



### ApplicationsMaster V5.1.1

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### ApplicationsMaster V5.1.1

#### New: Windows XP64 and Windows Vista32/64 versions available

INPHO's photogrammetric software supports now the following operating systems: Windows 2000, Windows XP32, Windows XP64, Windows Vista32 and Windows Vista64. The 32 bit and 64 bit versions need different installation setups that can be either downloaded from our home page or are delivered on different DVDs.

The 64 bit versions do have the advantage that the file size limit of 2 GB RAM is no more existing and the processing with certain applications can be faster. By testing different data sets we found the following speed up factors when using 64 bit operating systems compared to processing with Windows XP32:

- MATCH-T DTM - XP64/Vista64 are ~ 35% faster
- MATCH-T DSM - XP64/Vista64 are ~ 15% faster
- OrthoVista – Vista64 is ~ 25% faster, XP64 is ~ 6% faster
- MATCH-AT, OrthoMaster – same processing times on all operating systems
- DTMaster – no information, no speed up tests till now

The Windows Vista operating system has the following limitations:

- No support of stereo viewing but anaglyph color stereo viewing (Microsoft Vista does not support stereo in a window)
- Windows Vista 64bit requires at least 4 GB of RAM
- To take advantage of the 64 bit operating systems we suggest to install anyhow a minimum of 4 GB of RAM
- Windows Vista SP1 must be installed

The Windows 64 bit versions can be only used with the CodeMeter dongle from WIBU. The Aladdin hardlocks do not support 64 bit operating systems. Please contact [sales@inpho.de](mailto:sales@inpho.de) to get an offer for replacing the Aladdin hardlock with the CodeMeter dongle.

#### New Feature: Support of Satellite WorldView 1

The support of satellites has been enhanced now. Digital Globe satellite WorldView 1 can be imported and used in Exterior Orientation, DTMaster, MATCH-T DSM, OrthoMaster and OrthoVista. Please note that the WorldView 1 satellite has to be assigned as Quickbird 2 Type in the project editor.

#### Patch: Listing for rotation sequence for GPS/INS import

The listing for the rotation sequence for the GPS/INS was wrong. This has been changed now.

### **Patch: Rotation sequence for GPS/INS import**

On 64bit operating system the import of the rotation sequence for GPS/INS was not correct. This has been fixed now.

### **Patch: Settings for the RPC import**

It could happen that the imported RPC values were removed from the project when changing the path of the images or meta files. This has been changed now.

### **Restriction: Support of WorldView 1 satellite**

The WorldView 1 Satellite has to be assigned as Quickbird 2 at the moment to assure the full functionality of Exterior Orientation, DTMaster, MATCH-T DSM, OrthoMaster and OrthoVista.

## **ApplicationsMaster V5.1.0**

### **New Feature: Support of Pushbroom - ADS40 data**

INPHO's photogrammetric software package supports now pushbroom sensor data of the ADS40 camera from Leica Geosystems. The image format levels 0 and 1 are fully supported and can be used in all applications for image processing and display. ApplicationsMaster allows the definition of projects. MATCH-AT Pushbroom enables the aerial triangulation for the ADS40 images. MATCH-T DSM can be used to automatically measure terrain or surface models which can be then checked and modified by DTMaster. Finally orthophotos can be generated with OrthoMaster. The sensor orientation data formats created by MATCH-AT are compatible with the ones created by GPRO.

MATCH-AT Pushbroom requires a license which can be acquired as an extension to MATCH-AT or as a stand-alone license. All other modules are supporting ADS40 data without an extra license.

In case of processing level 0 images the different bands can't be currently combined to color composites. Such color composites are in preparation for further releases as well as the support of other pushbroom images.

### **New Feature: New module DPMaster**

DPMaster has been designed to manage and administrate the new distributed processing functionalities for DTM / DSM generation based on Match-T and orthophoto production based on OrthoMaster. This new module performs all tasks related with distributed processing job setup, scheduling, observation and management.

### **New Feature: New module DTMToolkit**

The DTMToolkit has been enhanced by a function allowing the interpolation of very large DTM files from various kinds of input data formats. In addition, functionalities to split and merge SCOP DTM files as well as to convert them to other formats like DXF, SHP, etc. are provided. Utilizing the new DTMToolkit facilitates the DTM preparation for orthophoto projects significantly because of faster interpolation algorithms and improved file handling (traditional OrthoMaster procedure of importing terrain data files sequentially is no longer necessary).

### **New Feature: New import module for pushbroom data**

The Project Editor offers now an import and administration wizard for setting up projects for pushbroom data. Support files can be assigned using a batch import. All available file references (for instance to image files) are automatically extracted and added to the project file. Additionally, file path references included in support files can be modified using Project Editor functionalities.

