IPETRONIK





IPEmotion_PlugIn_STATUS_V01_00_00

9. August 2018

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1 Important and general information

1.1 Important information

Please follow these instructions before and during the use and application on any IPETRONIK product!

1.1.1 Safety and Warning instructions

Please follow the instructions and information as contained in the user manual!

- 1. The user can **influence an electronic system by applying the IPETRONIK product**. This might cause risk of personal injury or property damages.
- 2. The use and application of the IPETRONIK product is permitted only to qualified professional staff, as well as, only in appropriate manner and in the designated use.
- 3. Before using an IPETRONIK measurement system in the vehicle it has to be verified that no function of the vehicle, which is relevant for secure operation, might be influenced:
 - by the installation of the IPETRONIK measurement system in the vehicle,
 - by an potential malfunction of the IPETRONIK system during the test drive.

In order to avoid possible danger or personal injury and property damages, appropriate actions are to be taken; such actions have to bring the entire system into a secured condition (e.g. by using a system for emergency stop, an emergency operation, monitoring of critical values).

Please check the following points to avoid errors:

- Adaption of sensors to components of the electrical system / electronics, brake system, engine and transmission control, chassis, body.
- Tap of one or several bus systems (CAN, LIN, ETHERNET) including the required electrical connection(s) for data acquisition.
- Communication with the vehicle's control units (ECUs), especially with such of the brake system and/or of the engine and transmission control (power train control system).
- Installation of components for remote data transmission (mobiles, GSM/GPRS modems, WiFi and Bluetooth components).



The products can be operated in extended temperature ranges greater $70 \,^{\circ}C$ and therefore the operator has to take safety measures to avoid any skin burnings on hot surfaces while touching the products.

- 4. Before directly or indirectly using the data acquired by an IPETRONIK measurement system to calibrate control units, please review the data regarding to plausibility.
- 5. With regard to the application of IPETRONIK products in vehicles during use on public roads the manufacturer and/or registered user of the vehicle has to ensure that all changes/modifications have no influence concerning the license of the vehicle or its license of operation.
- 6. User does agree to the instructions and regulations as mentioned above. In case the user does not agree with the instructions and regulations as mentioned above, he has to notify this expressly and immediately in writing to IPETRONIK before confirming the sales contract.

1.2 Terms and conditions

See IPETRONIK website for details: https://www.ipetronik.com/

1.2.1 Legend of used icons

| e | Тір | This icon indicates a useful tip that facilitates the application of the software. |
|-------------|-------------|--|
| i | Information | This icon indicates additional information for a better understan- ding. |
| \triangle | Attention! | This icon indicates important information to avoid potential error messages. |

1.2.2 Support

Headquarter:

IPETRONIK GmbH & Co. KG

Im Rollfeld 28 76532 Baden-Baden, Germany Phone +49 7221 9922 0 Fax +49 7221 9922 100 info@ipetronik.com www.ipetronik.com Limited commercial partnership with its head office in Baden-Baden, registry court HRA No. 201313 IPETRONIK Verwaltungs-GmbH Baden-Baden is an individually liable society, registry court Mannheim HRB No. 202089 CEOs: A. Wocke, C. Buchholz

Technical support and product information

www.ipetronik.com e-mail: support@ipetronik.com

2 Introduction

2.1 PlugIn overview

The Status PlugIn is developed to monitor the system status of your computer. The system monitoring is useful for applications like test benches where CPU load, disc space and RAM memory monitoring are critical factors for test bench operation.

2.2 PlugIn installation

You have to download the PlugIn from the IPETRONIK Website www.ipetronik.com. After installation you have to start IPEmotion and you are directly guided to the PlugIn Dialog which indicated in green color a new installed PlugIn, to activate it. However you can access the PlugIn dialog from the OPTIONS as indicated below.

