

# Altivar IMC – Firmware

## Release Notes



**Firmware Version: 1.1ie21**  
**Release Date: January, 2012**  
**Development Stage: Final**

**This document contains important information about the Altivar IMC software. Please read the complete document before you run the product.**

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This document presents the content of the ATV-IMC delivery.

## 1 NEW FEATURES

All the new features are part of the new functionalities provide by the new version 3 of SoMachine. No specific new functionalities are implemented on the ATV IMC. Please refer to the release of SoMachine V3 for more information

## 2 COMPATIBILITY

The firmware version: 1.1ie21 is compatible with:

- SoMachine V2.0 RL2 (2.0.20.20), the installation of SoMachine Solution Package is required
- SoMachine V3.0 (3.0.14.5)

The firmware is compatible for both ATV-IMC G and S Type:

- VW3A3521S0 (ATV-IMC S-Type)
- VW3A3521 (ATV-IMC G-Type)

## 3 CHANGE FUNCTIONALITIES

For Cyclic tasks and External task on Logical Input, the users can parameter the priority of the task. On V2 the lower value (0) have the lower priority, on V3 the lower value have the higher priority.

## 4 SOLVED ISSUES

Please find below all the issues corrected since the last release of the ATV IMC firmware (1.1ie03.4B2B3802):

Firmware version	Date	Description of the main corrections
1.1ie03.4B2B3802	11/10/2010	Integration CodeSysSP3.4 All plugins and libraries updated to 3.4.0.1 Corrections on HSC, display plugin, ... SW0 function integrated

<p>1.1ie19.85 2A40E2 (patch2)</p>	<p>26/04/2011</p>	<p>Integration CodeSysSP3.4 Patch2 Correction Remote Connection Evolution function Run/Stop at Init Integration CodeSysSP3.4 Patch2 RC6 Correction CANOpen, DHCPDecline Start-Up Mode management coded, Ethernet stress-test XBT sharing data correction Hardware Memory Protection of FAT and configuration Protection Modbus @ 62xxx, File date under SoMachine IO-Basic option board access SYNC task watchdog soft management BOOTP management Division by Zero Crash HSC Hardware Preset ILF on Startup with or without other board New Templates Ethernet Drivers Issues and Issue with HUB Remote Connection Close HALT state behaviour of IOs not correct on ATV-IMC ILF at startup when start ATVIMC before drive Get back the file CodeSysSP.cfg from .cf_ Add write password for web page monitoring USB Drivers correction Crash on Online Change with old code generator Priority Task Inversion Unwanted Start after 2 switch ON with big application Unwanted Start when RTS Key “.Start” is missing into CodeSysSP.cfg</p>
<p>1.1ie21</p>	<p>24/10/2011</p>	<p>Webserver: Oscilloscope is frozen if Refresh and after Save functions are activated CANopen bus is out of order when 220V is shutdown(ATV supply) despite that the IMC stay supplied in 24V Support of ATV-IMC G-Type</p>

## 5 KNOWN PROBLEMS

Title	Description
<p>An External Event can launch 1 task only (2 tasks are defined with the same External Event)</p>	<p>Open project in attachment</p> <p>2 new tasks created Event_On_LI54_1 and Event_On_LI54_2            Event_On_LI54_1 call POUa            Event_On_LI54_2 call POUb            The both tasks are defined : External event =on_LI54</p> <p>Plugs LI54 to 24V, only a task is launched</p>
<p>ATV-IMC crashes if we perform a big loop instead of generating a 80% watchdog</p>	<p>With the following code the ATV-IMC crashes instead of generating a 80% watchdog.</p> <pre> PROGRAM POU_Exceptions VAR   Toto: INT := 0;   TestHeightyPercentException: BOOL := FALSE;   MovingIndex: DWORD := 0;   Index: DWORD := 50000; END_VAR  IF TestHeightyPercentException THEN   TestHeightyPercentException := FALSE;   MovingIndex := 0;   WHILE MovingIndex &lt; Index DO     Toto := Toto + 1;   END_WHILE END_IF           </pre>
<p>Relocation table not implemented</p>	<p>The relocation table is not implemented.</p> <p>At the modbus address for relocation table (60200-61999 and 62200-63999), some objects are present:            _ Ethernet statistics (RO on 60200-60233) used for Web Server.            _ Specific Setup (RW on 62200-62206).</p>
<p>M0x range does not allow negative values</p>	<p>M0x parameters are unsigned (0 --&gt; 65535)            But some applications require signed parameters (-32768 --&gt; +32767, for example torque threshold function) and it is possible to enter negative values with the keypad            The range should be -32768 --&gt; +32767, or it should be possible to configure the datatype of each M0x</p>

