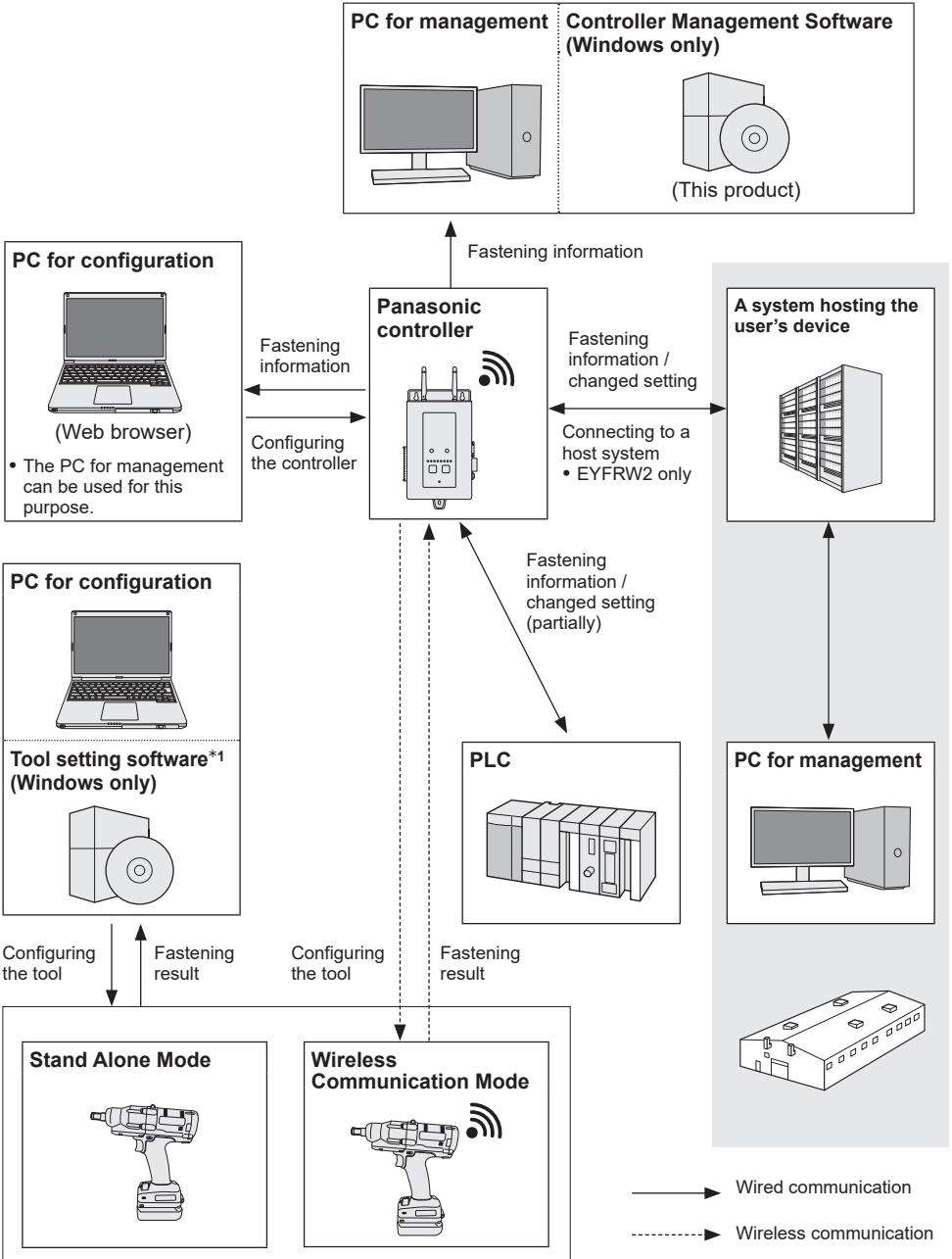
System Configuration

The software manages fastening history data collected by connecting a Panasonic controller with a cable.

Setup of EYARW and EYADA



■ Setup of EYFRW and EYFMH/EYFNH



*1 The "tool setting software" can be downloaded from our web site. **Refer to P2**

SUPPORTED FUNCTIONS AND NOTES FOR OPERATION

Tools and Available Functions

Available functions differ depending on the tool model. See below for details.

Tool product No		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
Controller product No		EYFRW2	EYARW1		
Fastening history data collection		○ (incl. waveform data)	○	○	
Tool Data		○	○	○	
Analysis function	Compare	NOK percentage	○	○	
		Reverse fastening	—	○	
	Timeline	Torque	○	○	—
		Fastening time	○	○	○
		Rotation	—	○	○
		OK percentage	○	○	○

*1 This is only supported by the version 1.01.00 or later.

Notes for Operation

Collected data are saved in the internal storage of a PC. Back up the data by outputting them as a CSV file or by any other means according to the remaining hard disk capacity of the PC.

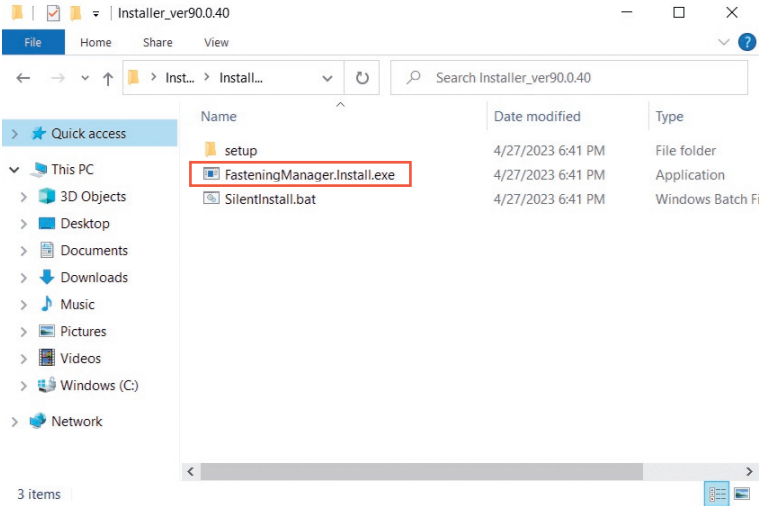
Data may be deleted from the setting menu on a controller even before they are collected by the software. To prevent missing data, regularly perform data collection.

- The software must be running for automated data collection. Therefore, it is recommended that you regularly start the software.

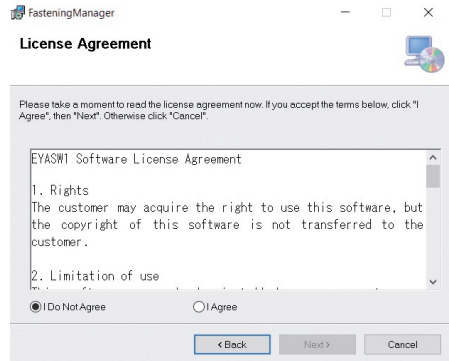
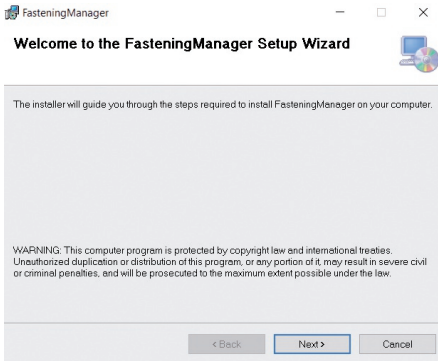
PREPARATION BEFORE USE

Installing the Software

Put an included CD-R in the optical drive and double-click “FasteningManager.Install.exe” in the installer folder to execute it.



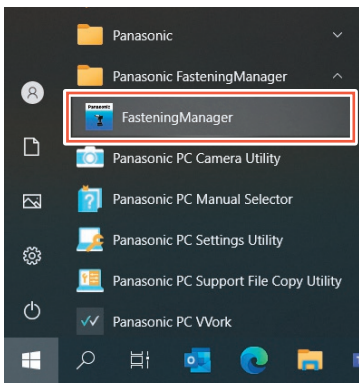
Follow the setup wizard to install the software.
Agree the licence agreement to proceed.



PREPARATION BEFORE USE (cont.)

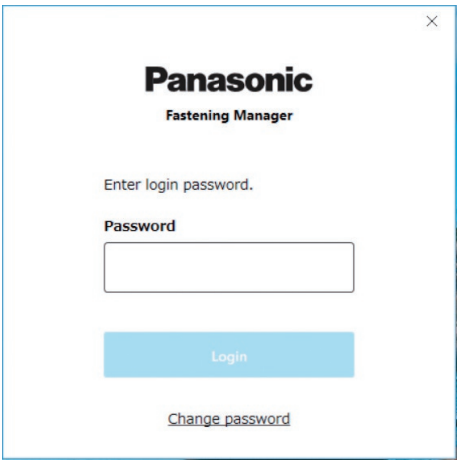
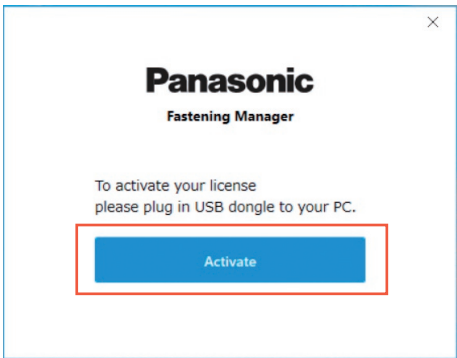
Starting the Software

After installation, start the software from the Windows start menu.



USB Activation and Password Authentication

To use the software, activate it with a USB dongle. Insert the included USB dongle into your PC and click [Activate]. When activation has succeeded, the screen to input a login password is displayed.



CAUTION
Keep the USB dongle safely not to lose it.

Initial login password

Below is the initial login password.

Initial login password

abcABC123

Changing the Password

After the initial login, change the password in the screen below.

- For a password, always use a combination of eight or more characters including three or more types from upper case, lower case, number, and symbol.
- Below are the symbols that can be used.

~	!	@	#	\$	%	^	&	*
()	+	¥		-	}	{]
[<	>	.	,	/	?	`	

Change password

To change the password.
please enter the current password and the
new password.

Current Password

New Password

New password (re-enter)

■ If you forgot your password

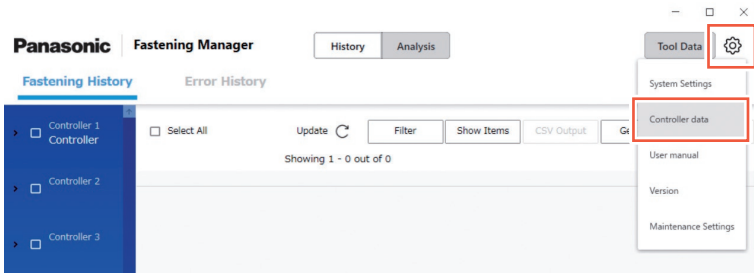
Uninstall the software and then install it again.
This initialises the password.

- Do not delete the database.

MANAGING A CONTROLLER

Managing a Controller

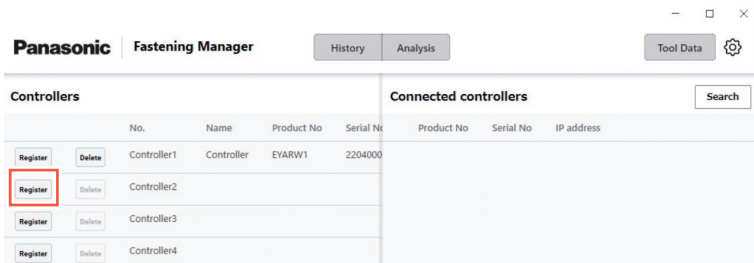
To collect fastening history data using the software, you need to register a controller. From the option button on the upper right of the screen, select [Controller data].



- To register a controller to be managed, you can directly input its IP address or search it over the network.

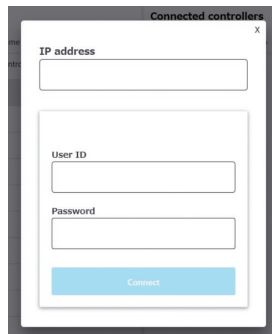
Registering a Controller ① Directly Inputting an IP address

In “Controllers” on the left of the screen, select [Register].



In the screen below, input the “IP address”, “User ID”, and “Password” of the controller.

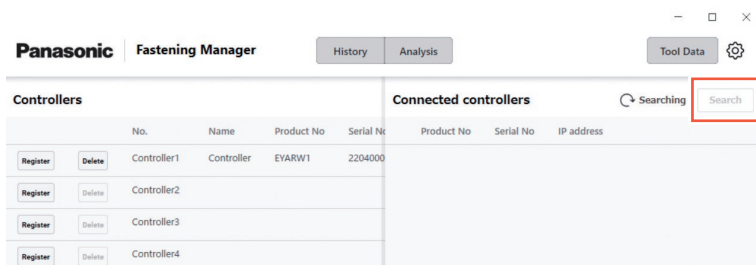
- Input “User ID” and “Password” of the administrator account registered in the controller.



- Configure the PC and the controller to be on the same network.

Registering a Controller ② Searching over the Network

From “Connected controllers” on the right of the screen, select [Search].



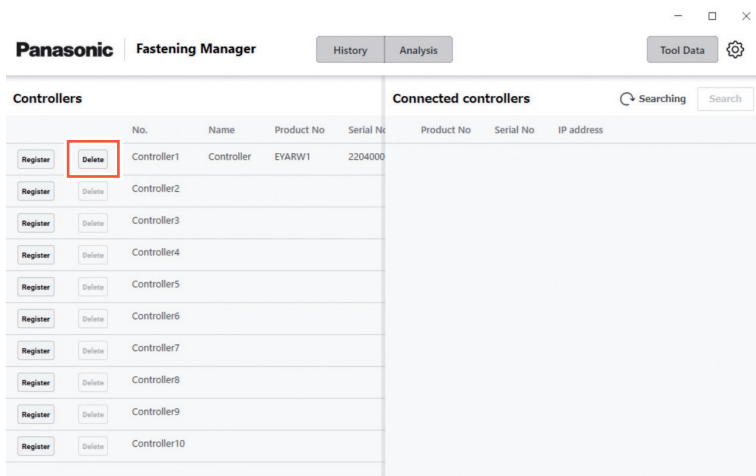
Controllers on the network are displayed.
Select [Add].

CAUTION

Use a fixed IP address for the controller. DHCP (automatic assignment) may cause the IP address to change when the controller is restarted and prevent reconnection.

Deleting a Registered Controller

To delete a registered controller, select [Delete] in “Controllers”.

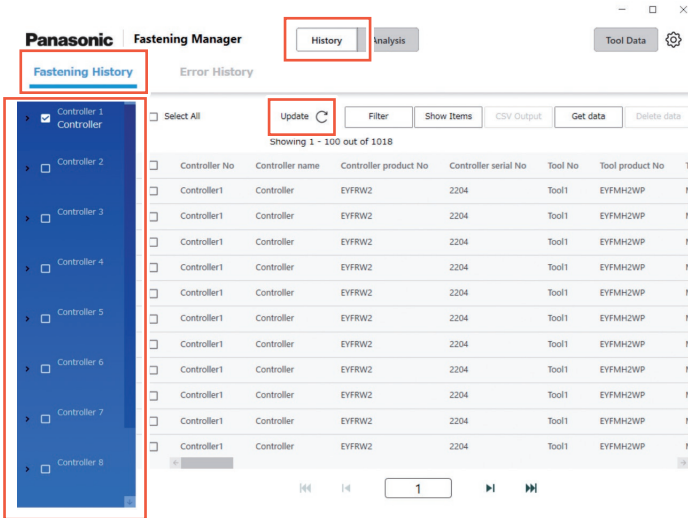


CHECKING THE FASTENING HISTORY DATA

Displaying the Fastening History Data

You can display the fastening history data collected from the registered controller. Select [History] and then [Fastening History], and select the controller from the controller/tool list.

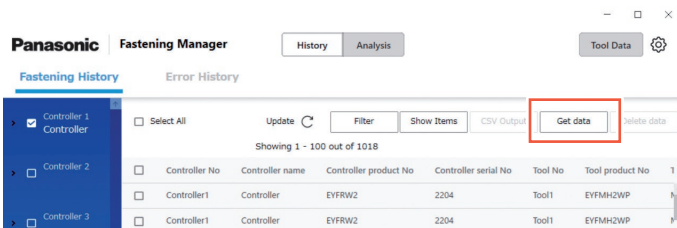
Selecting [Update] displays the updated data.



The data is automatically collected at intervals of 5 minutes while the software is running.

Obtaining the Fastening History Data Manually

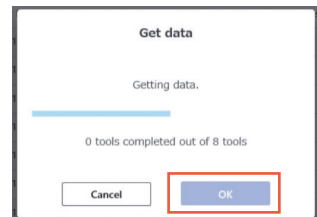
You can manually obtain the fastening history data. In the Fastening History screen, select [Get data].



The “Getting data” popup appears. Select [OK] when the process is completed.

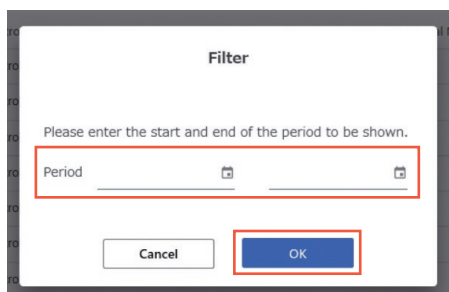
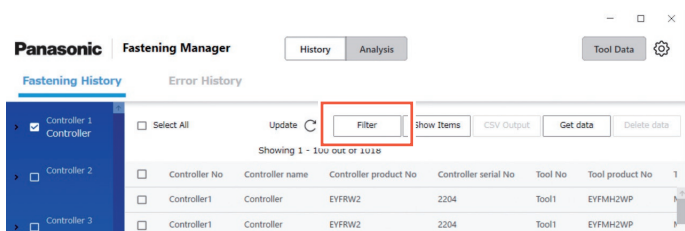
CAUTION

If the data volume obtained at once is extremely large, the process may take long.



Filtering the Displayed Data

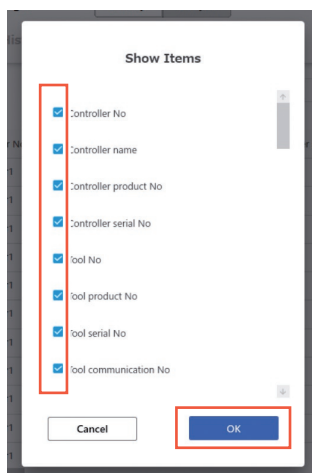
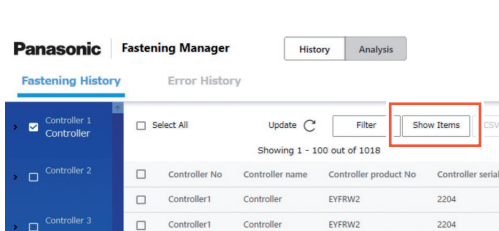
You can filter the displayed data by specifying a period.
In the Fastening History screen, select [Filter], specify the period, and select [OK].



- The set filter is stored.

Setting the Items to Display

You can set the items to display.
In the Fastening History screen, select [Show Items], check the desired items, and select [OK].

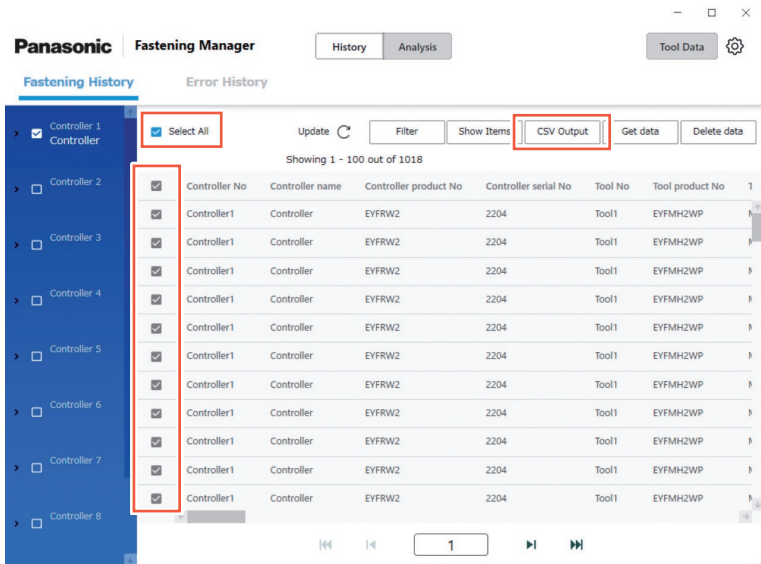


CHECKING THE FASTENING HISTORY DATA (cont.)

Outputting as a CSV File

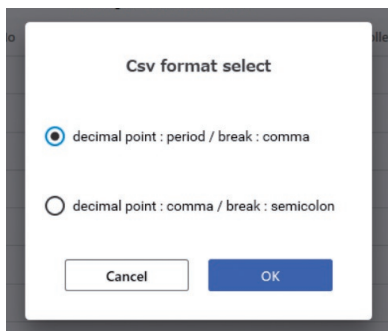
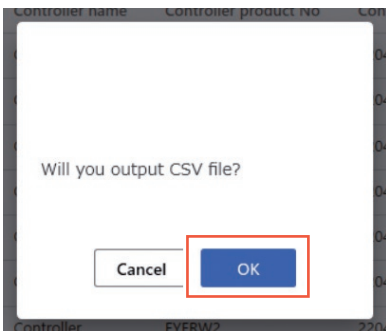
You can output the fastening history data in the CSV format.
In the Fastening History screen, check the desired data and select [CSV Output].

- Selecting all the data is also possible.



Select [OK] to output the data to a PC.

- You can select the CSV format as below.

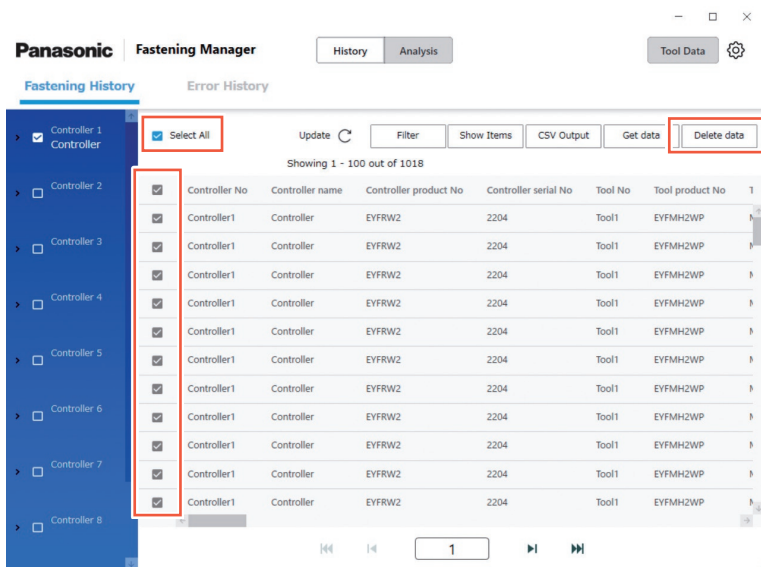


Deleting the Fastening History Data

You can delete the fastening history data.

In the Fastening History screen, check the desired data and select [Delete data].

- Selecting all the data is also possible.



The screenshot shows the Panasonic Fastening Manager interface. The 'Fastening History' tab is active. A sidebar on the left lists controllers 1 through 8, with Controller 1 selected. The main area displays a table of fastening history data. The 'Select All' checkbox is checked, and the 'Delete data' button is highlighted with a red box. The table shows the following data:

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	1

This process deletes the data stored by the software in the database on a PC. It does not delete the data in the controller.

The number and volume of data that can be managed by the database are limited. When the number of data is about to reach the upper limit or the hard disk space on a PC is becoming short, delete the data to create a space after outputting them as a CSV file.

- To perform the above process regularly and automatically, see “Maintenance Function”.

Refer to P32

CHECKING THE FASTENING HISTORY DATA (cont.)

Displaying the Waveform Data • For setup of EYFMH/EYFNH and EYFRW only

In the software, you can display the waveform data stored with the fastening history data.

Double-click the row of the desired fastening history data.

The screenshot shows the Panasonic Fastening Manager software. The 'Fastening History' tab is active. A table lists fastening history data with columns: Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. The first row is highlighted with a red box. The table shows 1018 items, with the first 10 rows visible.

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

The waveform data is displayed as below.

You can adjust the display by selecting “X-axis”, “Y-axis”, and “Scale”.

Selecting [Output] exports the data in the CSV format.

The screenshot shows the 'History detail data' dialog box. It displays a torque waveform graph on the left and a data table on the right. The graph shows torque (Y-axis) versus time (X-axis). The data table lists pulse count, fastening time, torque result, angle before snug, angle after snug, and RPM. The 'Output' button is highlighted with a red box. The X-axis is set to 'Time' and the Y-axis is set to 'Torque'.

OK Torque result : 50.2 Nm vs. Target torque : 100.4%

Output

Pulse count	Fastening time(ms)	Torque result	Angle before snug	Angle after snug	RPM
0	10.0	25.0	9	0	150
0	20.0	25.0	26	0	283
0	30.0	25.0	56	0	500
0	40.0	25.0	98	0	700
0	50.0	25.0	150	0	867
0	60.0	25.0	210	0	1000
0	70.0	25.0	285	0	1250
0	80.0	25.0	371	0	1433
0	90.0	25.0	467	0	1600
0	100.0	25.0	576	0	1817
0	110.0	25.0	693	0	1950

X-axis: Time Y-axis: Torque Scale: Reset

Close

CAUTION

If the waveform data volume is large (e.g., when the time per fastening is long), obtaining and displaying it may take long.

CHECKING THE ERROR HISTORY DATA

Displaying the Error History Data

You can display the list of error history data obtained from a registered controller. The data is automatically collected at intervals of 5 minutes while the software is running.

The screenshot shows the Panasonic Fastening Manager software interface. The 'History' tab is selected, and the 'Error History' sub-tab is active. A list of controllers (Controller 1 to Controller 8) is shown on the left, with Controller 1 selected. The main area displays a table of error history data. The table has the following columns: Controller No, Controller name, Controller product No, Controller serial No, Date, Time, Object, Error Code, and Error description. The table shows 17 rows of data, with the first row being the selected Controller 1. The error code for the selected row is 3303, and the error description is 'MotorControl Micr'. The table is paginated, showing 1 out of 17 rows.

Controller No	Controller name	Controller product No	Controller serial No	Date	Time	Object	Error Code	Error description
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD11	WLAN Disconnect
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD12	Wi-Fi Module Rebc
Controller1	Controller	EYFRW2	2204	2022/11/01	16:28:53	Controller	BC21	Setting Error
Controller1	Controller	EYFRW2	2204	2022/11/01	16:12:16	Tool1	4316	WLAN Module Reb

Other Settings

The following operations can be performed in the same way as on the fastening history data.

- Obtaining the error history data manually
- Filtering the displayed data
- Outputting as a CSV file
- Deleting the error history data

ANALYSING THE WORK HISTORY

Analysis Function

The function can analyse the fastening history data collected from a controller and display the result.

- The function analyses only the data on the hard disk of a PC.

See below for the content of analysis.

Type	Description
Compare	Displays and compares the tasks prone to poor fastening (NOK) and loosening/rework (reverse fastening). This analysis is useful to find which tasks should be improved in the process.
NOK percentage	Displays NOK percentages (poor fastening rates) of respective tools in a bar graph.
Reverse fastening	Displays the number of times of reverse fastening (loosening/rework) in a bar graph.
Timeline	Displays the time series of fastening results of the same tool. This analysis is useful to manage change in materials and deterioration of tools.
Torque	Displays the resulting torque (converted torque) of individual fastenings in a line graph (scatter plot).
Fastening time	Displays the fastening time of individual fastenings in a line graph (scatter plot).
Rotation	Displays the number of rotations of individual fastenings in a line graph (scatter plot).
OK percentage	Displays the fastening OK percentages in a line graph (scatter plot).

Tools and Available Analysis Types

Available analysis types differ depending on the tool model.

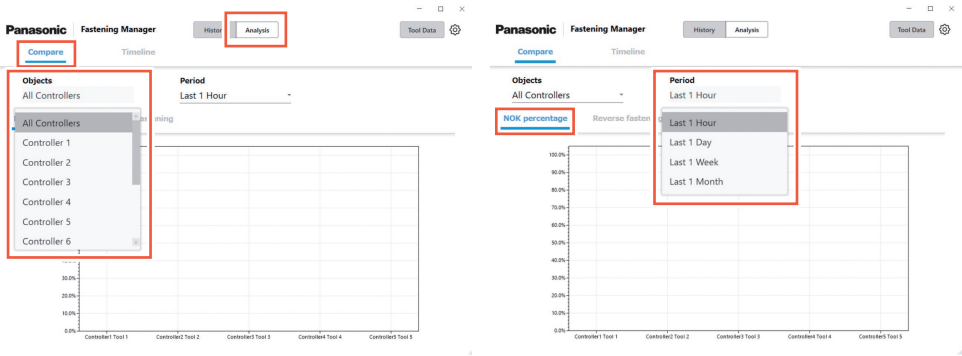
- When the analysed data contains information of more than one tool models, the information of the supported models only is displayed.

Tool product No		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
Controller product No		EYFRW2	EYARW1		
Analysis function	Compare	NOK percentage	○	○	○
		Reverse fastening	—	○	○
	Timeline	Torque	○	○	—
		Fastening time	○	○	○
		Rotation	—	○	○
		OK percentage	○	○	○

*1 This is only supported by the version 1.01.00 or later.

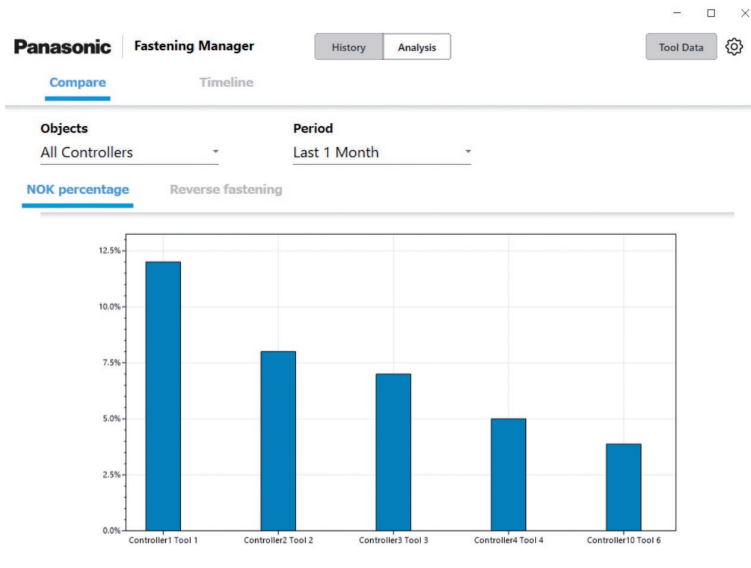
Compare ① NOK percentage

In the [Analysis] tab, select [Compare].
 Select the [NOK percentage] tab and set “Objects” and “Period” to analyse by selecting from the options below.



Objects	“All Controllers”, “Controller 1” to “Controller 10”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”

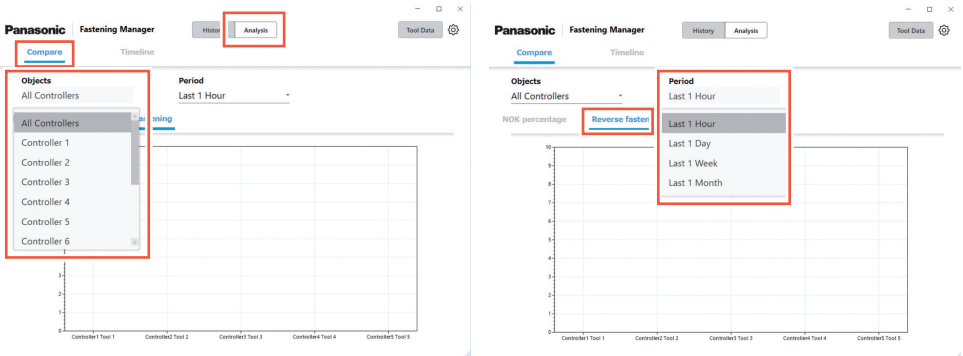
The analysis result is displayed in a bar graph.
 The top five tools with the highest NOK percentages (i.e., the worst five tools) are shown in order.



ANALYSING THE WORK HISTORY (cont.)

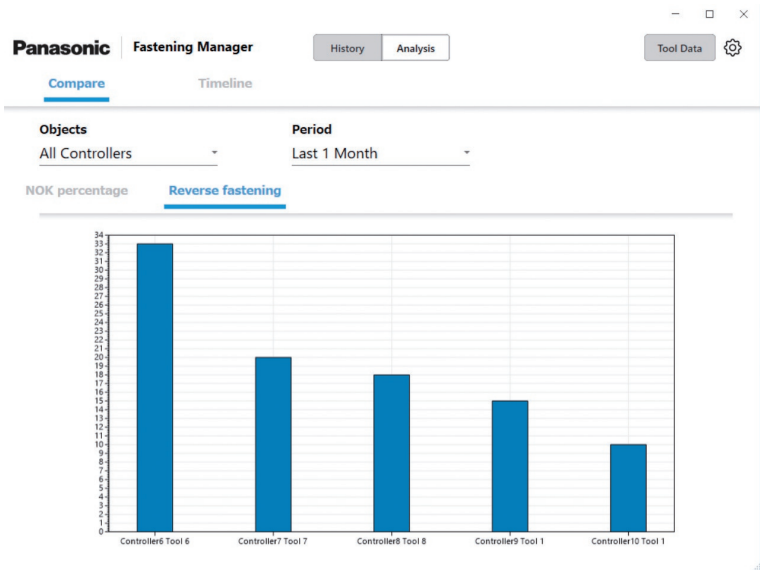
Compare ② Reverse fastening

In the [Analysis] tab, select [Compare].
 Select the [Reverse fastening] tab and set “Objects” and “Period” to analyse by selecting from the options below.



Objects	“All Controllers”, “Controller 1” to “Controller 10”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”

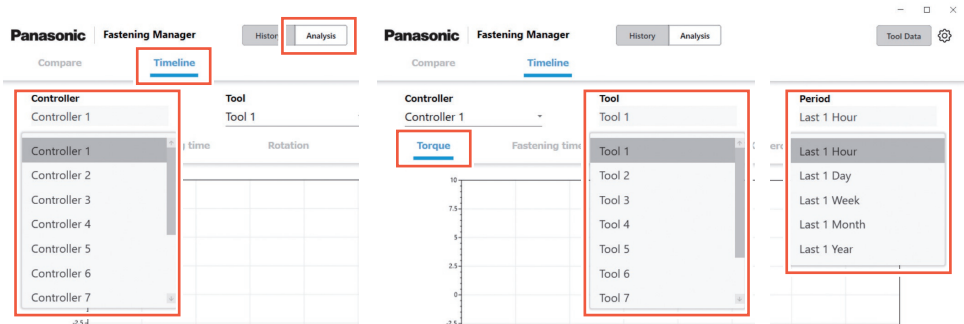
The analysis result is displayed in a bar graph.
 The top five tools with the highest number of times of reverse fastening (i.e., the worst five tools) are shown in order.



- EYFMH1, EYFMH2 and EYFNH1 are not supported.

Timeline ① Torque

In the [Analysis] tab, select [Timeline].
 Select the [Torque] tab and set “Controller”, “Tool”, and “Period” to analyse by selecting from the options below.



Controller	“Controller 1” to “Controller 10”
Tool	“Tool 1” to “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

The analysis result is displayed in a line graph (scatter plot).
 Displayed data differ depending on the tool model and the selected period.

Tool product No	EYFMH1 EYFNH1*1	EYADA112WA*1 EYADA212WA	EYADA218WA EYADA407WA
Analysed data	“Torque Result”		“Converted Torque Result”

*1 This is only supported by the version 1.01.00 or later.

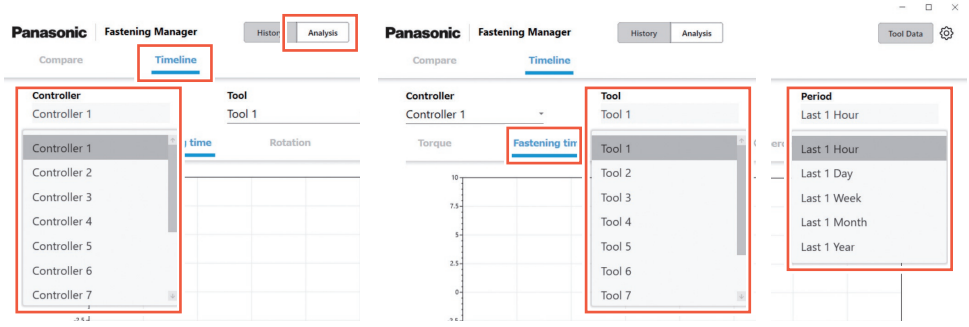


“Last 1 Hour”, “Last 1 Day”	Values per fastening
“Last 1 Week”, “Last 1 Month”	Mean values per day
“Last 1 Year”	Mean values per month

ANALYSING THE WORK HISTORY (cont.)

Timeline ② Fastening time

In the [Analysis] tab, select [Timeline].
 Select the [Fastening time] tab and set “Controller”, “Tool”, and “Period” to analyse by selecting from the options below.

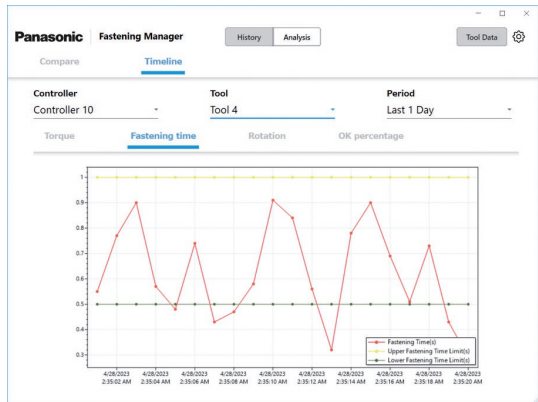


Controller	“Controller 1” to “Controller 10”
Tool	“Tool 1” to “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

The analysis result is displayed in a line graph (scatter plot).
 Displayed data differ depending on the tool model and the selected period.

Tool product No	EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB
Analysed data	“Fastening Time”	“Fastening Time”	

*1 This is only supported by the version 1.01.00 or later.

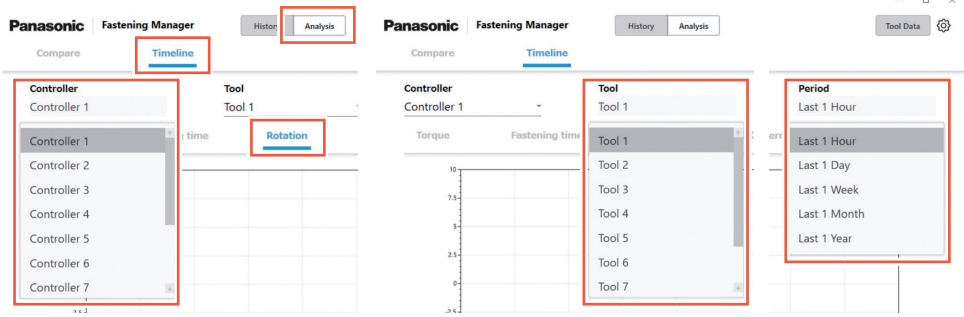


“Last 1 Hour”, “Last 1 Day”	Values per fastening
“Last 1 Week”, “Last 1 Month”	Mean values per day
“Last 1 Year”	Mean values per month

Timeline ③ Rotation

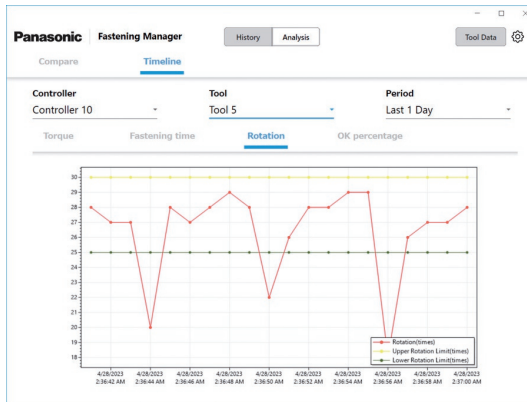
In the [Analysis] tab, select [Timeline].

Select the [Rotation] tab and set “Controller”, “Tool”, and “Period” to analyse by selecting from the options below.



Controller	“Controller 1” to “Controller 10”
Tool	“Tool 1” to “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

The analysis result is displayed in a line graph (scatter plot).
Displayed data differ depending on the selected period.



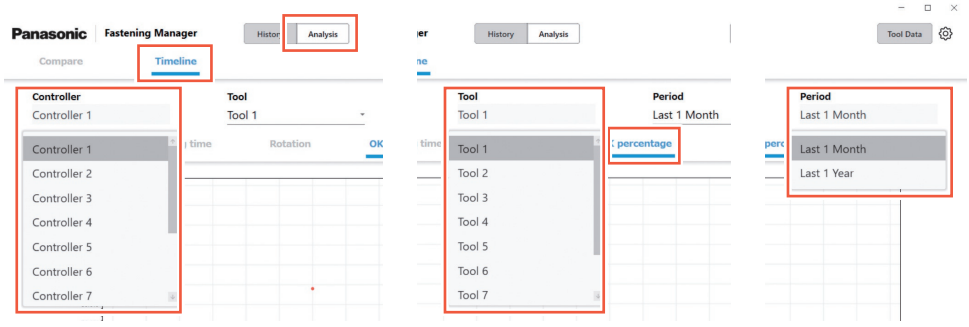
“Last 1 Hour”, “Last 1 Day”	Values per fastening
“Last 1 Week”, “Last 1 Month”	Mean values per day
“Last 1 Year”	Mean values per month

- EYFMH1, EYFMH2 and EYFNH1 are not supported.

ANALYSING THE WORK HISTORY (cont.)

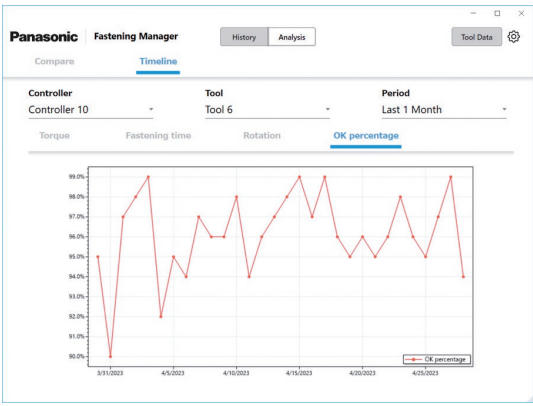
Timeline ④ OK percentage

In the [Analysis] tab, select [Timeline].
 Select the [OK percentage] tab and set “Controller”, “Tool”, and “Period” to analyse by selecting from the options below.