| 2 | New | | Recent projects list | | - | | | | | |
|----|----------------------|---|--------------------------------------|----------------------------|------------------------------------|------------------------------------|--|--------------------|---|-------------|
| • | Open | | | | | | | | | |
| • | Save | | | | | A | Activate PlugIn | in OPTI | ONS | [1_9 |
| - | | | | PEmotion options | | | | | | |
| G, | Save as | | | Frequently used | Active | | Title | Version | Description | Manufacture |
| | Ann French | 3 | | Basic settings | | | IPETRONIK CAN | 01.16.00 | Connection of IPETRONIK CAN acquisitio | IPETRONIK |
| ⇒. | App-Export | | | Appearance | | 盖 | IPETRONIK X | 02.05.02 | IPETRONIK CAN and Ethernet devices | IPETRONIK |
| 2 | Dura Nana Juana Jana | | | View | | 1000 | IPETRONIK LOG | 03.59.01 | IPETRONIK Data logger (M-LOG, S-LOG, | IPETRONIK |
| | Runtime version | | | Data manager | 2 | A | Advantech APAX | 01.00.04 | Advantech APAX | IPETRONIK |
| 5 | - | | | Import | | 6 | BECKHOFF | 01.05.00 | BECKHOFF Bus Coupler | IPETRONIK |
| 2 | Compare | | | Export | | 30 | GPS | 01.05.00 | Serial interface for GPS mouse | IPETRONIK |
| 7 | | | | Analysis | 0 | 51 | STEMENS PLC | 01.05.00.5 | Access to process data of Siemens PLCs | IPETRONIK |
| 1 | Print | * | | Maps | | - | Status 🔇 | 01.00.00 | Monitoring system parameters 📀 | IPETRONIK |
| | | | | Directories | | 0 | Video | 01.02.00.5 | Synchronic recording of video data for ca | IPETRONIK |
| N. | View | | | Units | | 1 | WAGO | 01.03.01 | WAGO Bus coupler | IPETRONIK |
| ×. | | | | Hotkey | | 2 | WAGO PLC | 01.00.00 | WAGO Controller | OSRAM |
| | Administration | ٠ | | User administration | ~ | £. | Protocols | 02.00.00 | Protocol acquisition with any CAN hardwa | IPETRONIK |
| | - | | | IPEdoud | | | | | | 1.1 |
| | Options | | Options Show/edit general TPI | PlugIns = User displays | | | | | Download manual | Download |
| 0 | About | | and the set of the set of the set of | User operations | Plugin s Specify to The used | ettings he plugin I plugin v | s ns to be used. version can be changed wit late is run at installing later | hin the list. If a | version number is selected that ends with a '=' | character, |

The PlugIn is supporting the following Windows operating systems:

- 32 bit
- ▶ 64 bit

2.3 Create status system

When the PlugIn is activated you can create the System in the SIGNAL work space.

| a 🗅 🖴 🗄 🖻 | â 8 | XBI | ß ß | a B | X | * | 0.0 | 0 0 | 0 | 8 8 - | ۰ 🍐 | v. | |
|--------------|----------|----------------------|-----------|------------|--------|--------|----------|----------|-----------|-----------|---------|----------|--------|
| File Project | Signals | Acquisit | ion | View | Data | a mana | ger | Analysis | Re | porting | Script | ing | Info |
| | | . | | ₽ | | Q | | ĸ | | | | | |
| Status | System C | omponents | Functions | Import | Export | Chec | k Adjust | Detect | Initializ | e Display | Details | | |
| Hardware | St St | atus | | | | | | | Acces | s | View | | |
| V01.00.00 | | atus signais | | | b | ive L | Init | Phys Min | Phy | s Max | Ser | nsor Min | Sensor |
| Name | | nport stem import | | | | | | | | | | | |
| | , | oren import | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Select Status PlugIn and create a system.

| V01.00.00 | | | Name | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
|------------|---|---|---------------------------|--------|------|----------|--------------|------------|------------|---------------|
| Name | Σ | ٩ | | | | | | | | |
| | | + | CPU load | | % | 0 | 100 | 0 | 100 | 1 Hz |
| 🔺 拱 Status | | | Memory usage | | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| ැ Global 0 | | | Free disk space (default) | | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| | | | | | | | | | | |

3 default global status channels are created.

[2]

CPU load

Refers to the overall CPU load of the computer.

- Memory usage
- Free disc space
- Refers to the overall memory usage of all running applications.
- Refers to free disc space on the drive where IPEmotion is installed.