<p>Send Commands by webserver: Run, Stop, ResetWarm, ResetCold. No implemented on the webserver</p>	<p>Not possible to Run, Stop, ResetWarm, ResetCold with the ATV-IMC webserver.</p>
<p>Loose connection when Create Boot application (ATV-IMC in Run)</p>	<p>Steps          _ Open a big SoMachine Application          _ Download this project in ATV-IMC          _ Run ATV-IMC          _ Create Boot Application</p> <p>--&gt; Dialog box appears: "No connection to the device. Please scan your network"          30s to 40s are required for reviewing the ATV-IMC in gateway</p>
<p>ATV-IMC Read of 2 Analog Input channel cycle asynchronous processing</p>	<p>The 2 analogues outputs channels are synchronize updated, but the 2 analogues input channel are updated asynchrone (alternative) , mean chanel1--&gt; channel2--&gt; chanel1---&gt; channel2.          The 2 analogues outputs channels are updated two times faster then the 1 analogue input channel.          It seems that the analogue input channel operate only every 2nd or more controller cycles.</p> <p>Remark: the analog output socket is directly hardwired with the analogue input socket. So all variable should be updated in parallel cycles.</p>
<p>ATV-IMC crash when retrieve a log file in use</p>	<p>When a file is in use because of the LogManager SoMachine component, If the user try to read it via FTP, the ATV-IMC crashes.</p>
<p>UnitIDs 252, 253 and 254 could not be accessed via Modbus</p>	<p>The unitID 252, 253, 254 could not be accessed via Modbus through drive.          When trying to access to these UnitIDs a timeout occurs.          For reminder these UnitIDs are used for :          UnitID 252: %MW of card + system word after adress 60000.          UnitID 253: %IW of card.          UnitID 254: %QW of card.</p>

## 6 MISSING FUNCTIONALITIES

Global Network Variables are not supported	Use of Global Network Variables is not supported anymore. Please contact Schneider Electric support for more information.
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## 7 ADDITIONAL INFORMATION

### 7.1 To update the firmware:

- Plug the board via USB then launch: /Update Firmware.bat
- OR install by hand the files:
  - ROOT: Add CodeSysSP.cfg in ROOT
  - ROOT: create folder /sys and /app and /log
  - ROOT: Load firmware.bin in folder /sys
  - ROOT: Load firmware.chk in folder /sys
  - ROOT: Load DefWebSrv.bin in folder /sys

### 7.2 To update the Web Site:

- Check DefWebSrv.bin is into the folder /sys
- Send modbus request to the ATV-IMC (Unit-ID=252):
  - Write [62201] = 66,
  - Write [62201] = 99,
  - Read [62201] : 1 means update in work, 0 means update finished
- One time update is finished, you can delete DefWebSrv.bin

### **7.3 Limitation**

- The Ethernet Application plug-in force the Ethernet IP address. So, when CodeSys connects to the device, the Ethernet parameters into the Ethernet plug-in are saved into the device. Be careful to set the good Ethernet parameters into the plugin before to connect to the Device. At restart the new Ethernet parameters are used.
- By default the IP address into the plug-in are IPAddress=0.0.0.0 in manual mode. So, by default, the device saves theses parameters. At the device restart, and at the first Ethernet connection, if IPAddress=0.0.0.0 in manual mode then the IP-address is changed to 10.10.MAC5.MAC6. and mask = 255.0.0.0