Controller	“Controller 1” to “Controller 10”
Tool	“Tool 1” to “Tool 8”
Period	“Last 1 Month”, “Last 1 Year”

The analysis result is displayed in a line graph (scatter plot).
 Displayed data differ depending on the selected period.



“Last 1 Month”	Mean values per day
“Last 1 Year”	Mean values per month

CHECKING THE TOOL DATA INFORMATION

Checking the Tool Data Information

You can centrally manage information of the tools connected to the registered controllers.

Select [Tool Data] on the upper right of the screen and select the desired tools from the controller/tool list. Clicking [Get data] updates the information.

The screenshot shows the Panasonic Fastening Manager interface. At the top, there are buttons for 'History' and 'Analysis'. A 'Tool Data' button is highlighted in the top right corner. Below this, a sidebar on the left lists 'Controller 1 Controller' and 'Tool 1' through 'Tool 6', each with a checked checkbox. The main area displays a table of tool data. The table has columns for Controller No, Controller name, Controller product No, Controller serial No, Tool No, Tool product No, and Tool serial No. The table shows 8 rows of data. A 'Get data' button is highlighted in the top right corner of the table area.

The following items are displayed. Displayed items differ depending on the tool model.

Item	Description
Controller No	The controller's registration number.
Controller name	The controller's name set in its UI.
Controller product No	The controller's product number.
Controller serial No	The controller's unique serial number.
Tool No	The tool's number registered in the controller.
Tool product No	The tool's product number.
Tool serial No	The tool's unique serial number.
Tool communication No	The tool's communication identification number.
Cumulative Fastening Time	The accumulated time of the tool's operation.
Cumulative Pulsing Time*1	The accumulated time of the tool's percussion.
Cumulative Number of Pulsing*1	The accumulated number of times of the tool's percussion.
Cumulative Number of Fastening*2	The accumulated number of screws fastened by the tool.

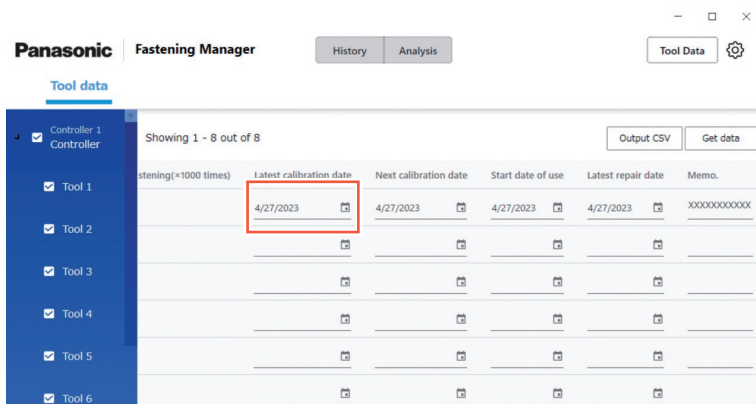
*1 EYFMH1/EYFMH2/EYFNH1 only.

*2 EYADA112WA/EYADA212WA/EYADA218WA/EYADA407WA/EYADA112WB/EYADA212WB/EYADA218WB/EYADA407WB only.

CHECKING THE TOOL DATA INFORMATION (cont.)

Inputting the Usage History

You can record the usage history of tools.
Select the desired field and fill it manually.
Selecting a calendar mark allows you to input from a calendar.

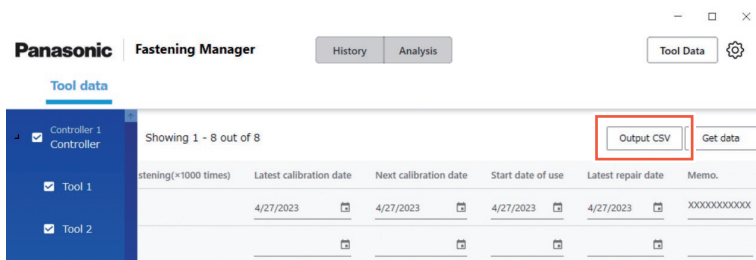


Below are the input items.

Item	Description
Latest calibration date	The latest calibration date.
Next calibration date	The next planned calibration date.
Start date of use	The date of starting use of the tool.
Latest repair date	The tool's latest repair date.
Memo.	Remarks can be input.

Outputting the Tool Data Information in CSV

You can output the tool data information as a CSV file.
Select [Output CSV] and select the destination to save.



Inputting the Torque Check History

You can record the torque check history of the tools.
In the Tool Data screen, click the row of the desired tool.

Panasonic Fastening Manager History Analysis Tool Data

Tool data

Showing 1 - 8 out of 8

Output CSV Get data

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	Tool serial No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	MH1WC000
Controller10	Controller	EYARW1	22040001	Tool1	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool2	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool3	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool4	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool5	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool6	EYADA112WA	MtrMH1WC

The Torque check history screen is displayed.
Select a calendar mark and add a row. Then input the set torque and torque check result.

You can also check and delete rows.
After inputting, select [OK] to save the content.

Torque check history

Delete

Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 21			

1

OK

Torque check history

Delete

Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 20:05			

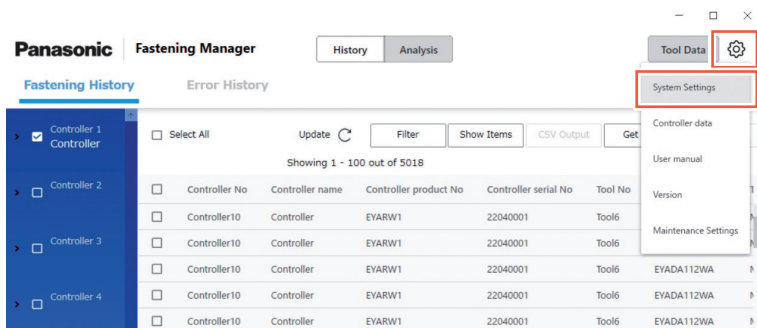
1

OK

SYSTEM SETTINGS

Changing the System Settings

From the option button on the upper right of the screen, select [System Settings].



Changing the Language

You can select “Japanese” or “English”.

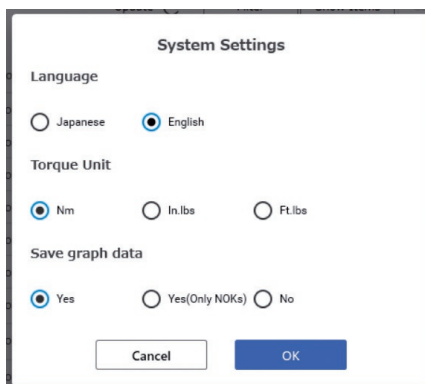
Changing the Torque Unit

You can select “Nm”, “In.lbs”, or “Ft.lbs”.

Saving the Waveform Data

Select whether to collect the fastening waveform data.

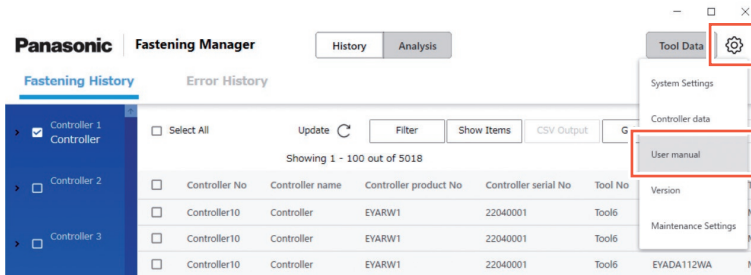
Waveform data capacity is likely to be large and therefore you can select, “Yes (Only NOKs)” or “No”, whether to collect them depending on your PC’s space and your data management objective.



Accessing the Operating Instructions

You can access the operating instructions.

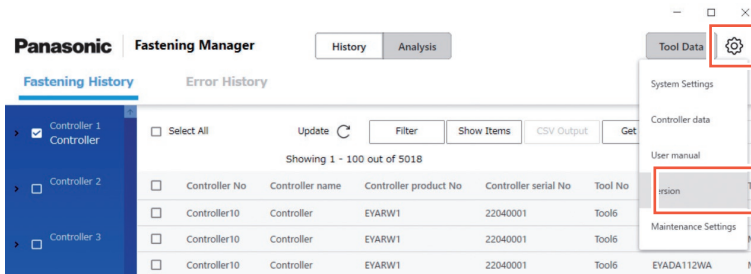
From the option button on the upper right of the screen, select [User manual].



Displaying the Software Version

You can display the software version.

From the option button on the upper right of the screen, select [Version].



MAINTENANCE

Database Capacity (Estimation)

The software can collect the fastening history data of a maximum of 4000 times of fastening.

If you collect waveform data, the limitation below is applied depending on the data volume.

As data exceeding the upper limit cannot be collected, they should be regularly deleted after being output in CSV as necessary.

To automate the process, you can use the maintenance function.

Maximum number of times of fastening	80 tools 5,000 screws/day (per tool)	40 tools 2,500 screws/day (per tool)
40,000,000	Equivalent to 100 days	Equivalent to 400 days

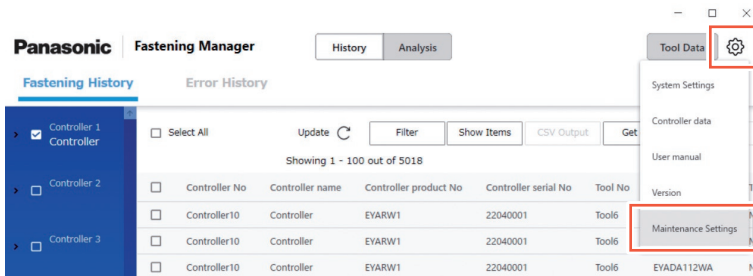
● For Setup of EYFMH and EYFRW

Maximum data capacity 25 GB	Number of times of fastening	80 tools 5,000 screws/day (per tool)	40 tools 2,500 screws/day (per tool)
12-second waveform	600,000	Equivalent to 1.5 days	Equivalent to 6 days
2-second waveform	3,600,000	Equivalent to 9 days	Equivalent to 36 days
1-second waveform	7,200,000	Equivalent to 18 days	Equivalent to 72 days

Maintenance Function

This function allows you to automate scheduled database management.

From the option button on the upper right of the screen, select [Maintenance Settings].



CAUTION

The process may take tens of minutes depending on the data volume. Take it into account when making the setting.

■ Procedure

- (1) Set “Automated Maintenance” to “ON”.
- (2) Select the interval between “Weekly” and “Monthly” and select the day of week and the time.
- (3) Select the CSV format and the destination to save.
- (4) After completing selection, select [OK].

With the setting completed, the function will automatically output and save the data as a CSV file in the specified destination at the specified time. It will also delete data to create a necessary space in the database.

- The software must be running to perform automated maintenance.
- Maintenance can also be started manually as necessary.

Below is the range of data to be output as CSV or deleted. It does not include the error history data.

Setting	Range of data to be output or deleted	Range of data contained in a file
Automated (Weekly)	Fastening history data for one week after exceeding 30 million data	Data for one day
Automated (Monthly)	Fastening history data for one month after exceeding 30 million data	Data for one day
Manual	All oldest fastening history data exceeding 30 million data	Data for one day

Backing Up and Restoring the Database

You can back up the database to restore it in case of a problem. Scheduled backup is recommended.

■ How to back up

- (1) Exit the software if it is running.
- (2) Copy “FasteningManager.sqlite” from the folder *1 where you installed the software to an external storage such as a USB flash drive and external hard disk.
(Prepare an enough space to store the data that may be large in volume.)

■ Procedure

- (1) Exit the software if it is running.
- (2) Overwrite “FasteningManager.sqlite” in the folder *1 where you installed the software using the backup file.

*1 The software is installed in “C:\Panasonic\FasteningManager\” by default.

Replacing the PC (Reinstalling the Software)

To replace the PC where the software is installed, follow the procedure below.

- (1) In the Controller data screen, delete all registered controllers from “Controllers”.
- (2) Exit the software.
- (3) Back up the current database.
(See “Backing Up and Restoring the Database”.)
- (4) Uninstall the software.
(Uninstall “FasteningManager” in the control panel.)
- (5) Install the software in a new PC.
Refer to P9
- (6) Restore the database you backed up in (3).
(See “Backing Up and Restoring the Database”.)
- (7) Start the software on the new PC.
Refer to P10
- (8) In the Controller data screen, “Search” and “Register” the controllers.
Refer to P12

Note

Install the controller management software in one PC only as stated in the licence agreement.

To install the software in the new PC, be sure to uninstall it on the old PC.

SPECIFICATIONS

The software is designed to collect data from a connected controller.

■ Operating environment

Compatible OS	Windows10 (64 bit) or later
Compatible PC (CPU)	2.0 GHz, 4 or 2 cores, 4 or more logical processors
Storage	8 GB or more
Recommended hard disk capacity	SSD 100 GB or more
Recommended resolution	1024 × 768 or more
Interface	Optical drive (for software installation) USB Type-A (for licence authentication) Ethernet port (for communication with a controller)
Software environment	.NET Core 3.1

■ Specifications

Number of data that can be stored	A maximum of 4000 fastening history data
Number of controllers that can be registered	10 (maximum)
Security	USB key activation
Supported language	English, Japanese
Accessory	USB dongle key × 1
Applicable controller product No.	EYARW1 EYFRW2 • Including varieties

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Modell-Nr.: EYASW1



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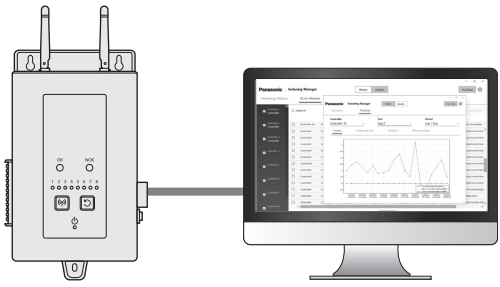
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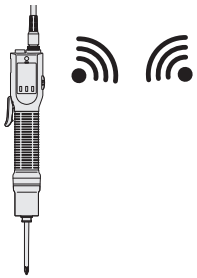
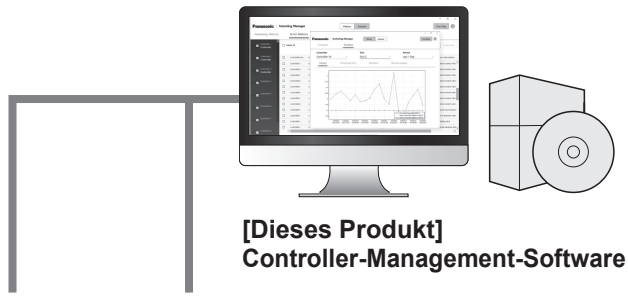
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Einrichtung

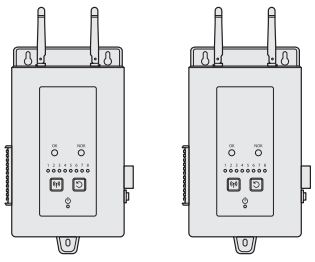
Installieren Sie die Software auf einem PC und verbinden Sie den PC über kabelgebundenes LAN mit den Controllern.

Bis zu 10 Controller können registriert werden.

- Die Höchstzahl der Werkzeuge, die registriert werden können, beträgt 80 (8 × 10).



Werkzeug
(max. 80 Einheiten)



Controller
(max. 10 Einheiten)

Software-Lizenzvereinbarung

1. Gewährte Lizenz

Ihnen wird das Recht zur Nutzung der Software gewährt. Das bedeutet jedoch nicht, dass das Urheberrecht der Software an Sie übertragen wird.

2. Lizenzumfang

Die Software wird auf einem PC pro Paket installiert und darf nicht auf mehreren Geräten zugleich genutzt werden. Das Kopieren eines Teils oder der gesamten Software ohne unsere Zustimmung ist verboten.

3. Analyse, Änderung und Modifikation

Analyse, Änderung und Modifikation der Software sind verboten. Wir haften nicht für etwaige Mängel aufgrund solcher Analysen, Änderungen oder Modifikationen.

4. Änderung der Spezifikationen

Die Softwarespezifikationen können ohne vorherige Ankündigung geändert werden.

5. Haftungsfreistellung

Wir und unsere Händler haften nicht für Ihre Schäden oder sonstigen Ansprüche, die von einem Dritten im Zusammenhang mit der Nutzung der Software Ihnen gegenüber erhoben werden, mit Ausnahme von vorsätzlichen oder grob fahrlässigen Handlungen durch uns oder unsere Händler.

6. Exportkontrolle

Wenn Sie die Software aus dem Land herausbringen, in dem sie gekauft wurde, halten Sie sich an die Gesetze und Vorschriften zur Exportkontrolle von Ausgangs- und Zielland.

7. Sonstiges

Die Softwarelizenz erlischt automatisch, wenn Sie gegen die genannten Bedingungen verstoßen. In diesem Fall müssen Sie die Software entsorgen.

HINWEISE ZUR VERWENDUNG

Hinweise zur verwendung

Um die maximale Rechenleistung eines PCs zu nutzen, halten Sie einen PC für die ausschließliche Nutzung durch diese Software bereit.

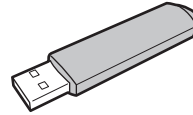
Wenn auf dem PC auch noch andere Software läuft, kann die Rechenlast steigen und es zu einer geringeren Leistung kommen, zum Beispiel durch niedrigere Anzeigegeschwindigkeit.

Lieferumfang

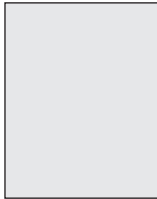
■ CD-R × 1



■ USB-Dongle für die Aktivierung × 1



■ Flyer × 1

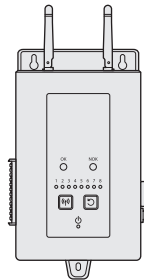


Separat erhältliche Artikel

Halten Sie Werkzeuge und Controller bereit, die mit der Software genutzt werden sollen.



Werkzeug



Controller

SYSTEMKONFIGURATION

Liste der unterstützten Controller-Modelle

Punkt	Controller	Werkzeug	
Modelle, die registriert werden können	EYARW1 EYFRW2	EYADA112WA/WB* ¹ EYADA218WA/WB EYFMH1/EYFMH2	EYADA212WA/WB EYADA407WA/WB EYFNH1* ¹

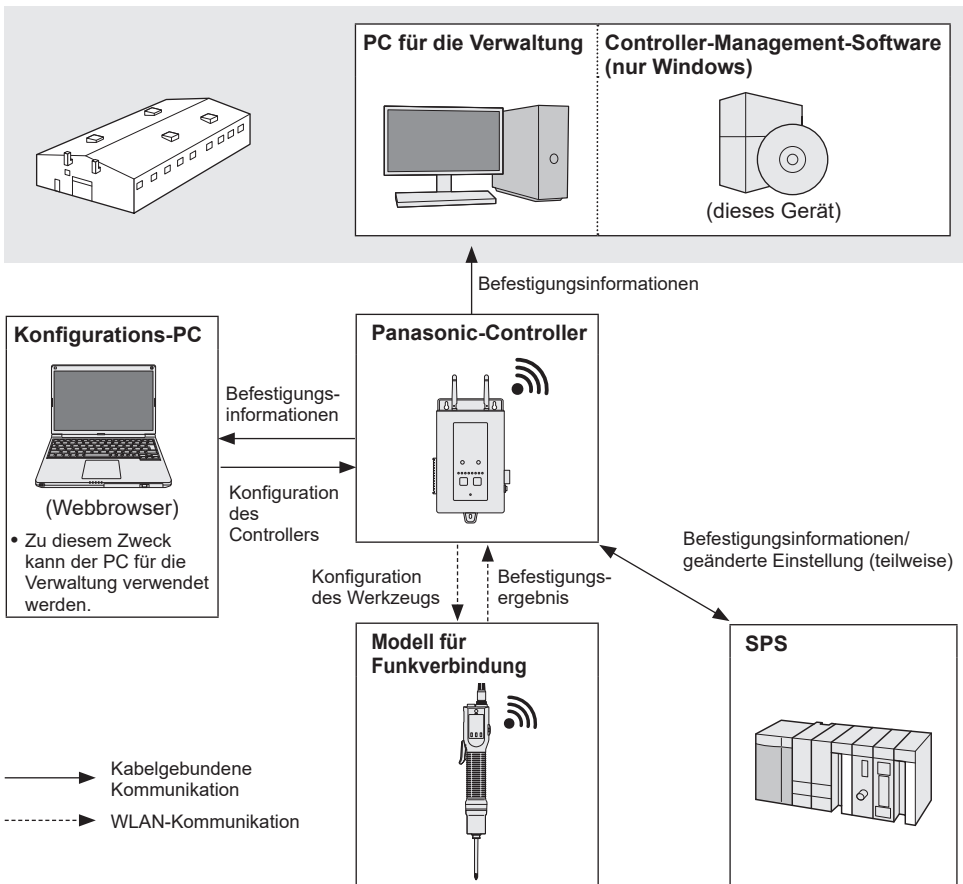
- Die Modellnummern sind diejenigen, die zum Zeitpunkt des Verkaufs gültig waren.
- Es werden auch Varianten mit unterschiedlichen Suffixen berücksichtigt.

*¹ Dies wird erst ab Version 1.01.00 unterstützt.

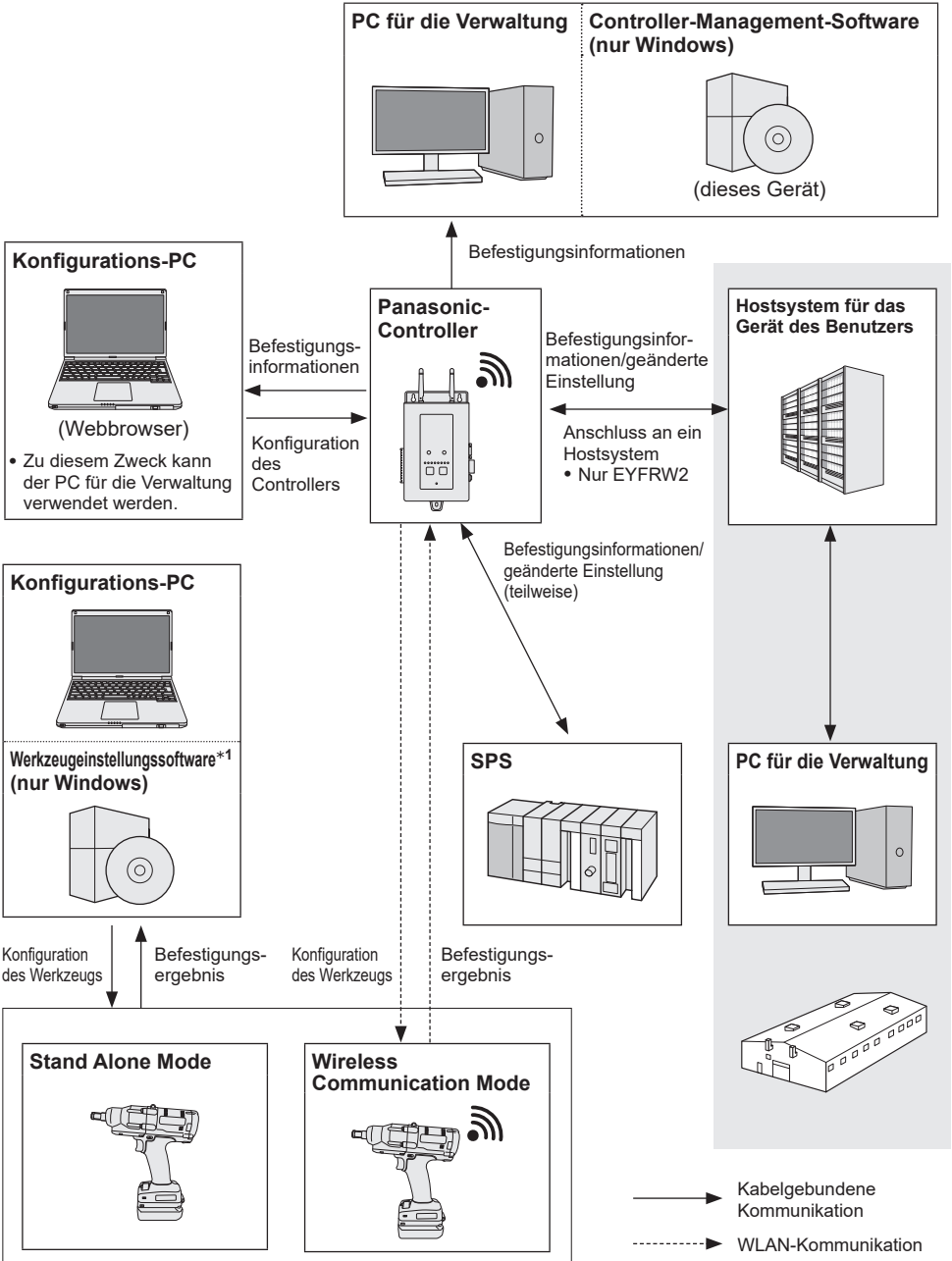
Systemkonfiguration

Die Software verwaltet Befestigungsverlaufdaten, die beim Anschluss eines Panasonic-Controllers mit einem Kabel erfasst werden.

Einrichten von EYARW und EYADA



Einrichtung von EYFRW und EYFMH/EYFNH



*1 Die „Werkzeugeinstellungssoftware“ kann von unserer Website heruntergeladen werden. **Siehe S. 2**

Werkzeuge und verfügbare Funktionen

Die verfügbaren Funktionen unterscheiden sich je nach Werkzeug-Modell. Einzelheiten finden Sie unten.

Werkzeug-Produktnr.		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
Controller-Produktnr.		EYFRW2	EYARW1		
Erfassung der Befestigungsverlaufsdaten		<input type="radio"/> (inkl. Wellenformdaten)	<input type="radio"/>	<input type="radio"/>	
Werkzeugdaten		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Analysefunktion	Vergleichen	NOK-Prozentsatz	<input type="radio"/>	<input type="radio"/>	
		Umgekehrte Befestigung	—	<input type="radio"/>	
	Zeitachse	Drehmoment	<input type="radio"/>	<input type="radio"/>	—
		Befestigungszeit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Drehung	—	<input type="radio"/>	<input type="radio"/>
		OK-Prozentsatz	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*1 Dies wird erst ab Version 1.01.00 unterstützt.

Hinweise zum Betrieb

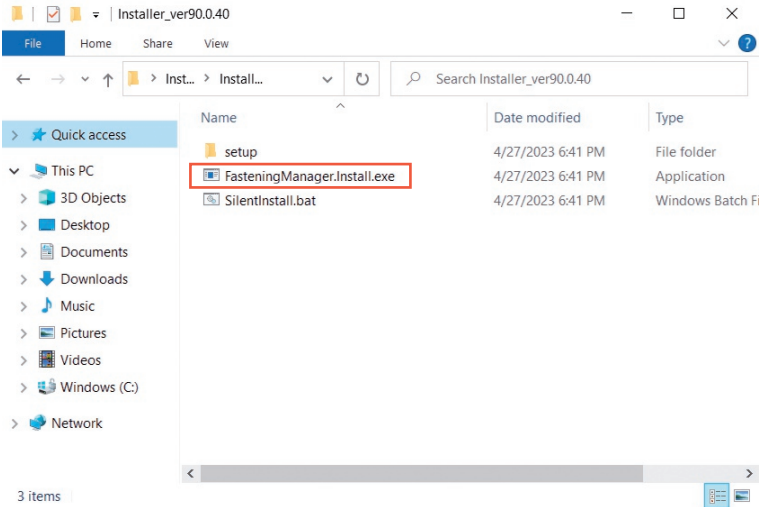
Die erfassten Daten werden im internen Speicher eines PCs gespeichert. Sichern Sie die Daten durch Ausgabe als CSV-Datei oder ein anderes geeignetes Mittel, wenn der Festplattenspeicherplatz des PCs zuende geht.

Daten können mit dem Einstellungsmenü auf einem Controller gelöscht werden, auch bevor sie von der Software erfasst werden. Um Datenlücken zu vermeiden, sollten Sie die Datenerfassung regelmäßig durchführen.

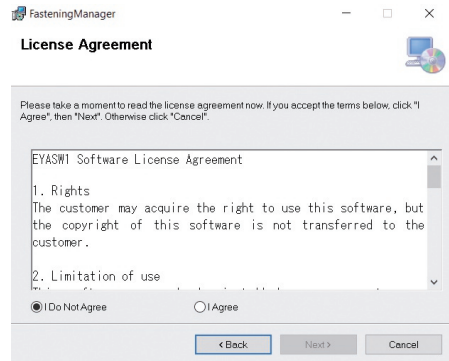
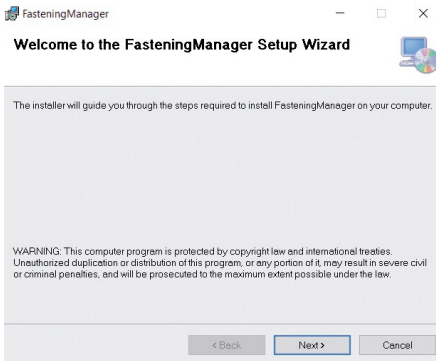
- Die Software muss für die automatische Datenerfassung laufen. Es wird daher empfohlen, die Software regelmäßig zu starten.

Installation der Software

Legen Sie eine mitgelieferte CD-R in das optische Laufwerk und doppelklicken Sie auf die Datei „FasteningManager.Install.exe“ im Installationsordner, um sie auszuführen.

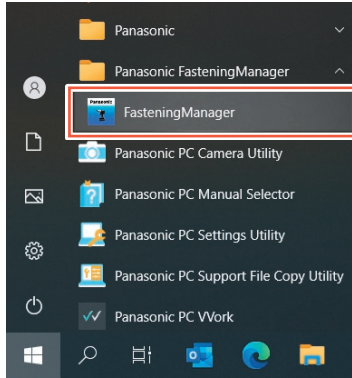


Folgen Sie dem Setup-Assistenten, um die Software zu installieren. Stimmen Sie der Lizenzvereinbarung zu, um fortzufahren.



Starten der Software

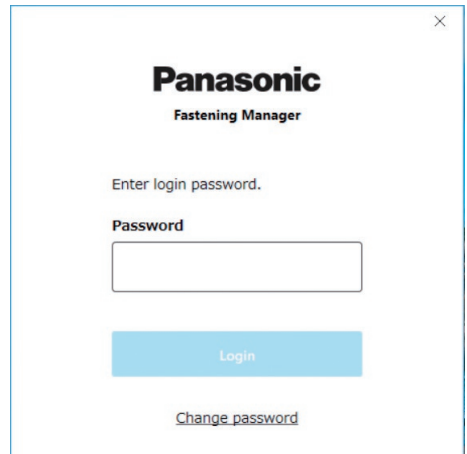
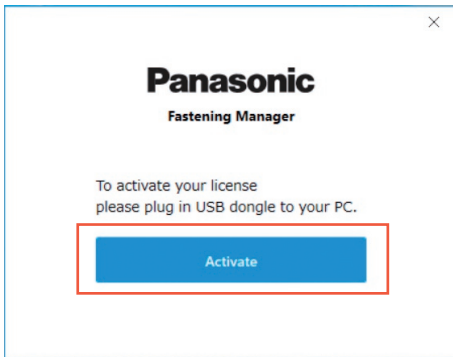
Starten Sie nach der Installation die Software über das Windows-Startmenü.



USB-Aktivierung und Passwortauthentifizierung

Um die Software nutzen zu können, müssen Sie sie mit einem USB-Dongle aktivieren. Stecken Sie den mitgelieferten USB-Dongle in Ihren PC ein und klicken Sie auf [Activate].

Wenn die Aktivierung erfolgreich war, wird der Bildschirm zur Eingabe eines Anmeldepassworts angezeigt.



VORSICHT

Bewahren Sie den USB-Dongle sicher auf, um ihn nicht zu verlieren.

Anfängliches Anmeldepasswort

Nachfolgend finden Sie das anfängliche Anmeldepasswort.

**Anfängliches
Anmeldepasswort**

abcABC123

Ändern des Passworts

Ändern Sie nach der Erstanmeldung das Passwort auf dem unten abgebildeten Bildschirm.

- Verwenden Sie als Passwort immer eine Kombination aus acht oder mehr Zeichen, darunter drei oder mehr Arten von Großbuchstaben, Kleinbuchstaben, Zahlen und Symbolen.
- Nachfolgend finden Sie die Symbole, die verwendet werden können.

~	!	@	#	\$	%	^	&	*
()	+	¥		_	}	{]
[<	>	.	,	/	?	`	

Change password

To change the password,
please enter the current password and the
new password.

Current Password

New Password

New password (re-enter)

■ Wenn Sie Ihr Passwort vergessen haben

Deinstallieren Sie die Software und installieren Sie sie erneut.
Dadurch wird das Passwort zurückgesetzt.

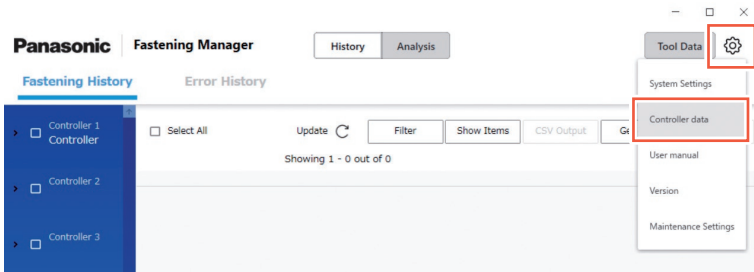
- Löschen Sie nicht die Datenbank.

EINEN CONTROLLER VERWALTEN

Einen Controller verwalten

Um mit der Software Befestigungsverlaufsdaten zu erfassen, müssen Sie einen Controller registrieren.

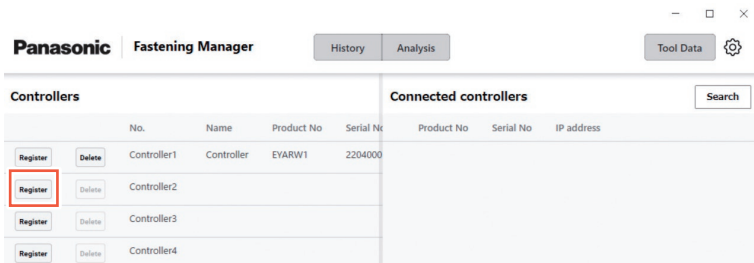
Wählen Sie aus der Optionsschaltfläche oben rechts auf dem Bildschirm [Controller data].



- Um einen Controller zur Verwaltung zu registrieren, können Sie seine IP-Adresse direkt eingeben oder über das Netzwerk danach suchen.

Einen Controller registrieren ① Direkte Eingabe einer IP-Adresse

Wählen Sie unter „Controllers“ links auf dem Bildschirm [Register].



Geben Sie auf dem folgenden Bildschirm die „IP address“, „User ID“ und das „Password“ des Controllers ein.

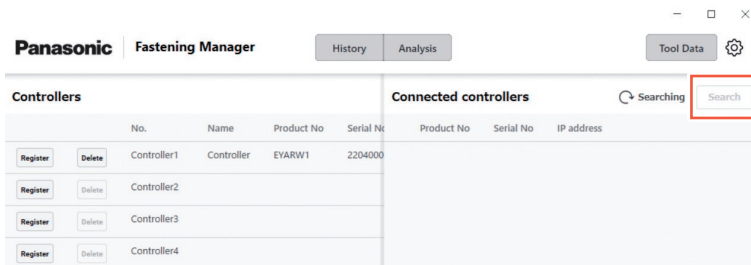
- Geben Sie die „User ID“ und das „Password“ des Administratorkontos ein, das im Controller registriert ist.

No.	Name	Product No	Serial No	Product No	Serial No	IP address
Controller1	Controller	EYARW1	2204000			
Controller2						
Controller3						
Controller4						

- Konfigurieren Sie den PC und den Controller so, dass sie im selben Netzwerk sind.

Einen Controller registrieren ② Suchen über das Netzwerk

Wählen Sie unter „Connected controllers“ rechts auf dem Bildschirm [Search].



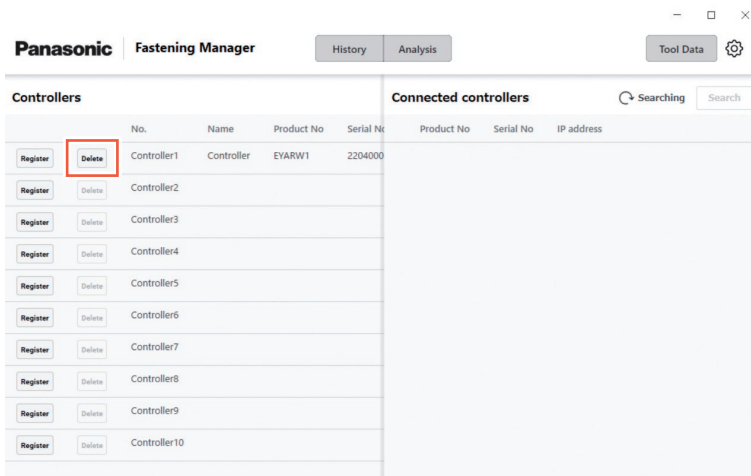
Die Controller im Netzwerk werden angezeigt.
Wählen Sie [Add].

VORSICHT

Verwenden Sie eine feste IP-Adresse für den Controller. Mit DHCP (automatische Zuweisung) kann sich die IP-Adresse ändern, wenn der Controller neu gestartet wird, wodurch die erneute Verbindung verhindert wird.

Löschen eines registrierten Controllers

Um einen registrierten Controller zu löschen, wählen Sie [Delete] unter „Controllers“.



ÜBERPRÜFUNG DER BEFESTIGUNGSVERLAUFSDATEN

Anzeige der Befestigungsverlaufsdaten

Sie können die Befestigungsverlaufsdaten anzeigen, die vom registrierten Controller erfasst worden sind.

Wählen Sie [History] und anschließend [Fastening History] und wählen Sie den Controller aus der Controller/Werkzeugliste.

Wenn Sie [Update] auswählen, werden die aktualisierten Daten angezeigt.

The screenshot shows the Panasonic Fastening Manager interface. The 'History' button is highlighted in red. The 'Fastening History' tab is selected. The 'Update' button is also highlighted in red. The interface displays a list of controllers on the left and a table of fastening data on the right. The table has the following columns: Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. The data shows multiple entries for Controller1 with product No EYFRW2 and serial No 2204, using Tool1 (EYFMH2WP).

Die Daten werden automatisch in Intervallen von 5 Minuten erfasst, so lange die Software läuft.

Befestigungsverlaufsdaten von Hand abrufen

Sie können die Befestigungsverlaufsdaten von Hand abrufen.

Wählen Sie auf dem Befestigungsverlaufsbildschirm [Get data].

The screenshot shows the Panasonic Fastening Manager interface. The 'Get data' button is highlighted in red. The interface displays a list of controllers on the left and a table of fastening data on the right. The table has the following columns: Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. The data shows multiple entries for Controller1 with product No EYFRW2 and serial No 2204, using Tool1 (EYFMH2WP).

Das Popup-Fenster „Getting data“ wird angezeigt.

Wählen Sie [OK], wenn der Vorgang abgeschlossen ist.

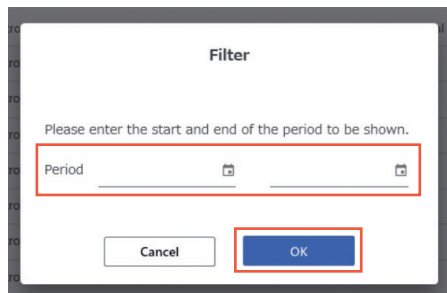
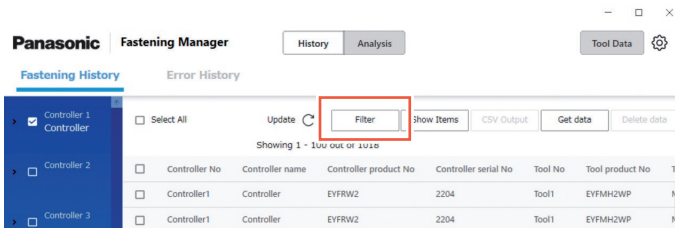
VORSICHT

Wenn das Volumen der abgerufenen Daten extrem groß ist, kann der Vorgang lange dauern.

The screenshot shows the 'Get data' popup window. The window displays 'Getting data.' and a progress bar. Below the progress bar, it shows '0 tools completed out of 8 tools'. The 'OK' button is highlighted in red.

Angezeigte Daten filtern

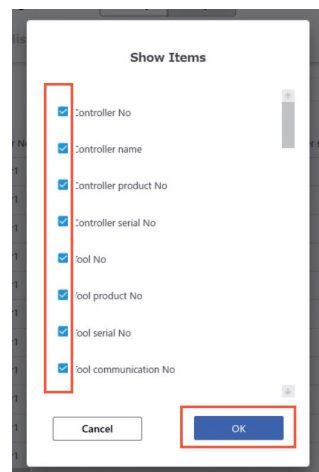
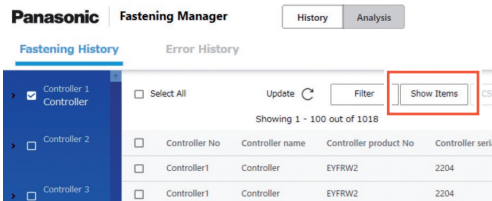
Sie können die angezeigten Daten filtern, indem Sie einen Zeitraum angeben. Wählen Sie auf dem Befestigungsverlaufsbildschirm [Filter], geben Sie den Zeitraum an und wählen Sie [OK].



- Der eingerichtete Filter wird gespeichert.

Anzuzeigende Elemente festlegen

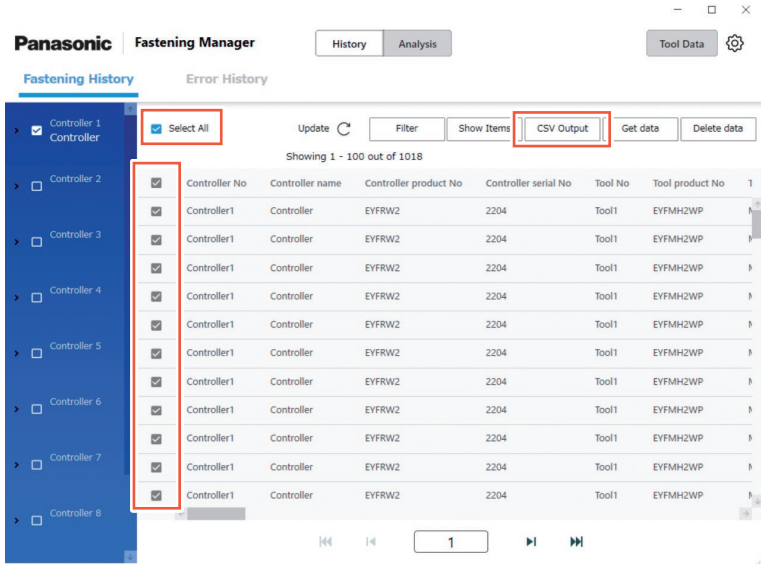
Sie können einstellen, welche Elemente angezeigt werden. Wählen Sie auf dem Befestigungsverlaufsbildschirm [Show Items], markieren Sie die gewünschten Elemente und wählen Sie [OK].