3 Configuration

3.1 Global monitoring

The 3 global monitoring channels are automatically created when a system is created.

| | - | | | | | | | | |
|---------------------|---|--|--------|------|----------|--------------|------------|------------|---------------|
| V01.00.00 | | Name | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
| Name | ۴ | | | | | | | | |
| | ► | CPU load | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| 🔺 🛒 Status 3 | | Memory usage | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| <u>ورب</u> Global 3 | | Free disk space (default) | ~ | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| | G | eneral Active: ✓ Name: Status Description: Status signal Reference: Status | İş | | | | | | |
| | | | | | | | | | [2] |

System level

- Active
 Checkbox to active the system
- Name Define an individual name
- Description
 Define an individual system description
- Reference is automatically created by the system and is included in the storage data

On the Global monitoring parameters you have the following settings in the General tab sheet.

| V01.00.00 | | | Name | | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
|----------------|---|----|--|-------------------------------|--------|------|----------|--------------|------------|------------|---------------|
| Name | Σ | ٩ | | | | | | | | | |
| | | Þ | CPU load | | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| ⊿ leel: Status | 3 | | Memory usage | | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| 🚀 Global | 3 | | Free disk space (de | efault) | ~ | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| | I | Ge | eneral Active: Name: Description: Reference: Sampling rate: 1 | ilobal ilobal/Status Hz | | | | | | | |

3 default global monitoring parameter.

[4]

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- Active Checkbox to active Global monitoring channels
 - Name Define an individual name of the Global system
- Description
 Define an individual Global description
- Reference Is automatically created by the system and is included in the storage data
- Sample rate The sample rate is configured in the channel grid and is ranging from 1/h up to 1 Hz

3.1.1 Free disk space

In the Global monitoring parameters you can add as many individual disk space monitoring channels as you have partitions or network drives connected to the measurement computer.

| V01.00.00 | | | | Name | | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate | |
|-----------|------------------|--------------|-----------|------|---------------|--------------------------------|------|----------|----------|--------------|------------|---------------|------|
| Name | | | Σ | ۴ | | | | | | | | | |
| | | | | | CPU load | | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| ia kabi S | tatus | | 3 | + | Memory usag | y usage isk space (default) | | | | | | | 1 Hz |
| e2. | Global | | 3 | | Free disk spa | ce (default) | ~ | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| | | E. | Componer | nts | → ∧ ∧ | Free disk space | . 1 | | | | | | |
| | | í. | Change in | to | · · · | | | | | | | | |
| | | ß | Functions | |) 💽 | Multiple selectio | n | | | | | | |
| | | \downarrow | Import | | , <u> </u> | | | | | | | | |
| | | \mathbf{T} | Export | | -> | | | | | | | | |
| | 🚳 Use as default | | | | | | | | | | | | |

Add disk space monitoring to Global monitoring.

[5]

In the Setting tab sheet you define the disk name. The default disk space monitoring channel is associated to the drive where IPEmotion is installed.

| V01.00.00 | | | Name | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
|----------------------------|---|----|---------------------------|---------|----------|----------|--------------|------------|------------|---------------|
| Name | Σ | ٩ | | | | | | | | |
| | | | CPU load | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| ⊯ l gl : Status | 4 | | Memory usage | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| 👸 Global | 4 | | Free disk space (default) | ~ | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| | | • | Free disk space | ~ | | | | | | 1 Hz |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | Ge | neral Format Scaling | Display | Settings | | | | | |
| | | | Disk path: C: | | | | | | | |

Disk space Setting tab sheet: Individual disk space monitoring.

[6]

The disk space monitoring can be applied to network drives too.



Disk space Setting tab sheet: Individual disk space monitoring on network drives.

3.2 Process channels

On system level you can add also Process monitoring channels as indicated below.

| V01.00.00 | | Name | | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
|--|---|-----------|---------------------|--------|------|----------|--------------|------------|------------|---------------|
| Name S | ۴ | | | | | | | | | |
| | • | CPU load | | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| 🔺 🛒 Status | _ | Memory us | age | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| Global Global Components Component | | • 🚳 | Process | | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| 📔 Change into | | · | | | | | | | | |
| Functions | | | Multiple selection. | | | | | | | |
| Import | | | | | | | | | | |
| 1 Export | | > | | | | | | | | |

| V01.00.00 | | Name | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
|-----------------|---|----------------------|--------|------|----------|------------|------------|------------|---------------|
| Name | ۴ | | | | | | | | |
| | Þ | Process CPU load | | % | 0 | 100 | 0 | 100 | 1 Hz |
| ∡ ight Status 3 | | Process Memory usage | | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| 🖗 Global 3 | | | | | | | | | |
| 🙈 Process 0 | | | | | | | | | |
| | | | | | | | | | |

Add process parameters to your monitoring channels.

