



Release Notes

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March 4th 2011

Version 6.1.5905

New features

Wavelets Module

Visualize the scales where phenomena occur on 2D (x, z) profiles using one or more wavelet families (in many case with a selectable index or number of coefficients): Coiflet (1-5), Daubechies (1-10), Discrete Meyer, Gauss (1-8), Mexican Hat, Morlet and Symlet (1-8).

Specify the decomposition range (the upper and lower limits of the scale shown on the Y axis).

User interface in Brazilian Portugese

In Mountains 6.1 the user interface is available in Brazilian Portuguese bringing the number of languages supported to ten. Note that while the user interface is available in ten languages, the Help files are displayed in English when Italian, Chinese, Polish, Korean and Portuguese are selected.

Force spectroscopy Module

Normalize force curve baselines using the force curve normalization module.

Calibrate cantilever sensitivity and specify the spring constant.

Image Co-localization module

The main application of the module is to automatically co-localize a simultaneous AFM topography image with one or more fluorescence images, for example in order to obtain useful information on cell morphology.

Color fluorescence images by selecting one of ten laser wavelengths.

Fine tune the size and rotation of the overlaid topography image if required, together with its transparency.

Lead Analysis (Twist) Module

Implements 2nd generation lead analysis in the automotive industry in accordance with Mercedes-Benz Engineering Standard (Measurement and Evaluation Method for the Assessment of Lead-Reduced Dynamic Sealing Surfaces, 2009), widely adopted in the automotive industry.

Advanced Contour Analysis radius value parameters

The type of radius (RIs for least square radius, Rabs for absolute radius) is now mentioned in the parameter table for the residue profile.

Default parameter list	Save your favorite parameters
Reassembly of surface-image stacks after processing	A stack of multi-channel images can be reassembled after one of its constituent images has been processed (for example with a denoising filter) so that the images in the stack can still be manipulated simultaneously.
Partition leveling: automatic merging	Multiple contiguous zones selected during partition leveling can be merged into a continuous sub-surface for independent analysis.
Structure exclusion during line by line leveling	It is possible to exclude structures above the surface (bumps) and/or structures below the surface (holes) so that they are ignored during leveling.
MATLAB COMPATIBILITY	Execute MATLAB scripts by loading an m file or writing your own script in Mountains in order to apply your own operators on measurement data sets, for example custom filters. Note: MATLABM and MountainsMap must be installed on the same computer.
Universal ASCII data export	Output numerical results from any analytical study in Mountains 6.1 into an Excel compatible text file to facilitate post-processing of results and publishing them in accordance with varying editorial guidelines.

Fixed Bugs

2612	A	When creating add-on reserve and then new document, the software crashes.
2624	A	The software may crash when deleting the result of a filter, recalling the filtering operator and clic cancel on the dialog box.
2632	A	In the statistics document, some results might be missing in the population.
2642	A	In the volume of islands the Average Mode displays a wrong unit.
2654	A	Most of the possible saving formats for the force curves are not relevant.
2689	A	The Zoom Operator on a profile does not work (nothing happens).
2706	A	The filtering settings of a parameter family in the Table of parameters might lead to crash the software or display wrong values.
2710	A	The "Fusion of layer" operator may generate surfaces with wrong position.
1523	B	In production mode, it is not possible to apply a template.
2095	B	Loading a SDF-File, the scaling in z-direction is wrong (~1000)
2531	B	The 3D view reserve is flickering when the application's window is resized.
2556	B	When "Imposed scale" is selected for a profile, the range values are not taken into account.
2557	B	In some cases, the resolution of Y direction used in the preview of the Threshold Operator is too small.
2568	B	The Compute button does not work when using the "user defined zone" contour button.
2606	B	Box Plot study: the vertical scale is not updated when changing the selected parameter.
2610	B	In the 3D view of a multilayer file, the space for the color scale remain occupied in the true color image, though the color scale is not drawn.
2613	B	The Statistics over all grains study does not work (an empty reserve is displayed).
2617	B	It is not possible to modify the background color in the Vectorisation of the Micro-valleys network study.
2629	B	It is not possible to apply a Minidoc to a Surface+Image studiable from the toolbar or the menu.
2653	B	Saving a force curve in TXT format does not work.
2655	B	The results of an advanced contour analysis of a parametric profile are not available in the Table of results.
2711	B	When recalling the "Fusion of layer" operator, it is possible to create a simple surface instead of keeping the multilayer.
2723	B	When applying the Profile (Surface) Extraction operator on a Series of Profiles (Surfaces), the Min/Max/Mean studiabiles might be incorrect.
2586	C	In a Statistical summary reserve, it is possible to modify the background color only for the first line (the title line).
2594	C	When opening a document from the Example documents or the Tutorials menu of the Help menu, a message says that the document is already opened.
2614	C	The X/Y normalization toolbar setting cannot be memorized in the Summary of the last Operator reserve after a profile extraction.