Ausgabe als CSV-Datei

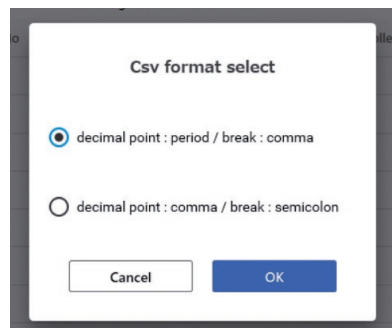
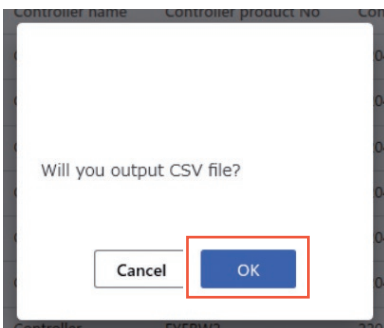
Sie können die Befestigungsverlaufsdaten im CSV-Format ausgeben. Markieren Sie auf dem Befestigungsverlaufsbildschirm die gewünschten Daten und wählen Sie [CSV Output].

- Sie können auch alle Daten auswählen.



Wählen Sie [OK], um die Daten an einen PC auszugeben.

- Sie können das CSV-Format wie unten beschrieben auswählen.



Löschen der Befestigungsverlaufsdaten

Sie können die Befestigungsverlaufsdaten löschen.

Markieren Sie auf dem Befestigungsverlaufsbildschirm die gewünschten Daten und wählen Sie [Delete data].

- Sie können auch alle Daten auswählen.

The screenshot shows the Panasonic Fastening Manager software interface. The 'Fastening History' tab is active. On the left, a sidebar lists controllers from Controller 1 to Controller 8. The main area displays a table of fastening history data. A 'Select All' checkbox is checked and highlighted with a red box. The table has columns for Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. The first row of data is highlighted. Below the table, there are navigation controls and a page number '1'. A 'Delete data' button is highlighted with a red box in the top right corner of the data area.

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Dieser Vorgang löscht die von der Software in der Datenbank auf einem PC gespeicherten Daten.

Er löscht nicht die Daten im Controller.

Die Zahl und das Volumen der Daten, die von der Datenbank verwaltet werden können, sind begrenzt.

Wenn die Zahl der Daten den oberen Grenzwert erreicht oder der Festplattenplatz auf dem PC zur Neige geht, löschen Sie die Daten, um Platz zu schaffen, nachdem Sie sie als CSV-Datei ausgegeben haben.

- Wie Sie den genannten Vorgang regelmäßig und automatisch ausführen können finden Sie unter „Wartungsfunktion“.

Siehe S. 32

ÜBERPRÜFUNG DER BEFESTIGUNGSVERLAUFSDATEN (Fortsetzung)

Anzeige der Wellenformdaten • Nur für die Einrichtung von EYFMH/EYFNH und EYFRW

In der Software können Sie die Wellenformdaten anzeigen, die mit den Befestigungsverlaufsdaten gespeichert wurden. Doppelklicken Sie auf die Zeile mit den gewünschten Befestigungsverlaufsdaten.

Controller No.	Controller name	Controller product No.	Controller serial No.	Tool No.	Tool product No.
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Die Wellenformdaten werden wie unten dargestellt angezeigt. Sie können die Anzeige anpassen, indem Sie „X-axis“, „Y-axis“ oder „Scale“ auswählen.

Wenn Sie [Output] wählen, werden die Daten im CSV-Format exportiert.

History detail data

OK Torque result : 50.2 Nm vs. Target torque : 100.4%

Output

Pulse count	Fastening time(ms)	Torque result	Angle before snug	Angle after snug	RPM
0	10.0	25.0	9	0	150
0	20.0	25.0	26	0	283
0	30.0	25.0	56	0	500
0	40.0	25.0	98	0	700
0	50.0	25.0	150	0	867
0	60.0	25.0	210	0	1000
0	70.0	25.0	285	0	1250
0	80.0	25.0	371	0	1433
0	90.0	25.0	467	0	1600
0	100.0	25.0	576	0	1817
0	110.0	25.0	693	0	1950

X-axis: Time, Y-axis: Torque, Scale: [dropdown], Reset

Close

VORSICHT
Wenn das Volumen der Wellenformdaten groß ist (z. B. wenn die Zeit pro Befestigungsvorgang lang ist), kann das Abrufen und Anzeigen lange dauern.

Anzeige der Fehlerverlaufsdaten

Sie können die Fehlerverlaufsdaten anzeigen, die vom registrierten Controller abgerufen worden sind.

Die Daten werden automatisch in Intervallen von 5 Minuten erfasst, solange die Software läuft.

The screenshot shows the Panasonic Fastening Manager software interface. The 'History' button is highlighted with a red box. Below it, the 'Error History' tab is selected and also highlighted with a red box. On the left, a sidebar lists controllers 1 through 8, with checkboxes next to each, and this sidebar is also highlighted with a red box. The main area displays a table of error logs with columns for Controller No, Controller name, Controller product No, Controller serial No, Date, Time, Object, Error Code, and Error description. The table shows 57 entries, with the first one selected. Navigation buttons like 'Filter', 'Output CSV', 'Get data', and 'Delete data' are visible at the top right of the table area.

Controller No	Controller name	Controller product No	Controller serial No	Date	Time	Object	Error Code	Error description
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD11	WLAN Disconnect
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD12	Wi-Fi Module Rebc
Controller1	Controller	EYFRW2	2204	2022/11/01	16:28:53	Controller	BC21	Setting Error
Controller1	Controller	EYFRW2	2204	2022/11/01	16:12:16	Tool1	4316	WLAN Module Reb

Sonstige Einstellungen

Die folgenden Vorgänge können auf dieselbe Weise wie bei den Befestigungsverlaufsdaten durchgeführt werden.

- Fehlerverlaufsdaten von Hand abrufen
- Angezeigte Daten filtern
- Ausgabe als CSV-Datei
- Fehlerverlaufsdaten löschen

ANALYSE DES ARBEITSVERLAUFS

Analysefunktion

Die Funktion kann die von einem Controller erfassten Befestigungsverlaufsdaten analysieren und das Ergebnis anzeigen.

- Die Funktion analysiert nur die Daten auf der Festplatte des PCs.

Hinweise zum Inhalt der Analyse finden Sie im Folgenden.

Typ	Beschreibung	
Vergleichen	Zeigt die Aufgaben an, die anfällig für eine unzureichende Befestigung (NOK) und für Lockerungen/Nacharbeiten (Umgekehrte Befestigung) sind und vergleicht sie. Diese Analyse ist nützlich, um zu bestimmen, welche Aufgaben im Prozess verbessert werden müssen.	
	NOK-Prozentsatz	Zeigt den NOK-Prozentsatz (schlechte Befestigungsrate) des jeweiligen Werkzeugs in einem Balkendiagramm an.
	Umgekehrte Befestigung	Zeigt die Anzahl der umgekehrten Befestigungen (Lockerungen/Nacharbeiten) in einem Balkendiagramm an.
Zeitachse	Zeigt die Zeitreihen der Befestigungsergebnisse eines Werkzeugs an. Diese Analyse ist nützlich, um Materialveränderungen und die Abnutzung von Werkzeugen zu beherrschen.	
	Drehmoment	Zeigt das sich ergebende Drehmoment (umgewandeltes Drehmoment) für einzelne Befestigungen in einer Liniengrafik (Punktwolke) an.
	Befestigungszeit	Zeigt die Befestigungszeit der einzelnen Befestigungen in einer Liniengrafik (Punktwolke) an.
	Drehung	Zeigt die Anzahl der Drehungen einzelner Befestigungen in einer Liniengrafik (Punktwolke) an.
	OK-Prozentsatz	Zeigt den OK-Prozentsatz der Befestigungen in einer Liniengrafik (Punktwolke) an.

Werkzeuge und verfügbare Analysearten

Die verfügbaren Analysearten unterscheiden sich je nach Werkzeug-Modell.

- Wenn die analysierten Daten Informationen von mehr als einem Werkzeug-Modell enthalten, werden nur die Informationen der unterstützten Modelle angezeigt.

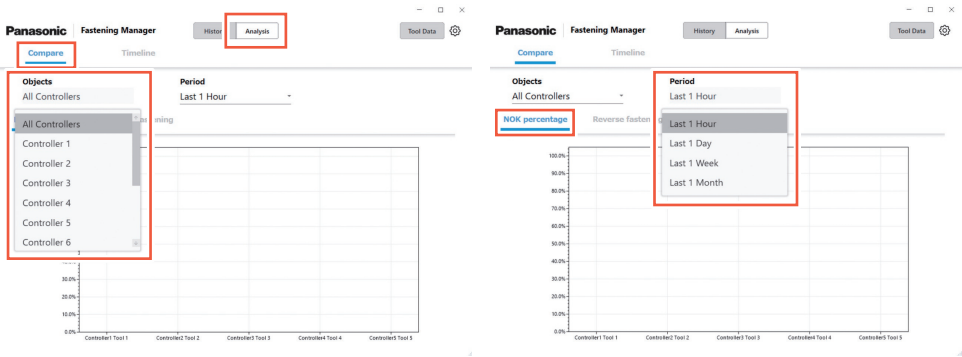
Werkzeug-Produktnr.		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
Controller-Produktnr.		EYFRW2	EYARW1		
Analysefunktion	Vergleichen	NOK-Prozentsatz	○	○	○
		Umgekehrte Befestigung	—	○	○
	Zeitachse	Drehmoment	○	○	—
		Befestigungszeit	○	○	○
		Drehung	—	○	○
		OK-Prozentsatz	○	○	○

*1 Dies wird erst ab Version 1.01.00 unterstützt.

Vergleichen ① NOK-Prozentsatz

Wählen Sie auf der Registerkarte [Analysis] [Compare].

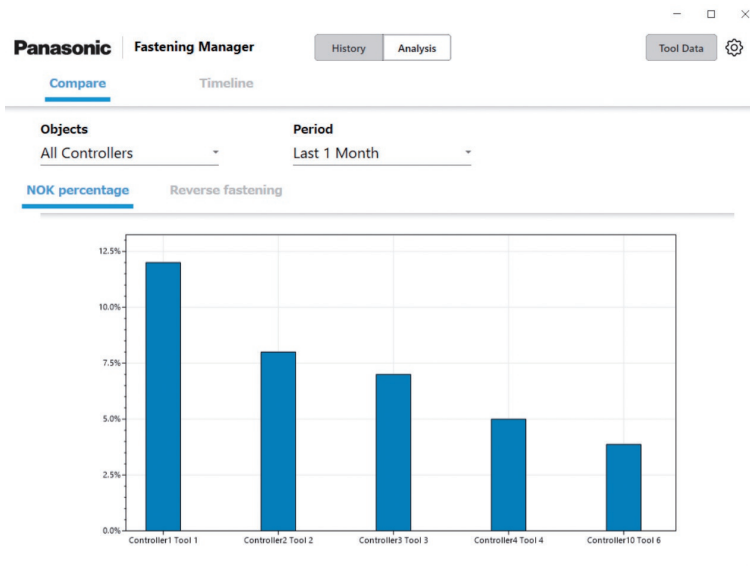
Wählen Sie die Registerkarte [NOK percentage] und stellen Sie „Objects“ und „Period“ für die Analyse ein und wählen Sie aus den folgenden Optionen aus.



Objects	„All Controllers“, „Controller 1“ bis „Controller 10“
Period	„Last 1 Hour“, „Last 1 Day“, „Last 1 Week“, „Last 1 Month“

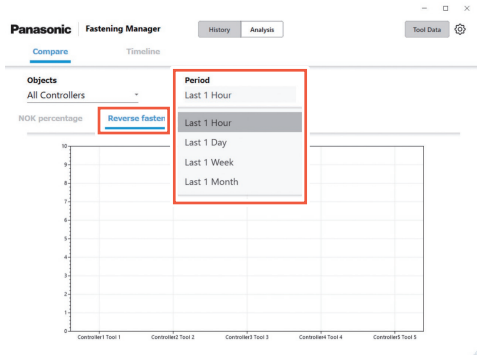
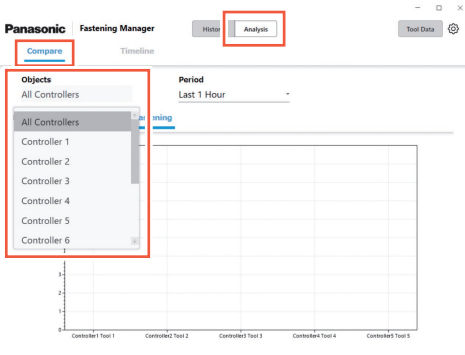
Das Analyseergebnis wird in einem Balkendiagramm angezeigt.

Die obersten fünf Werkzeuge mit dem höchsten NOK-Prozentsatz (d. h. die schlechtesten fünf Werkzeuge) werden in der Reihenfolge angezeigt.



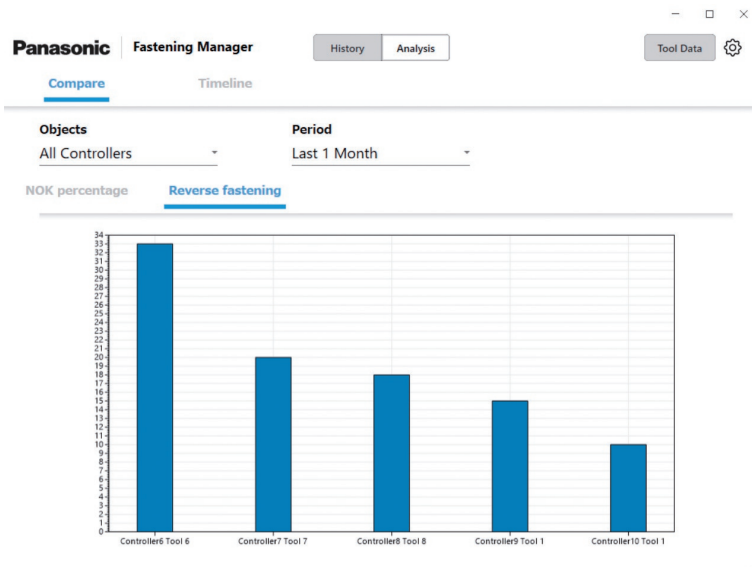
Vergleichen ② Umgekehrte Befestigung

Wählen Sie auf der Registerkarte [Analysis] [Compare].
 Wählen Sie die Registerkarte [Reverse fastening] und stellen Sie „Objects“ und „Period“ für die Analyse ein und wählen Sie aus den folgenden Optionen aus.



Objects	„All Controllers“, „Controller 1“ bis „Controller 10“
Period	„Last 1 Hour“, „Last 1 Day“, „Last 1 Week“, „Last 1 Month“

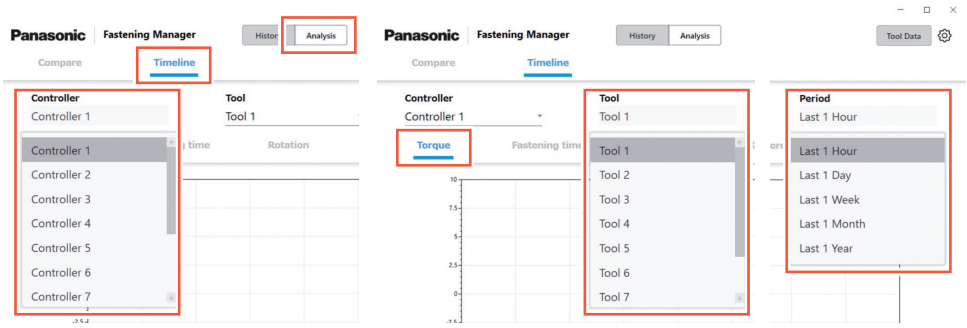
Das Analyseergebnis wird in einem Balkendiagramm angezeigt.
 Die obersten fünf Werkzeuge mit der höchsten Anzahl umgekehrter Befestigungen (d. h. die schlechtesten fünf Werkzeuge) werden in der Reihenfolge angezeigt.



- EYFMH1, EYFMH2 und EYFNH1 werden nicht unterstützt.

Zeitachse ① Drehmoment

Wählen Sie auf der Registerkarte [Analysis] [Timeline] aus.
Wählen Sie die Registerkarte [Torque] und stellen Sie „Controller“, „Tool“ und „Period“ für die Analyse ein und wählen Sie aus folgenden Optionen aus.



Controller	„Controller 1“ bis „Controller 10“
Tool	„Tool 1“ bis „Tool 8“
Period	„Last 1 Hour“, „Last 1 Day“, „Last 1 Week“, „Last 1 Month“, „Last 1 Year“

Das Analysenergebnis wird in einem Liniengrafik (Punktwolke) angezeigt.
Welche Daten angezeigt werden, hängt vom Werkzeug-Modell und dem ausgewählten Zeitraum ab.

Werkzeug-Produktnr.	EYFMH1 EYFMH2	EYFNH1*1	EYADA112WA*1 EYADA218WA	EYADA212WA EYADA407WA
Analysierte Daten	„Torque Result“		„Converted Torque Result“	

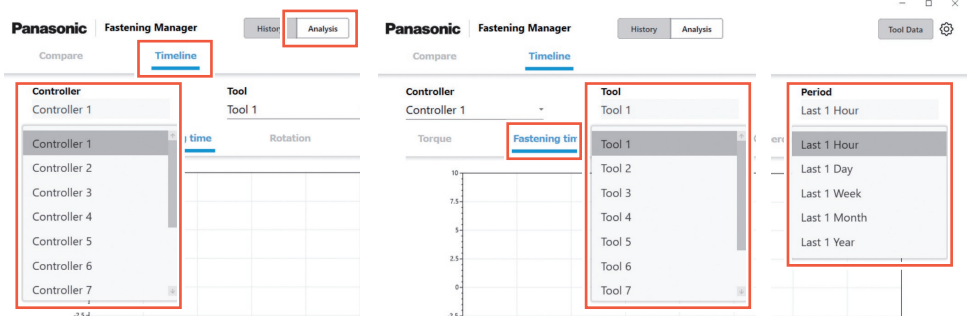
*1 Dies wird erst ab Version 1.01.00 unterstützt.



„Last 1 Hour“, „Last 1 Day“	Werte pro Befestigung
„Last 1 Week“, „Last 1 Month“	Mittelwerte pro Tag
„Last 1 Year“	Mittelwerte pro Monat

Zeitachse ② Befestigungszeit

Wählen Sie auf der Registerkarte [Analysis] [Timeline] aus.
 Wählen Sie die Registerkarte [Fastening time] und stellen Sie „Controller“, „Tool“ und „Period“ für die Analyse ein und wählen Sie aus folgenden Optionen aus.

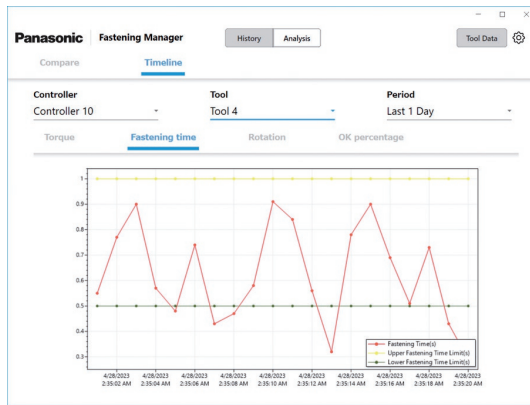


Controller	„Controller 1“ bis „Controller 10“
Tool	„Tool 1“ bis „Tool 8“
Period	„Last 1 Hour“, „Last 1 Day“, „Last 1 Week“, „Last 1 Month“, „Last 1 Year“

Das Analyseergebnis wird in einem Liniendiagramm (Punktwolke) angezeigt.
 Welche Daten angezeigt werden, hängt vom Werkzeug-Modell und dem ausgewählten Zeitraum ab.

Werkzeug-Produktnr.	EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB
Analysierte Daten	„Fastening Time“	„Fastening Time“	

*1 Dies wird erst ab Version 1.01.00 unterstützt.

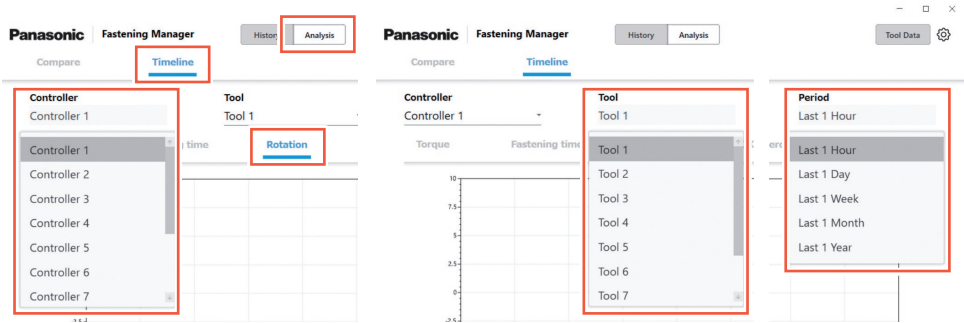


„Last 1 Hour“, „Last 1 Day“	Werte pro Befestigung
„Last 1 Week“, „Last 1 Month“	Mittelwerte pro Tag
„Last 1 Year“	Mittelwerte pro Monat

Zeitachse ③ Drehung

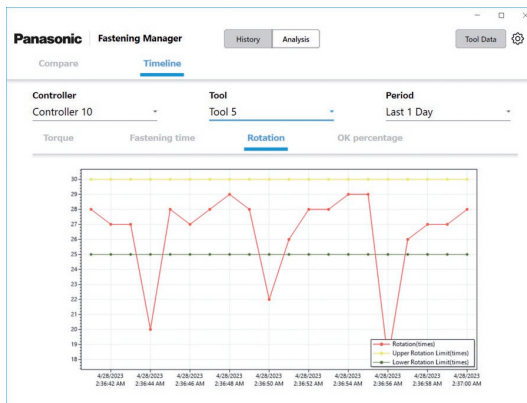
Wählen Sie auf der Registerkarte [Analysis] [Timeline] aus.

Wählen Sie die Registerkarte [Rotation] und stellen Sie „Controller“, „Tool“ und „Period“ für die Analyse ein und wählen Sie aus folgenden Optionen aus.



Controller	„Controller 1“ bis „Controller 10“
Tool	„Tool 1“ bis „Tool 8“
Period	„Last 1 Hour“, „Last 1 Day“, „Last 1 Week“, „Last 1 Month“, „Last 1 Year“

Das Analyseergebnis wird in einem Liniengrafik (Punktwolke) angezeigt. Welche Daten angezeigt werden, hängt vom ausgewählten Zeitraum ab.

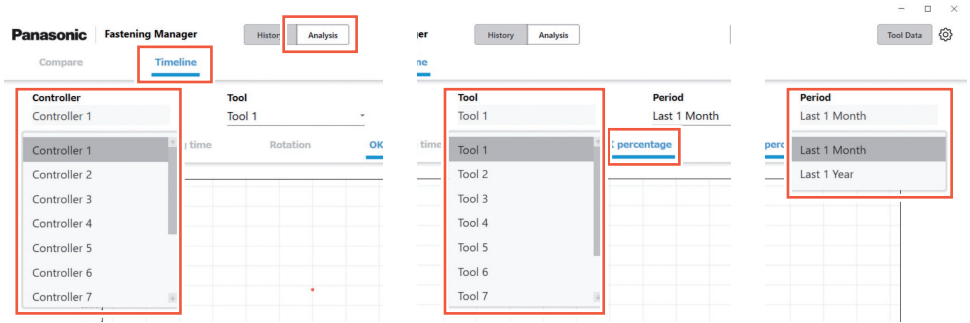


„Last 1 Hour“, „Last 1 Day“	Werte pro Befestigung
„Last 1 Week“, „Last 1 Month“	Mittelwerte pro Tag
„Last 1 Year“	Mittelwerte pro Monat

- EYFMH1, EYFMH2 und EYFNH1 werden nicht unterstützt.

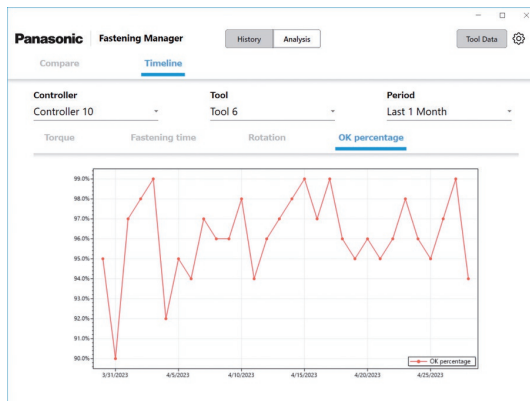
Zeitachse ④ OK-Prozentsatz

Wählen Sie auf der Registerkarte [Analysis] [Timeline] aus.
 Wählen Sie die Registerkarte [OK percentage] und stellen Sie „Controller“, „Tool“ und „Period“ für die Analyse ein und wählen Sie aus folgenden Optionen aus.



Controller	„Controller 1“ bis „Controller 10“
Tool	„Tool 1“ bis „Tool 8“
Period	„Last 1 Month“, „Last 1 Year“

Das Analysenergebnis wird in einem Liniengrafik (Punktwolke) angezeigt.
 Welche Daten angezeigt werden, hängt vom ausgewählten Zeitraum ab.



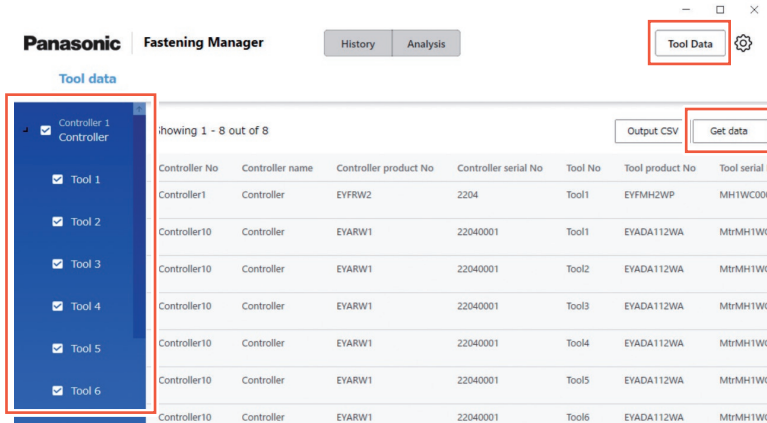
„Last 1 Month“	Mittelwerte pro Tag
„Last 1 Year“	Mittelwerte pro Monat

ÜBERPRÜFUNG DER WERKZEUGDATEN

Überprüfung der Werkzeugdaten

Sie können die Daten der mit den registrierten Controllern verbundenen Werkzeuge zentral verwalten.

Wählen Sie [Tool data] oben rechts auf dem Bildschirm aus und wählen Sie die gewünschten Werkzeuge aus der Controller/Werkzeugliste. Beim Anklicken von [Get data] werden die Daten aktualisiert.



Die folgenden Elemente werden angezeigt. Welche Elemente angezeigt werden, hängt vom Werkzeug-Modell ab.

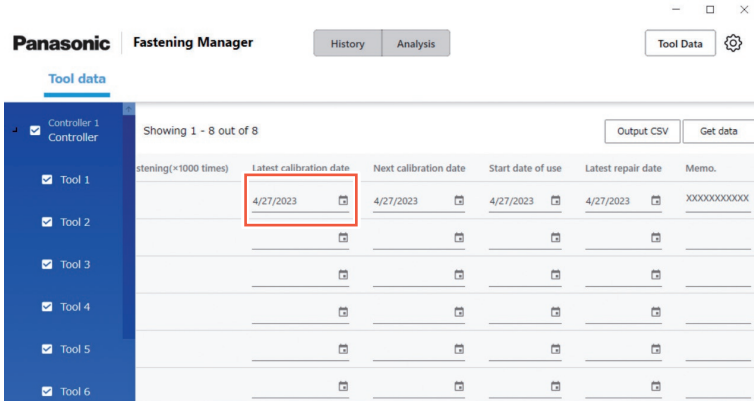
Punkt	Beschreibung
Controller No	Die Registrierungsnummer des Controllers.
Controller name	Der auf seiner Benutzeroberfläche festgelegte Name des Controllers.
Controller product No	Die Produktnummer des Controllers.
Controller serial No	Die eindeutigen Seriennummer des Controllers.
Tool No	Die im Controller registrierte Nummer des Werkzeugs.
Tool product No	Die Produktnummer des Werkzeugs.
Tool serial No	Die eindeutigen Seriennummer des Werkzeugs.
Tool communication No	Die Kommunikationsidentifikationsnummer des Werkzeugs.
Cumulative Fastening Time	Die kumulierte Betriebszeit des Werkzeugs.
Cumulative Pulsing Time* ¹	Die kumulierte Schlagzeit des Werkzeugs.
Cumulative Number of Pulsing* ¹	Die kumulierte Schlagzahl des Werkzeugs.
Cumulative Number of Fastening* ²	Die kumulierte Zahl der vom Werkzeug befestigten Schrauben.

*¹ nur EYFMH1/EYFMH2/EYFNH1.

*² nur EYADA112WA/EYADA212WA/EYADA218WA/EYADA407WA/EYADA112WB/EYADA212WB/EYADA218WB/EYADA407WB.

Eingabe des Nutzungsverlaufs

Sie können den Nutzungsverlauf der Werkzeuge aufzeichnen. Wählen Sie das gewünschte Feld aus und füllen Sie es von Hand aus. Durch die Auswahl einer Kalendermarkierung können Sie Eingaben aus einem Kalender vornehmen.

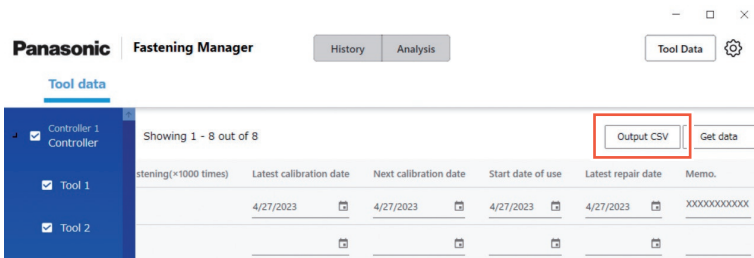


Nachfolgend sind die Eingabeelemente aufgeführt.

Punkt	Beschreibung
Latest calibration date	Das letzte Kalibrierungsdatum.
Next calibration date	Das nächste geplante Kalibrierungsdatum.
Start date of use	Das Datum der Inbetriebnahme des Werkzeugs.
Latest repair date	Das Datum der letzten Reparatur des Werkzeugs.
Memo.	Bemerkungen können eingegeben werden.

Ausgabe der Werkzeugdaten als CSV

Sie können die Werkzeugdaten als CSV-Datei ausgeben. Wählen Sie [Output CSV] und wählen Sie den Speicherort aus.



Eingabe des Drehmoment-Prüfungsverlaufs

Sie können den Drehmoment-Prüfungsverlauf des Werkzeugs aufzeichnen. Klicken Sie auf dem Bildschirm Werkzeugdaten auf die Zeile des gewünschten Werkzeugs.

Panasonic Fastening Manager | History | Analysis | Tool Data

Tool data

Showing 1 - 8 out of 8

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	Tool serial No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	MH1WC000
Controller10	Controller	EYARW1	22040001	Tool1	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool2	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool3	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool4	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool5	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool6	EYADA112WA	MtrMH1WC

Der Bildschirm mit dem Drehmoment-Prüfungsverlauf wird angezeigt.

Wählen Sie eine Kalendermarkierung aus und fügen Sie eine Zeile hinzu. Geben Sie anschließend das eingestellte Drehmoment und das Drehmoment-Prüfergebnis ein.

Sie können auch Zeilen überprüfen und löschen.

Wählen Sie nach der Eingabe [OK], um den Inhalt zu speichern.

Torque check history

Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 21:05			

OK

Torque check history

Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 20:05			

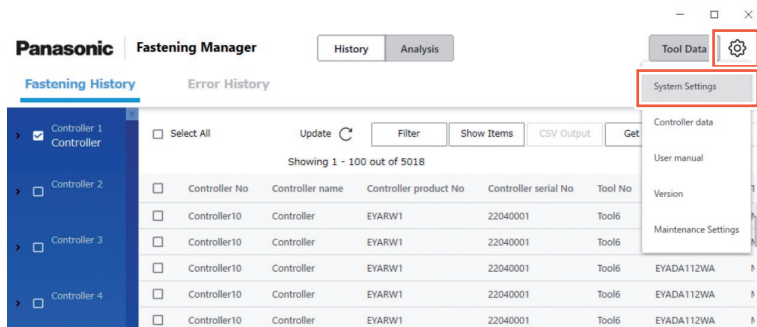
Delete

OK

SYSTEMEINSTELLUNGEN

Ändern der Systemeinstellungen

Wählen Sie aus der Optionsschaltfläche oben rechts auf dem Bildschirm [System Settings].



Ändern der Sprache

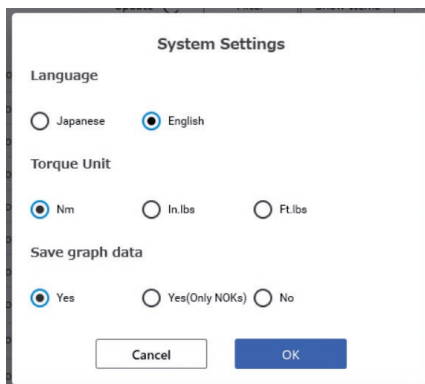
Sie können „Japanese“ oder „English“ auswählen.

Ändern der Drehmoment-Einheit

Sie können „Nm“, „In.lbs“ oder „Ft.lbs“ auswählen.

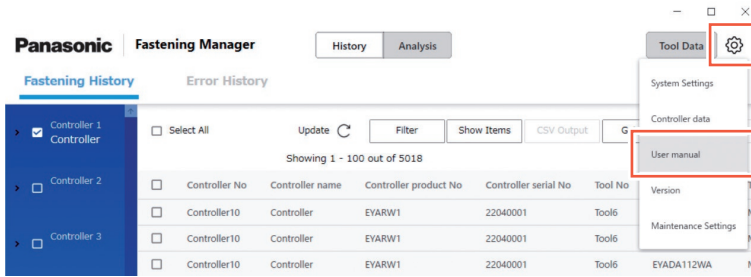
Speichern der Wellenformdaten

Wählen Sie aus, ob die Wellenformdaten der Befestigung erfasst werden sollen. Die Datenmenge der Wellenformen ist wahrscheinlich groß, daher können Sie mit „Yes (Only NOKs)“ oder „No“ auswählen, ob sie erfasst werden sollen, je nach Speicherplatz auf Ihrem PC und dem Zweck Ihres Datenmanagements.



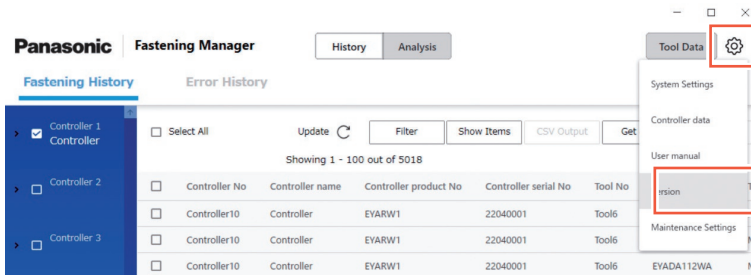
Zugriff auf die Bedienungsanleitung

Sie können auf die Bedienungsanleitung zugreifen.
Wählen Sie aus der Optionsschaltfläche oben rechts auf dem Bildschirm [User manual].



Anzeige der Softwareversion

Sie können die Softwareversion anzeigen.
Wählen Sie aus der Optionsschaltfläche oben rechts auf dem Bildschirm [Version].



Datenbankkapazität (Schätzung)

Die Software kann die Befestigungsverlaufsdaten von bis zu 4000 Befestigungsvorgängen erfassen.

Wenn Sie die Wellenformdaten erfassen, gelten je nach Datenvolumen folgende Begrenzungen.

Da die Daten nach dem Überschreiten des oberen Grenzwerts nicht mehr erfasst werden können, sollten sie regelmäßig gelöscht werden, ggf. nachdem sie in eine CSV-Datei ausgegeben wurden.

Um den Vorgang zu automatisieren, können Sie die Wartungsfunktion nutzen.

Maximale Anzahl Befestigungen	80 Werkzeuge 5,000 Schrauben/Tag (pro Werkzeug)	40 Werkzeuge 2,500 Schrauben/Tag (pro Werkzeug)
40,000,000	Entspricht 100 Tagen	Entspricht 400 Tagen

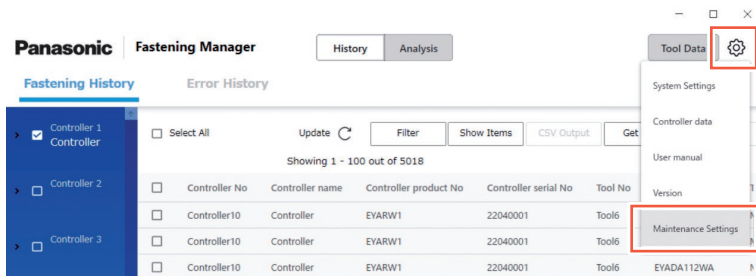
- Für die Einrichtung von EYFMH und EYFRW

Maximale Datenmenge 25 GB	Anzahl der Befestigungen	80 Werkzeuge 5,000 Schrauben/Tag (pro Werkzeug)	40 Werkzeuge 2,500 Schrauben/Tag (pro Werkzeug)
12-Sekunden-Wellenform	600,000	Entspricht 1,5 Tagen	Entspricht 6 Tagen
2-Sekunden-Wellenform	3,600,000	Entspricht 9 Tagen	Entspricht 36 Tagen
1-Sekunden-Wellenform	7,200,000	Entspricht 18 Tagen	Entspricht 72 Tagen

Wartungsfunktion

Mit dieser Funktion können Sie die geplante Datenbankverwaltung automatisieren.

Wählen Sie aus der Optionsschaltfläche oben rechts auf dem Bildschirm [Maintenance Settings].



VORSICHT

Der Vorgang kann je nach Datenvolumen mehrere zehn Minuten dauern. Berücksichtigen Sie das, wenn Sie die Einstellung vornehmen.

■ Verfahren

- (1) Stellen Sie die „Automated Maintenance“ auf „ON“.
- (2) Wählen Sie „Weekly“ oder „Monthly“ als Intervall und wählen Sie den Wochentag und die Uhrzeit aus.
- (3) Wählen Sie das CSV-Format und den Speicherort aus.
- (4) Wählen Sie [OK], wenn Sie mit der Auswahl fertig sind.

Wenn die Einstellungen abgeschlossen sind, gibt die Funktion die Daten automatisch als CSV-Datei aus und speichert sie an dem angegebenen Ort zur angegebenen Zeit. Außerdem werden Daten gelöscht, um benötigten Speicherplatz in der Datenbank zu schaffen.

- Die Software muss zur Durchführung der automatischen Wartung laufen.
- Die Wartung kann bei Bedarf auch von Hand gestartet werden.

Im Folgenden finden Sie den Bereich der Daten, die als CSV ausgegeben oder gelöscht werden. Er enthält nicht die Fehlerverlaufsdaten.

Einstellung	Bereich der auszugebenden oder zu löschenden Daten	Bereich der in einer Datei enthaltenen Daten
Automatisch (wöchentlich)	Befestigungsverlaufsdaten für eine Woche nach Überschreitung von 30 Millionen Daten	Daten für einen Tag
Automatisch (monatlich)	Befestigungsverlaufsdaten für einen Monat nach Überschreitung von 30 Millionen Daten	Daten für einen Tag
Manuell	Die ältesten Befestigungsverlaufsdaten, die 30 Millionen Daten überschreiten	Daten für einen Tag

Sichern und Wiederherstellen der Datenbank

Sie können die Datenbank sichern, um sie bei einem Problem wiederherstellen zu können. Eine geplante Sicherung wird empfohlen.

■ Datensicherung

- (1) Beenden Sie die Software, wenn sie läuft.
- (2) Kopieren Sie „FasteningManager.sqlite“ aus dem Ordner *1, in dem Sie die Software installiert haben, auf einen externen Speicher wie einen USB-Stick oder eine externe Festplatte.
(Halten Sie ausreichend Speicherplatz für die Daten bereit, die umfangreich sein können.)

■ Verfahren

- (1) Beenden Sie die Software, wenn sie läuft.
- (2) Überschreiben Sie „FasteningManager.sqlite“ in dem Ordner *1, in dem Sie die Software installiert haben, mit der Sicherungsdatei.

*1 Die Software wird standardmäßig unter „C:\Panasonic\FasteningManager“ installiert.

Austausch des PCs (Neuinstallation der Software)

Gehen Sie wie folgt vor, um den PC zu ersetzen, auf dem die Software installiert ist.

- (1) Löschen Sie auf dem Bildschirm Controller-Daten alle registrierten Controller unter „Controllers“.
- (2) Beenden Sie die Software.
- (3) Sichern Sie die aktuelle Datenbank.
(Siehe „Sichern und Wiederherstellen der Datenbank“.)
- (4) Deinstallieren Sie die Software.
(Deinstallieren Sie den „FasteningManager“ in der Systemsteuerung.)
- (5) Installieren Sie die Software auf einem neuen PC.
Siehe S. 9
- (6) Stellen Sie die in Schritt (3) gesicherte Datenbank wieder her.
(Siehe „Sichern und Wiederherstellen der Datenbank“.)
- (7) Starten Sie die Software auf dem neuen PC.
Siehe S. 10
- (8) Nutzen Sie auf dem Bildschirm Controller-Daten die „Search“ und „Register“ Sie die Controller. **Siehe S. 12**

Hinweis

Installieren Sie die Controller-Management-Software nur auf einem PC, wie in der Lizenzvereinbarung gefordert.

Um die Software auf dem neuen PC zu installieren, müssen Sie sie auf dem alten PC deinstallieren.

TECHNISCHE DATEN

Die Software soll Daten von einem verbundenen Controller sammeln.