[8]

- Process CPU load
- Process Memory

Display the CPU load caused by this process. Display memory usage by the process. When a Process monitoring is created you have to define the Settings tab sheet the process name. The process name is directly accessible in the Windows tasks manager. When you enter the process name all associated process channels and the process channel automatically renamed by the defined process name.



3.2.1 Process thread count

On Process level you can add another monitoring channel called process thread count. The thread count is displaying all threads create by the process.

| V01.00.00 | | Name | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
|--|--------|---|----------------------|------|----------|------------|------------|------------|---------------|
| Name | Ŷ | | | | | | | | |
| | | Process CPU load | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| A tatus 5 | • | Process Memory usage | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| Riobal 3 | | | | | | | | | |
| Process Process Components Change into | • | Process Thread count | | | | | | | |
| Functions | > > | Multiple selection | | | | | | | |
| Export | ÷ | Name: Process | _ | | | | | | |
| V01.00.00 | | Name | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate |
| Name S | ٩ | | | | | | | | |
| | | IPEmotion.exe CPU load | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| a 👷 Status 6 | | IPEmotion.exe Memory usage | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| Riobal 3 | • | IPEmotion.exe Thread count | N | | 0 | 65535 | 0 | 65535 | 1 Hz |
| A IPEmotion.exe 3 | G | eneral Format Scaling D Active: 🗹 Name: IPEmotion.exe | Display Thread co | unt | | | | | |
| Add process thread count. | | | | | | | | | [10] |

3.2.2 Change unit function

If you like to change the units of a monitoring channel it is recommended to use the change unit function in the scaling calculator. With this function you can easily change:

► MB

Change to GB, kB, Byte



Change unit function

Sample Status PlugIn configuration monitoring.

| | | â 8 | X h | ſb | ₿ a b × % r | 0000 | | - 6 - | Ŧ | | | IPEmo | otion |
|------------------|--------------|---------------|-----------|--------------------------|----------------------------|------------------|------------|----------|------------|--------------|------------|---------------|-------|
| File | Project | Signals | Acquis | sition | View Data manag | er Analysis | Reportin | g Scr | ipting | Info | | | |
| | þ | •••• | <u>.</u> | | 6 🖡 🕇 🔅 | 🖿 K 3 | \$¥ 🛛 | 3 = | | | | | |
| Stat | tus | System Co | omponents | Fur | ctions Import Export Check | Adjust Detect In | tialize St | op Detai | ls | | | | |
| | | | | | · · · | | × | | - | | | | |
| Hardy | vare | | | | | A | | Viev | | | | | |
| V01.00.00 | | | | Name | Current value | Active | Unit | Phys Min | Phys Max | Sensor Min | Sensor Max | Sampling rate | |
| Name | Name S | | | 9 | | | | | | | | | |
| | | | | | CPU load | 44 % | * | % | 0 | 100 | 0 | 100 | 1 Hz |
| 🗵 拱 - St | 😴 Status 12 | | | | Memory usage | 5466 GB | ~ | GB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| ø ² . | Global | bal 3 | | | Free disk space (default) | 153,3730 GB | v | GB | 0,0000 | 4194303,9990 | 0 | 4294967295 | 1 Hz |
| <u>R</u> | IPEmotion.es | Emotion.exe 3 | | | IPEmotion.exe CPU load | 4 % | ~ | % | 0 | 100 | 0 | 100 | 1 Hz |
| 8 | fir.exe | exe 3 | | | IPEmotion.exe Memory usage | 359 MB | 4 | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| | firefox.exe | | 3 | | IPEmotion.exe Thread count | 44 | ~ | | 0 | 65535 | 0 | 65535 | 1 Hz |
| | | | | | filr.exe CPU load | 0% | * | % | 0 | 100 | 0 | 100 | 1 Hz |
| | | | | | filr.exe Memory usage | 103 MB | ~ | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz |
| | | | | | filr.exe Thread count | 31 | ~ | | 0 | 65535 | 0 | 65535 | 1 Hz |
| | | | • | firefox.exe CPU load | 0 % | ~ | | | 100 | | 100 | | |
| | | | | firefox.exe Memory usage | 303 MB | * | MB | 0 | 4294967295 | 0 | 4294967295 | 1 Hz | |
| | | | | firefox.exe Thread count | 47 | ~ | | 0 | 65535 | 0 | 65535 | 1 Hz | |
| | | | | | | | | | | | | | |
| Exam | ple con | figura | ation | | | | | | | | | | [12] |

Author: FOT