2618	C	When selecting several surfaces, the contextual menu entry "Normalize image..." has no effect.
2619	C	Form removal operator on a profile: From the summary of the last operator, it's not possible to Copy and Paste the polynomial coefficients into a text file if the polynomial degree is higher than 3.
2621	C	In the FFT filtering operator, the zoom might not match with the expected selection.
2626	C	Add/remove profiles operator dialog box: when there is no profile in the series profile list, if the user clicks on the Del key, the dialog box is closed.
2627	C	In the Opening a Studiable dialog box, if the selected studiable is a Surface+Image studiable, the studiable type displayed over the preview is "Surface" instead of "Surface-Image"
2628	C	In the Minidoc management dialog box, the studiable type "RGBIntensitySurface" appears instead of "Surface+Image".
2630	C	When applying an operator, then removing the operator and all the studies that depend upon it, the Operators and Studies panels may become deactivated.
2636	C	The operator icon should be redesigned.
2637	C	On an image illustration, it is not possible to display the reserve properties.
2640	C	It might be impossible to modify the selection of Studies in the Studies Panel: the combo bow automatically closes.
2651	C	When clicking inside a 3D reserve before printing a document, most of the 3D reserves are displayed and printed with a black zone in the reserve.
2652	C	When printing surfaces containing a scale bar, the numbers are printed in a very very small size.
2657	C	Fractal study: the zoom values change when opening the dialog several time and applying without changing anything.
2659	C	The up and down limits of the palette are not taken into account in the Distance measurement and Step-Height studies.
2668	C	The "Motifs limits" parameter configuration dialog for ISO 12085 is sometimes incorrect.
2670	C	The default 3D view of a Surface+Image studiable is sometimes displayed in blue.
2675	C	In the Table of parameters study for a profile, it is possible to select the parameter Ra without any filtering setting.
2687	C	When applying "Add layers" Operator to an Image studiable, the button OK is available even if no surface is loaded in the document.
2692	C	In the 3D View study, the axis may be displayed in absolute coordinates even if they are supposed to be displayed in relative coordinates.
2703	C	The update file might impact an unexepected version.
2714	C	In the Install dialog, the version number is not correct.
2715	C	In Force-curve studiabes, the sensitivity value in the Identity card is displayed in V/nm instead of nm/V

November 26th 2010

Version 6.0.0.5807

New features

Advanced Contour Analysis enhancements	Fit a profile to DXF data with respect to selected elements.
Motifs analysis	Analyze spherical motifs, for example on microlens, with automatic detection of spheres and calculation of morphological parameters.
24-bit true colors graphics	See everything that you measure with the new 24-bit true color graphics.
Dedicated instrument-oriented solutions and universal solutions with optional modules	More information on Mountains 6 standard configurations at www.digitalsurf.fr
Motifs analysis	Use the new color motifs view not only to display motifs using the color palette of your choice but also to adjust color transparency.