■ Betriebsumgebung

Kompatibles Betriebssystem	Windows 10 (64 Bit) oder höher
Kompatibler PC (CPU)	2,0 GHz, 4 oder 2 Kerne, 4 oder mehr logische Prozessoren
Speicher	8 GB oder mehr
Empfohlene Festplattenkapazität	100 GB SSD oder mehr
Empfohlene Auflösung	1024 × 768 oder mehr
Schnittstelle	Optisches Laufwerk (für die Softwareinstallation) USB Typ-A (zur Authentifizierung der Lizenz) Ethernet-Anschluss (für die Verbindung mit einem Controller)
Softwareumgebung	.NET Core 3.1

■ Technische daten

Anzahl der Daten, die gespeichert werden können	Es können maximal 4000 Befestigungsverlaufsdaten gespeichert werden
Anzahl der Controller, die registriert werden können	10 (maximal)
Sicherheit	USB-Schlüsselaktivierung
Unterstützte Sprachen	Englisch, Japanisch
Zubehör	USB-Dongle-Schlüssel × 1
Anwendbare Controller-Produktnr.	EYARW1 EYFRW2 • Einschließlich Varianten

Software-Lizenzbedingungen

Dieses Produkt enthält die folgenden Arten von Software:

- (1) Software, die unabhängig von oder für Panasonic Corporation entwickelt wurde,
- (2) Software im Besitz von Dritten, die an die Panasonic Corporation lizenziert wurde,
- (3) Open-Source-Software

Die als (3) kategorisierte Software wird in der Erwartung vertrieben, dass sie nützlich ist, jedoch OHNE JEGLICHE GEWÄHRLEISTUNG, somit auch ohne implizite Gewährleistung der MARKTGÄNGIGKEIT oder EIGNUNG FÜR EINEN BESTIMMTEN ZWECK.

Ein Teil der als (3) kategorisierten Software verwendet den verteilungsfähigen Code, der in Abschnitt 4 der Lizenzbedingungen beschrieben ist, welcher über die nachfolgende URL aufgerufen werden kann.

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Instructions d'utilisation

Logiciel de gestion du contrôleur

N° de modèle : EYASW1



IMPORTANT

Veuillez lire et respecter les consignes de sécurité et les instructions d'utilisation avant d'utiliser ce produit.

Instructions originales: anglais
Traduction des instructions
originales: Autres langues

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Environnement d'exploitation

Utilisez un PC avec Windows OS pour ce logiciel.
Préparez un dispositif qui répond aux exigences suivantes.

Environnement d'exploitation

Système d'exploitation compatible	Windows10 (64 bits) ou ultérieur
PC compatible (CPU)	2,0 GHz, 4 ou 2 cœurs, 4 processeurs logiques ou plus
Stockage	8 Go ou plus
Capacité de disque dur recommandée	SSD 100 Go ou plus
Résolution recommandée	1024 × 768 ou plus
Interface	Lecteur optique (pour l'installation du logiciel) USB Type-A (pour l'authentification de licence) Port Ethernet (pour la communication avec un contrôleur)
Environnement du logiciel	.NET Core 3.1

- Certains ordinateurs ne sont pas disponibles même s'ils sont conformes à l'environnement d'exploitation.
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Comment accéder aux Instructions d'utilisation

La version actuelle des Instructions d'utilisation du logiciel et d'autres ressources peuvent être téléchargées depuis le site Web ci-dessous.

[Uniquement pour l'UE] <https://www.panasonic-powertools.eu/en/assembly/downloads>

[Uniquement pour l'Asie] <https://panasonic.net/electricworks/ecm/powerelctrictools/download/>

Marque commerciale

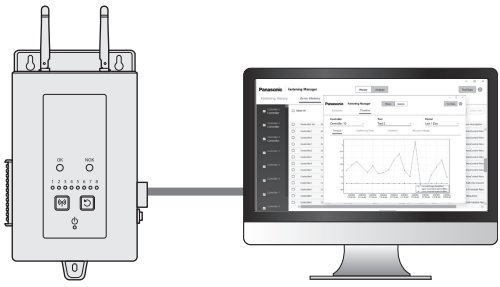
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Utilisation prévue

Le logiciel est conçu pour collecter des données d'un contrôleur connecté. Il effectue également une analyse de données simple en plus d'une collecte automatisée de données historiques de fixation.



- 01 Gestion d'au plus 10 contrôleurs
- 02 Fonction d'analyse des données d'historique de fixation
- 03 Fonction de gestion des informations d'outil

Configuration

Installer le logiciel sur un PC et connecter le PC aux contrôleurs via le réseau local câblé.

Jusqu'à 10 contrôleurs peuvent être enregistrés.

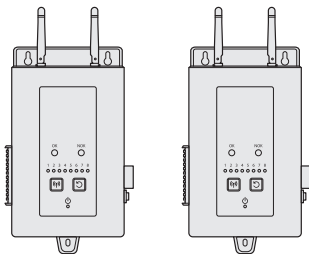
- Le nombre maximum d'outils pouvant être enregistrés est 80 (8 × 10).



[Ce produit]
Logiciel de gestion du contrôleur



Outil
(80 unités max.)



Contrôleur
(10 unités max.)

CONTRAT DE LICENCE

Contrat de licence du logiciel

1. Licence accordée

Vous avez le droit d'utiliser le logiciel. Cependant, cela ne signifie pas que les droits d'auteur du logiciel vous sont transférés.

2. Portée de la licence

Le logiciel doit être installé sur un PC par paquet et non partagé par plusieurs périphériques. La copie du logiciel en partie ou en totalité sans notre consentement est interdite.

3. Analyse, changement et modification

L'analyse, le changement et la modification du logiciel sont interdites. Nous ne sommes pas responsables de tout défaut dû à une analyse, un changement ou une modification.

4. Changements des spécifications

Les spécifications du logiciel sont sujettes à modification sans préavis.

5. Exemption

Nous et nos revendeurs ne sommes pas responsables de vos dommages ou de toute réclamation qui vous est faite par un tiers en ce qui concerne l'utilisation du logiciel, sauf en cas de faute délibérée ou de négligence grave par nous ou nos revendeurs.

6. Contrôle de l'exportation

Si vous sortez le logiciel du pays où vous l'avez acheté, suivez les lois et les réglementations de contrôle de l'exportation des pays d'expédition et de destination.

7. Autre

La licence du logiciel expire automatiquement si vous ne respectez pas les conditions ci-dessus. Dans ce cas, vous devez vous débarrasser du logiciel.

REMARQUES POUR L'UTILISATION

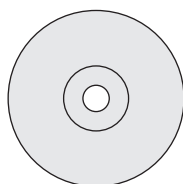
Remarques pour l'utilisation

Pour utiliser les performances de traitement maximales d'un PC, préparez un PC dédié à l'utilisation de ce logiciel.

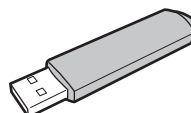
Le partage d'un PC avec un autre logiciel peut augmenter la charge de traitement, ce qui se traduit par une faible performance, par exemple une vitesse d'affichage plus lente.

Articles inclus

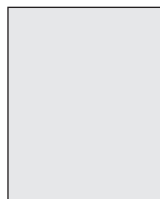
■ CD-R × 1



■ Dongle USB pour l'activation × 1



■ Brochure × 1

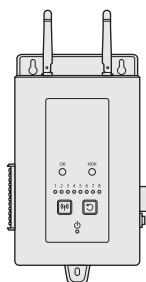


Articles vendus séparément

Préparez les outils et les contrôleurs à utiliser avec le logiciel.



Outil



Contrôleur

CONFIGURATION DU SYSTÈME

Liste des modèles de contrôleur pris en charge

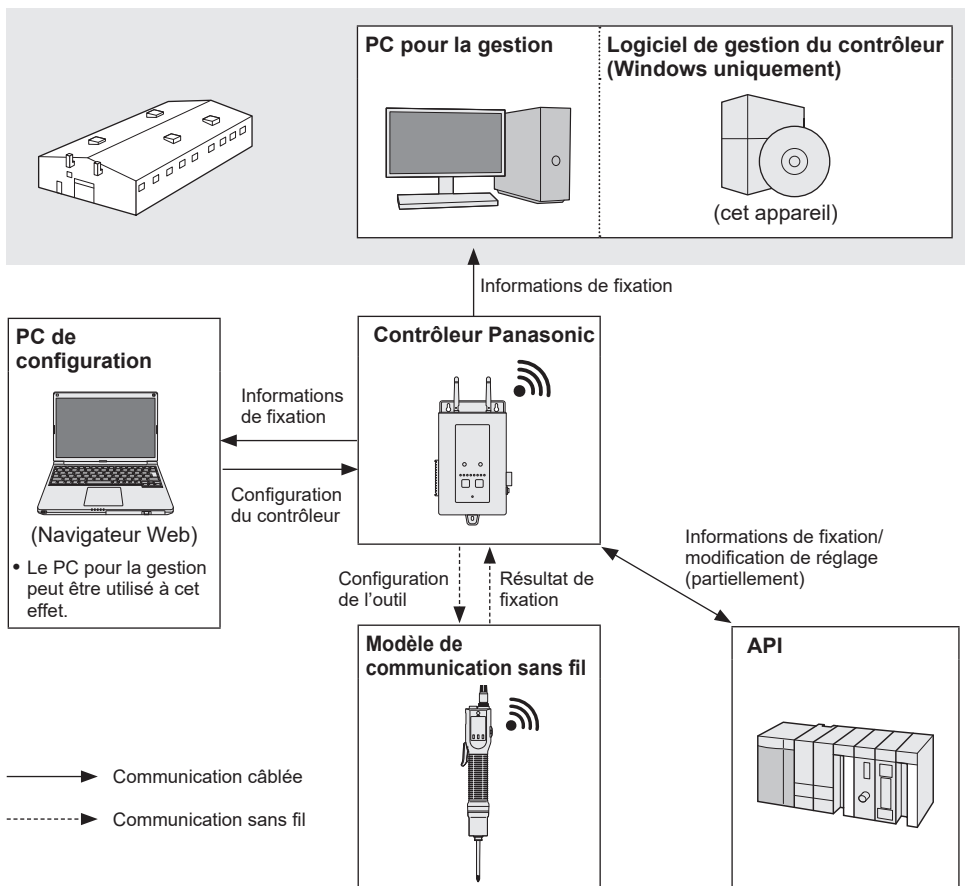
Élément	Contrôleur	Outil	
Modèles pouvant être enregistrés	EYARW1 EYFRW2	EYADA112WA/WB*1 EYADA218WA/WB EYFMH1/EYFMH2	EYADA212WA/WB EYADA407WA/WB EYFNH1*1

- Les numéros de modèle sont ceux indiqués au moment de la vente.
 - Des variétés avec des suffixes différents sont également incluses.
- *1 Ceci est pris en charge uniquement par la version 1.01.00 ou ultérieure.

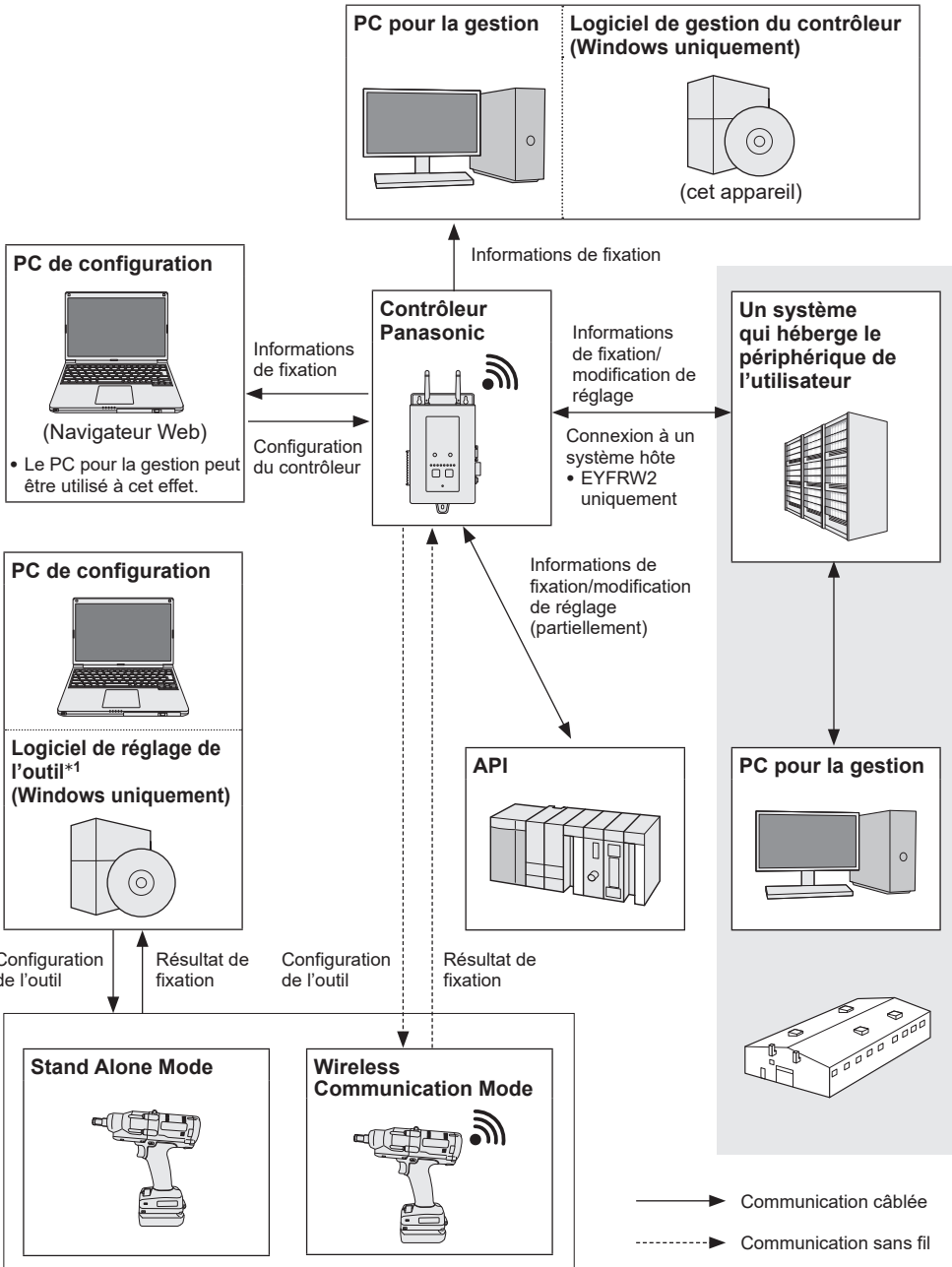
Configuration du système

Le logiciel gère les données d'historique de fixation collectées en connectant un contrôleur Panasonic à l'aide d'un câble.

■ Configuration de EYARW et EYADA



■ Configuration de EYFRW et EYFMH/EYFNH



*1 Le « logiciel de réglage de l'outil » peut être téléchargé depuis notre site Web.

Reportez-vous à la P2

Outils et fonctions disponibles

Les fonctions disponibles varient selon le modèle d'outil. Voir ci-dessous pour plus de détails.

N° de produit Outil		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
N° de produit Contrôleur		EYFRW2	EYARW1		
Collecte des données d'historique de fixation		<input type="radio"/> (y compris les données de forme d'onde)	<input type="radio"/>	<input type="radio"/>	
Données d'outil		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Fonction d'analyse	Comparer	Pourcentage de NOK	<input type="radio"/>	<input type="radio"/>	
		Fixation inverse	—	<input type="radio"/>	
	Calendrier	Couple	<input type="radio"/>	<input type="radio"/>	—
		Temps de fixation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Rotation	—	<input type="radio"/>	<input type="radio"/>
		OK pourcentage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*1 Ceci est pris en charge uniquement par la version 1.01.00 ou ultérieure.

Remarques pour le fonctionnement

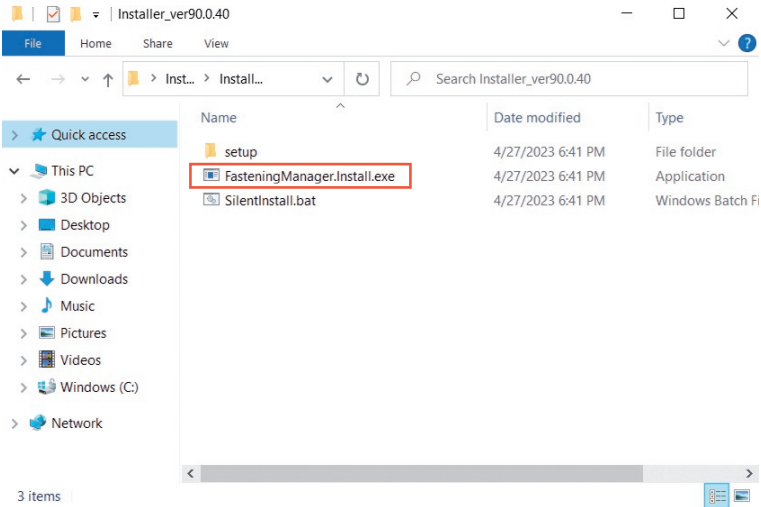
Les données collectées sont enregistrées dans la mémoire interne d'un PC. Sauvegardez les données en les exportant en tant que fichier CSV ou par tout autre moyen en fonction de la capacité restante du disque dur du PC.

Les données peuvent être supprimées du menu de paramétrage sur un contrôleur, même avant d'être collectées par le logiciel. Pour éviter les données manquantes, effectuez régulièrement la collecte des données.

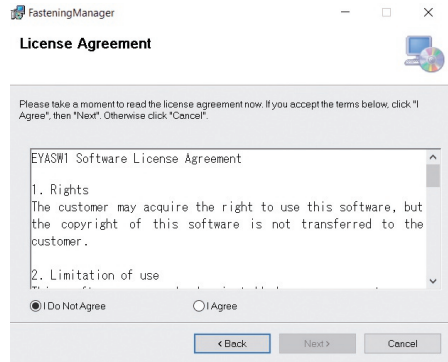
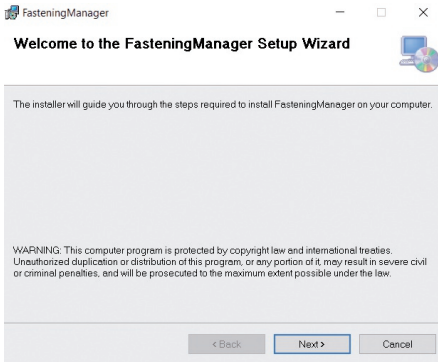
- Le logiciel doit être en cours d'exécution pour la collecte automatique des données. Par conséquent, il est recommandé de démarrer régulièrement le logiciel.

Installation du logiciel

Insérez un CD-R inclus dans le lecteur optique et double-cliquez sur « FasteningManager.Install.exe » dans le dossier d'installation pour l'exécuter.

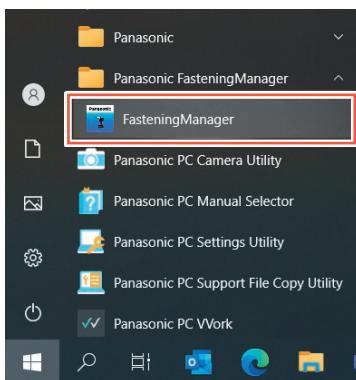


Suivez l'assistant de configuration pour installer le logiciel.
Acceptez le contrat de licence pour continuer.



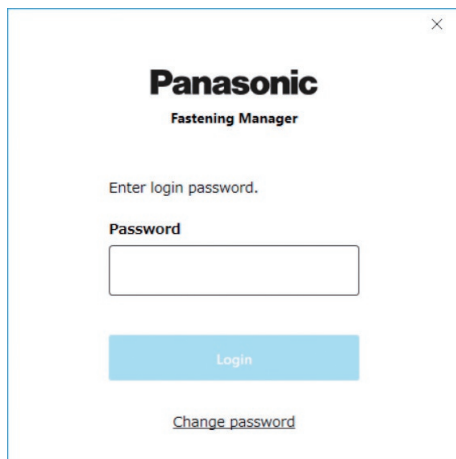
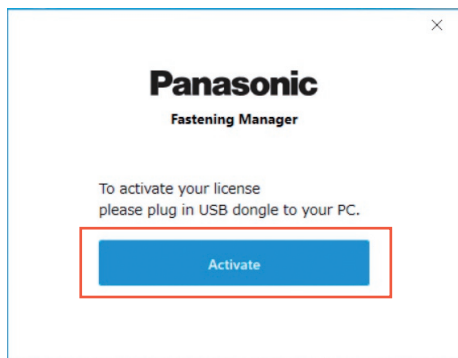
Démarrage du logiciel

Après l'installation, démarrez le logiciel à partir du menu Démarrer de Windows.



Activation USB et authentification par mot de passe

Pour utiliser le logiciel, activez-le avec une clé USB. Insérez la clé USB incluse dans votre PC et cliquez sur [Active]. Lorsque l'activation a réussi, l'écran de saisie d'un mot de passe de connexion s'affiche.



MISE EN GARDE

Conservez la clé USB en toute sécurité pour ne pas la perdre.

Mot de passe de connexion initial

Vous trouverez ci-dessous le mot de passe de connexion initial.

Mot de passe de connexion initial

abcABC123

Modification du mot de passe

Après la connexion initiale, modifiez le mot de passe sur l'écran ci-dessous.

- Pour un mot de passe, utilisez toujours une combinaison de huit caractères ou plus, y compris trois types ou plus de majuscules, de minuscules, de chiffres et de symboles.
- Vous trouverez ci-dessous les symboles qui peuvent être utilisés.

~	!	@	#	\$	%	^	&	*
()	+	¥		_	}	{]
[<	>	.	,	/	?	`	

Change password

To change the password,
please enter the current password and the
new password.

Current Password

New Password

New password (re-enter)

■ Si vous avez oublié votre mot de passe

Désinstallez le logiciel puis installez-le à nouveau.
Ceci initialise le mot de passe.

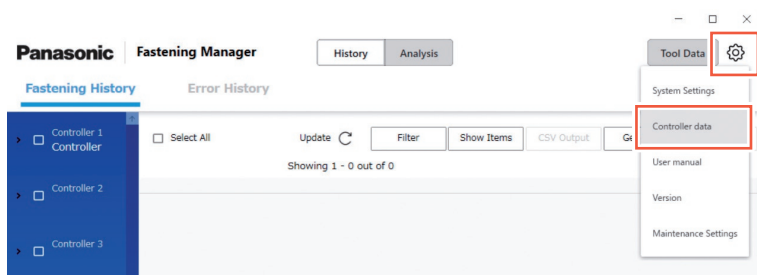
- Ne supprimez pas la base de données.

GESTION D'UN CONTRÔLEUR

Gestion d'un contrôleur

Pour collecter les données d'historique de fixation à l'aide du logiciel, vous devez enregistrer un contrôleur.

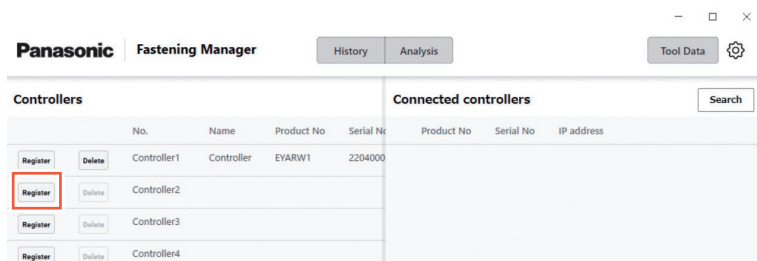
Avec le bouton option en haut à droite de l'écran, sélectionnez [Controller data].



- Pour enregistrer un contrôleur à gérer, vous pouvez saisir directement son adresse IP ou le rechercher sur le réseau.

Enregistrement d'un contrôleur ① Saisie directe d'une adresse IP

Dans « Contrôlers » à gauche de l'écran, sélectionnez [Register].



Dans l'écran ci-dessous, entrez « IP address », « User ID », et « Password » du contrôleur.

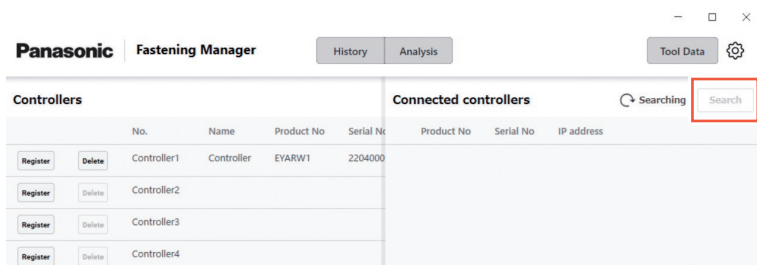
- Saisissez « User ID » et « Password » du compte administrateur enregistré dans le contrôleur.

No.	Name	Product No.	Serial No.	Product No.	Serial No.	IP address
Controller1	Controller	EYARW1	2204000			
Controller2						
Controller3						
Controller4						

- Configurez le PC et le contrôleur pour qu'ils soient sur le même réseau.

Enregistrement d'un contrôleur ② Recherche sur le réseau

Dans « Connected controllers » à droite de l'écran, sélectionnez [Search].



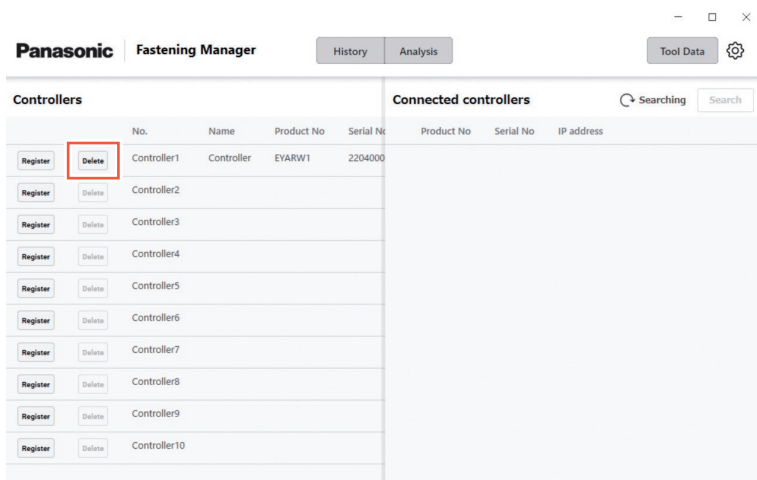
Les contrôleurs sur le réseau sont affichés. Sélectionnez [Add].

MISE EN GARDE

Utilisez une adresse IP fixe pour le contrôleur. DHCP (attribution automatique) peut entraîner la modification de l'adresse IP lorsque le contrôleur est redémarré et empêcher la reconnexion.

Suppression d'un contrôleur enregistré

Pour supprimer un contrôleur enregistré, sélectionnez [Delete] dans « Controllers ».



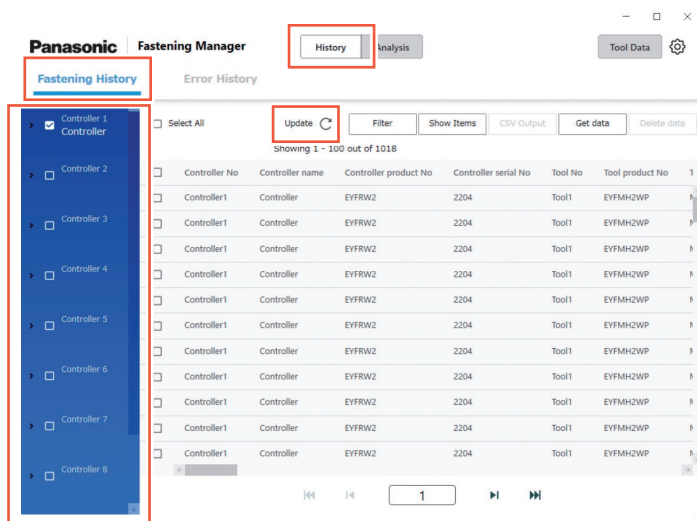
VÉRIFICATION DES DONNÉES D'HISTORIQUE DE FIXATION

Affichage des données d'historique de fixation

Vous pouvez afficher les données d'historique de fixation collectées à partir du contrôleur enregistré.

Sélectionnez [History] puis [Fastening History], et sélectionnez le contrôleur à partir de contrôleur/liste d'outils.

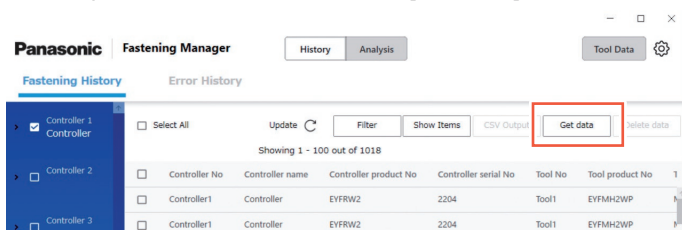
Sélectionnez [Update] pour afficher les données mises à jour.



Les données sont automatiquement collectées par intervalles de 5 minutes lorsque le logiciel est en cours d'exécution.

Obtention manuelle des données d'historique de fixation

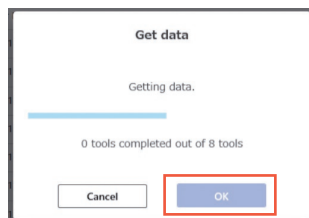
Vous pouvez obtenir manuellement les données d'historique de fixation. Dans l'écran Historique de fixation, sélectionnez [Get data].



La fenêtre contextuelle « Getting data » apparaît. Sélectionnez [OK] lorsque le processus est terminé.

MISE EN GARDE

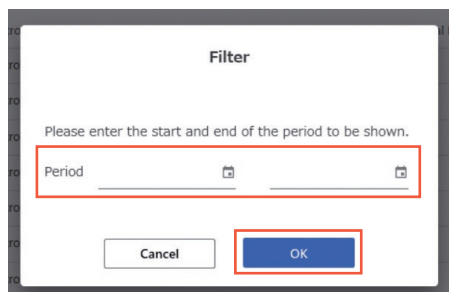
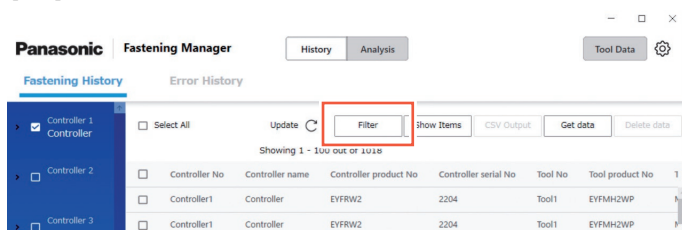
Si le volume de données obtenu en même temps est extrêmement important, le processus peut durer longtemps.



Filtrage des données affichées

Vous pouvez filtrer les données affichées en spécifiant une période.

Dans l'écran de l'historique de fixation, sélectionnez [Filter], spécifiez la période et sélectionnez [OK].

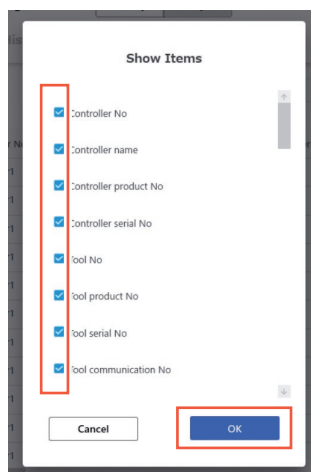
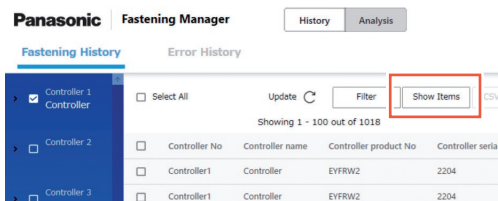


- Le filtre défini est mémorisé.

Configuration des éléments à afficher

Vous pouvez définir les éléments à afficher.

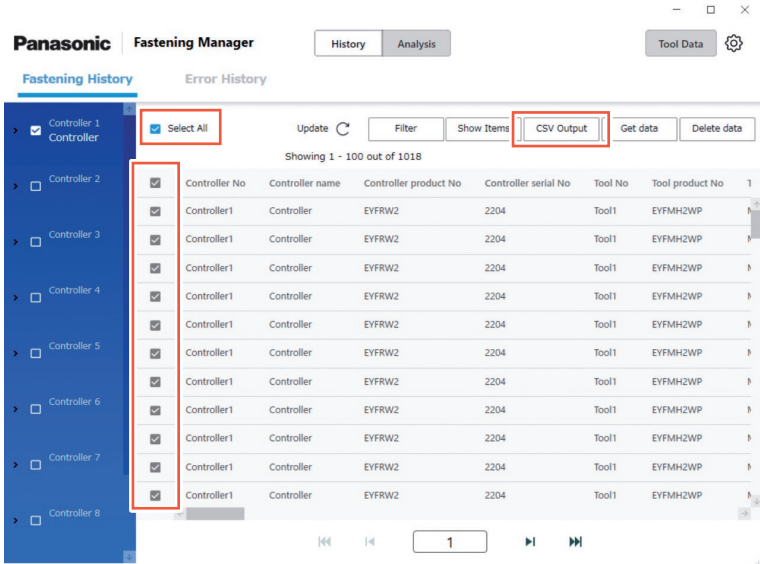
Dans l'écran Historique de fixation, sélectionnez [Show items], vérifiez les éléments souhaités, et sélectionnez [OK].



Sortie en tant que fichier CSV

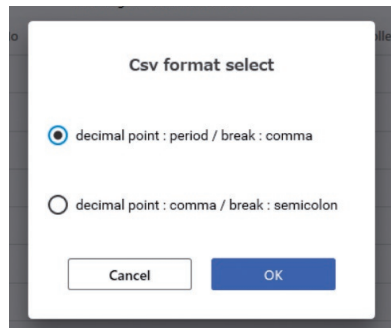
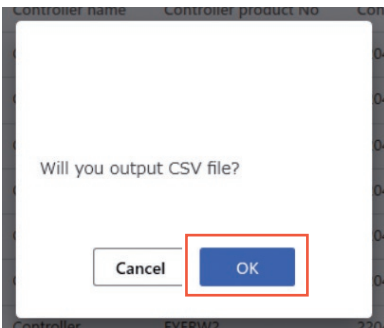
Vous pouvez sortir les données d'historique de fixation au format CSV. Dans l'écran Historique de fixation, vérifiez les données souhaitées et sélectionnez [CSV Output].

- La sélection de toutes les données est également possible.



Sélectionnez [OK] pour exporter les données vers un PC.

- Vous pouvez sélectionner le format CSV comme indiqué ci-dessous.



Suppression des données d'historique de fixation

Vous pouvez supprimer les données d'historique de fixation.

Dans l'écran Historique de fixation, vérifiez les données souhaitées et sélectionnez [Delete data].

- La sélection de toutes les données est également possible.

The screenshot shows the Panasonic Fastening Manager software interface. The 'Fastening History' tab is active. On the left, there is a sidebar with a list of controllers (Controller 1 to Controller 8). The main area displays a table of fastening data. At the top of the table, there is a 'Select All' checkbox, an 'Update' button, a 'Filter' button, a 'Show Items' button, a 'CSV Output' button, a 'Get data' button, and a 'Delete data' button. The 'Delete data' button is highlighted with a red box. The table contains columns for Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. The table shows 10 rows of data, all of which are selected with checkboxes. The 'Delete data' button is located at the top right of the table area.

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Ce processus supprime les données stockées par le logiciel dans la base de données d'un ordinateur.

Il ne supprime pas les données dans le contrôleur.

Le nombre et le volume de données qui peuvent être gérés par la base de données sont limités.

Lorsque le nombre de données est sur le point d'atteindre la limite supérieure ou si l'espace sur le disque dur d'un PC n'est plus suffisant, supprimez les données pour créer un espace après les avoir générées en tant que fichier CSV.

- Pour exécuter le processus ci-dessus régulièrement et automatiquement, voir « Fonction de maintenance ».

Reportez-vous à la P32

VÉRIFICATION DES DONNÉES D'HISTORIQUE DE FIXATION (suite)

Affichage des données de forme d'onde • Pour la configuration de EYFMH/EYFNH et EYFRW uniquement

Dans le logiciel, vous pouvez afficher les données de forme d'onde stockées avec les données d'historique de fixation.

Double-cliquez sur la ligne des données d'historique de fixation souhaitées.

Panasonic Fastening Manager | History | Analysis | Tool Data

Fastening History | Error History

Showing 1 - 100 out of 1018

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Les données de forme d'onde sont affichées comme suit.

Vous pouvez régler l'affichage en sélectionnant « X-axis », « Y-axis », et « Scale ».

Sélectionnez [Output] pour exporter les données au format CSV.

History detail data

OK Torque result : 50.2 Nm vs. Target torque : 100.4%

Output

X-axis: Time, Y-axis: Torque, Scale: Reset

Pulse count	Fastening time(ms)	Torque result	Angle before snug	Angle after snug	RPM
0	10.0	25.0	9	0	150
0	20.0	25.0	26	0	283
0	30.0	25.0	56	0	500
0	40.0	25.0	98	0	700
0	50.0	25.0	150	0	867
0	60.0	25.0	210	0	1000
0	70.0	25.0	285	0	1250
0	80.0	25.0	371	0	1433
0	90.0	25.0	467	0	1600
0	100.0	25.0	576	0	1817
0	110.0	25.0	693	0	1950

Close

MISE EN GARDE

Si le volume de données de forme d'onde est important (par exemple, lorsque le temps par fixation est long), l'obtention et l'affichage peuvent prendre du temps.

VÉRIFICATION DES DONNÉES D'HISTORIQUE DES ERREURS

Affichage des données d'historique des erreurs

Vous pouvez afficher les données d'historique des erreurs collectées à partir du contrôleur enregistré.

Les données sont automatiquement collectées par intervalles de 5 minutes lorsque le logiciel est en cours d'exécution.

The screenshot shows the Panasonic Fastening Manager software interface. The 'History' tab is selected, and the 'Error History' sub-tab is active. A sidebar on the left lists controllers 1 through 8, all of which are checked. The main area displays a table of error logs with columns for Controller No, Controller name, Controller product No, Controller serial No, Date, Time, Object, Error Code, and Error description. The table shows 17 entries, all with Error Code 3303 and Error description 'MotorControl Micr'. The interface also includes buttons for 'Filter', 'Output CSV', 'Get data', and 'Delete data', along with a 'Tool Data' button in the top right corner.

Controller No	Controller name	Controller product No	Controller serial No	Date	Time	Object	Error Code	Error description
Controller3	Controlleur	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller3	Controlleur	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller3	Controlleur	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller3	Controlleur	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller3	Controlleur	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD11	WLAN Disconnect
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD12	Wi-Fi Module Rebc
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:28:53	Controller	BC21	Setting Error
Controller1	Controlleur	EYFRW2	2204	2022/11/01	16:12:16	Tool1	4316	WLAN Module Rebc

Autres paramètres

Les opérations suivantes peuvent être effectuées de la même manière que pour les données d'historique de fixation.

- Obtention des données d'historique des erreurs manuellement
- Filtrage des données affichées
- Exportation en tant que fichier CSV
- Suppression des données d'historique des erreurs

ANALYSE DE L'HISTORIQUE DE TRAVAIL

Fonction d'analyse

La fonction peut analyser les données d'historique de fixation collectées à partir d'un contrôleur et afficher le résultat.

- La fonction analyse uniquement les données sur le disque dur d'un PC.

Voir ci-dessous pour le contenu de l'analyse.

Type	Description	
Comparer	Affiche et compare les tâches sujettes à une mauvaise fixation (NOK) et à un desserrage/réusinage (fixation inverse). Cette analyse est utile pour déterminer quelles tâches doivent être améliorées dans le processus.	
	Pourcentage de NOK	Affiche Pourcentages de NOK (taux de fixation médiocres) des outils respectifs dans un graphique à barres.
	Fixation inverse	Affiche le nombre de fois de fixation inverse (desserrage/réusinage) dans un graphique à barres.
Calendrier	Affiche la série de temps des résultats de fixation du même outil. Cette analyse est utile pour gérer les changements de matériaux et la détérioration des outils.	
	Couple	Affiche le couple obtenu (couple converti) des fixations individuelles dans un graphique linéaire (diagramme de dispersion).
	Temps de fixation	Affiche le temps de fixation de fixations individuelles dans un graphique linéaire (diagramme de dispersion).
	Rotation	Affiche le nombre de rotations de fixations individuelles dans un graphique linéaire (diagramme de dispersion).
	OK pourcentage	Affiche les OK pourcentages de fixation dans un graphique linéaire (diagramme de dispersion).

Outils et types d'analyse disponibles

Les types d'analyse disponibles varient selon le modèle d'outil.

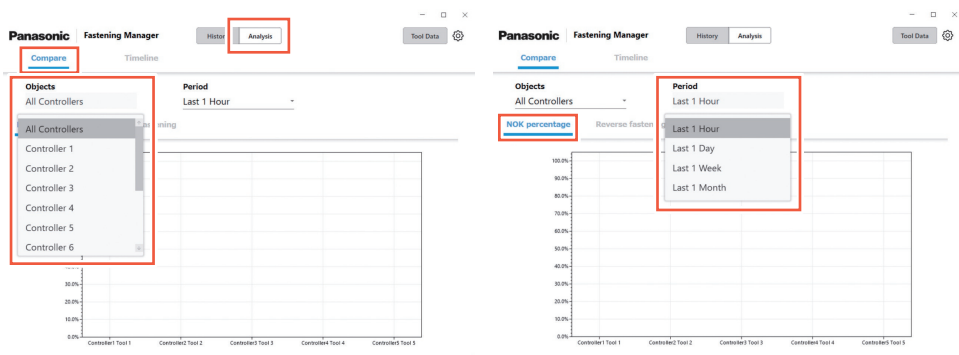
- Lorsque les données analysées contiennent des informations sur plusieurs modèles d'outil, seules les informations des modèles pris en charge sont affichées.

N° de produit Outil		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
N° de produit Contrôleur		EYFRW2	EYARW1		
Fonction d'analyse	Comparer	Pourcentage de NOK	○	○	○
		Fixation inverse	—	○	○
	Calendrier	Couple	○	○	—
		Temps de fixation	○	○	○
		Rotation	—	○	○
		OK pourcentage	○	○	○

*1 Ceci est pris en charge uniquement par la version 1.01.00 ou ultérieure.