### **New Feature: Integration of inBLOCK into ApplicationsMaster**

The bundle block adjustment program inBLOCK will be integrated as an additional application into the ApplicationsMaster environment. inBLOCK is now based on the same project like other applications and all modules belonging to the ApplicationsMaster can be used to setup and prepare a project as well as to export results to other software systems or exchange formats. In the moment inBLOCK isn't released. This will be part of the next patch of version 5.1.

### **New Feature: Support of tiled Quickbird images**

This version of ApplicationsMaster supports now tiled Quickbird images.

### **Patch: Camera templates update**

New camera templates for DSS 439, Rollei AIC P45 and UltraCamX have been added to the Camera Editor. Existing templates have been updated according to latest information provided by camera vendors.

### **Patch: Import of image coordinates without existing images**

Image coordinates can now be imported to new or existing projects even though no image entries for these measurements have been created before.

### **Patch: Export / import of camera entries did not retain camera mount rotation**

If a camera with assigned camera mount rotation was exported to an INPHO project file and imported later on to another / same project, the rotation was always set to 0. This problem has been fixed.

### **Patch: Automatic strip generation did not work properly**

The automatic strip generation contained several problems especially when dealing with long composed image names. These problems have been solved by adding a new strip generation wizard allowing specifying simple unique image names. In addition, a bug leading to wrong image sequences within one strip has been removed.

### **Patch: Strip generation based on strip generators failed**

Importing GPS / INS files containing strip generators might not have led to a successful strip set up in previous version because the image sequence could have been changed and disordered. This effect does not happen anymore.

### **Patch: Directory import of images did not load TIFF**

In version 5.0.2, no images could be loaded using the directory import function because the file filter contained an error preventing the software from recognizing the image format type. This bug does not exist anymore.

### **Patch: Import of ground control points: "merge" option was not working correctly**

Importing additional ground control points to an existing project caused problems when points with the same point ID in the project and the new GCP file were available. The existing control point entries were overwritten automatically even though the option "Overwrite object points already existing" were not activated. This bug has been fixed.

### **Patch: Project transformation crashed when using non-initialized images**

A software crash occurred in earlier versions during the project transformation in case at least one non-initialized image (i.e. all position and rotation values were set to zero) was referenced in the project file. This problem has been solved.

### **Patch: GPS antenna offset has not been applied correctly**

In version 5.0.2 GPS antenna offset values entered during the import of GPS data has not been applied correctly. Strip directions and rotation angles were taken into account erroneously. This problem has been fixed.

### **Restriction: Multi-Channel images**

All new V5.0 applications as well as OrthoVista V4.2 are now supporting multi-channel images. The ApplicationsMaster allows defining so-called Display Maps to assign defined channels of such images to standard RGB channels for display. However, currently only OrthoVista allows defining Channel Processing Maps to specify how the channels shall be processed. OrthoMaster always processes all available channels, whereas MATCH-AT and MATCH-T are currently always using the first three channels for processing.

### **Restriction: Export of satellite projects**

At the moment, the export of satellite projects into ZI Imaging and BAE SocetSet projects is not supported.

### **Restriction: Export to Summit Evolution, BAE SocetSet and ZI Imaging**

If a geographic or projected coordinate system has been defined for a project, no information about this system is exported to the 3<sup>rd</sup> part project file. The correct settings have to be specified manually after having loaded the project in another software package.

### **Restriction: Conversion of Summit EV, BAE SocetSet and ZI Imaging project files**

Coordinate system information is not taken into account when converting a Summit EV, BAE SocetSet or ZI Imaging project into an INPHO project file. The appropriate system has to be defined afterwards using the functionalities included in the Project Editor.

### **Restriction: No project transformation for satellite projects**

Project transformation from one coordinate system into another one is not supported for satellite projects at the moment.

### **Restriction: Only projected coordinate systems (not in LAT / LONG) are supported**

Currently INPHO supports only coordinate systems defined as projected coordinate systems defined with no LAT/LONG values.

### **Restriction: RadioMetrix has problems with relative image paths**

Projects containing relative paths pointing to image files cannot be opened within RadioMetrix. All images must be referenced with absolute paths in order to launch successfully the RadioMetrix tool from the Image Commander.

### **Restriction: Camera mount rotation is not taken into account automatically when importing roll, pitch, yaw angles**

Currently, a mount rotation defined in the camera definition is not taken into account automatically when importing rotation angles provided as roll, pitch and yaw. As a workaround, the camera mount rotation has to be specified as “artificial boresight misalignment” for the angle ‘yaw’ in the import wizard dialogue.

### **Restriction: Number of input points for DTM interpolation**

DXF_TIN, SHP_TIN, VRML_TIN:	8 million raster points
WNP, BWNP, XYZ, BXYZ, DXF:	40 million raster points

### **Restriction: DPMaster does not support Condor version 7.x**

Currently, DPMaster cannot be used with Condor version 7.x. Only version 6.8.x is supported by DPMaster 5.1.

Should you have any questions regarding the technical details of software, please contact your Support Team at [support@inpho.de](mailto:support@inpho.de).