Navigation from page viewer	Navigate almost instantaneously in long analysis documents using the interactive page viewer that allows you to go directly to any frame on a page. Use it to drag pages to change page order and to delete all blank pages with a single click.
Frame icons	Use frame mini-icons to speed up full-screen frame display, frame movement and frame deletion.
New master page	Set up a master page (with elements that appear on all of the pages in an analysis document) more quickly.
Optimization of palette and gamma correction	Highlight surface features using a new color menu with real time preview, enhanced gamma correction, scale bar, and the ability to automatically match a palette to the distribution of data points on a surface.
ASME parameters	Calculate ASME B46.1 parameters.
Unprecedented surface analysis power	Native 64 bit code (with Windows 7 x64 and Windows Vista 64) and multicore optimization accelerate calculation and provide excellent performance with large measurement data sets and advanced applications involving heavy processing.
Motifs analysis	Detect motifs automatically with respect to shape as well as with respect to peaks and pits.
Configurable PSD	Select the vertical scale and the measurement location.
Circular profile extraction	Extract circular profiles from a surface and display the X axis in degree units.
Multiple profile extraction from multi-channel surfaces	Extract multiple profiles between the same points on all images in a multi-channel data set (topography, intensity, RGB) generated by a confocal scanning microscope.
Contour Analysis and Advanced Contour Analysis	Two new modules Contour Analysis modules replace the single module in MountainsMap 5.1.
Contour Analysis enhancements	Carry out contour analysis on profiles extracted on the horizontal plane and analyze them as well as profiles extracted on the vertical axis. New features include diameter symbol display, calculation of the distance between a point and a line segment, arc or circle, and fitting of arcs and circles with absolute radius. In addition units on dimensions can be displayed or hidden and tooltips display form deviation values.
Redesigned icons	Work faster and more intuitively thanks to redesigned 32x32 icons, reorganized and simplified toolbars that can be located anywhere in your work space, and new panels providing direct access to operator and study icons.
Curve display	Change curve thickness and change font and size of numeric axis labels on graphs and charts to ensure readability.
Multiple profile extraction from multi-channel surfaces	Extract multiple profiles between the same points on all layers in a multi-channel measurement data set (topography, phase, deflection, etc.) generated by a scanning probe microscope.
Worldwide ISO parameters	Display BSI, DIN, JIS, NF, UNE and UNI equivalents of ISO parameters when they are available

Fixed Bugs

2196	A	The software fails when the unit or language is changed on statistics document made with a version 5.
2306	A	The software might crash after inserting an operator.
2546	A	The levelling on a multilayer surface may crash the software.
2566	A	The Rq, Rsk and Rku do not manage the non measured points.
2604	A	The software crashes when applying a thresholding operator on a surface containing only non-measured points.
2146	B	In some cases (comporting arcs), the matching with the DXF using several elements doesn't work.
2203	B	In the PSD study, the loop icon does not work.
2257	B	In some cases the levelling (by rotation) doesn't work.
2418	B	The palettes may be lost if unchecked in the palette manager and a new document is created.
2475	B	The table of result is not properly displayed in the workflow analysis.
2493	B	The 3D amplification is not kept when the document is saved.
2555	B	The pictures pasted in the document may be printed as black squares.
2571	B	The automatic update, from the internet, is hidden by the splash screen.
2572	B	The automatic update does not work, an error message appears saying "You must install the full version."
2576	B	The scroll of the document takes too much time.

- 2590 **B** In the gothic arch, the cercles cross the profile outside the defined zones.

- 886 **C** If no printer is enabled, the user can't change the display for portrait/landscape.
- 2265 **C** If the page viewer pannel is displayed, the software works slower.
- 2272 **C** The proposed Minidocs should be improved.
- 2287 **C** In the force curves study, the colors are not refreshed when changed.
- 2340 **C** When a minidoc is applied, the whole document is recalculated.
- 2398 **C** In the motifs analysis study, the bargraph does not progress normally.
- 2457 **C** After having exported a video, the 3D view is not longer animated.
- 2466 **C** The file format filter for .jpg files does not work.
- 2511 **C** The "True colour image with measurement" study should be named "Colocalization" study.
- 2512 **C** When extracting a Z-RGB in the colocalization study, the studiable inserted in the bank/workflow has no name.
- 2547 **C** In a specific case document the Control Chart illustration is incorrect and shows a flat line.
- 2549 **C** In the 3d view study on surface and 4d view study on Series of surface, when selecting "Normalized in z" in "Height amplification", and opening the X/Y axis setting dialog, no item is checked.
- 2550 **C** In the 3d view study on a surface and 4d view study on a Series of surface, in the XY settings dialog, the "Apply" button does not work.
- 2558 **C** In the texture isotropy study on a surface, when the user opens a document created with version 5, the threshold scale is not displayed.
- 2559 **C** In the creation of a series of profile operator, when opening a document created with version 5, the series may not be created.
- 2560 **C** In the motifs analysis sttudy, the motifs display is not the same after a duplication.
- 2565 **C** The splash screen is not displayed on the right screen when used with a multi screen.

November 4th 2010

Version 5.1.1.5785

Fixed Bugs

- 2228 **A** The software crashes with the profile zoom operator if there is a low number of points in a profile and the user tries to zoom in a portion containing less than 4 points.