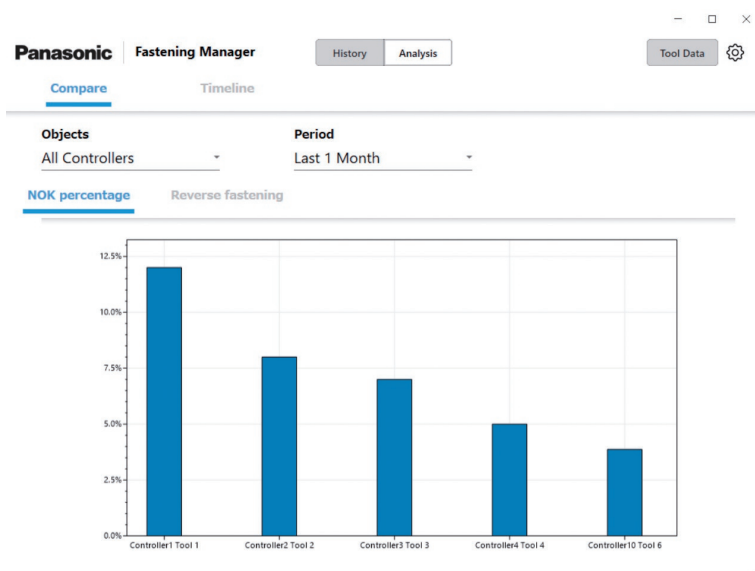
Comparer ① Pourcentage de NOK

Dans l'onglet [Analysis], sélectionnez [Compare].
Sélectionnez l'onglet [NOK percentage] et réglez « Objects » et « Period » à analyser en sélectionnant parmi les options ci-dessous.



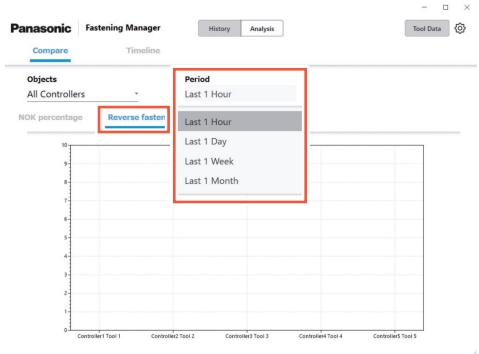
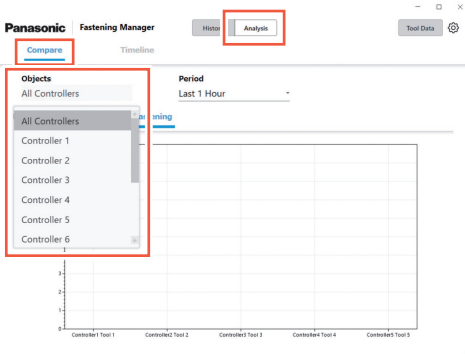
Objects	« All Controllers », « Controller 1 » à « Controller 10 »
Period	« Last 1 Hour », « Last 1 Day », « Last 1 Week », « Last 1 Month »

Le résultat de l'analyse est affiché sous forme de graphique à barres.
Les cinq premiers outils avec les pourcentages de NOK les plus élevés (c.-à-d. les cinq outils les moins performants) sont affichés dans l'ordre.



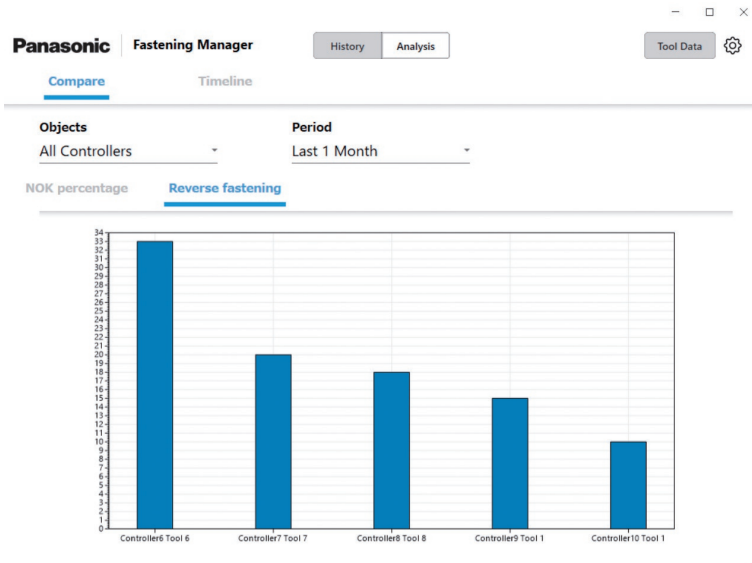
Comparer ② Fixation inverse

Dans l'onglet [Analysis], sélectionnez [Compare].
Sélectionnez l'onglet [Reverse fastening] et réglez « Objects » et « Period » à analyser en sélectionnant parmi les options ci-dessous.



Objects	« All Controllers », « Controller 1 » à « Controller 10 »
Period	« Last 1 Hour », « Last 1 Day », « Last 1 Week », « Last 1 Month »

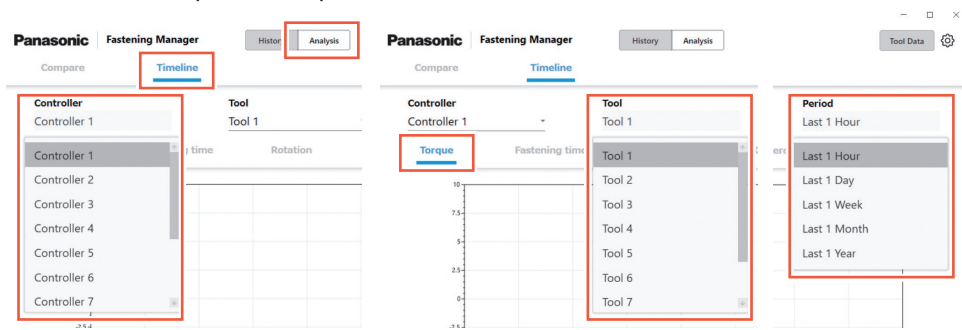
Le résultat de l'analyse est affiché sous forme de graphique à barres.
Les cinq premiers outils avec le nombre de fixation inverse le plus élevé (c.-à-d. les cinq outils les moins performants) sont affichés dans l'ordre.



- EYFMH1, EYFMH2 et EYFNH1 ne sont pas pris en charge.

Calendrier ① Couple

Dans l'onglet [Analysis], sélectionnez [Timeline].
Sélectionnez l'onglet [Torque] et réglez « Controller », « Tool » et « Period » à analyser en sélectionnant parmi les options ci-dessous.



Controller	« Controller 1 » à « Controller 10 »
Tool	« Tool 1 » à « Tool 8 »
Period	« Last 1 Hour », « Last 1 Day », « Last 1 Week », « Last 1 Month », « Last 1 Year »

Le résultat de l'analyse s'affiche dans un graphique linéaire (diagramme de diffusion).
Les données affichées diffèrent selon le modèle d'outil et la période sélectionnée.

N° de produit Outil	EYFMH1 EYFNH1*1	EYADA112WA*1	EYADA212WA
	EYFMH2	EYADA218WA	EYADA407WA
Données analysées	« Torque Result »		« Converted Torque Result »

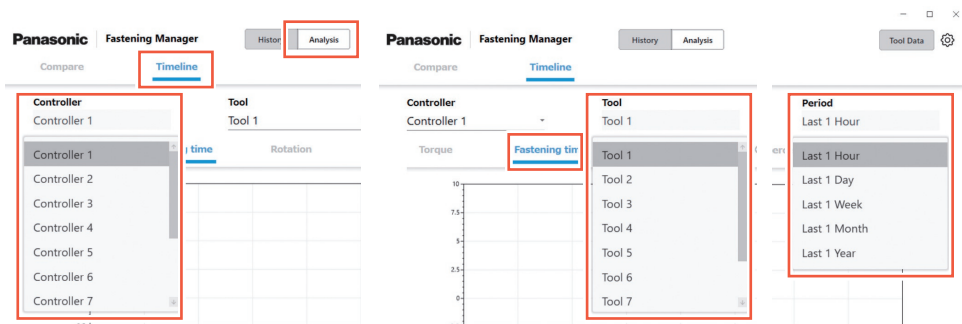
*1 Ceci est pris en charge uniquement par la version 1.01.00 ou ultérieure.



« Last 1 Hour », « Last 1 Day »	Valeurs par fixation
« Last 1 Week », « Last 1 Month »	Valeurs moyennes par jour
« Last 1 Year »	Valeurs moyennes par mois

Calendrier ② Temps de fixation

Dans l'onglet [Analysis], sélectionnez [Timeline].
Sélectionnez l'onglet [Fastening time] et réglez « Controller », « Tool » et « Period » à analyser en sélectionnant parmi les options ci-dessous.

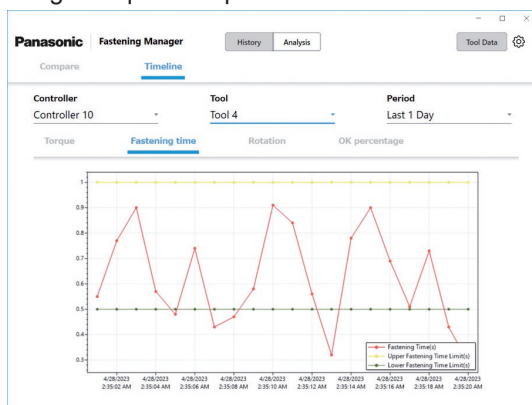


Controller	« Controller 1 » à « Controller 10 »
Tool	« Tool 1 » à « Tool 8 »
Period	« Last 1 Hour », « Last 1 Day », « Last 1 Week », « Last 1 Month », « Last 1 Year »

Le résultat de l'analyse s'affiche dans un graphique linéaire (diagramme de diffusion).
Les données affichées diffèrent selon le modèle d'outil et la période sélectionnée.

N° de produit Outil	EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB
Données analysées	« Fastening Time »		« Fastening Time »

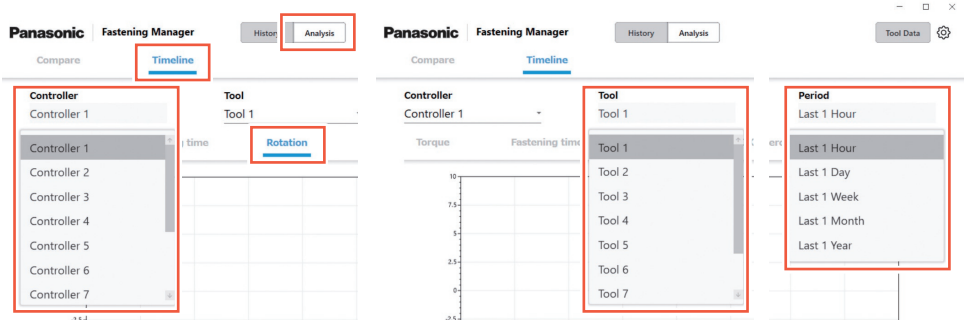
*1 Ceci est pris en charge uniquement par la version 1.01.00 ou ultérieure.



« Last 1 Hour », « Last 1 Day »	Valeurs par fixation
« Last 1 Week », « Last 1 Month »	Valeurs moyennes par jour
« Last 1 Year »	Valeurs moyennes par mois

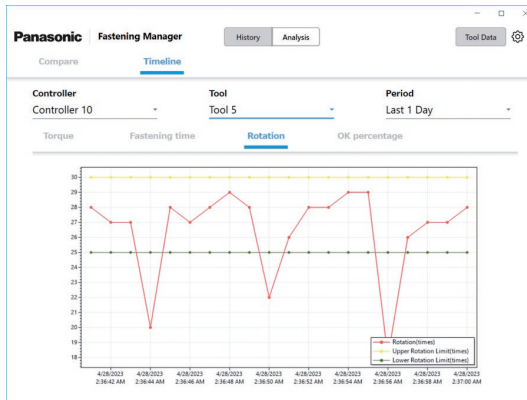
Calendrier ③ Rotation

Dans l'onglet [Analysis], sélectionnez [Timeline].
Sélectionnez l'onglet [Rotation] et réglez « Contrôleur », « Tool » et « Period » à analyser en sélectionnant parmi les options ci-dessous.



Controller	« Controller 1 » à « Controller 10 »
Tool	« Tool 1 » à « Tool 8 »
Period	« Last 1 Hour », « Last 1 Day », « Last 1 Week », « Last 1 Month », « Last 1 Year »

Le résultat de l'analyse s'affiche dans un graphique linéaire (diagramme de diffusion).
Les données affichées diffèrent en fonction de la période sélectionnée.



« Last 1 Hour », « Last 1 Day »	Valeurs par fixation
« Last 1 Week », « Last 1 Month »	Valeurs moyennes par jour
« Last 1 Year »	Valeurs moyennes par mois

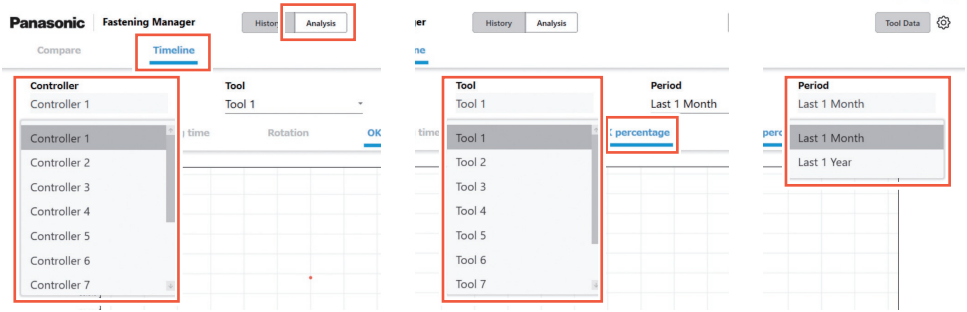
• EYFMH1, EYFMH2 et EYFNH1 ne sont pas pris en charge.

ANALYSE DE L'HISTORIQUE DE TRAVAIL (suite)

Calendrier ④ OK pourcentage

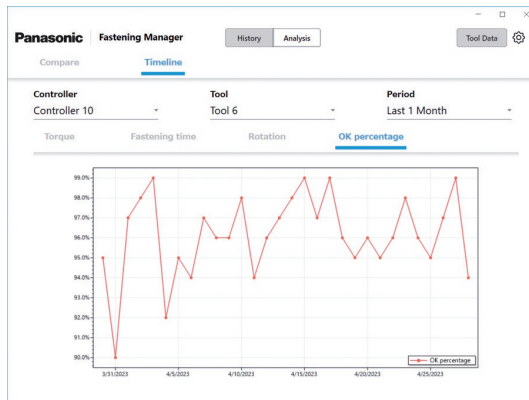
Dans l'onglet [Analysis], sélectionnez [Timeline].

Sélectionnez l'onglet [OK percentage] et réglez « Controllier », « Tool » et « Period » à analyser en sélectionnant parmi les options ci-dessous.



Controllier	« Controller 1 » à « Controller 10 »
Tool	« Tool 1 » à « Tool 8 »
Period	« Last 1 Month », « Last 1 Year »

Le résultat de l'analyse s'affiche dans un graphique linéaire (diagramme de diffusion). Les données affichées diffèrent en fonction de la période sélectionnée.

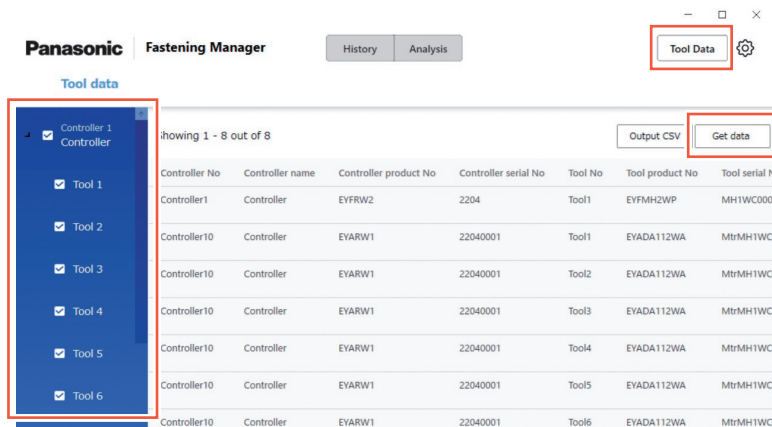


« Last 1 Month »	Valeurs moyennes par jour
« Last 1 Year »	Valeurs moyennes par mois

Vérification des informations des données d'outil

Vous pouvez gérer centralement les informations des outils connectés aux contrôleurs enregistrés.

Sélectionnez [Tool data] en haut à droite de l'écran et sélectionnez les outils souhaités à partir du contrôleur/liste d'outils. Cliquez sur [Get data] pour mettre à jour les informations.



Les éléments suivants sont affichés. Les éléments affichés varient selon le modèle d'outil.

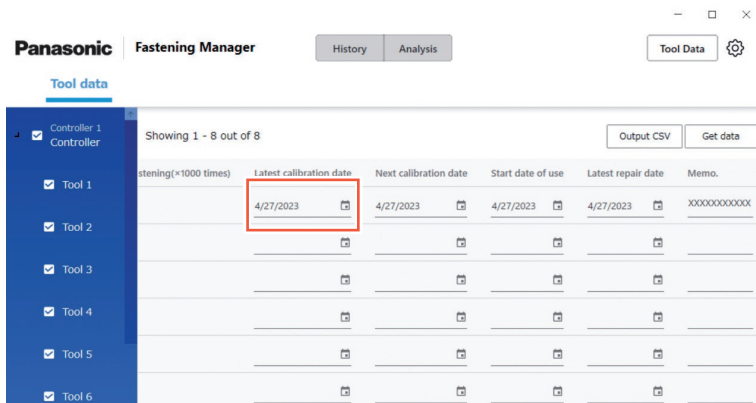
Élément	Description
Controller No	Le numéro d'enregistrement du contrôleur.
Controller name	Le nom du contrôleur défini dans son interface utilisateur.
Controller product No	Le numéro de produit du contrôleur.
Controller serial No	Le numéro de série unique du contrôleur.
Tool No	Le numéro d'outil enregistré dans le contrôleur.
Tool product No	Le numéro de produit d'outil.
Tool serial No	Le numéro de série unique d'outil.
Tool communication No	Le numéro d'identification de communication d'outil.
Cumulative Fastening Time	Le temps cumulé de fonctionnement de l'outil.
Cumulative Pulsing Time* ¹	Le temps cumulé de percussion de l'outil.
Cumulative Number of Pulsing* ¹	Le nombre de percussions cumulé de l'outil.
Cumulative Number of Fastening* ²	Le nombre cumulé de vis fixées par l'outil.

*¹ EYFMH1/EYFMH2/EYFNH1 uniquement.

*² EYADA112WA/EYADA212WA/EYADA218WA/EYADA407WA/EYADA112WB/EYADA212WB/EYADA218WB/EYADA407WB uniquement.

Saisie de l'historique d'utilisation

Vous pouvez enregistrer l'historique d'utilisation des outils.
Sélectionnez le champ souhaité et remplissez-le manuellement.
La sélection d'un marqueur de calendrier vous permet d'effectuer une saisie à partir d'un calendrier.

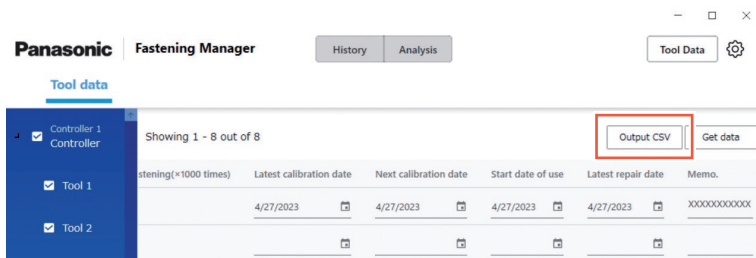


Ci-dessous se trouvent les éléments entrés.

Élément	Description
Latest calibration date	La dernière date d'étalonnage.
Next calibration date	La prochaine date de calibrage planifiée.
Start date of use	La date de début d'utilisation de l'outil.
Latest repair date	La date de la dernière réparation de l'outil.
Memo.	Les remarques peuvent être saisies.

Sortie des informations des données d'outil au format CSV

Vous pouvez exporter les informations de données d'outil en tant que fichier CSV.
Sélectionnez [Output CSV] et sélectionnez la destination de sauvegarde.



Entrée de l'historique de vérification de couple

Vous pouvez enregistrer l'historique de vérification de couple des outils. Dans l'écran Données d'outil, cliquez sur la ligne de l'outil souhaité.

Panasonic Fastening Manager | History | Analysis | Tool Data

Tool data

Showing 1 - 8 out of 8

Output CSV | Get data

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	Tool serial No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	MH1WC000
Controller10	Controller	EYARW1	22040001	Tool1	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool2	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool3	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool4	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool5	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool6	EYADA112WA	MtrMH1WC

L'écran d'historique de vérification de couple s'affiche.

Sélectionnez un marqueur de calendrier et ajoutez une ligne. Puis entrez le couple défini et le résultat de vérification de couple.

Vous pouvez aussi vérifier et supprimer des lignes.

Après la saisie, sélectionnez [OK] pour enregistrer le contenu.

Torque check history | Delete

Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 21:05			

OK

Torque check history | Delete

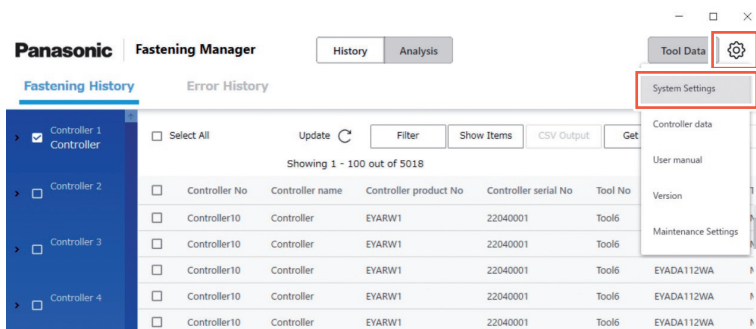
Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 20:05			

OK

PARAMÈTRES SYSTÈME

Modification des paramètres du système

À l'aide du bouton option en haut à droite de l'écran, sélectionnez [System Settings].



Changement de langue

Vous pouvez sélectionner « Japanese » ou « English ».

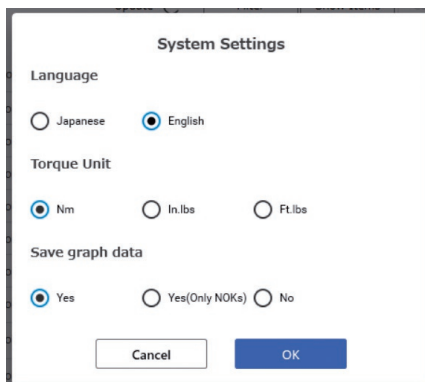
Changement de l'unité de couple

Vous pouvez sélectionner « Nm », « In.lbs », ou « Ft.lbs ».

Enregistrement des données de forme d'onde

Sélectionnez s'il faut collecter les données de forme d'onde de fixation.

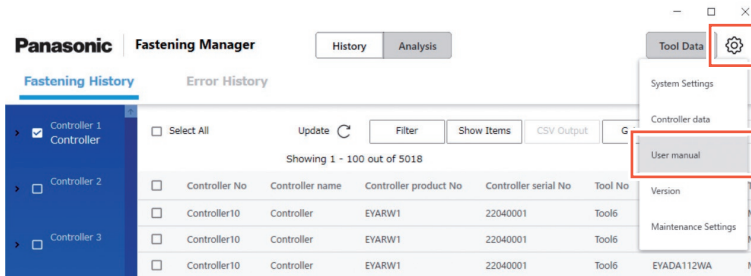
La capacité des données de forme d'onde est susceptible d'être importante et donc vous pouvez sélectionner, « Yes (Only NOKs) » ou « No », s'il faut les collecter en fonction de l'espace de votre PC et de l'objectif de gestion de vos données.



Accès aux Instructions d'utilisation

Vous pouvez accéder aux Instructions d'utilisation.

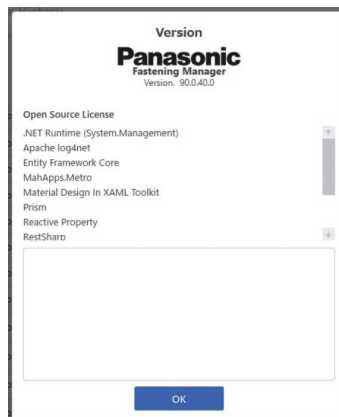
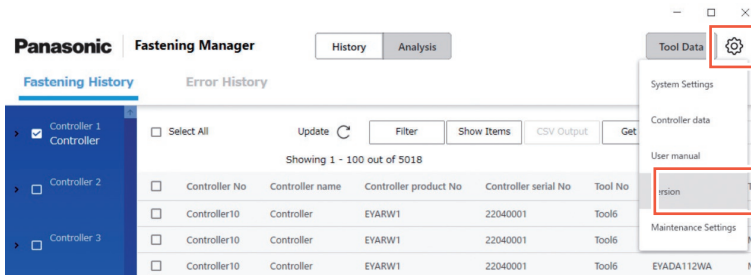
Avec le bouton option en haut à droite de l'écran, sélectionnez [User manual].



Affichage de la version du logiciel

Vous pouvez afficher la version du logiciel.

Avec le bouton option en haut à droite de l'écran, sélectionnez [Version].



MAINTENANCE

Capacité de la base de données (Estimation)

Le logiciel peut collecter les données d'historique de fixation avec un maximum de 4000 fixations.

Si vous collectez des données de forme d'onde, la limitation ci-dessous est appliquée en fonction du volume des données.

Comme les données dépassant la limite supérieure ne peuvent pas être collectées, elles doivent être régulièrement supprimées après avoir été sorties au format CSV si nécessaire.

Pour automatiser le processus, vous pouvez utiliser la fonction de maintenance.

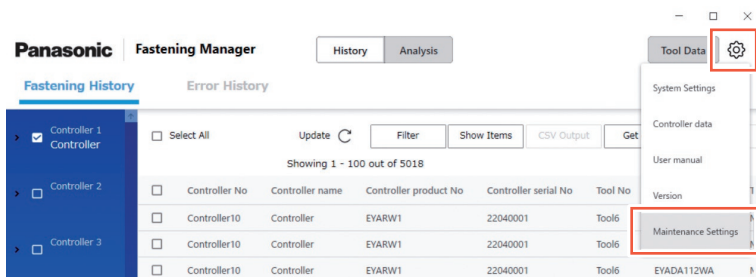
Nombre maximum de fixations	80 outils 5,000 vis/jour (par outil)	40 outils 2,500 vis/jour (par outil)
40,000,000	Équivalent à 100 jours	Équivalent à 400 jours

● Pour la configuration de EYFMH et EYFRW

Capacité de données maximale 25 GB	Nombre de fixations	80 outils 5,000 vis/jour (par outil)	40 outils 2,500 vis/jour (par outil)
forme d'onde de 12 secondes	600,000	Équivalent à 1,5 jours	Équivalent à 6 jours
forme d'onde de 2 secondes	3,600,000	Équivalent à 9 jours	Équivalent à 36 jours
forme d'onde de 1 secondes	7,200,000	Équivalent à 18 jours	Équivalent à 72 jours

Fonction de maintenance

Cette fonction vous permet d'automatiser la gestion planifiée de la base de données. À l'aide du bouton option en haut à droite de l'écran, sélectionnez [Maintenance Settings].



MISE EN GARDE

Le processus peut prendre des dizaines de minutes en fonction du volume de données.

Prenez ce facteur en compte lorsque vous effectuez le réglage.

■ Procédure

- (1) Réglez « Automated Maintenance » sur « ON ».
- (2) Sélectionnez l'intervalle entre « Weekly » et « Monthly » et sélectionnez le jour de la semaine et l'heure.
- (3) Sélectionnez le format CSV et la destination de sauvegarde.
- (4) Une fois la sélection terminée, sélectionnez [OK].

Une fois le réglage terminé, la fonction émet et enregistre automatiquement les données sous forme de fichier CSV dans la destination spécifiée à l'heure spécifiée. Elle supprime également des données pour créer un espace nécessaire dans la base de données.

- Le logiciel doit être en cours d'exécution pour effectuer une maintenance automatique.
- La maintenance peut également être lancée manuellement si nécessaire.

Vous trouverez ci-dessous la plage de données à générer au format CSV ou à supprimer. Cela n'inclut pas les données d'historique des erreurs.

Réglage	Plage des données à générer ou à supprimer	Plage de données contenues dans un fichier
Automatisé (Hebdomadaire)	Données d'historique de fixation pour une semaine après plus de 30 millions de données	Données pour un jour
Automatisé (Mensuel)	Données d'historique de fixation pour un mois après plus de 30 millions de données	Données pour un jour
Manuel	Toutes les données d'historique de fixation excédant 30 millions de données	Données pour un jour

Sauvegarde et restauration de la base de données

Vous pouvez sauvegarder la base de données pour la restaurer en cas de problème. Une sauvegarde planifiée est recommandée.

■ Comment effectuer une sauvegarde

- (1) Quittez le logiciel s'il est en cours d'exécution.
- (2) Copiez «FasteningManager.sqlite» à partir du dossier *1 dans lequel vous avez installé le logiciel sur un stockage externe tel qu'un lecteur flash USB et un disque dur externe.
(Préparez un espace suffisant pour stocker les données qui peuvent être volumineuses.)

■ Procédure

- (1) Quittez le logiciel s'il est en cours d'exécution.
- (2) Écrivez « FasteningManager.sqlite » dans le dossier *1 où vous avez installé le logiciel à l'aide du fichier de sauvegarde.

*1 Le logiciel est installé dans « C:\Panasonic\FasteningManager\ » par défaut.

Réinstallation du PC (Réinstallation du logiciel)

Pour remplacer le PC sur lequel le logiciel est installé, suivez la procédure ci-dessous.

- (1) Dans l'écran de données du contrôleur, supprimez tous les contrôleurs enregistrés dans « Controllers ».
- (2) Quittez le logiciel.
- (3) Sauvegardez la base de données actuelle.
(Voir « Sauvegarde et restauration de la base de données ».)
- (4) Désinstallez le logiciel.
(Désinstallez «FasteningManager» dans le boîtier de commande.)
- (5) Installez le logiciel sur un nouveau PC.
Reportez-vous à la P9
- (6) Restaurez la base de données dans laquelle vous avez effectué la sauvegarde (3).
(Voir « Sauvegarde et restauration de la base de données ».)
- (7) Démarrez le logiciel sur le nouveau PC.
Reportez-vous à la P10
- (8) Dans l'écran de données Contrôleur, « Search » et « Register » les contrôleurs. **Reportez-vous à la P12**

Remarque

Installez le logiciel de gestion du contrôleur sur un PC uniquement comme indiqué dans le contrat de licence.

Pour installer le logiciel sur le nouveau PC, veillez à le désinstaller sur l'ancien PC.

CARACTÉRISTIQUES TECHNIQUES

Le logiciel est conçu pour collecter des données d'un contrôleur connecté.

■ Environnement d'exploitation

Système d'exploitation compatible	Windows10 (64 bits) ou ultérieur
PC compatible (CPU)	2,0 GHz, 4 ou 2 cœurs, 4 processeurs logiques ou plus
Stockage	8 Go ou plus
Capacité de disque dur recommandée	SSD 100 Go ou plus
Résolution recommandée	1024 × 768 ou plus
Interface	Lecteur optique (pour l'installation du logiciel) USB Type-A (pour l'authentification de licence) Port Ethernet (pour la communication avec un contrôleur)
Environnement du logiciel	.NET Core 3.1

■ Caractéristiques techniques

Nombre de données pouvant être stockées	Un maximum de 4000 données d'historique de fixation
Nombre de contrôleurs pouvant être enregistrés	10 (maximum)
Sécurité	Activation de la clé USB
Langue prise en charge	Anglais, japonais
Accessoire	Clé USB clé × 1
N° de produit applicable au contrôleur	EYARW1 EYFRW2 • Y compris les variétés

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Conditions de licence du logiciel

Ce produit intègre les logiciels suivants :

- (1) logiciel développé indépendamment par ou pour Panasonic Corporation,
- (2) logiciel appartenant à une tierce partie et concédé à Panasonic Corporation,
- (3) logiciel libre

Le logiciel numéroté (3) est diffusé avec l'espoir qu'il sera utile, mais SANS AUCUNE GARANTIE, sans même la garantie implicite de VALEUR COMMERCIALE ou D'APTITUDE À UN USAGE PARTICULIER.

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Panasonic®

Istruzioni per l'uso

Software di gestione controller

Modello n.: EYASW1



IMPORTANTE

Leggere e seguire le istruzioni per la sicurezza e le Istruzioni per l'uso prima di utilizzare questo prodotto.

Istruzioni originalmente scritte in: inglese
Istruzioni originali tradotte in: altre lingue

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MANUTENZIONE

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INFORMAZIONI

Ambiente operativo

Utilizzare un PC con sistema operativo Windows per questo software.
Preparare un dispositivo che soddisfi quanto segue.

Ambiente operativo

Sistema operativo compatibile	Windows10 (64 bit) o successivo
PC compatibile (CPU)	2,0 GHz, 4 o 2 core, 4 o più processori logici
Memoria	8 GB o superiore
Capacità disco rigido raccomandata	SSD 100 GB o più
Risoluzione consigliata	1024 × 768 o superiore
Interfaccia	Unità ottica (per l'installazione del software) USB Tipo A (per l'autenticazione della licenza) Porta Ethernet (per la comunicazione con un controller)
Ambiente software	.NET Core 3.1

- Alcuni PC non sono disponibili anche se soddisfano l'ambiente operativo.
- A seconda dell'ambiente di utilizzo, ecc. del PC, le descrizioni e le schermate in queste istruzioni per l'uso potrebbero essere diverse dalle descrizioni e dalle schermate reali. Tenerlo in considerazione.
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- Le cifre in queste istruzioni per l'uso servono solo per riferimento.

Come accedere alle istruzioni per l'uso

La versione corrente delle istruzioni per l'uso del software e di altre risorse può essere scaricata dal sito web riportato di seguito.

[Solo per l'UE] <https://www.panasonic-powertools.eu/en/assembly/downloads>

[Solo per l'Asia] <https://panasonic.net/electricworks/ecm/powerelctrictools/download/>

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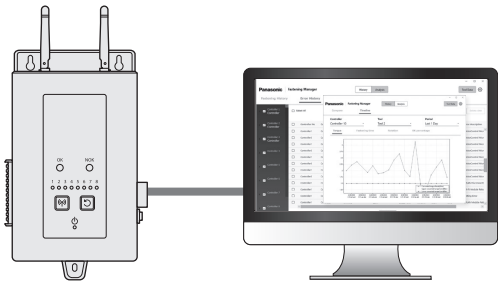
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Uso previsto

Il software è progettato per raccogliere i dati da un controller collegato. Inoltre esegue una semplice analisi dei dati oltre alla raccolta automatica di dati di cronologia di fissaggio.

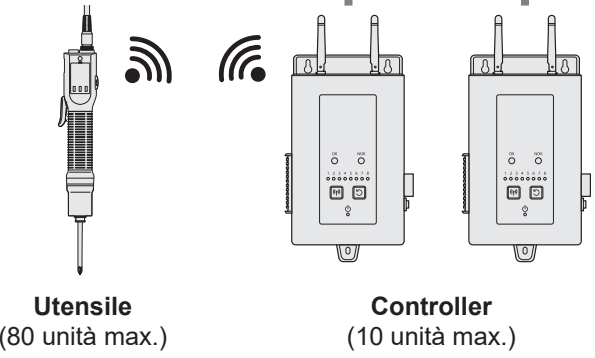


- 01 Gestione di fino a 10 controller
- 02 Funzione di analisi di dati di cronologia di fissaggio
- 03 Funzione di gestione informazioni utensile

Configurazione

Installare il software in un PC e collegare il PC ai controller tramite LAN cablata. È possibile registrare fino a 10 controller.

- Il numero massimo di utensili che possono essere registrati è 80 (8 × 10).



Utensile
(80 unità max.)

Controller
(10 unità max.)

CONTRATTO DI LICENZA

Contratto di licenza del software

1. Licenza concessa

All'utente viene concesso il diritto di utilizzare il software. Tuttavia, ciò non significa che il copyright del software venga trasferito all'utente.

2. Ambito della licenza

Il software deve essere installato in un PC per ciascun pacchetto e non deve essere condiviso da più di un dispositivo. È vietata la copia di una parte o di tutto il software senza il nostro consenso.

3. Analisi, modifica e alterazione

L'analisi, la modifica e l'alterazione del software sono vietate. Non siamo responsabili di eventuali difetti dovuti a tali analisi, modifica o alterazione.

4. Cambiamenti nelle specifiche

Le specifiche del software sono soggette a modifiche senza preavviso.

5. Esenzione

Noi e i nostri rivenditori non siamo responsabili per i danni all'utente o per eventuali reclami fatti all'utente da parte di terzi in relazione all'uso del software, tranne nei casi di negligenza intenzionale o grave da parte nostra o dei nostri rivenditori.

6. Controllo dell'esportazione

Se si porta il software fuori dal Paese in cui è stato acquistato, seguire le leggi e le normative di controllo dell'esportazione dei Paesi di partenza e di destinazione.

7. Altro

La licenza del software verrà automaticamente terminata se si violano le condizioni di cui sopra. In tal caso, l'utente deve eliminare il software.

NOTE PER L'USO

Note per l'uso

Per utilizzare le massime prestazioni di elaborazione di un PC, preparare un PC dedicato all'uso di questo software.

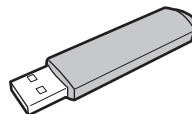
La condivisione di un PC con altro software potrebbe aumentare il carico di elaborazione, con conseguente riduzione delle prestazioni, per esempio una velocità di visualizzazione più lenta.

Articoli inclusi

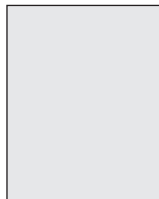
■ CD-R × 1



■ Chiavetta USB per l'attivazione × 1



■ Volantino × 1

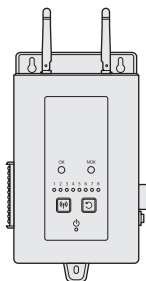


Articoli venduti separatamente

Preparare gli utensili e i controller da utilizzare con il software.



Utensile



Controller

CONFIGURAZIONE DI SISTEMA

Elenco dei modelli di controller supportati

Voce	Controller	Utensile	
Modelli che possono essere registrati	EYARW1 EYFRW2	EYADA112WA/WB*1 EYADA218WA/WB EYFMH1/EYFMH2	EYADA212WA/WB EYADA407WA/WB EYFNH1*1

• I numeri di modello sono quelli del momento della vendita.

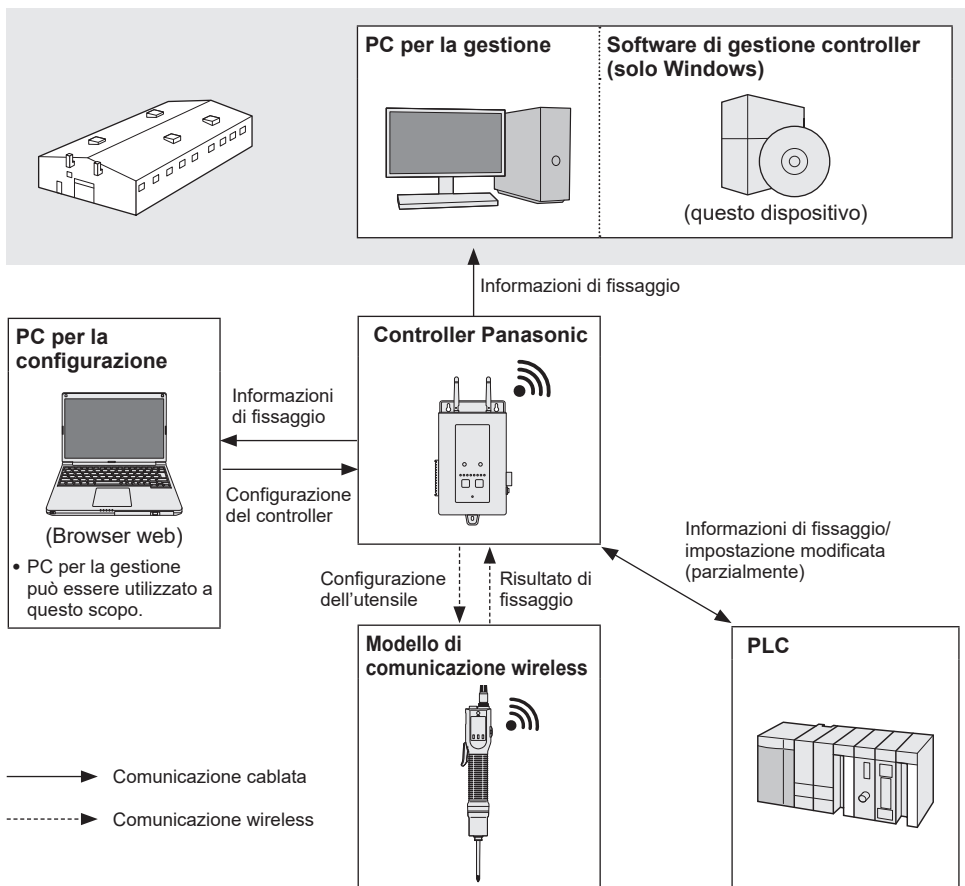
• Sono inoltre incluse varietà con suffissi diversi.

*1 Questo è supportato solo dalla versione 1.01.00 o successiva.