- 2202 **B** The patching makes steps appear on the surface when more than two surfaces are patched.
- 2223 **B** Not all of the surfaces appear in the list of studiable in the stitching operator.
- 2247 **B** In the Control chart and Histogram, on a series of profiles or surfaces: the selected parameter is not saved when the document is reponed.
- 2492 **B** The option of multilayer may make the software not able to open a file.
- 2523 **B** The Topography channels are rendered completely incorrectly and the second Friction channel is not displayed at all.
- 2524 **B** In some cases the line levelling operator may apply a wrong coefficient to the Z values of the result studiable.
- 2528 **B** In the Motif analysis study on surface, the exported value of the perimeter does not match with the value displayed in the study.
- 2551 **B** The software diagnostic files make the it running slowly.

- 1890 **C** Afert having applied a default minidoc (already installed by the application), the reserves can't be moved or suppressed, as they have the "locked" property.
- 2212 **C** The Sda value in the parameters study is not the same as the motifs analysis.
- 2479 **C** The statistics document can be closed without warning message though a new population has been added.

- 2503** **C** The UNICODE export of the result may generate one more line per parameter than the AINSI export.
- 2508** **C** In the Advanced contour study, it is not possible to import some DXF files containing asian characters, (with non asian operating system).
- 2519** **C** In the Open a Studiable dialog, the displayed number of lines and of columns are inverted.

July 16th 2010

Version 5.1.1.5674

Fixed Bugs

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- 2023** **A** The dynamic population, in the statistic module, may not take some new studiables into account.
 - 2038** **A** The non-measured points are wrongly filled when a document is opened with a product which does not manage them.
 - 2040** **A** When a profile is levelled, the resolution (not the accuracy) in Z may change.
 - 2151** **A** The Sdv and Shv parameters are not correctly calculated.
 - 2190** **A** Sha and Sda parameters are calculated in % but displayed in length unit.
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- 1908** **B** In the texture direction study, the values are displayed from -50% to 150%.
 - 1914** **B** The DXF alignment, sometimes, does not work properly.
 - 1915** **B** The LOG command file does not work if the studiable name contains asian characters.
 - 1988** **B** The automatic detection of the surface subtraction operator does not work.
 - 2001** **B** Conversion into surface of a Series of profile: the Y axis is not correctly calculated when the user reopens the document.
 - 2012** **B** When one calls the thresholding operator several times, the depth distribution which is supposed to be displayed with the Abbot-Firestone curve may be not displayed.
 - 2020** **B** When one adds/renames/removes a statistic population, all the populations menus systematically drop down.
 - 2021** **B** It is not possible to impose a large Z scale to a profile.
 - 2028** **B** The TKL transform doesn't take the absolute axis into account.
 - 2121** **B** It may be impossible to calculate parameters such as "diameters" or "aspect ration" with a binary image.
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- 1796** **C** There are some text errors in the export dialog of numerical results.
 - 1951** **C** The buildlog.htm file should be not saved in the Installation CD.
 - 1998** **C** The copyright information is not up to date for the year 2010.
 - 2003** **C** In the Fractal analysis study, the color of the lines can't be changed.
 - 2039** **C** The translation, in japanese, of the contour module is not correct.
 - 2182** **C** When the scale orientation is changed, it is applied on the current profile only.

March 8th 2010

Version 5.1.1.5541

Fixed Bugs

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- 1733** **A** If the Licence Manager is installed but the PC is not physically connected to a network, Mountains does not work.

1893	A	Step Height study on a Series of profiles: the study crashes on particular cases during re-calculations.
1906	A	The software may crash after deleting a result of the filtering operator applied on a surface-image.
1917	A	The Control chart study crashes the software when applied on a Series of studiable containing more than 500 items.
1919	A	The results of statistics are erroneous if the units of parameter are different in several documents of a population.
1932	A	When an extracted profile is defined in distance, and the studiable is substitute by a biggest one, the software may crash.
1943	A	The software may crash when pressing "esc" whereas some text is being filled into the text bloc illustration.
1950	A	It is not possible to install the Licence Manager from the autorun.
1954	A	The parameters of the Add-on reserves are not reported in the results manager.
1958	A	The profile Subtraction operator crashes when the user tries to apply it on 2 profiles having different z unit.
1968	A	When a document containing an add-on reserve, or active X, is reloaded, the reserve name is not displayed in the analysis workflow.
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1819	B	The Rk study still display the non filtered scale of the profile instead of the filtered scale.
1859	B	In the contour, angles can be displayed in degrees-minutes-seconds format, but one cannot enter the tolerance in that format.
1888	B	If the user creates a Date illustration in the Master Page mode, saves the .mmp document and reopens it under the Master page mode, the display is incorrect.
1895	B	It could be impossible to open a document containing an extraction of series of profiles.
1926	B	When clicking on "Insert an operator before..." in the bank of studiabes, half the time it does not affect anything.
1927	B	The Binary segmentation makes the software crash in a particular configuration.
1929	B	The X axis is wrong in the Rpk study.
1930	B	In the Control Chart, Scatter Plot and Histogram studies: If one of these is duplicated, the study is not calculated correctly when reloading the document.
1935	B	When clicking on the link "More information about the new version", the page is not found.
1942	B	Convert a surface into a series of profile may change the dimension.
1944	B	The contour diagram reserve is not properly printed. It is moved to the top left of the printed document.
1945	B	The contour diagram becomes grey at printing.
1948	B	FFT filtering on profile: the result studiabes are not the same when the user reopens the document.
1957	B	In the motif analysis, the Z extremum value on a motif is incorrect.
1962	B	In the retouch surface points operator, the smooth shape doesn't work properly when non-measured points are on the border of the area.
1972	B	Applying a template to a directory containing too much surfaces may crash the software.
1978	B	A document created with a newest version, and opened with an older version, may look empty whereas it is not.
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1820	C	The Z offset, in the RK study, may not be managed properly when the primary profile is displayed.
1921	C	When the document contains Master page reserves that don't allow the overlapping, the Master page reserves are overlapped anyway when applying a Minidoc.
1923	C	The illustration "date" can't be resized properly.
1928	C	When selecting several 3D or 4D studies and changing both of the Z scales, the graduations are correctly modified but the image is not adapted.
1956	C	The menu entries "Manage the Minidocs" and "Save this document as a Minidoc" are not deactivated in Master Page mode.
1986	C	The angle used to extract a profile from a disc is wrong.

New features

Template application

New filter in the dialog box to apply a template to a directory.

DXF fitting

New method to align DXF with any numbers of elements in the Advanced contour.

Fixed Bugs

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|-------------|----------|---|
| 1823 | A | The error message "SurfAPI.dll is not found" appears when Mountains is launched whereas the file is not in the same folder. |
| 1826 | A | Mountains crashes when trying to save a studiable with a long path name (> 256 char). |
| 1840 | A | The software may crash when using the distance measurement on a surface. |
| 1735 | B | The Spd and Sds parameters are calculated taking into account their default unit, but are still the same once the unit changed. |
| 1765 | B | The compatibility of the display of some surface that have been converted at loading may be lost. |
| 1766 | B | The message following message may appear when opening a document containing a step height study: "The automatic method failed on this profile, the manual method will be used instead." |
| 1812 | B | The display of the "Sup" or "Inf" profile of a series of profiles does not work properly. |
| 1813 | B | With the multi channel image as z+RGB+i, the intensity texture may be not correctly displayed. |
| 1838 | B | When opening a surface step height reserve, the display may be beyond the frame. |
| 1845 | B | There is no scrollbar in the menu of file filters of the studiable explorer. Some filters cannot be selected. |
| 1847 | B | Error occurs sometimes after reloading a document containing an operator of layer extraction. |
| 1860 | B | The software may crash when calling external operator or study. |
| 1886 | B | Conditions editor of the volume of islands study doesn't work if there are several studies of that type in the document. |
| 1638 | C | In the contour, it is not intuitive enough to use the function 'Create circle (in contact with two arcs)'. |
| 1744 | C | In the dialog box of the 'creation of a statistical document', the buttons do not appear under Windows Vista. |
| 1777 | C | It is not possible to deactivate the shadow when several reserves are selected. |
| 1789 | C | In the "Line removal" 3d operator dialog, the zoom is not applied immediately. |
| 1790 | C | Image conversion operator on RGBI surface: the X and Y offsets are not kept on the result studiables |
| 1792 | C | When applying a waviness-roughness operator on a particular surface with the same length in X and Y, the result operator doesn't have the same length in X and Y. |
| 1802 | C | Text illustration: When typing "+" or "-" in a text illustration, using the numerical pad, it is displayed twice. |
| 1803 | C | In the Graphical study of volume parameter, the vertical axis is missing. |
| 1805 | C | Filtering waviness and roughness operator: the preview of the operator has not the right dimension in the roughness and waviness frames when the "cut edge" button is checked and when the user normalises the preview. |
| 1807 | C | Contour study: during the alignment of the whole profile with the dxf elements, the esc key doesn't work. |
| 1810 | C | Contour study: it is not possible to save a dxf file. |
| 1817 | C | In some case, the 3D view may lose its color palette when reloaded. |
| 1825 | C | Spatial Filtering: error in a particular case with more point in X than in Y. |