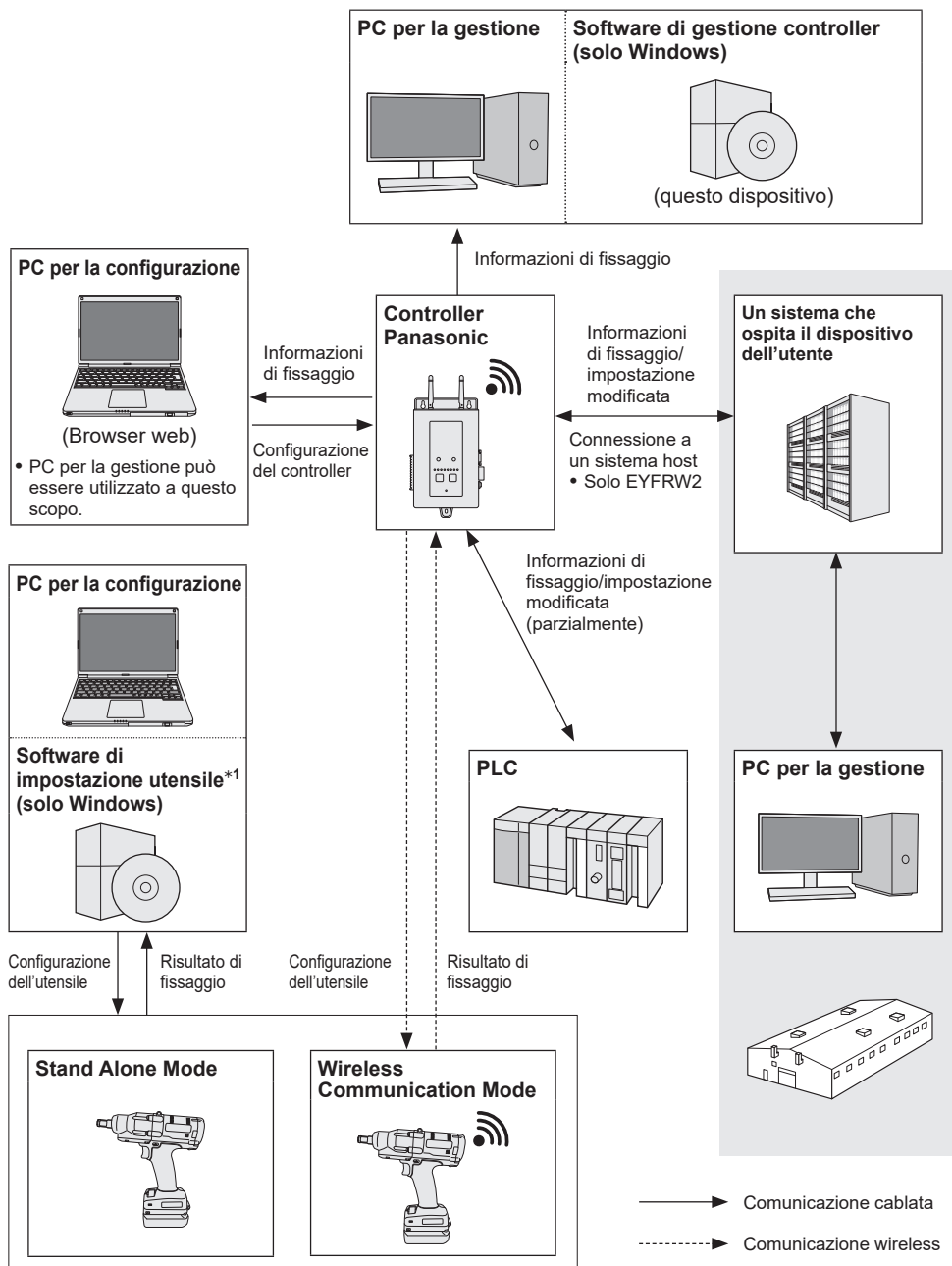
Configurazione di sistema

Il software gestisce i dati di cronologia di fissaggio raccolti collegando un controller Panasonic con un cavo.

Impostazione di EYARW e EYADA



■ Impostazione di EYFRW ed EYFMH/EYFNH



*1 Il "software di impostazione utensile" può essere scaricato dal nostro sito web.

Fare riferimento a P2

FUNZIONI SUPPORTATE E NOTE PER IL FUNZIONAMENTO

Utensili e funzioni disponibili

Le funzioni disponibili differiscono a seconda del modello di utensile. Vedere di seguito per i dettagli.

N. prodotto utensile		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
N. prodotto controller		EYFRW2	EYARW1		
Raccolta dei dati di cronologia di fissaggio		<input type="radio"/> (compresi i dati di forma d'onda)	<input type="radio"/>	<input type="radio"/>	
Dati utensile		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Funzione di analisi	Confronta	Percentuale NONOK	<input type="radio"/>	<input type="radio"/>	
		Fissaggio inverso	—	<input type="radio"/>	
	Linea temporale	Coppia	<input type="radio"/>	<input type="radio"/>	—
		Tempo di fissaggio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Rotazione	—	<input type="radio"/>	<input type="radio"/>
		Percentuale OK	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*1 Questo è supportato solo dalla versione 1.01.00 o successiva.

Note per il funzionamento

I dati raccolti vengono salvati nella memoria interna di un PC.

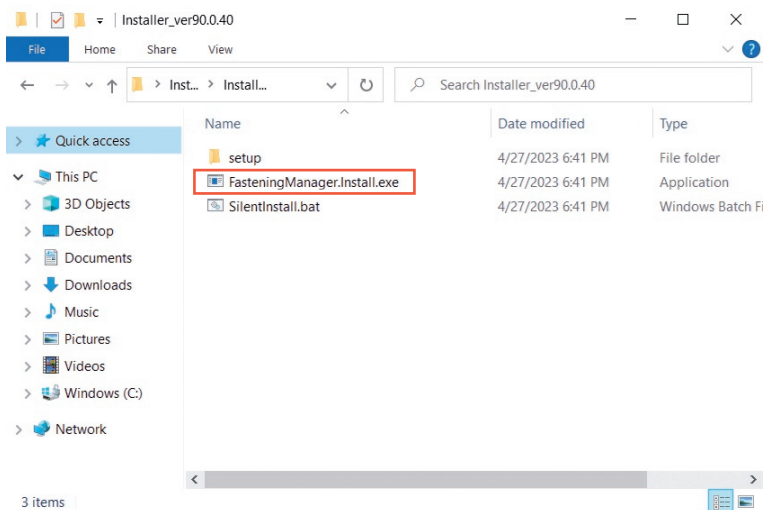
Eseguire il backup dei dati emettendoli come file CSV o con qualsiasi altro mezzo in base alla capacità rimanente del disco rigido del PC.

I dati possono essere eliminati dal menu impostazioni su un controller anche prima che siano stati raccolti dal software. Per evitare la perdita di dati, eseguire regolarmente la raccolta dei dati.

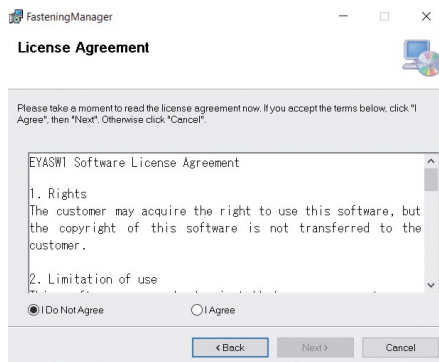
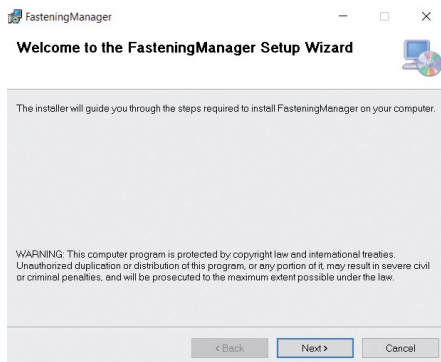
- Il software deve essere in esecuzione per la raccolta automatica dei dati. Pertanto, si consiglia di avviare regolarmente il software.

Installazione del software

Inserire un CD-R nell'unità ottica e fare doppio clic su "FasteningManager.Install.exe" nella cartella del programma di installazione per eseguirlo.

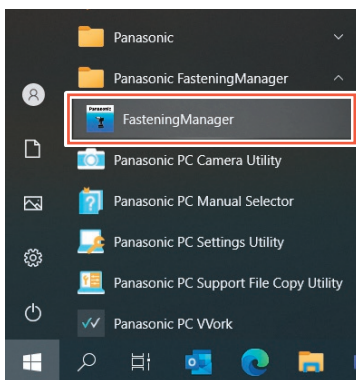


Seguire la procedura guidata di installazione per installare il software. Accettare il contratto di licenza per procedere.



Avvio del software

Dopo l'installazione, avviare il software dal menu Start di Windows.

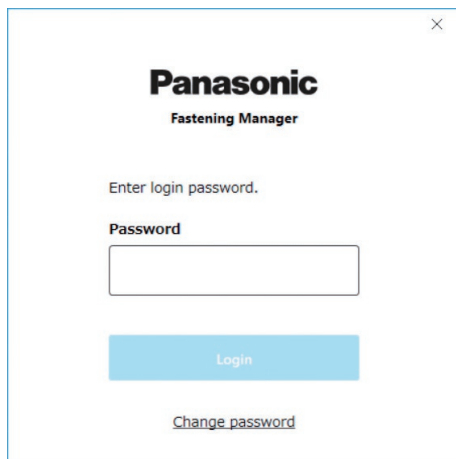
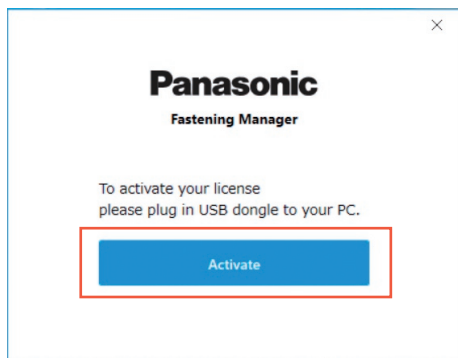


Attivazione USB e autenticazione password

Per utilizzare il software, attivarlo con una chiavetta USB.

Inserire la chiavetta USB inclusa nel PC e fare clic su [Activate].

Quando l'attivazione è riuscita, viene visualizzata la schermata per l'immissione di una password di accesso.



ATTENZIONE

Conservare la chiavetta USB in modo sicuro per non perderla.

Password di accesso iniziale

Di seguito è riportata la password di accesso iniziale.

Password di accesso iniziale

abcABC123

Modifica della password

Dopo l'accesso iniziale, modificare la password nella schermata seguente.

- Per una password, utilizzare sempre una combinazione di otto o più caratteri, compresi tre o più tipi tra maiuscole, minuscole, numeri e simboli.
- Di seguito sono riportati i simboli che possono essere utilizzati.

~	!	@	#	\$	%	^	&	*
()	+	¥		-	}	{]
[<	>	.	,	/	?	`	

Change password

To change the password,
please enter the current password and the
new password.

Current Password

New Password

New password (re-enter)

■ Se si dimentica la password

Disinstallare il software e quindi reinstallarlo.
Questa operazione inizializza la password.

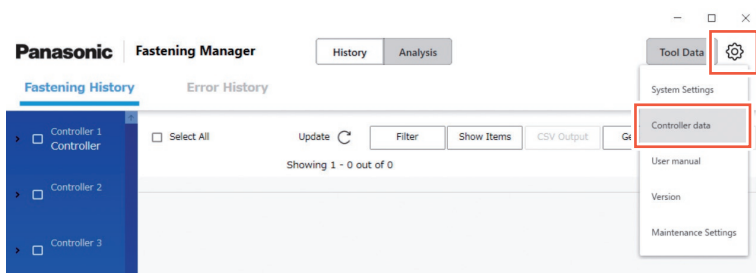
- Non eliminare il database.

GESTIONE DI UN CONTROLLER

Gestione di un controller

Per raccogliere i dati di cronologia di fissaggio utilizzando il software, è necessario registrare un controller.

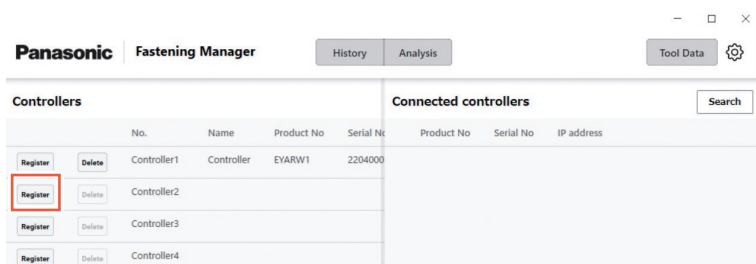
Dal pulsante di opzione in alto a destra della schermata, selezionare [Controller data].



- Per registrare un controller da gestire, è possibile inserire direttamente il suo indirizzo IP o cercarlo sulla rete.

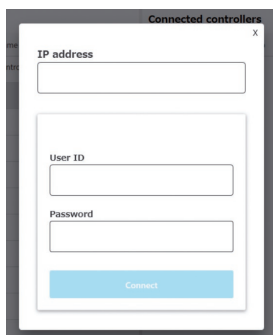
Registrazione di un controller ① Immissione diretta di un indirizzo IP

In “Controllers” a sinistra dello schermo, selezionare [Register].



Nella schermata seguente, inserire “IP address”, “User ID” e “Password” del controller.

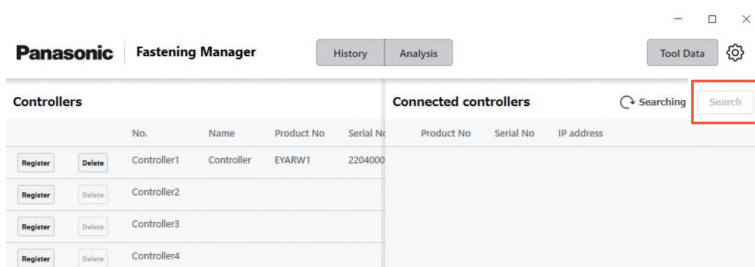
- Inserire “User ID” e “Password” dell’account amministratore registrato nel controller.



- Configurare il PC e il controller in modo che siano sulla stessa rete.

Registrazione di un controller ② Ricerca nella rete

Da “Connected controllers” sulla destra dello schermo, selezionare [Search].



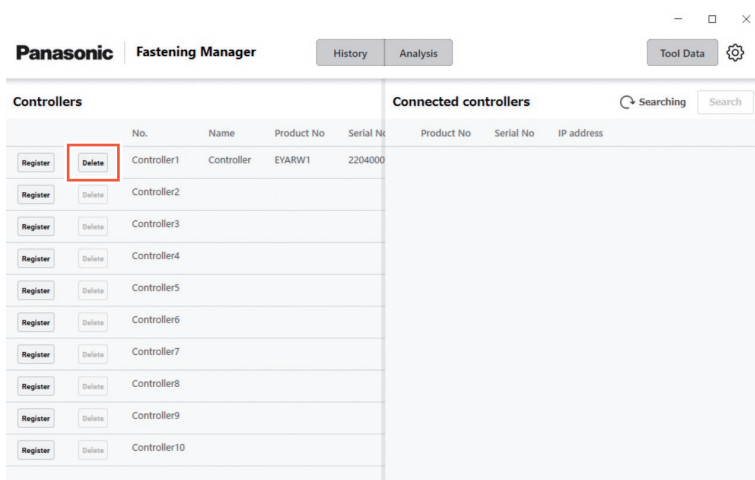
I controller sulla rete vengono visualizzati.
Selezionare [Add].

ATTENZIONE

Utilizzare un indirizzo IP fisso per il controller. DHCP (assegnazione automatica) potrebbe causare la modifica dell'indirizzo IP quando il controller viene riavviato e impedire la riconnessione.

Eliminazione di un controller registrato

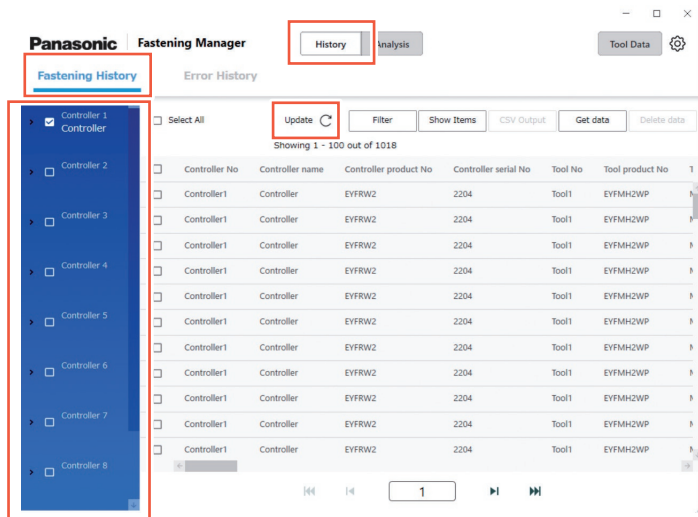
Per eliminare un controller registrato, selezionare [Delete] in “Controllers”.



CONTROLLO DEI DATI DELLA CRONOLOGIA DI FISSAGGIO

Visualizzazione dei dati di cronologia di fissaggio

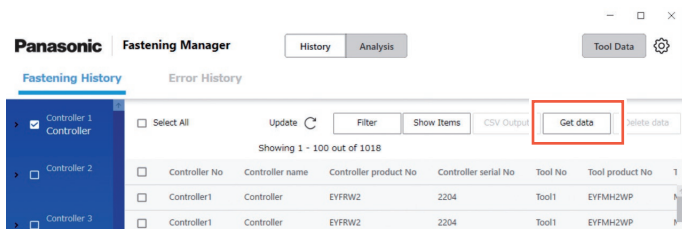
È possibile visualizzare i dati di cronologia di fissaggio raccolti dal controller registrato. Selezionare [History] e quindi [Fastening History], quindi selezionare il controller da controller/elenco utensili. Selezionando [Update] vengono visualizzati i dati aggiornati.



I dati vengono raccolti automaticamente a intervalli di 5 minuti mentre il software è in esecuzione.

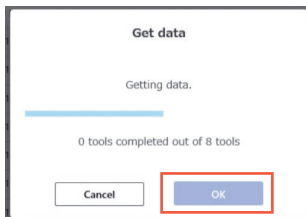
Ottenere manualmente i dati di cronologia di fissaggio

È possibile ottenere manualmente i dati di cronologia di fissaggio. Nella schermata della cronologia di fissaggio, selezionare [Get data].



Appare il popup "Getting data". Selezionare [OK] quando il processo è stato completato.

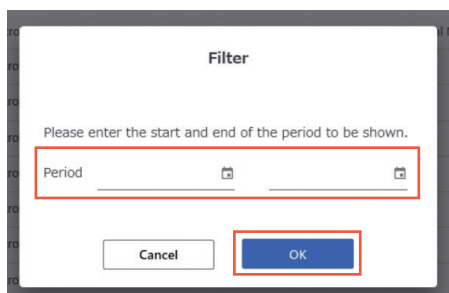
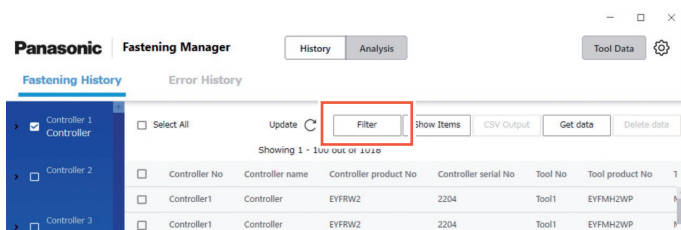
ATTENZIONE
Se il volume di dati ottenuto in una volta è estremamente grande, il processo potrebbe richiedere molto tempo.



Filtraggio dei dati visualizzati

È possibile filtrare i dati visualizzati specificando un periodo.

Nella schermata Cronologia di fissaggio, selezionare [Filter], specificare il periodo e selezionare [OK].

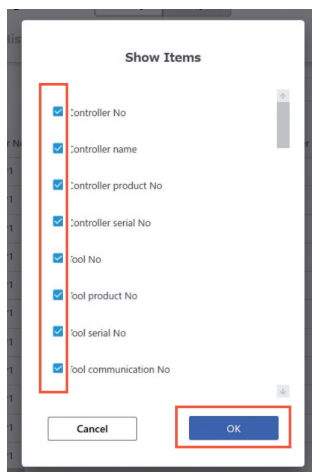
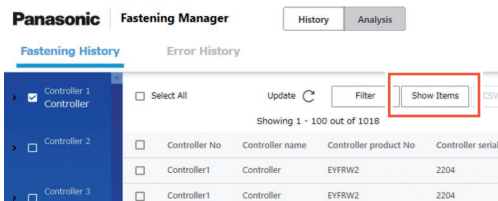


- Il filtro impostato viene memorizzato.

Impostazione delle voci da visualizzare

È possibile impostare le voci da visualizzare.

Nella schermata Cronologia di fissaggio, selezionare [Show Items], controllare le voci desiderate e selezionare [OK].



Emissione come file CSV

È possibile emettere i dati di cronologia di fissaggio nel formato CSV.

Nella schermata Cronologia di fissaggio, controllare i dati desiderati e selezionare [CSV Output].

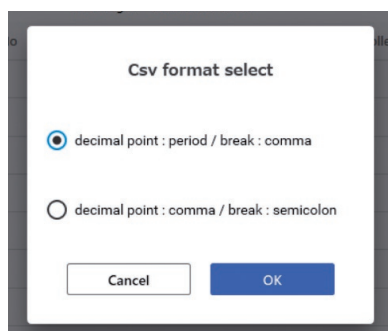
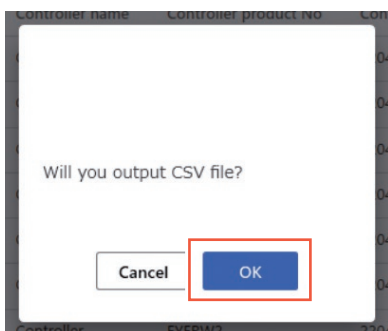
- Anche la selezione di tutti i dati è possibile.

The screenshot shows the Panasonic Fastening Manager software interface. The 'Fastening History' tab is active, displaying a table of fastening data. The 'Select All' checkbox is checked and highlighted with a red box. The 'CSV Output' button is also highlighted with a red box. The table contains the following data:

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Selezionare [OK] per emettere i dati a un PC.

- È possibile selezionare il formato CSV come riportato di seguito.



Eliminazione dei dati di cronologia di fissaggio

È possibile eliminare i dati di cronologia di fissaggio.

Nella schermata Cronologia di fissaggio, controllare i dati desiderati e selezionare [Delete data].

- Anche la selezione di tutti i dati è possibile.

The screenshot shows the Panasonic Fastening Manager software interface. The 'Fastening History' tab is active, displaying a table of fastening data. The table has columns for Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. A 'Select All' checkbox is checked, and the 'Delete data' button is highlighted with a red box. The table shows 10 rows of data, all with 'Controller1' as the controller name and 'EYFRW2' as the controller product. The 'Delete data' button is located in the top right corner of the table area.

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Questo processo elimina i dati memorizzati dal software nel database su un PC. Non elimina i dati nel controller.

Il numero e il volume dei dati che possono essere gestiti dal database sono limitati. Quando il numero di dati sta per raggiungere il limite superiore o lo spazio del disco rigido su un PC si sta riducendo, eliminare i dati per creare uno spazio dopo averli emessi come file CSV.

- Per eseguire il processo di cui sopra regolarmente e automaticamente, vedere “Funzione di manutenzione”.

Fare riferimento a P32

Visualizzazione dei dati della forma d'onda • Per la configurazione solo di EYFMH/EYFNH e EYFRW

Nel software, è possibile visualizzare i dati della forma d'onda memorizzati con i dati di cronologia di fissaggio.

Fare doppio clic sulla riga dei dati di cronologia di fissaggio desiderati.

Panasonic Fastening Manager

History Analysis Tool Data

Fastening History Error History

Controller 1 Controller

Controller 2

Controller 3

Controller 4

Controller 5

Select All Update Filter Show Items CSV Output Get data Delete data

Showing 1 - 100 out of 1018

Controller Nn	Controller name	Controller product Nn	Controller serial Nn	Tool Nn	Tool product Nn
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

I dati della forma d'onda vengono visualizzati come indicato di seguito. È possibile regolare la visualizzazione selezionando "X-axis", "Y-axis" e "Scale".

Selezionando [Output] si esportano i dati in formato CSV.

History detail data

OK Torque result : 50.2 Nm vs. Target torque : 100.4% Output

50
45
40
35
30
25

0 100 200 300 400

Pulse count	Fastening time(ms)	Torque result	Angle before snug	Angle after snug	RPM
0	10.0	25.0	9	0	150
0	20.0	25.0	26	0	283
0	30.0	25.0	56	0	500
0	40.0	25.0	98	0	700
0	50.0	25.0	150	0	867
0	60.0	25.0	210	0	1000
0	70.0	25.0	285	0	1250
0	80.0	25.0	371	0	1433
0	90.0	25.0	467	0	1600
0	100.0	25.0	576	0	1817
0	110.0	25.0	693	0	1950

X-axis Y-axis Scale

Time Torque Reset

Close

ATTENZIONE

Se il volume dei dati della forma d'onda è grande (per esempio, quando il tempo per il fissaggio è lungo), l'ottenimento e la visualizzazione possono richiedere molto tempo.

Visualizzazione dei dati della cronologia errori

È possibile visualizzare i dati della cronologia errori ottenuti da un controller registrato. I dati vengono raccolti automaticamente a intervalli di 5 minuti mentre il software è in esecuzione.

The screenshot shows the 'Panasonic Fastening Manager' software interface. The 'Error History' tab is selected, displaying a table of error logs. The table has columns for Controller No, Controller name, Controller product No, Controller serial No, Date, Time, Object, Error Code, and Error description. The table shows multiple entries for various controllers, with error codes like 3303 and 4316. The interface also includes a sidebar for selecting controllers, a 'History' button, and a 'Tool Data' button.

Controller No	Controller name	Controller product No	Controller serial No	Date	Time	Object	Error Code	Error description
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD11	WLAN Disconnect
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD12	Wi-Fi Module Rebc
Controller1	Controller	EYFRW2	2204	2022/11/01	16:28:53	Controller	8C21	Setting Error
Controller1	Controller	EYFRW2	2204	2022/11/01	16:12:16	Tool1	4316	WLAN Module Rebc

Altre impostazioni

Le seguenti operazioni possono essere eseguite nello stesso modo come sui dati di cronologia di fissaggio.

- Ottenere manualmente i dati della cronologia errori
- Filtraggio dei dati visualizzati
- Emissione come file CSV
- Eliminazione dei dati di cronologia errori

ANALISI DELLA CRONOLOGIA DI LAVORO

Funzione di analisi

La funzione può analizzare i dati di cronologia di fissaggio raccolti da un controller e visualizzare il risultato.

- La funzione analizza solo i dati sul disco rigido di un PC.

Vedere di seguito per il contenuto dell'analisi.

Tipo	Descrizione
Confronta	Mostra e confronta le attività con una tendenza a fissaggio scadente (NONOK) e allentamento/rilavorazione (fissaggio inverso). Questa analisi è utile per trovare quali attività devono essere migliorate nel processo.
Percentuale NONOK	Visualizza le percentuali NONOK (tassi di fissaggio scadente) dei rispettivi utensili in un grafico a barre.
Fissaggio inverso	Visualizza il numero di volte di fissaggio inverso (allentamento/rilavorazione) in un grafico a barre.
Linea temporale	Visualizza la serie temporale dei risultati di fissaggio dello stesso utensile. Questa analisi è utile per gestire il cambio nei materiali e il deterioramento degli utensili.
Coppia	Visualizza la coppia risultante (coppia convertita) di singoli fissaggi in un grafico a linee (grafico di dispersione).
Tempo di fissaggio	Visualizza il tempo di fissaggio di singoli fissaggi in un grafico a linee (grafico di dispersione).
Rotazione	Visualizza il numero di rotazioni di singoli fissaggi in un grafico a linee (grafico di dispersione).
Percentuale OK	Visualizza la percentuale OK del fissaggio in un grafico a linee (grafico di dispersione).

Utensili e tipi di analisi disponibili

I tipi di analisi disponibili differiscono a seconda del modello di utensile.

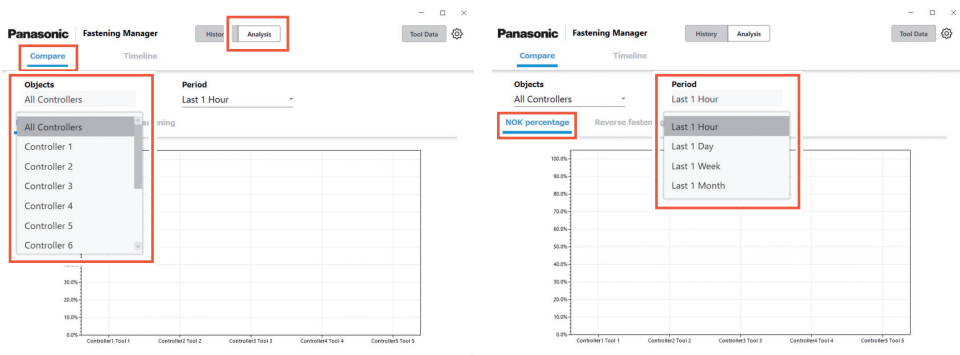
- Quando i dati analizzati contengono informazioni di più di un modello di utensili, vengono visualizzate solo le informazioni dei modelli supportati.

N. prodotto utensile		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
N. prodotto controller		EYFRW2	EYARW1		
Funzione di analisi	Confronta	Percentuale NONOK	○	○	○
		Fissaggio inverso	—	○	○
	Linea temporale	Coppia	○	○	—
		Tempo di fissaggio	○	○	○
		Rotazione	—	○	○
		Percentuale OK	○	○	○

*1 Questo è supportato solo dalla versione 1.01.00 o successiva.

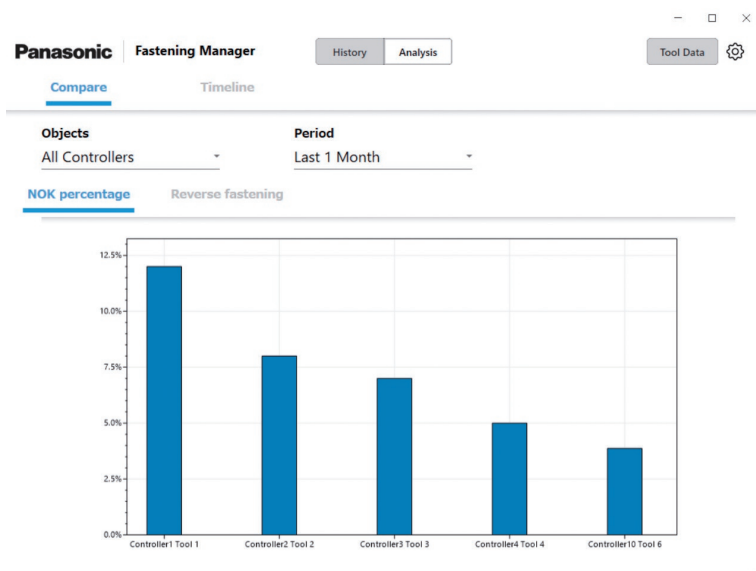
Confronta ① Percentuale NONOK

Nella scheda [Analysis], selezionare [Compare].
Selezionare la scheda [NOK percentage] e impostare “Objects” e “Period” da analizzare selezionando tra le seguenti opzioni.



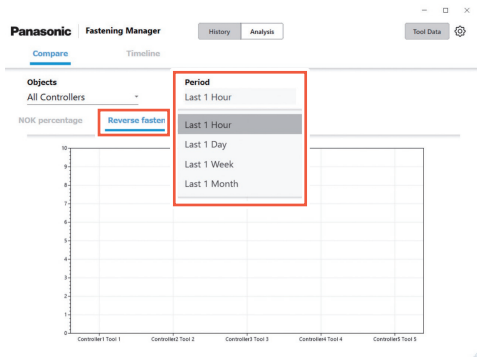
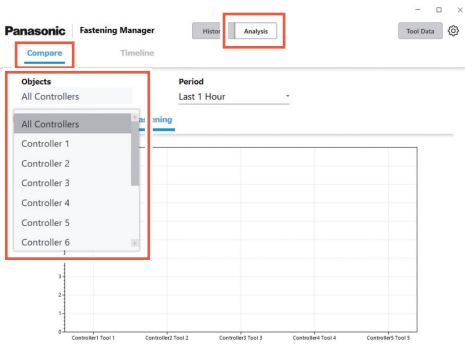
Objects	“All Controllers”, da “Controller 1” a “Controller 10”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”

Il risultato dell’analisi viene visualizzato in un grafico a barre.
I primi cinque utensili con le più alte percentuali NONOK (vale a dire, i peggiori cinque utensili) vengono visualizzati in ordine.



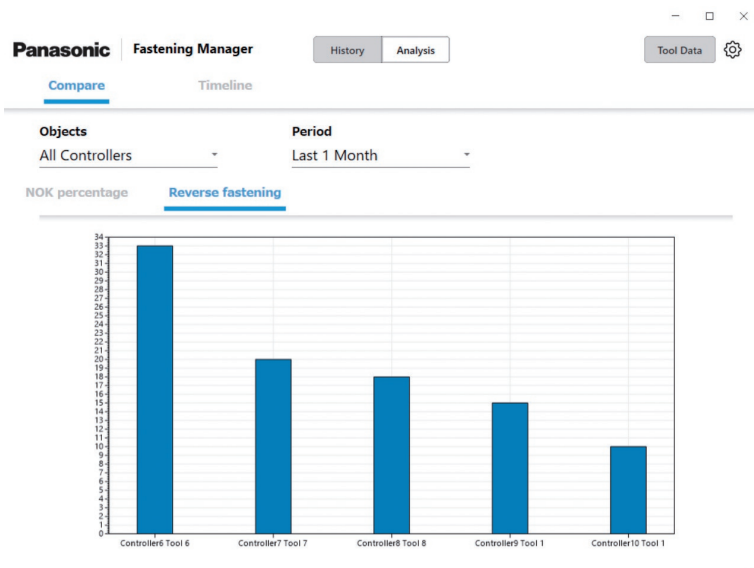
Confronta ② Fissaggio inverso

Nella scheda [Analysis], selezionare [Compare].
 Selezionare la scheda [Reverse fastening] e impostare “Objects” e “Period” da analizzare selezionando tra le seguenti opzioni.



Objects	“All Controllers”, da “Controller 1” a “Controller 10”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”

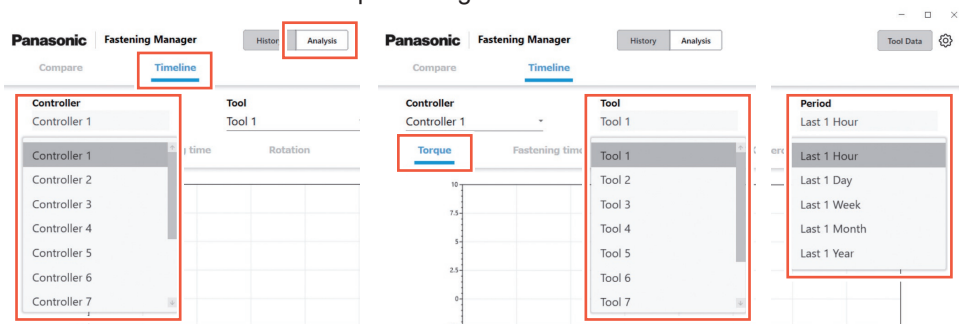
Il risultato dell'analisi viene visualizzato in un grafico a barre.
 Vengono visualizzati nell'ordine i primi cinque utensili con il numero più alto di volte di fissaggio inverso (vale a dire, i cinque utensili peggiori).



- EYFMH1, EYFMH2 w EYFNH1 non sono supportati.

Linea temporale ① Coppia

Nella scheda [Analysis], selezionare [Timeline].
Selezionare la scheda [Torque] e impostare “Controller”, “Tool” e “Period” da analizzare selezionando tra le opzioni seguenti.



Controller	Da “Controller 1” a “Controller 10”
Tool	Da “Tool 1” a “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

Il risultato dell’analisi viene visualizzato in un grafico a linee (grafico di dispersione).
I dati visualizzati differiscono a seconda del modello di utensile e del periodo selezionato.

N. prodotto utensile	EYFMH1 EYFMH2	EYFNH1*1	EYADA112WA*1 EYADA218WA	EYADA212WA EYADA407WA
Dati analizzati	“Torque Result”		“Converted Torque Result”	

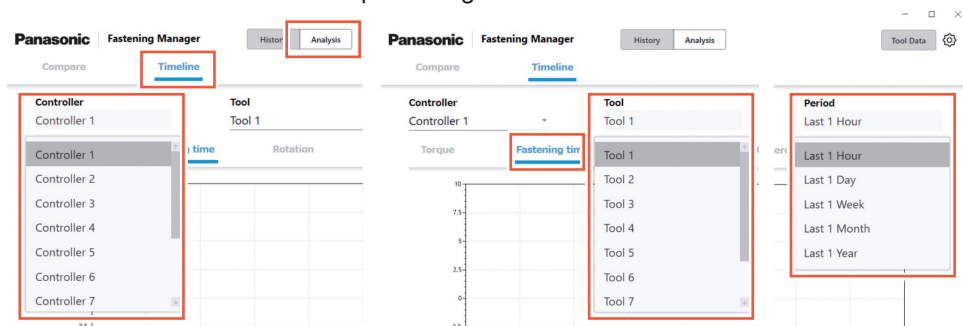
*1 Questo è supportato solo dalla versione 1.01.00 o successiva.



“Last 1 Hour”, “Last 1 Day”	Valori per ciascun fissaggio
“Last 1 Week”, “Last 1 Month”	Valori medi al giorno
“Last 1 Year”	Valori medi al mese

Linea temporale ② Tempo di fissaggio

Nella scheda [Analysis], selezionare [Timeline].
Selezionare la scheda [Fastening time] e impostare “Controller”, “Tool” e “Period” da analizzare selezionando tra le opzioni seguenti.



Controller	Da “Controller 1” a “Controller 10”
Tool	Da “Tool 1” a “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

Il risultato dell’analisi viene visualizzato in un grafico a linee (grafico di dispersione).
I dati visualizzati differiscono a seconda del modello di utensile e del periodo selezionato.

N. prodotto utensile	EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB
Dati analizzati	“Fastening Time”	“Fastening Time”	

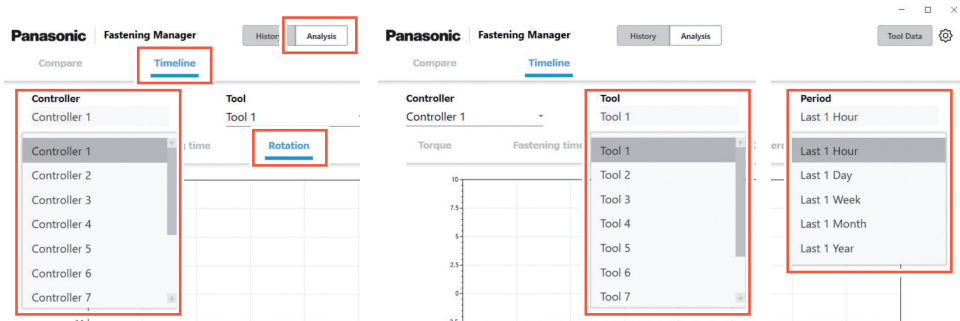
*1 Questo è supportato solo dalla versione 1.01.00 o successiva.



“Last 1 Hour”, “Last 1 Day”	Valori per ciascun fissaggio
“Last 1 Week”, “Last 1 Month”	Valori medi al giorno
“Last 1 Year”	Valori medi al mese

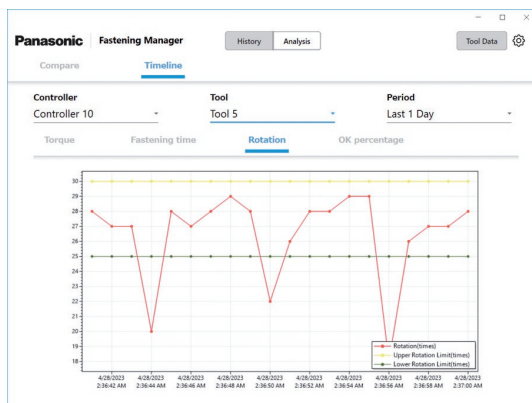
Linea temporale ③ Rotazione

Nella scheda [Analysis], selezionare [Timeline].
Selezionare la scheda [Rotation] e impostare “Controller”, “Tool” e “Period” da analizzare selezionando tra le opzioni seguenti.



Controller	Da “Controller 1” a “Controller 10”
Tool	Da “Tool 1” a “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

Il risultato dell’analisi viene visualizzato in un grafico a linee (grafico di dispersione).
I dati visualizzati differiscono a seconda del periodo selezionato.

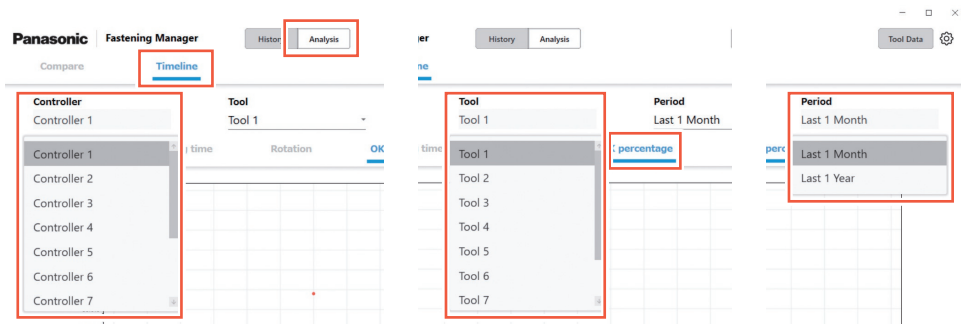


“Last 1 Hour”, “Last 1 Day”	Valori per ciascun fissaggio
“Last 1 Week”, “Last 1 Month”	Valori medi al giorno
“Last 1 Year”	Valori medi al mese

- EYFMH1, EYFMH2 w EYFNH1 non sono supportati.

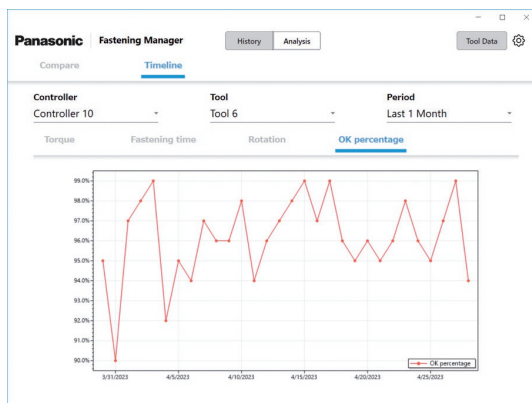
Linea temporale ④ Percentuale OK

Nella scheda [Analysis], selezionare [Timeline].
 Selezionare la scheda [OK percentage] e impostare “Controller”, “Tool” e “Period” da analizzare selezionando tra le opzioni seguenti.



Controller	Da “Controller 1” a “Controller 10”
Tool	Da “Tool 1” a “Tool 8”
Period	“Last 1 Month”, “Last 1 Year”

Il risultato dell’analisi viene visualizzato in un grafico a linee (grafico di dispersione).
 I dati visualizzati differiscono a seconda del periodo selezionato.

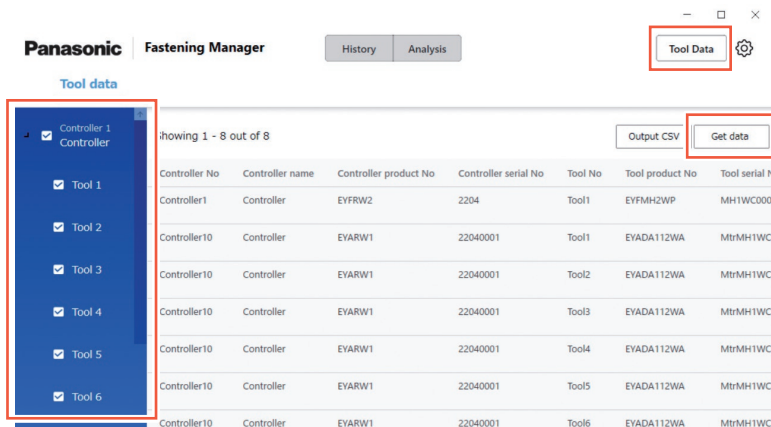


“Last 1 Month”	Valori medi al giorno
“Last 1 Year”	Valori medi al mese

Controllo delle informazioni sui dati utensile

È possibile gestire in modo centralizzato le informazioni degli utensili collegati ai controller registrati.