1827	C	In the series of surfaces, the mean image does not manage the gamma correction.
1828	C	Extracted profiles from a series of profiles vertically extracted from a surface are considered as vertical profiles.
1836	C	Motifs analysis study: the position of the palette in the frame is incorrect when the "image only" setting is selected.
1837	C	It's not possible to save a studiable loaded from a TXT file using the SMD format.
1841	C	Averaged Power Spectrum Density study: the values are incorrect in imperial unit.
1872	C	It is not possible to scroll the series of profile in the "Summary of the last operator".
1875	C	It is not possible to create a fractal analysis study with a surface containing non measured points.
1879	C	In the Advanced Contour study, the text of the undo list is incorrect for the creation of a circle in contact with 2 arcs.

September 21th 2009

Version 5.1.1.5374

New features

Zero position

The zero position can be set at the bottom right or at the top right of the image.

Parameters Standard

The localisation of the parameters standard can be set as an option.

Fixed Bugs

1764	A	The patching operator does not manage the Z offset correctly.
1767	A	External operators don't work anymore.
1768	A	Some register keys, used for the path definition, are not kept with the new version.
1772	A	In the contour study, the micro roughness cut-off does not manage the end effects properly.
1692	B	The statistical summary cannot display the fractal dimension of all of the document. However it's possible to display it separately for each population.
1760	B	When changing the gamma value of a 3D surface view, the gamma value is not changed when clicking too quickly outside the reserve.
1769	B	With the demo dongle, the stitching module might not work even if selected.
1776	B	The creation of series of surface may unexpectedly fill some non measured points.
1784	B	The cut-off of the waviness filter operator is not saved properly if out of the range.
1786	B	An error message is displayed at Mountains startup on systems having Matlab and OpenCV installed.
1787	B	Symmetries on a surface: When a X symmetries is applied with "Keep Original offset", the Y axis is modified instead of the X axis.
1763	C	When using profilometer for the first time, the message "Application must be run once with administrative privileges ..." may appear.
1780	C	The scale of the Power spectrum density study is not correct.
1782	C	Threshold cursors of the slice study display negative values when the scale is in depth. In all other reserves, values are positive.
1783	C	Distance measurement study: the X coordinate is always in absolute in mode "distance between 2 points"
1791	C	When the user copy and paste the image of a pseudo-color study, the created image is white.
1795	C	While opening document created with the version 5.1.0, some studies may display the Y axis values at the right hand of the reserve.
1799	C	When the results are exported from a document containing the "Tolerance limits" and with the .XLS file format, the parameter is displayed twice.

1801 **C** When the user creates an interval control, then modifies the controlled parameter and export numerical results, both results of interval control are exported.