Selezionare [Tool Data] nella parte superiore destra della schermata e selezionare gli utensili desiderati da controller/elenco utensili. Facendo clic su [Get data] si aggiornano le informazioni.



Vengono visualizzate le seguenti voci. Le voci visualizzate differiscono a seconda del modello di utensile.

Voce	Descrizione
Controller No	Il numero di registrazione del controller.
Controller name	Il nome del controller impostato nell'interfaccia utente.
Controller product No	Il numero prodotto del controller.
Controller serial No	Il numero di serie univoco del controller.
Tool No	Il numero utensile registrato nel controller.
Tool product No	Il numero prodotto dell'utensile.
Tool serial No	Il numero di serie univoco dell'utensile.
Tool communication No	Il numero di identificazione comunicazione dell'utensile.
Cumulative Fastening Time	Il tempo cumulativo dell'operazione dell'utensile.
Cumulative Pulsing Time ^{*1}	Il tempo cumulativo della percussione dell'utensile.
Cumulative Number of Pulsing ^{*1}	Il numero cumulativo di volte della percussione dell'utensile.
Cumulative Number of Fastening ^{*2}	Il numero cumulativo di viti fissate dall'utensile.

*1 Solo EYFMH1/EYFMH2/EYFNH1.

*2 Solo EYADA112WA/EYADA212WA/EYADA218WA/EYADA407WA/EYADA112WB/EYADA212WB/EYADA218WB/EYADA407WB.

Immissione della cronologia di utilizzo

È possibile registrare la cronologia di utilizzo degli utensili.

Selezionare il campo desiderato e compilarlo manualmente.

La selezione di un contrassegno calendario consente di inserire da un calendario.

Usage (x1000 times)	Latest calibration date	Next calibration date	Start date of use	Latest repair date	Memo.
	4/27/2023	4/27/2023	4/27/2023	4/27/2023	XXXXXXXXXXXX

Di seguito sono riportate le voci di immissione.

Voce	Descrizione
Latest calibration date	La data di calibrazione più recente.
Next calibration date	La data della calibrazione pianificata successiva.
Start date of use	La data di inizio dell'uso dell'utensile.
Latest repair date	La data di riparazione più recente dell'utensile.
Memo.	Possono essere inseriti commenti.

Emissione delle informazioni dati utensile in CSV

È possibile emettere le informazioni dati utensile come file CSV.

Selezionare [Output CSV] e selezionare la destinazione di salvataggio.

Usage (x1000 times)	Latest calibration date	Next calibration date	Start date of use	Latest repair date	Memo.
	4/27/2023	4/27/2023	4/27/2023	4/27/2023	XXXXXXXXXXXX

Immissione della cronologia di controllo coppia

È possibile registrare la cronologia di controllo coppia degli utensili.
Nella schermata Dati utensile, fare clic sulla riga dell'utensile desiderato.

Panasonic Fastening Manager | History | Analysis | Tool Data

Tool data

Showing 1 - 8 out of 8

Output CSV | Get data

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	Tool serial No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	MH1WC000
Controller10	Controller	EYARW1	22040001	Tool1	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool2	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool3	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool4	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool5	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool6	EYADA112WA	MtrMH1WC

Viene visualizzata la schermata di cronologia di controllo coppia.
Selezionare un contrassegno calendario e aggiungere una riga. Immettere quindi la coppia impostata e il risultato del controllo coppia.

È inoltre possibile controllare ed eliminare le righe.
Dopo l'inserimento, selezionare [OK] per salvare il contenuto.

Torque check history | Delete

Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 21:05			

1 | OK

Torque check history | Delete

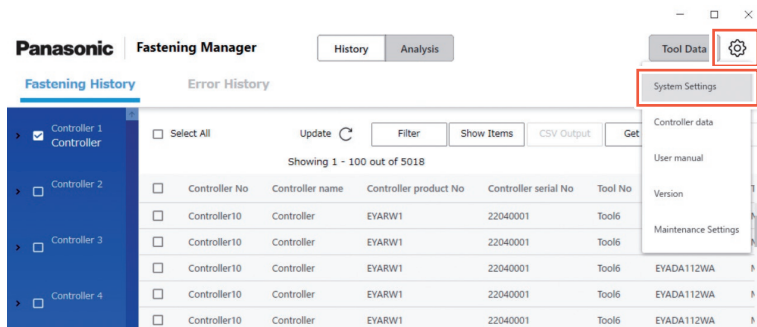
Date/Time	Target torque	Check torque 1	Check torque 2
2023/04/25 20:04	10	9.5	9.8
2023/04/26 20:04	10	10.2	
2023/04/27 20:05			

1 | OK

IMPOSTAZIONI DI SISTEMA

Modifica delle impostazioni di sistema

Dal pulsante di opzione in alto a destra della schermata, selezionare [System Settings].



Modifica della lingua

È possibile selezionare “Japanese” o “English”.

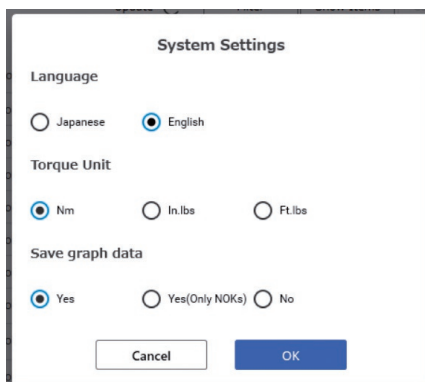
Cambio dell’unità di coppia

È possibile selezionare “Nm”, “In.lbs” o “Ft.lbs”.

Salvataggio dei dati della forma d’onda

Selezionare se raccogliere i dati della forma d’onda di fissaggio.

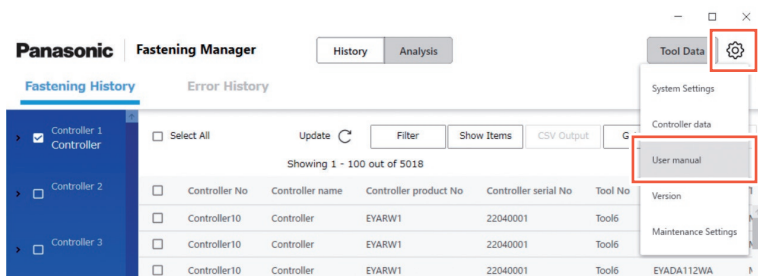
È probabile che la capacità dei dati della forma d’onda sia grande e quindi è possibile selezionare, “Yes (Only NOKs)” o “No”, se raccogliarli o meno a seconda dallo spazio del PC e l’obiettivo di gestione dei dati.



ISTRUZIONI PER L'USO E VERSIONE SOFTWARE

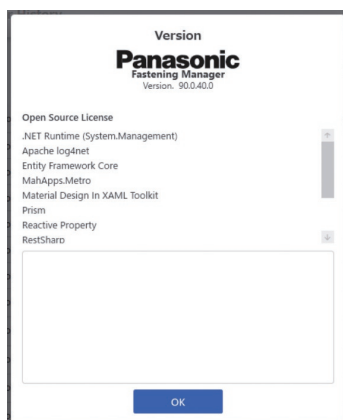
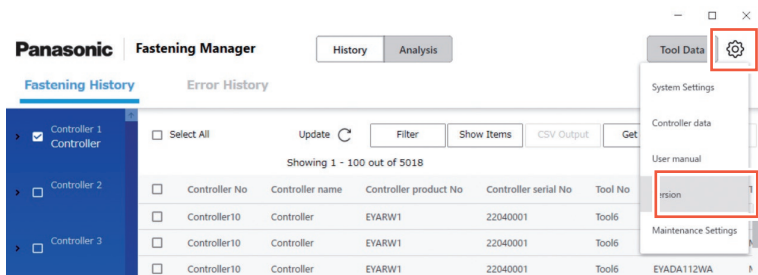
Accesso alle istruzioni per l'uso

È possibile accedere alle istruzioni per l'uso.
Dal pulsante di opzione in alto a destra della schermata, selezionare [User manual].



Visualizzazione della versione software

È possibile visualizzare la versione software.
Dal pulsante di opzione in alto a destra della schermata, selezionare [Version].



MANUTENZIONE

Capacità del database (Stima)

Il software può raccogliere i dati di cronologia di fissaggio di un massimo di 4000 volte di fissaggio.

Se si raccolgono i dati della forma d'onda, viene applicata la seguente limitazione a seconda del volume dei dati.

Poiché i dati che superano il limite superiore non possono essere raccolti, devono essere eliminati regolarmente dopo essere stati emessi in formato CSV come necessario.

Per automatizzare il processo, è possibile utilizzare la funzione di manutenzione.

Numero massimo di volte di fissaggio	80 utensili 5,000 viti/giorno (per ciascun utensile)	40 utensili 2,500 viti/giorno (per ciascun utensile)
40,000,000	Equivalente a 100 giorni	Equivalente a 400 giorni

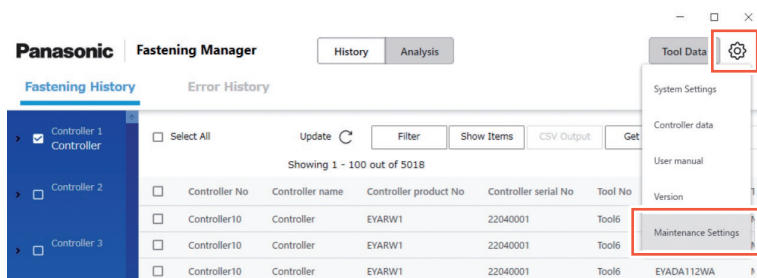
● Per la configurazione di EYFMH e EYFRW

Capacità dati massima 25 GB	Numero di volte di fissaggio	80 utensili 5,000 viti/giorno (per ciascun utensile)	40 utensili 2,500 viti/giorno (per ciascun utensile)
Forma d'onda di 12 secondi	600,000	Equivalente a 1,5 giorni	Equivalente a 6 giorni
Forma d'onda di 2 secondi	3,600,000	Equivalente a 9 giorni	Equivalente a 36 giorni
Forma d'onda di 1 secondo	7,200,000	Equivalente a 18 giorni	Equivalente a 72 giorni

Funzione di manutenzione

Questa funzione consente di automatizzare la gestione pianificata del database.

Dal pulsante di opzione in alto a destra della schermata, selezionare [Maintenance Settings].



ATTENZIONE

Il processo potrebbe richiedere decine di minuti a seconda del volume dei dati. Tenerlo in considerazione quando si esegue l'impostazione.

■ Procedura

- (1) Impostare “Automated Maintenance” su “ON”.
- (2) Selezionare l’intervallo tra “Weekly” e “Monthly” e selezionare il giorno della settimana e l’ora.
- (3) Selezionare il formato CSV e la destinazione di salvataggio.
- (4) Dopo aver completato la selezione, selezionare [OK].

Con l’impostazione completata, la funzione emetterà automaticamente e salverà i dati come file CSV nella destinazione specificata all’ora specificata. Eliminerà anche dei dati per creare uno spazio necessario nel database.

- Il software deve essere in esecuzione per eseguire la manutenzione automatizzata.
- La manutenzione può essere avviata anche manualmente come necessario.

Database Maintenance

Automated Maintenance

Weekly Monthly

Monday 0:00

1st Monday 0:00

Manual

Maintenance

Csv format select

decimal point : period / break : comma

decimal point : comma / break : semicolon

Csv save folder

C:\Panasonic\FasteningManager\Backup Change

Cancel OK

Di seguito è riportata la gamma di dati da emettere come CSV o da eliminare. Ciò non include i dati della cronologia errori.

Impostazione	Gamma di dati da emettere o eliminare	Gamma di dati contenuti in un file
Automatizzato (Settimanale)	Dati di cronologia di fissaggio per una settimana dopo il superamento di 30 milioni di dati	Dati per un giorno
Automatizzato (Mensile)	Dati di cronologia di fissaggio per un mese dopo il superamento di 30 milioni di dati	Dati per un giorno
Manuale	Tutti i dati di cronologia di fissaggio più vecchi che superano i 30 milioni di dati	Dati per un giorno

Backup e ripristino del database

È possibile eseguire il backup del database per ripristinarlo in caso di problemi. Si consiglia di eseguire il backup programmato.

■ Come eseguire il backup

- (1) Uscire dal software se è in esecuzione.
- (2) Copiare “FasteningManager.sqlite” dalla cartella *1 in cui è stato installato il software a una memoria esterna come un’unità flash USB e un disco rigido esterno.
(Preparare uno spazio sufficiente per memorizzare i dati che potrebbero avere un grande volume.)

■ Procedura

- (1) Uscire dal software se è in esecuzione.
- (2) Sovrascrivere “FasteningManager.sqlite” nella cartella *1 in cui è stato installato il software utilizzando il file di backup.

*1 Il software è installato in “C:¥Panasonic¥FasteningManager¥” per impostazione predefinita.

Sostituzione del PC (reinstallazione del software)

Per sostituire il PC su cui è installato il software, seguire la procedura riportata di seguito.

- (1) Nella schermata dei dati del controller, eliminare tutti i controller registrati da “Controllers”.
- (2) Uscire dal software.
- (3) Eseguire il backup del database corrente.
(Vedere “Backup e ripristino del database”.)
- (4) Disinstallare il software.
(Disinstallare “FasteningManager” nel pannello di controllo.)
- (5) Installare il software in un nuovo PC.
Fare riferimento a P9
- (6) Ripristinare il database di cui è stato eseguito il backup in (3).
(Vedere “Backup e ripristino del database”.)
- (7) Avviare il software sul nuovo PC.
Fare riferimento a P10
- (8) Nella schermata dei dati del controller, “Search” e “Register” i controller.
Fare riferimento a P12

Nota

Installare il software di gestione controller in un solo PC come indicato nel contratto di licenza.

Per installare il software nel nuovo PC, assicurarsi di disinstallarlo sul vecchio PC.

SPECIFICHE

Il software è progettato per raccogliere i dati da un controller collegato.

■ Ambiente operativo

Sistema operativo compatibile	Windows10 (64 bit) o successivo
PC compatibile (CPU)	2,0 GHz, 4 o 2 core, 4 o più processori logici
Memoria	8 GB o superiore
Capacità disco rigido raccomandata	SSD 100 GB o più
Risoluzione consigliata	1024 × 768 o più
Interfaccia	Unità ottica (per l'installazione del software) USB Tipo A (per l'autenticazione della licenza) Porta Ethernet (per la comunicazione con un controller)
Ambiente software	.NET Core 3.1

■ Specifiche

Numero di dati che possono essere memorizzati	Un massimo di 4000 dati di cronologia di fissaggio
Numero di controller che possono essere registrati	10 (massimo)
Sicurezza	Attivazione chiave USB
Lingua supportata	Inglese, giapponese
Accessori	Chiave chiavetta USB × 1
N. prodotto del controller applicabile	EYARW1 EYFRW2 • Inclusi i vari modelli

Termini di licenza software

Questo prodotto incorpora il seguente software:

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Manual de instrucciones

Software de gestión de controladores

Núm. de modelo: EYASW1



IMPORTANTE

Lea y siga las instrucciones de seguridad y el Manual de instrucciones antes de utilizar este producto.

Manual de instrucciones original:
Inglés

Traducción del manual de instrucciones original: Otros idiomas

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PUESTA EN MARCHA

Entorno de funcionamiento

Utilice un PC con el sistema operativo Windows para este software.
Prepare un dispositivo que satisfaga lo siguiente.

Entorno de funcionamiento

SO compatible	Windows 10 (64 bits) o posterior
PC compatible (CPU)	2,0 GHz, 4 o 2 núcleos, 4 o más procesadores lógicos
Almacenamiento	8 GB o más
Capacidad de disco duro recomendada	SSD de 100 GB o más
Resolución recomendada	1024 × 768 o más
Interfaz	Unidad óptica (para la instalación de software) USB tipo A (para autenticación de licencia) Puerto Ethernet (para la comunicación con un controlador)
Entorno de software	.NET Core 3.1

- Algunos PC no están disponibles incluso si cumplen con el entorno operativo.
- En función del entorno de uso, etc., de su PC, las descripciones y pantallas de este Manual de instrucciones podrían ser diferentes de las descripciones y pantallas reales. Por favor, téngalo en cuenta.
- El contenido de este Manual de instrucciones está sujeto a cambios sin previo aviso.
- Cualquier reproducción del contenido de este Manual de instrucciones, en su totalidad o en parte, está prohibida sin permiso.
- Las cifras en este Manual de instrucciones son solo como referencia.

Cómo acceder al Manual de instrucciones

La versión actual del Manual de instrucciones del software y otros recursos se pueden descargar desde el siguiente sitio web.

[Solo para la UE] <https://www.panasonic-powertools.eu/en/assembly/downloads>

[Solo para Asia] <https://panasonic.net/electricworks/ecm/powerelctrictools/download/>

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Uso previsto

El software está diseñado para recopilar datos de un controlador conectado. También realiza un análisis de datos sencillos, además de la recopilación de los datos del historial de fijación.



- 01 Gestión de hasta 10 controladores
- 02 Función de análisis de los datos del historial de fijación
- 03 Función de gestión de la información sobre herramientas

Configuración

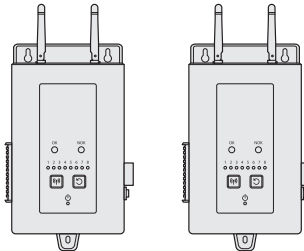
Instale el software en un PC y conecte el PC a los controladores a través de una LAN por cable.

Se pueden registrar hasta 10 controladores.

- El número máximo de herramientas que se pueden registrar es de 80 (8 × 10).



Herramienta
(máx. 80 unidades)



Controlador
(máx. 10 unidades)

CONTRATO DE LICENCIA

Contrato de licencia del software

1. Licencia otorgada

Se le concede un derecho a utilizar el software. Sin embargo, esto no significa que se le transfieran los derechos de autor del software.

2. Alcance de la licencia

El software se instalará en un PC por paquete y no será compartido por más de un dispositivo. Queda prohibida la copia total o parcial del software sin nuestro consentimiento.

3. Análisis, cambio y modificación

Se prohíbe el análisis, el cambio y la modificación del software. No nos hacemos responsables de ningún defecto debido a dicho análisis, cambio o modificación.

4. Cambios en las especificaciones

Las especificaciones del software están sujetas a cambios sin previo aviso.

5. Exención

Ni nosotros ni nuestros distribuidores seremos responsables de los daños que usted sufra ni de las reclamaciones que le hagan terceros en relación con el uso del software, salvo en caso de negligencia intencionada o grave por nuestra parte o por parte de nuestros distribuidores.

6. Control de exportaciones

Si se lleva el software fuera del país donde lo adquirió, respete las leyes y normativas de control de exportaciones de los países de salida y destino.

7. Otro

La licencia del software se rescindirá automáticamente si incumple las condiciones anteriores. En ese caso, deberá desechar el software.

NOTAS PARA EL USO

Notas para el uso

Para utilizar el máximo rendimiento de procesamiento de un PC, prepare un PC dedicado al uso de este software.

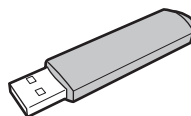
Compartir un PC con otro software puede aumentar la carga de procesamiento, produciendo un bajo rendimiento, por ejemplo, una velocidad de visualización más lenta.

Elementos incluidos

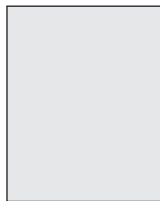
■ CD-R × 1



■ Llave USB para la activación × 1



■ Folleto × 1

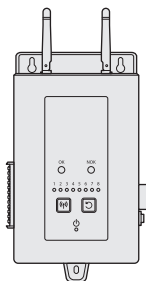


Elementos vendidos por separado

Prepare las herramientas y los controladores a utilizar con el software.



Herramienta



Controlador

CONFIGURACIÓN DEL SISTEMA

Lista de modelos de controlador compatibles

Elemento	Controlador	Herramienta	
Modelos que pueden registrarse	EYARW1 EYFRW2	EYADA112WA/WB*1 EYADA218WA/WB EYFMH1/EYFMH2	EYADA212WA/WB EYADA407WA/WB EYFNH1*1

• Los números de modelo son los vigentes en el momento de la venta.

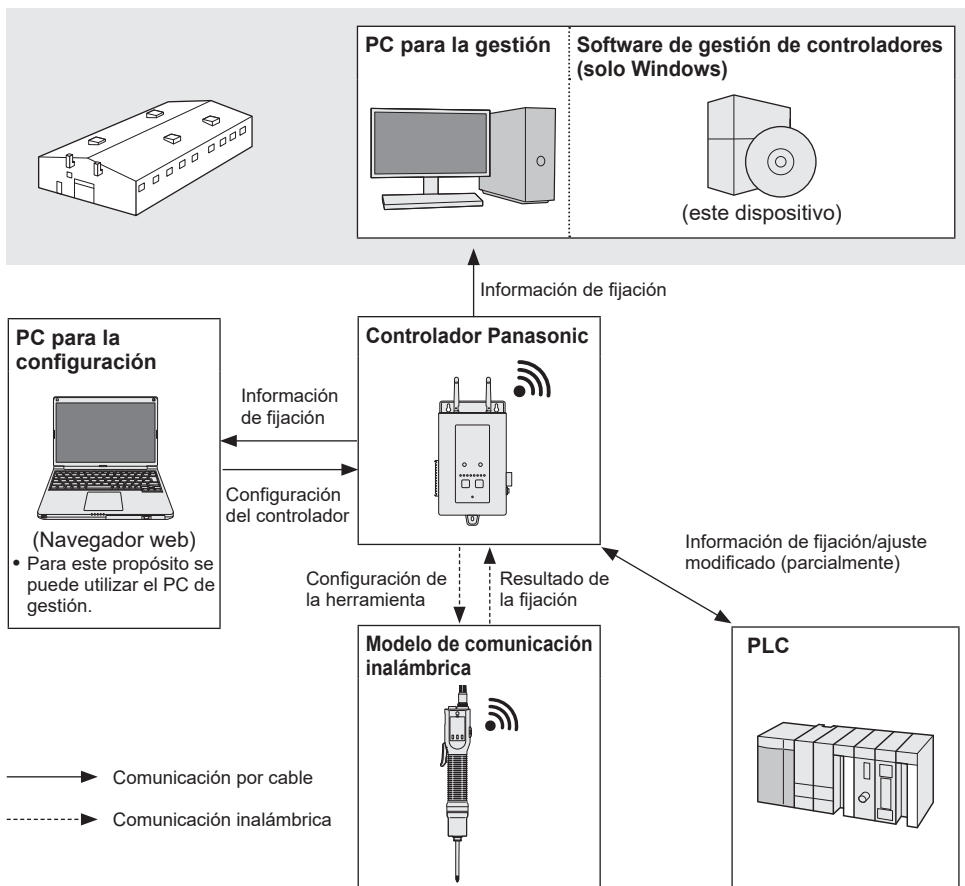
• También se incluyen variedades con distintos sufijos.

*1 Esto solo es compatible con la versión 1.01.00 o posterior.

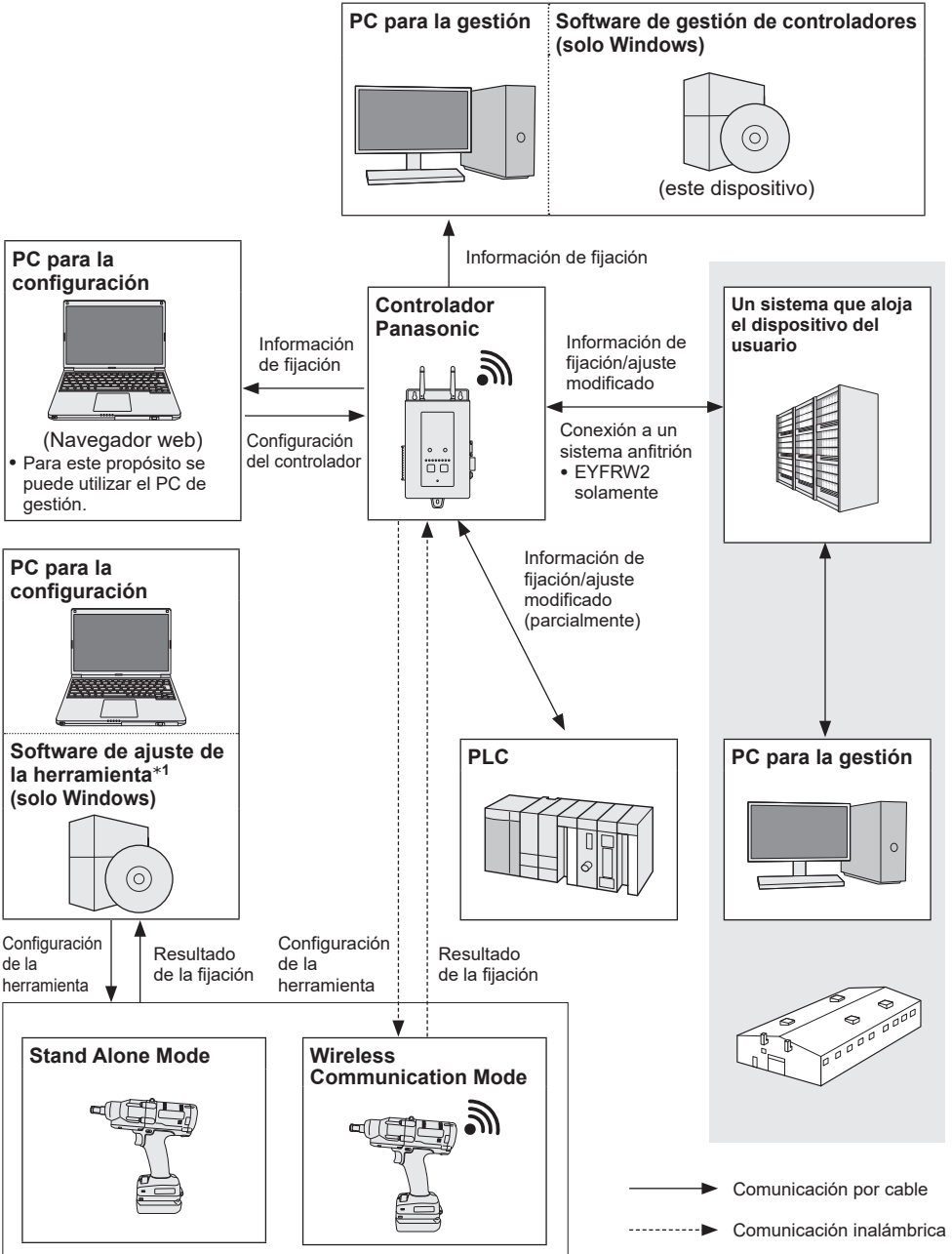
Configuración del sistema

El software gestiona los datos del historial de fijación recopilados conectando un controlador Panasonic con un cable.

Configuración de EYARW y EYADA



■ Configuración de EYFRW y EYFMH/EYFNH



*1 El "software de ajuste de la herramienta" puede descargarse de nuestro sitio web.

Consulte P2

Herramientas y funciones disponibles

Las funciones disponibles varían en función del modelo de herramienta. Consulte a continuación para obtener más detalles.

N.º de producto de la herramienta		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
N.º de producto del controlador		EYFRW2	EYARW1		
Recopilación de los datos del historial de fijación		○ (incl. datos de forma de onda)	○	○	
Datos de la herramienta		○	○	○	
Función de análisis	Comparar	Porcentaje NOK	○	○	
		Fijación inversa	—	○	
	Cronología	Par	○	○	—
		Tiempo de fijación	○	○	○
		Rotación	—	○	○
		Porcentaje OK	○	○	○

*1 Esto solo es compatible con la versión 1.01.00 o posterior.

Notas sobre el funcionamiento

Los datos recopilados se guardan en el almacenamiento interno de un PC. Realice una copia de seguridad de los datos emitiéndolos como un archivo CSV o por cualquier otro medio en función de la capacidad restante del disco duro del PC.

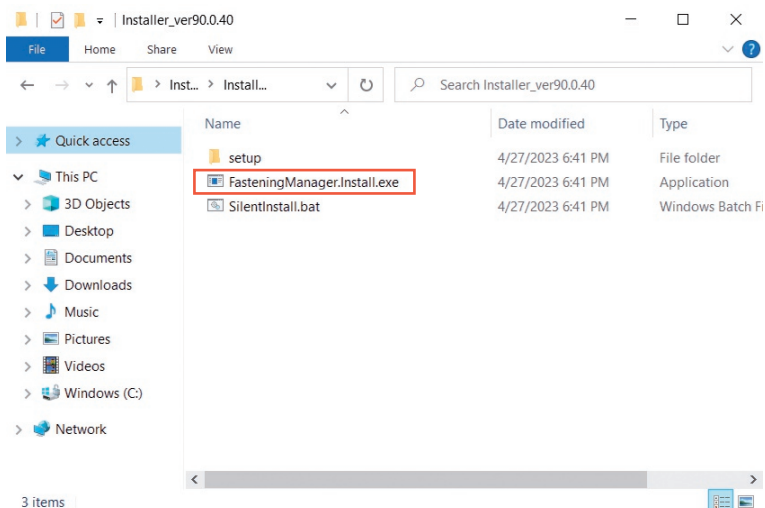
Los datos pueden borrarse del menú de ajustes en un controlador incluso antes de que sean recopilados por el software. Para evitar la pérdida de datos, realice regularmente la recopilación de datos.

- El software debe estar ejecutándose para la recopilación automática de datos. Por lo tanto, se recomienda iniciar el software con regularidad.

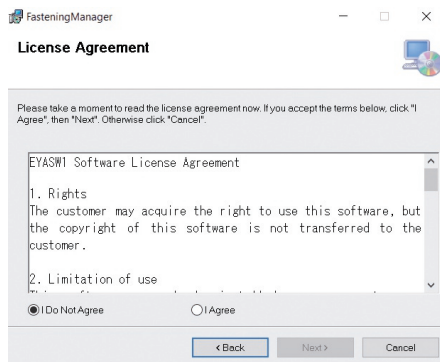
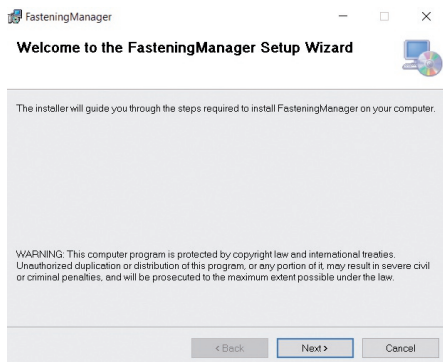
PREPARACIÓN ANTES DEL USO

Instalación del software

Coloque un CD-R incluido en la unidad óptica y haga doble clic “FasteningManager. Install.exe” en la carpeta del instalador para ejecutarlo.



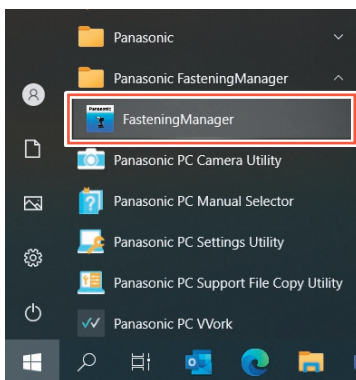
Siga las instrucciones del asistente de configuración para instalar el software. Acepte el acuerdo de licencia para continuar.



PREPARACIÓN ANTES DEL USO (cont.)

Inicio del software

Después de la instalación, inicie el software desde el menú de inicio de Windows.

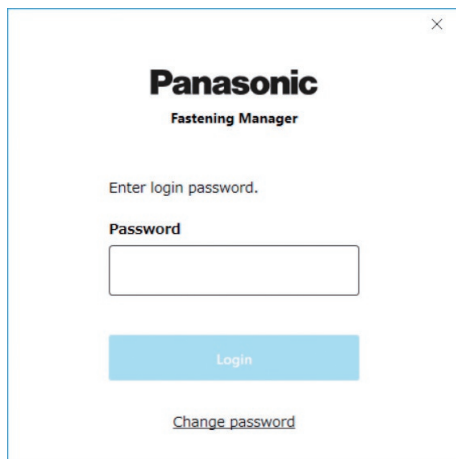
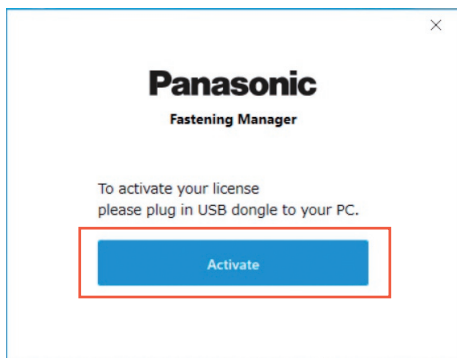


Activación USB y autenticación de la contraseña

Para utilizar el software, actíVELO con una llave USB.

Inserte la llave USB incluida con su PC y haga clic en [Active].

Cuando la activación se ha realizado correctamente, se muestra la pantalla para introducir una contraseña de inicio de sesión.



PRECAUCIÓN

Guarde la llave USB de forma segura para no perderla.

Contraseña de inicio de sesión inicial

A continuación se muestra la contraseña de inicio de sesión inicial.

Contraseña de inicio de sesión inicial	abcABC123
---	-----------

Cambio de la contraseña

Después del inicio de sesión inicial, cambie la contraseña en la siguiente pantalla.

- Para una contraseña, utilice siempre una combinación de ocho o más caracteres que incluya tres o más tipos de mayúsculas, minúsculas, números y símbolos.
- A continuación se indican los símbolos que se pueden utilizar.

~	!	@	#	\$	%	^	&	*
()	+	¥		-	}	{]
[<	>	.	,	/	?	`	

Change password

To change the password,
please enter the current password and the
new password.

Current Password

New Password

New password (re-enter)

■ Si olvida su contraseña

Desinstale el software y, a continuación, vuelva a instalarlo. Esto inicializa la contraseña.

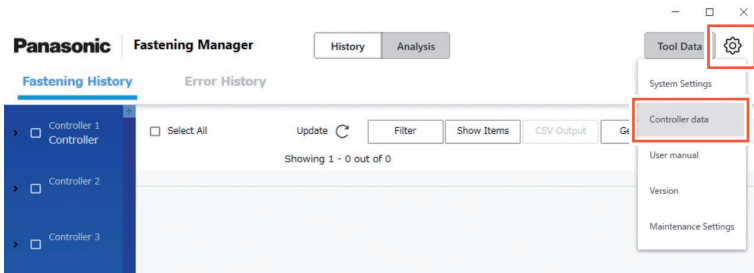
- No elimine la base de datos.

GESTIÓN DE UN CONTROLADOR

Gestión de un controlador

Para recopilar los datos del historial de fijación utilizando el software, debe registrar un controlador.

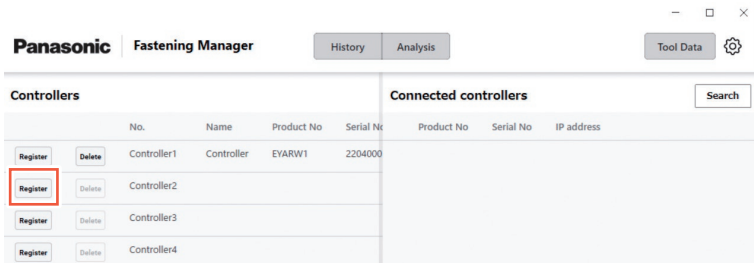
Desde el botón de opciones situado en la parte superior derecha de la pantalla, seleccione [Controller data].



- Para registrar un controlador a gestionar, puede introducir directamente su dirección IP o buscarlo a través de la red.

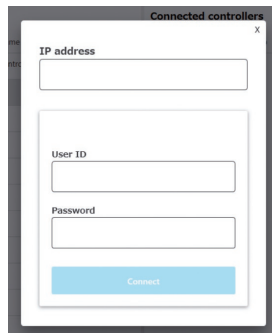
Registro de un controlador ① Introducción directa de una dirección IP

En “Controllers” a la izquierda de la pantalla, seleccione [Register].



En la pantalla siguiente, introduzca “IP address”, “User ID” y “Password” del controlador.

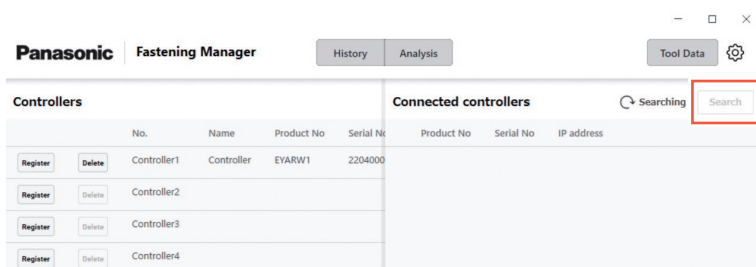
- Introduzca “User ID” y “Password” de la cuenta del administrador registrada en el controlador.



- Configure el PC y el controlador para que estén en la misma red.

Registro de un controlador ② Búsqueda en la red

Desde “Connected controllers” a la derecha de la pantalla, seleccione [Search].



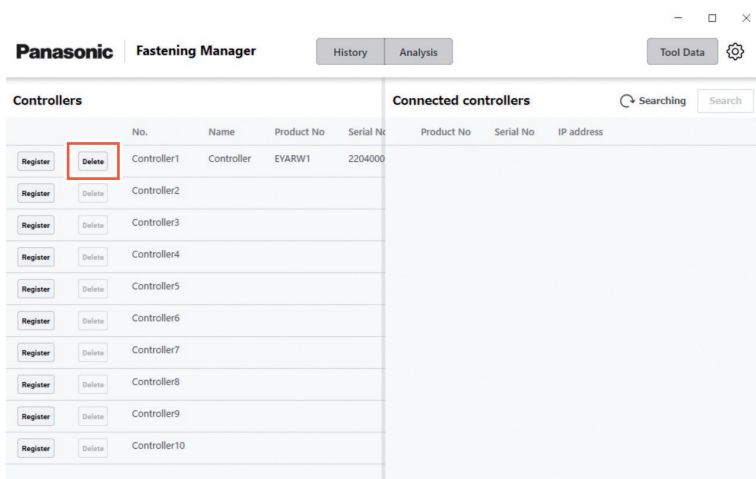
Se muestran los controladores en la red.
Seleccione [Add].

PRECAUCIÓN

Utilice una dirección IP fija para el controlador. El DHCP (asignación automática) puede hacer que la dirección IP cambie al reiniciar el controlador y evitar la reconexión.

Eliminación un controlador registrado

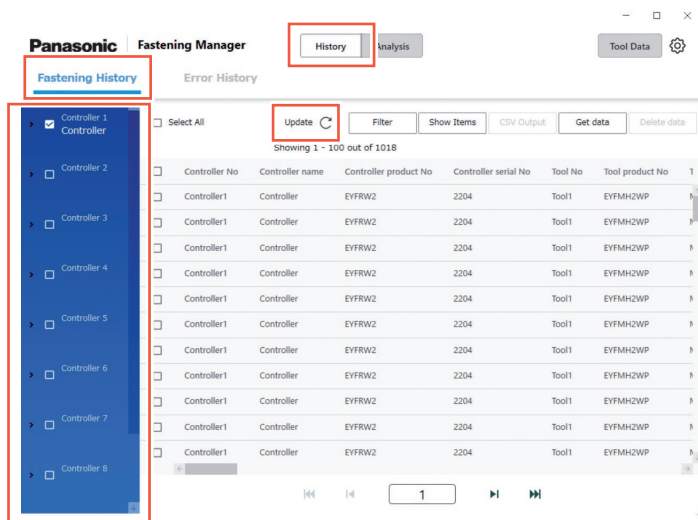
Para eliminar un controlador registrado, seleccione [Delete] en “Controllers”.



COMPROBACIÓN DE LOS DATOS DEL HISTORIAL DE FIJACIÓN

Visualización de los datos del historial de fijación

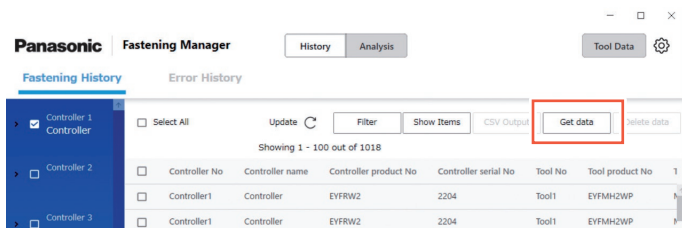
Puede visualizar los datos del historial de fijación del controlador registrado. Seleccione [History] y luego [Fastening History], a continuación seleccione el controlador desde la lista de controladores/herramientas. Al seleccionar [Update] se muestran los datos actualizados.



Los datos se recopilan automáticamente a intervalos de 5 minutos mientras se ejecuta el software.

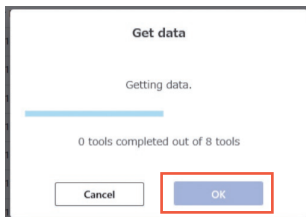
Obtención manual de los datos del historial de fijación

Puede obtener manualmente los datos del historial de fijación. En la pantalla Historial de fijación, seleccione [Get data].



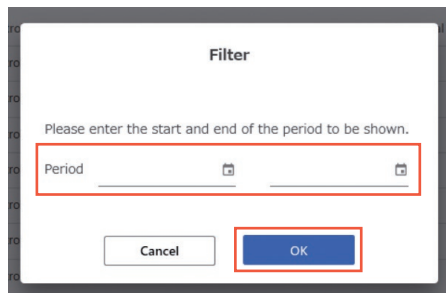
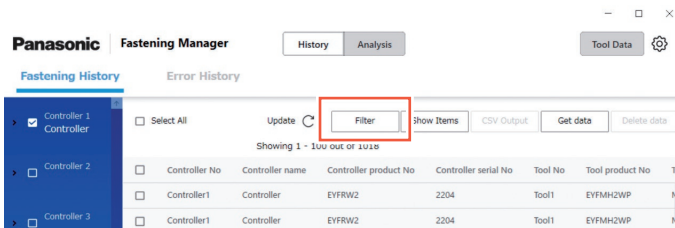
Aparece la ventana emergente “Getting data”. Seleccione [OK] cuando se haya completado el proceso.

PRECAUCIÓN
Si el volumen de datos obtenido de una sola vez es extremadamente grande, el proceso puede llevar mucho tiempo.