August 13th 2009

Version 5.1.0.5338

Fixed Bugs

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- 1699** **A** The partition levelling operator may crash Mountains when defining a zone.
- 1707** **A** Scatter plot and histogram studies doesn't work when applied on series.
- 1710** **A** The text of the summary of the last operator is badly displayed.
- 1729** **A** In the Advanced Contour, the XR parameter may be wrong.
- 1743** **A** Mountains crashes when the zoom operator is applied on a profile containing non-measured points.
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- 914** **B** The tolerance limites table may not work at language switching of the whole document. The result is lost, thus there is "no result selected" message in the new langage.
- 1468** **B** In the study "volume of a hole/peak" with a profile, it could happen that the cursors can't include the whole profil, missing the last point. The mean line is then calculated in function of that missed point instead of being set to zero.
- 1507** **B** In the grains statistics, the form factor parameter could be higher to "1".
- 1556** **B** In the contour study, it is not possible to move the parameters calculated with deviations.
- 1642** **B** In the contour study, the rotating and vertical move does not work properly in certain case.
- 1675** **B** Calculation problem for the HC (clearance) parameter for Gothic Arches. Depending on the circle creation method, the bottom of the profile is defined in a different way (bottom of the profile for profile method, intersection of arcs for arcs method).
- 1688** **B** In the contour study, the Gothic Arch analysis shows Arc Radius Difference and Center Offset Difference in nanometres rather than millimetres.
- 1693** **B** The mean and standard deviation are not displayed on the control chart.
- 1697** **B** The Statistics panel is still displayed once the Mnst document closed.
- 1708** **B** Some documents created with Mountains 5.0.4 where loaded with Intensity images instead of surfaces.
- 1711** **B** It is sometimes impossible to select zones in the partition levelling operator, espacially when there is a lot of small grains.
- 1721** **B** In the 3D view of a multilayer surface, the layer selection toolbar might display only one surface selection when docked at the left or the top of the screen, whereas the page preview is not displayed.
- 1724** **B** In the 3D view, the gamma correction may be lost when the document is saved.
- 1726** **B** In a series of profile, the mean profile is wrong.
- 1728** **B** In some cases, the import/export functions of the palette manager doesn't work.
- 1730** **B** The Z offset management of a TXT file may be wrong.
- 1731** **B** In the Advanced contour, the Gothic Arch Profile method calculation is not accurate.
- 1745** **B** In the summary of the last operator, the handle may be not displayed.
- 1746** **B** There are an accuracy problem in the calculations of the circle's position when using the gothic arch in the contour study with the profile method.
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- 827** **C** The summary of the last operator of the Surface Patching operator shows the first surface only.
- 841** **C** The operator "create a serie of surfaces" does not accept new created surface when recalled.Only new loaded surfaces can be added.
- 1485** **C** The preview of some example document is displayed in green.
- 1651** **C** In the contour study, the unit is displayed twice when importing a DXF.
- 1666** **C** In the operator "T axis edition" dialog box, the text is not correctly displayed.

1683	C	The table of results is sometimes displayed with a blank column on the right.
1684	C	In the step height measurement, all the 2D exported parameters are the same, there should be an index.
1689	C	In the contour study, the results table shows the column for pass/fail going off the right hand side of the page.
1709	C	The text of the summary of the last operator is badly displayed.
1713	C	Some example documents may be not displayed from the top, by default.
1714	C	In the 3D view, it is not possible to change the text when the text block is displayed only.
1715	C	The document is not considered modified if the 3D view is modified.
1716	C	The gamma correction button appears with the "photo simulation", "contour diagram" and "microvalleys study".
1717	C	When a studiable is substituted, its name is not updated.
1718	C	In a particular case, when loading a document created with a version 5.0.2, the Tolerance limit illustration is not displayed correctly.
1725	C	The tooltip of a studiable may display a too long message.
1732	C	The template used to be applied on a folder does not take into account the studiable selected, in the dialog box only.
1742	C	The BMP illustration may be badly displayed when small.
1747	C	The numerical preference defining if the numbers are displayed with a number of decimals, or a number of significant digits, is not stored in registry.
1749	C	Reserve numbers are missing in the Contour study. It is difficult to know which results are tracked when using a Table of results.
1754	C	If the user undoes the deletion of the contour study, the parameters of the study are not exported anymore.
1755	C	In the dialog box of the table of results, parameters can be inserted before the column header.
1756	C	It may be impossible to change the color of the non measured points.

July 17th 2009

Version 5.1.0.5308

New features

New Surface-Image studiables (Z-RGB-I studiables)

New Surface-Image studiables contain the following layers: height information layer, RGB colour information layer, and/or intensity information layer.

New Advanced Contour module

The Advanced Contour module provides powerful dimensional analysis of component geometry. Features include intelligent nominal form definition, magnified form deviation graphics, form error parameters, support for large positional tolerances, Gothic Arch analysis, and automatic generation of the table of results. For more information, download the Advanced Contour newsletter: <http://www.digitalsurf.fr/mountains/newsletters/newsletter-2009-04.pdf>

Multiple, non-linear T-axes in the 4D series

Each studiable in a 4D series of 3D surfaces can store different information on the T-axis, for example time, temperature, pressure and magnetic field.

64 bit version

A 64-bit version of the software is now available on Windows Vista 64, making it possible to process large data sets more quickly (memory over 3 GB is used if available). Note: in the 64-bit version, scripting functions (plug-ins...) cannot be used.

Enhanced getting started tools

The Welcome dialog has been redesigned and video sequences are now available to speed up familiarity with the main functions and the working environment.