Filtrado de los datos visualizados

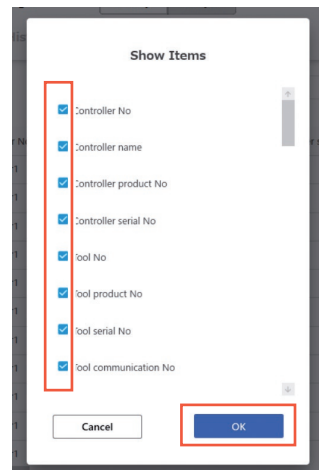
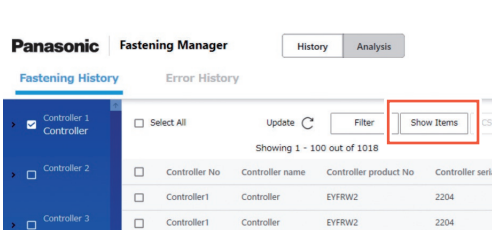
Puede filtrar los datos mostrados especificando un período.
En la pantalla Historial de fijación, seleccione [Filter], especifique el período y seleccione [OK].



- El filtro ajustado se almacena.

Ajuste de los elementos que se mostrarán

Puede ajustar los elementos a visualizar.
En la pantalla Historial de fijación, seleccione [Show Items], compruebe los elementos deseados y seleccione [OK].



Emisión como un archivo CSV

Puede emitir los datos del historial de fijación en el formato CSV.

En la pantalla Historial de fijación, compruebe los datos deseados y seleccione [CSV Output].

- La selección de todos los datos también es posible.

Panasonic Fastening Manager History Analysis Tool Data

Fastening History Error History

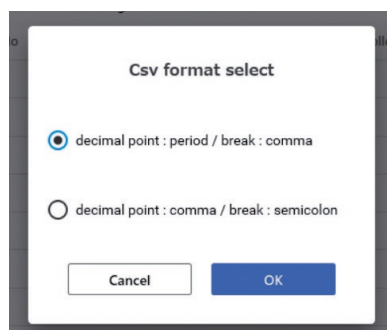
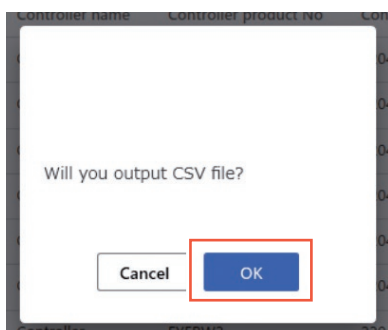
Select All Update Filter Show Items **CSV Output** Get data Delete data

Showing 1 - 100 out of 1018

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP
<input checked="" type="checkbox"/>	Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP

Seleccione [OK] para enviar los datos a un PC.

- Puede seleccionar el formato CSV como se indica a continuación.



Eliminación de los datos del historial de fijación

Puede eliminar los datos del historial de fijación.

En la pantalla Historial de fijación, compruebe los datos deseados y seleccione [Delete data].

- La selección de todos los datos también es posible.

The screenshot shows the Panasonic Fastening Manager software interface. The 'Fastening History' tab is active. A table displays fastening history data with columns: Controller No, Controller name, Controller product No, Controller serial No, Tool No, Tool product No, and a status column. The table shows 10 rows of data, all of which are selected with checkboxes. A 'Select All' checkbox is checked and highlighted with a red box. The 'Delete data' button is also highlighted with a red box. The interface includes a sidebar with controller selection, a top navigation bar with 'History' and 'Analysis' tabs, and a 'Tool Data' button with a gear icon.

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	▶

Este proceso elimina los datos almacenados por el software en la base de datos de un PC.

No borra los datos en el controlador.

El número y el volumen de datos que puede gestionar la base de datos son limitados. Cuando el número de datos esté a punto de alcanzar el límite superior o el espacio en el disco duro de un PC se esté quedando corto, elimine los datos para crear espacio después de editarlos como archivo CSV.

- Para realizar el proceso anterior de forma regular y automática, consulte “Función de mantenimiento”.

Consulte P32

COMPROBACIÓN DE LOS DATOS DEL HISTORIAL DE FIJACIÓN (cont.)

Visualización de los datos de forma de onda • Para la configuración de EYFMH/EYFNH y EYFRW solo

En el software, puede visualizar los datos de forma de onda almacenados con los datos del historial de fijación.

Haga doble clic en la fila de los datos del historial de fijación que desee.

The screenshot shows the Panasonic Fastening Manager software interface. At the top, there are tabs for "History" and "Analysis", and a "Tool Data" button with a gear icon. Below this, there are two main sections: "Fastening History" and "Error History". The "Fastening History" section is active and shows a list of controllers on the left and a table of data on the right. The table has columns for Controller No, Controller name, Controller product No, Controller serial No, Tool No, and Tool product No. The first row is highlighted with a red box, indicating it is selected. Below the table, there are buttons for "Select All", "Update", "Filter", "Show Items", "CSV Output", "Get data", and "Delete data".

Los datos de forma de onda se muestran como se indica a continuación. Puede ajustar la visualización seleccionando "X-axis", "Y-axis" y "Scale".

Seleccionar [Output] exporta los datos en formato CSV.

The screenshot shows the "History detail data" window. At the top, it displays "Torque result : 50.2 Nm vs. Target torque : 100.4%". There is an "OK" button on the left and an "Output" button on the right, both highlighted with red boxes. Below this, there is a graph showing torque (Y-axis) versus time (X-axis). The graph shows a curve that starts at 25 Nm and increases to 50 Nm over 400 ms. Below the graph, there is a table with columns for Pulse count, Fastening time(ms), Torque result, Angle before snug, Angle after snug, and RPM. The table contains 11 rows of data. At the bottom of the graph area, there are dropdown menus for "X-axis" (set to "Time"), "Y-axis" (set to "Torque"), and "Scale", along with a "Reset" button. A "Close" button is located at the bottom center of the window.

PRECAUCIÓN

Si el volumen de datos de la forma de onda es grande (por ejemplo, cuando el tiempo por fijación es largo), su obtención y visualización pueden llevar mucho tiempo.

COMPROBACIÓN DE LOS DATOS DEL HISTORIAL DE ERRORES

Visualización de los datos del historial de errores

Puede visualizar los datos del historial de errores obtenidos desde un controlador registrado.

Los datos se recopilan automáticamente a intervalos de 5 minutos mientras se ejecuta el software.

The screenshot shows the Panasonic Fastening Manager software interface. The 'History' tab is selected, and the 'Error History' sub-tab is active. A sidebar on the left lists eight controllers, all of which are checked. The main area displays a table of error logs with columns for Controller No, Controller name, Controller product No, Controller serial No, Date, Time, Object, Error Code, and Error description. The table shows 17 entries, with the first 16 having an error code of 3303 and the last one having an error code of 4316. The interface also includes buttons for 'Filter', 'Output CSV', 'Get data', and 'Delete data', along with a 'Tool Data' button in the top right corner.

Controller No	Controller name	Controller product No	Controller serial No	Date	Time	Object	Error Code	Error description
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:41	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:30	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:22	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller3	Controller	EYFRW2	2204	2022/11/01	16:49:09	Tool1	3303	MotorControl Micr
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD11	WLAN Disconnect
Controller1	Controller	EYFRW2	2204	2022/11/01	16:43:44	Controller	BD12	Wi-Fi Module Rebc
Controller1	Controller	EYFRW2	2204	2022/11/01	16:28:53	Controller	BC21	Setting Error
Controller1	Controller	EYFRW2	2204	2022/11/01	16:12:16	Tool1	4316	WLAN Module Reb

Otros ajustes

Las siguientes operaciones pueden realizarse del mismo modo que en los datos del historial de fijación.

- Obtención de los datos del historial de errores manualmente
- Filtrado de los datos visualizados
- Emisión como un archivo CSV
- Eliminación de los datos del historial de errores

ANÁLISIS DEL HISTORIAL DE TRABAJO

Función de análisis

La función puede analizar los datos del historial de fijación recopilados desde un controlador y visualizar el resultado.

- La función analiza solo los datos del disco duro de un PC.

Consulte a continuación el contenido del análisis.

Tipo	Descripción
Comparar	Muestra y compara las tareas propensas a la fijación deficiente (NOK) y al aflojamiento/modificación (fijación inversa). Este análisis es útil para encontrar qué tareas deben mejorarse en el proceso.
Porcentaje NOK	Muestra Porcentajes NOK (tasas de fijación deficientes) de las herramientas correspondientes en un gráfico de barras.
Fijación inversa	Muestra el número de veces de la fijación inversa (aflojamiento/modificación) en un gráfico de barras.
Cronología	Visualiza la serie temporal de los resultados de fijación de la misma herramienta. Este análisis es útil para gestionar el cambio de materiales y el deterioro de las herramientas.
Par	Muestra el par resultante (par convertido) de fijaciones individuales en un gráfico de líneas (diagrama de dispersión).
Tiempo de fijación	Muestra el tiempo de fijación de las fijaciones individuales en un gráfico de líneas (diagrama de dispersión).
Rotación	Muestra el número de rotaciones de las fijaciones individuales en un gráfico de líneas (diagrama de dispersión).
Porcentaje OK	Muestra los porcentajes OK de la fijación en un gráfico de líneas (diagrama de dispersión).

Herramientas y tipos de análisis disponibles

Los tipos de análisis disponibles varían en función del modelo de herramienta.

- Cuando los datos analizados contienen información de más de un modelo de herramienta, solo se muestra la información de los modelos compatibles.

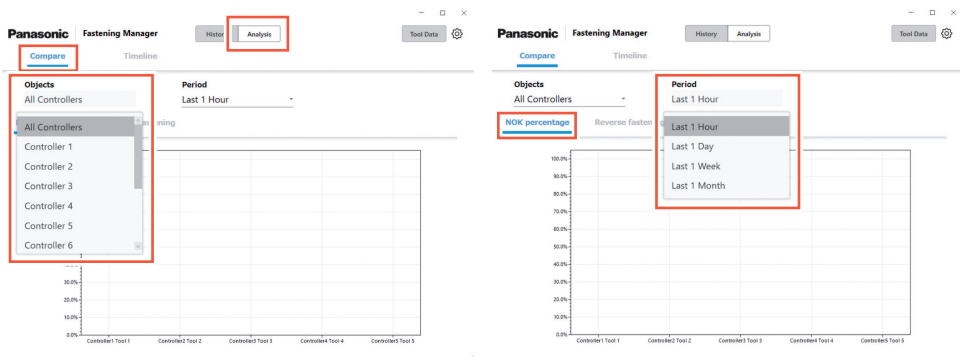
N.º de producto de la herramienta		EYFMH1 EYFMH2 EYFNH1*1	EYADA112WA*1 EYADA212WA EYADA218WA EYADA407WA	EYADA112WB*1 EYADA212WB EYADA218WB EYADA407WB	
N.º de producto del controlador		EYFRW2	EYARW1		
Función de análisis	Comparar	Porcentaje NOK	○	○	○
		Fijación inversa	—	○	○
	Cronología	Par	○	○	—
		Tiempo de fijación	○	○	○
		Rotación	—	○	○
		Porcentaje OK	○	○	○

*1 Esto solo es compatible con la versión 1.01.00 o posterior.

Comparar ① Porcentaje NOK

En la pestaña [Analysis], seleccione [Compare].

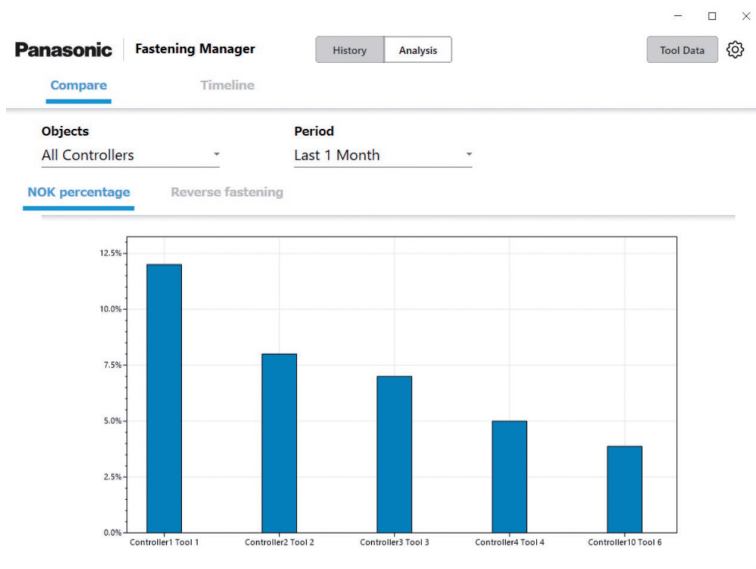
Seleccione la pestaña [NOK percentage] y establezca los “Objects” y “Period” a analizar seleccionando entre las siguientes opciones.



Objects	“All Controllers”, “Controller 1” a “Controller 10”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”

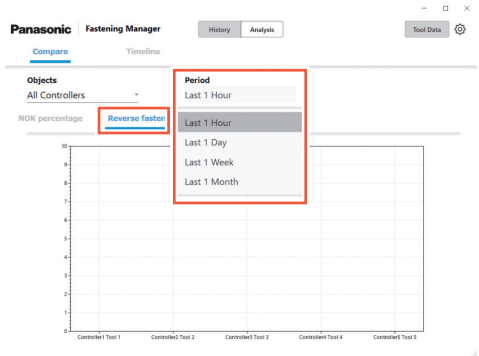
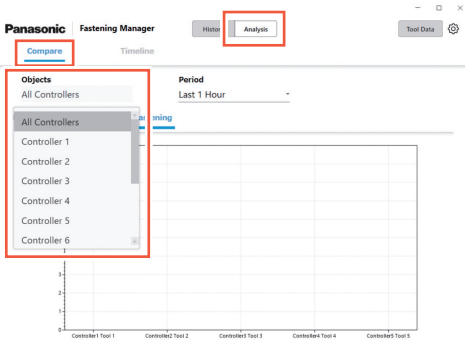
El resultado del análisis se muestra en un gráfico de barras.

Las cinco herramientas con los porcentajes NOK más elevados (es decir, las cinco peores herramientas) se muestran en orden.



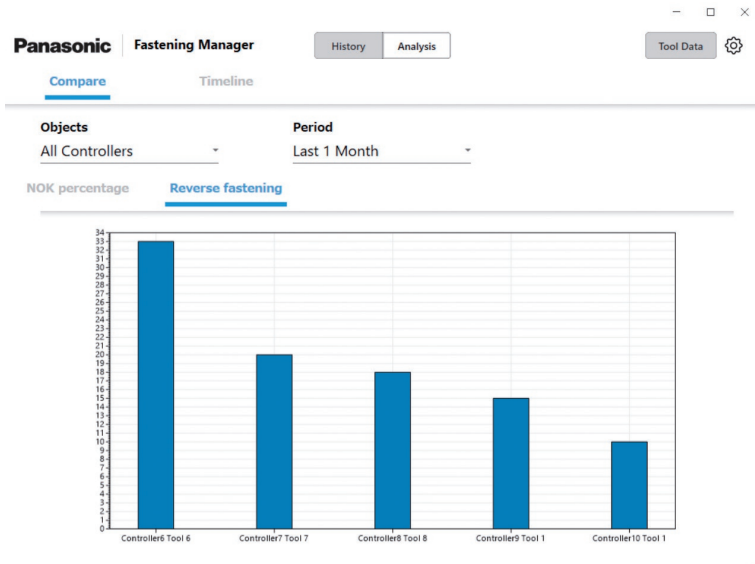
Comparar ② Fijación inversa

En la pestaña [Analysis], seleccione [Compare].
 Seleccione la pestaña [Reverse fastening] y establezca los “Objects” y “Period” a analizar seleccionando entre las siguientes opciones.



Objects	“All Controllers”, “Controller 1” a “Controller 10”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”

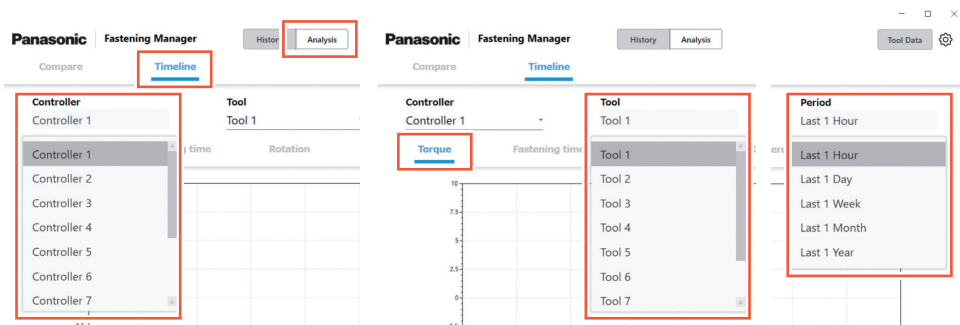
El resultado del análisis se muestra en un gráfico de barras.
 Las cinco herramientas con el mayor número de veces de fijación inversa (es decir, las cinco peores herramientas) se muestran en orden.



- EYFMH1, EYFMH2 y EYFNH1 no son compatibles.

Cronología ① Par

En la pestaña [Analysis], seleccione [Timeline].
 Seleccione la pestaña [Torque] y establezca “Controller”, “Tool” y “Period” a analizar seleccionando entre las siguientes opciones.



Controller	“Controller 1” a “Controller 10”
Tool	“Tool 1” a “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

El resultado del análisis se muestra en un gráfico de líneas (diagrama de dispersión).
 Los datos visualizados difieren dependiendo del modelo de herramienta y del período seleccionado.

N.º de producto de la herramienta	EYFMH1 EYFNH1*1	EYADA112WA*1	EYADA212WA
	EYFMH2	EYADA218WA	EYADA407WA
Datos analizados	“Torque Result”		“Converted Torque Result”

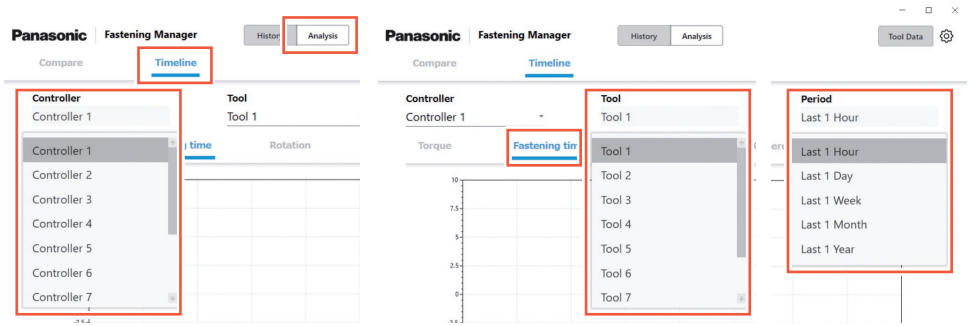
*1 Esto solo es compatible con la versión 1.01.00 o posterior.



“Last 1 Hour”, “Last 1 Day”	Valores por fijación
“Last 1 Week”, “Last 1 Month”	Valores medios por día
“Last 1 Year”	Valores medios por mes

Cronología ② Tiempo de fijación

En la pestaña [Analysis], seleccione [Timeline].
 Seleccione la pestaña [Fastening time] y establezca “Controller”, “Tool” y “Period” a analizar seleccionando entre las siguientes opciones.

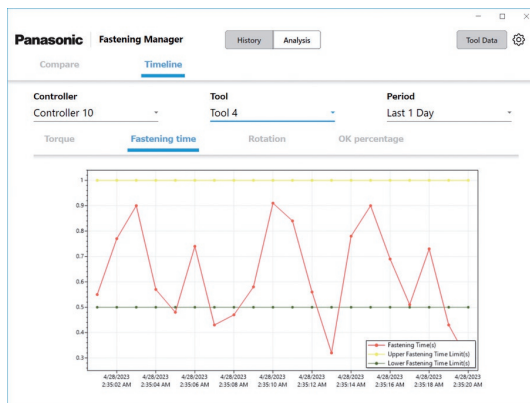


Controller	“Controller 1” a “Controller 10”
Tool	“Tool 1” a “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

El resultado del análisis se muestra en un gráfico de líneas (diagrama de dispersión). Los datos visualizados difieren dependiendo del modelo de herramienta y del periodo seleccionado.

N.º de producto de la herramienta	EYFMH1	EYADA112WA*1	EYADA112WB*1
	EYFMH2	EYADA212WA	EYADA212WB
	EYFNH1*1	EYADA218WA	EYADA218WB
Datos analizados	“Fastening Time”		“Fastening Time”

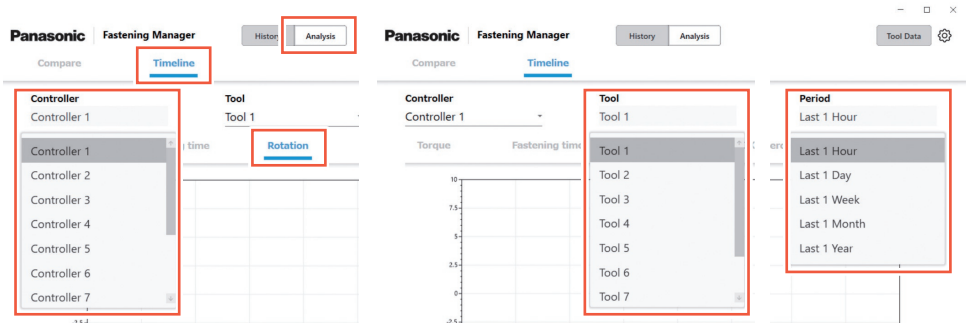
*1 Esto solo es compatible con la versión 1.01.00 o posterior.



“Last 1 Hour”, “Last 1 Day”	Valores por fijación
“Last 1 Week”, “Last 1 Month”	Valores medios por día
“Last 1 Year”	Valores medios por mes

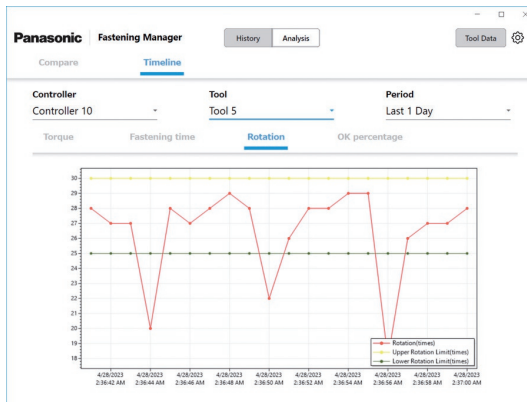
Cronología ③ Rotación

En la pestaña [Analysis], seleccione [Timeline].
 Seleccione la pestaña [Rotation] y establezca “Controller”, “Tool” y “Period” a analizar seleccionando entre las siguientes opciones.



Controller	“Controller 1” a “Controller 10”
Tool	“Tool 1” a “Tool 8”
Period	“Last 1 Hour”, “Last 1 Day”, “Last 1 Week”, “Last 1 Month”, “Last 1 Year”

El resultado del análisis se muestra en un gráfico de líneas (diagrama de dispersión).
 Los datos visualizados difieren en función del período seleccionado.



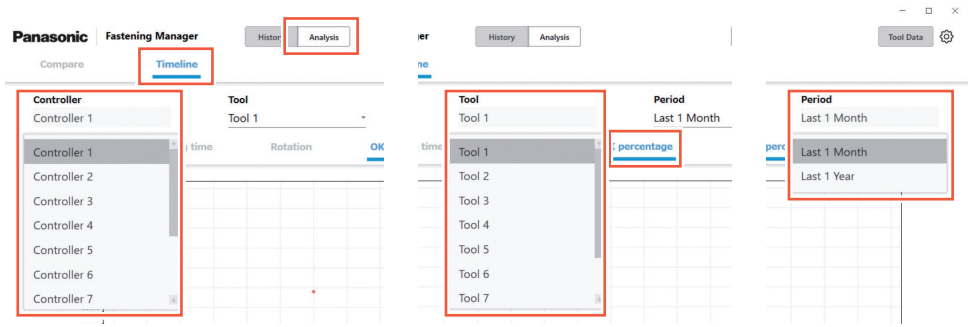
“Last 1 Hour”, “Last 1 Day”	Valores por fijación
“Last 1 Week”, “Last 1 Month”	Valores medios por día
“Last 1 Year”	Valores medios por mes

- EYFMH1, EYFMH2 y EYFNH1 no son compatibles.

ANÁLISIS DEL HISTORIAL DE TRABAJO (cont.)

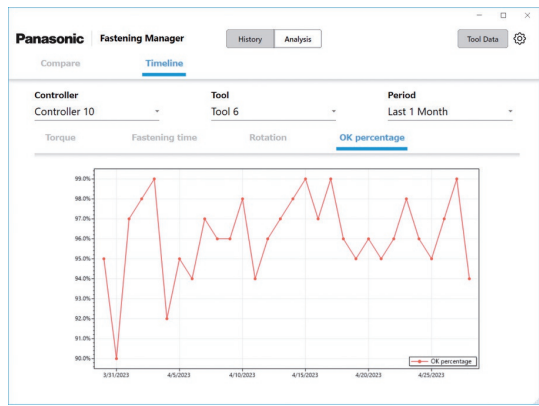
Cronología ④ Porcentaje OK

En la pestaña [Analysis], seleccione [Timeline].
 Seleccione la pestaña [OK percentage] y establezca “Controller”, “Tool” y “Period” a analizar seleccionando entre las siguientes opciones.



Controller	“Controller 1” a “Controller 10”
Tool	“Tool 1” a “Tool 8”
Period	“Last 1 Month”, “Last 1 Year”

El resultado del análisis se muestra en un gráfico de líneas (diagrama de dispersión).
 Los datos visualizados difieren en función del período seleccionado.

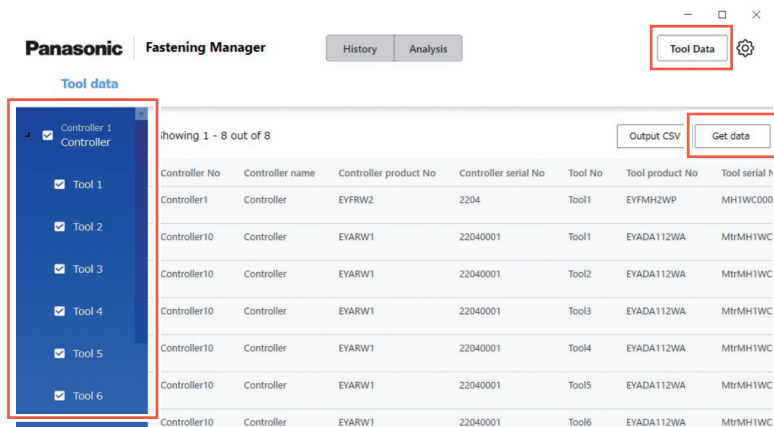


“Last 1 Month”	Valores medios por día
“Last 1 Year”	Valores medios por mes

Comprobación de la información de los datos de la herramienta

Puede gestionar de forma centralizada la información de las herramientas conectadas a los controladores registrados.

Seleccione [Tool Data] en la parte superior derecha de la pantalla y seleccione las herramientas deseadas de la lista de controladores/herramientas. Al hacer clic en [Get data] se actualiza la información.



Se muestran los siguientes elementos. Los elementos visualizados varían en función del modelo de herramienta.

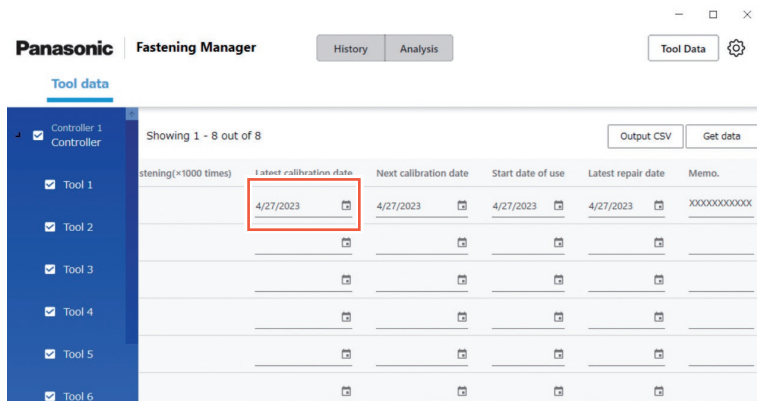
Elemento	Descripción
Controller No	El número de registro del controlador.
Controller name	El nombre del controlador establecido en su IU.
Controller product No	El número de producto del controlador.
Controller serial No	El número de serie exclusivo del controlador.
Tool No	El número de herramienta registrado en el controlador.
Tool product No	El número de producto de la herramienta.
Tool serial No	El número de serie exclusivo de la herramienta.
Tool communication No	El número de identificación de la comunicación de la herramienta.
Cumulative Fastening Time	El tiempo acumulado de funcionamiento de la herramienta.
Cumulative Pulsing Time*1	El tiempo acumulado de la percusión de la herramienta.
Cumulative Number of Pulsing*1	El número de veces acumulado de la percusión de la herramienta.
Cumulative Number of Fastening*2	El número acumulado de tornillos fijados por la herramienta.

*1 EYFMH1/EYFMH2/EYFNH1 solo.

*2 EYADA112WA/EYADA212WA/EYADA218WA/EYADA407WA/EYADA112WB/EYADA212WB/EYADA218WB/EYADA407WB solo.

Introducción del historial de uso

Puede registrar el historial de uso de las herramientas.
 Seleccione el campo deseado y rellénelo manualmente.
 Seleccionar una marca de calendario le permite introducir elementos desde un calendario.

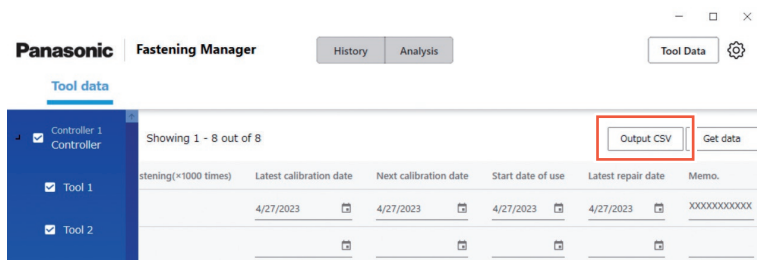


A continuación se indican los elementos de entrada.

Elemento	Descripción
Latest calibration date	La fecha de calibración más reciente.
Next calibration date	La siguiente fecha de calibración planificada.
Start date of use	La fecha de inicio de uso de la herramienta.
Latest repair date	La fecha de reparación más reciente de la herramienta.
Memo.	Se pueden introducir comentarios.

Emisión de los datos de la herramienta en CSV

Puede emitir la información de los datos de la herramienta como un archivo CSV.
 Seleccione [Output CSV] y seleccione el destino para guardar.



Introducción del historial de comprobaciones del par

Puede registrar el historial de comprobaciones del par de las herramientas. En la pantalla Datos de la herramienta, haga clic en la fila de la herramienta deseada.

Panasonic Fastening Manager | History | Analysis | Tool Data

Tool data

Showing 1 - 8 out of 8

Output CSV | Get data

Controller No	Controller name	Controller product No	Controller serial No	Tool No	Tool product No	Tool serial No
Controller1	Controller	EYFRW2	2204	Tool1	EYFMH2WP	MH1WC000
Controller10	Controller	EYARW1	22040001	Tool1	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool2	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool3	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool4	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool5	EYADA112WA	MtrMH1WC
Controller10	Controller	EYARW1	22040001	Tool6	EYADA112WA	MtrMH1WC

Se muestra la pantalla del historial de comprobaciones del par. Seleccione una marca de calendario y añada una fila. A continuación, introduzca el par de ajuste y el resultado de la comprobación del par.

También puede comprobar y eliminar filas. Después de introducir, seleccione [OK] para guardar el contenido.

Torque check history | Delete

Date/Time	Target torque	Check torque 1	Check torque 2
<input type="checkbox"/> 2023/04/25 20:04	10	9.5	9.8
<input type="checkbox"/> 2023/04/26 20:04	10	10.2	
<input checked="" type="checkbox"/> 2023/04/27 21:05			

1 | OK

Torque check history | Delete

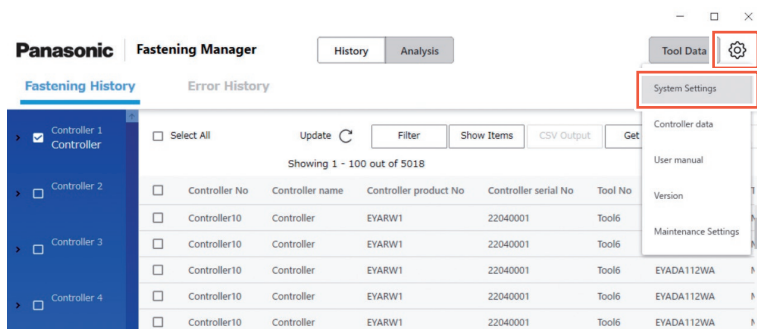
Date/Time	Target torque	Check torque 1	Check torque 2
<input checked="" type="checkbox"/> 2023/04/25 20:04	10	9.5	9.8
<input checked="" type="checkbox"/> 2023/04/26 20:04	10	10.2	
<input checked="" type="checkbox"/> 2023/04/27 20:05			

1 | OK

AJUSTES DEL SISTEMA

Cambio de los ajustes del sistema

Desde el botón de opciones situado en la parte superior derecha de la pantalla, seleccione [System Settings].



Cambio del idioma

Puede seleccionar “Japanese” o “English”.

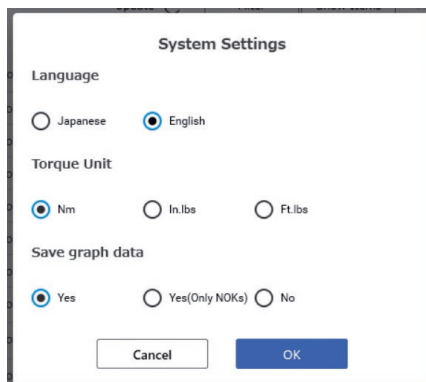
Cambio de la unidad de par

Puede seleccionar “Nm”, “In.lbs” o “Ft.lbs”.

Guardar los datos de la forma de onda

Seleccione si va a recopilar los datos de la forma de onda de fijación.

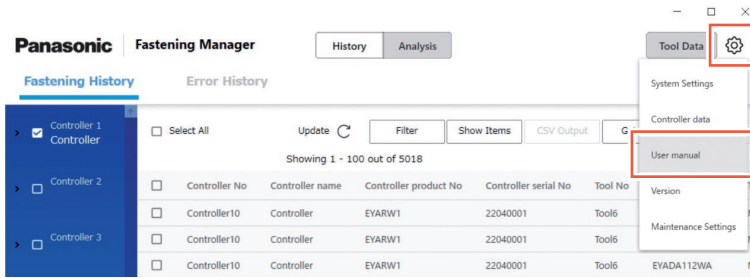
Es probable que la capacidad de los datos de forma de onda sea grande y, por lo tanto, puede seleccionar si desea recopilarlos en función del espacio de su PC y de su objetivo de gestión de datos, “Yes (Only NOKs)” o “No”.



Acceso a las Manual de instrucciones

Puede acceder a las Manual de instrucciones.

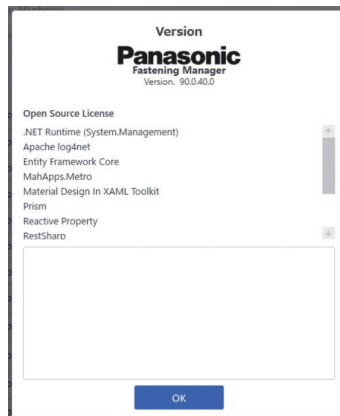
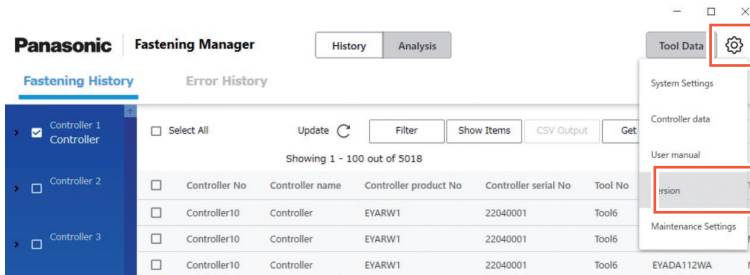
Desde el botón de opciones situado en la parte superior derecha de la pantalla, seleccione [User manual].



Visualización de la versión del software

Puede visualizar la versión del software.

Desde el botón de opciones situado en la parte superior derecha de la pantalla, seleccione [Version].



MANTENIMIENTO

Capacidad de la base de datos (Estimación)

El software puede recopilar los datos del historial de fijación de un máximo de 4000 veces de fijación.

Si recopila datos de forma de onda, se aplica la siguiente limitación en función del volumen de datos.

Como los datos que excedan el límite superior no se pueden recopilar, deben borrarse regularmente después de ser emitidos en CSV según sea necesario.

Para automatizar el proceso, puede usar la función de mantenimiento.

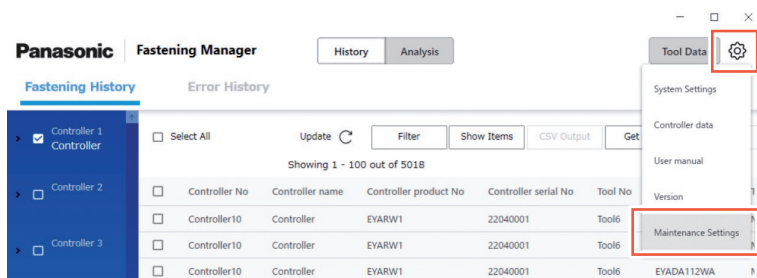
Número máximo de veces de fijación	80 herramientas 5,000 tornillos/día (por herramienta)	40 herramientas 2,500 tornillos/día (por herramienta)
40,000,000	Equivalente a 100 días	Equivalente a 400 días

- Para la configuración de EYFMH y EYFRW

Capacidad máxima de datos 25 GB	Número de veces de fijación	80 herramientas 5,000 tornillos/día (por herramienta)	40 herramientas 2,500 tornillos/día (por herramienta)
Forma de onda de 12 segundos	600,000	Equivalente a 1,5 días	Equivalente a 6 días
Forma de onda de 2 segundos	3,600,000	Equivalente a 9 días	Equivalente a 36 días
Forma de onda de 1 segundo	7,200,000	Equivalente a 18 días	Equivalente a 72 días

Función de mantenimiento

Esta función le permite automatizar la gestión programada de la base de datos. Desde el botón de opciones situado en la parte superior derecha de la pantalla, seleccione [Maintenance Settings].



PRECAUCIÓN

El proceso puede durar decenas de minutos en función del volumen de datos. Téngalo en cuenta al realizar el ajuste.

■ Procedimiento

- (1) Ajuste “Automated Maintenance” en “ON”.
- (2) Seleccione el intervalo entre “Weekly” y “Monthly” y seleccione el día de la semana y la hora.
- (3) Seleccione el formato CSV y el destino para guardar.
- (4) Después de completar la selección, seleccione [OK].

Una vez completada la configuración, la función generará y guardará automáticamente los datos como un archivo CSV en el destino especificado en el momento especificado. También eliminará los datos para crear un espacio necesario en la base de datos.

- El software debe estar en ejecución para realizar el mantenimiento automatizado.
- El mantenimiento también se puede iniciar manualmente según sea necesario.

A continuación se muestra el rango de datos que se emitirán como CSV o se eliminarán. No incluye los datos del historial de errores.

Ajuste	Rango de datos que deben emitirse o eliminarse	Rango de datos contenidos en un archivo
Automatizado (semanal)	Datos del historial de fijación durante una semana después de superar los 30 millones de datos	Datos para un día
Automatizado (mensual)	Datos del historial de fijación durante un mes después de superar los 30 millones de datos	Datos para un día
Manual	Todos los datos del historial de fijación más antiguos que superen los 30 millones de datos	Datos para un día

Copia de seguridad y restauración de la base de datos

Puede realizar una copia de seguridad de la base de datos para restaurarla en caso de que se produzca un problema. Se recomienda una copia de seguridad programada.

■ Cómo hacer una copia de seguridad

- (1) Salga del software si se está ejecutando.
- (2) Copie “FasteningManager.sqlite” desde la carpeta *1 donde instaló el software en un almacenamiento externo como una unidad flash USB y un disco duro externo.
(Prepare un espacio suficiente para almacenar los datos que pueden ser de gran volumen).

■ Procedimiento

- (1) Salga del software si se está ejecutando.
- (2) Sobrescriba “FasteningManager.sqlite” en la carpeta *1 donde instaló el software usando el archivo de copia de seguridad.

*1 El software está instalado en “C:\Panasonic\FasteningManager\” de forma predeterminada.

Sustitución del PC (reinstalación del software)

Para sustituir el PC donde está instalado el software, siga el procedimiento que se describe a continuación.

- (1) En la pantalla de datos Controlador, elimine todos los controladores registrados desde “Controllers”.
- (2) Salga del software.
- (3) Realice una copia de seguridad de la base de datos actual.
(Consulte “Copia de seguridad y restauración de la base de datos”).
- (4) Desinstale el software.
(Desinstale “FasteningManager” en el panel de control).
- (5) Instale el software en un nuevo PC.
Consulte P9
- (6) Restaure la base de datos en la que se realizó la copia de seguridad (3).
(Consulte “Copia de seguridad y restauración de la base de datos”).
- (7) Inicie el software en el nuevo PC.
Consulte P10
- (8) En la pantalla de datos Controlador, “Search” y “Register” los controladores. **Consulte P12**

Nota

Instale el software de gestión del controlador en un solo PC, tal y como se indica en el contrato de licencia.

Para instalar el software en el nuevo PC, asegúrese de desinstalarlo en el PC antiguo.

ESPECIFICACIONES

El software está diseñado para recopilar datos de un controlador conectado.

■ Entorno de funcionamiento

SO compatible	Windows10 (64 bits) o posterior
PC compatible (CPU)	2,0 GHz, 4 o 2 núcleos, 4 o más procesadores lógicos
Almacenamiento	8 GB o más
Capacidad de disco duro recomendada	SSD de 100 GB o más
Resolución recomendada	1024 × 768 o más
Interfaz	Unidad óptica (para la instalación de software) USB tipo A (para autenticación de licencia) Puerto Ethernet (para la comunicación con un controlador)
Entorno de software	.NET Core 3.1

■ Especificaciones

Número de datos que se pueden almacenar	Un máximo de 4000 datos del historial de fijación
Número de controladores que se pueden registrar	10 (máximo)
Seguridad	Activación de la llave USB
Idioma compatible	Español, Japonés
Accesorio	Llave USB × 1
N.º de producto del controlador aplicable	EYARW1 EYFRW2 • Incluyendo variedades

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