Optimization and use of multi-core technology

Enhancements have been made that accelerate time-consuming operations, exploit multi-core processors and provide increased interactivity.

New Statistics Panel

The new Statistics Panel (displayed in the navigation panel on the right hand of the screen) makes it easy to create, modify and organize statistical populations. Both static populations (located at a fixed place with a fixed number of elements) and dynamic populations (dynamically refreshed when a new element is measured) are now supported. New capability parameters (Cpk) are available.

Fixed Bugs

1231	A	Sometimes, Hasp' drivers don't install correctly.
1570	A	It may be impossible to create a series of surface.
1576	A	With a "Surface Image" if the filtering operator is applied from the ID card, Mountains may crash.
1602	A	Out of Memory Error while running Motif Analysis.
1604	A	Mountains may crash when several profiles are loaded simultaneously.
1611	A	Sometimes, Stitching does not work on 4 zoomed surfaces coming from an only one.
1624	A	There is an error message by removing a profile from a series when recalling the operator of series of profiles creation.
1641	A	In the load of a document, the studiables bank not always refresh correctly, when another document is already opened.
1685	A	It is not possible to export the results to an existing CSV file.

513	B	At huge calculation of MNT, Windows create a new application in application bar. If this application is closed, Mountains will be considered as "not responding" by windows.
804	B	Using the Studiable explorer with Windows 2000, the list of studiable extensions may not scroll properly.
933	B	A message "out of memory" may appear for studiable like this : 12000X500 pts / 35Mo.
1414	B	The histogram displayed in the Grid view study is the histogram of the first surface of the series instead the histogram of the whole series.
1535	B	The application of a spatial filter made lose absolute billing.
1538	B	During the CSV export, Mountains should take into the users local settings in order to use ";" or ";" as separator ; and not the OS settings that are not customized by the user.
1575	B	For a 3D view, if this one is created on a new page, the reserve's frame's height is too small (2 centimeter).
1577	B	Sometimes, after a "Tip deconvolution", the surface is not extended as the initial surface.□
1625	B	The Rpk parameter could be slightly different when calculated with the graphical study or the table of parameters.
1631	B	The Rk parameter could be not calculated in the table of parameters whereas they are in the graphical study.
1660	B	When an MNT file is printed from the windows contextual menu, Mountains will start, print as pdf, and then close. But memory is still allocated after.
1672	B	The fractal dimension is not calculated after a waviness / roughness filter.
1674	B	The TXT file as profile, containing x, Y and Z coordinates, are not properly loaded in the software.
1686	B	The Studiable explorer may be not properly refreshed with some of Windows Vista 64 bits versions.

424	C	If the taskbar is resized when the bank of studiables is not docked, the size of the button of the bank changes.
515	C	In a lot of cases, at edition, font choice is possible but limited to only fonts displayed. If the list is bigger than the screen it will be impossible to select any from the end of the list (like tahoma, verdana...)
701	C	Launch 2 install in a same time will crash mountains before entering install code
743	C	When V4.1 and V5 are both installed, if we uninstall V4.1, V5 will be disabled due to removed driver. A warning at uninstall is useful in order to inform the user BEFORE uninstall, saying : "WARNING, Uninstall this software will remove your HASP driver and your other 'mmountains' won't work until HASP reinstall. Be sure to have HASP Driver installer. Do you want to continue?"
790	C	Uninstallation is not confirmed by windows
807	C	There is no Mountains icon in the Add/Remove programs list, under Win2000 only.
808	C	There is a different behaviour between W2000 and Win XP regarding explorer and its icons (ranking, preview, refresh...)
907	C	Pressing the SHIFT key and mouse wheel up at the same time in the Explorer loads the selected file.

- 1290** **C** In the stitching operator, the bargraph's stop button not appears.
- 1329** **C** In the operator of add/remove surface to a series of surface, the surfaces of the bank are displayed in the same way that the surfaces of the series.
- 1346** **C** In the force curve study, if the sensitivity is set to zero, the curve disappears.
- 1472** **C** In the "profile extraction" dialog box, the text zone displaying information such as length and size of the profile is not refreshed.
- 1478** **C** In the pseudo-color mode, the palette histogram is not displayed. The histogram color menu should then be disabled.
- 1500** **C** In a particular case, there are displaying problems in the 3D View.
- 1505** **C** The "print a page as an image" function doesn't work properly. The quality is bad.
- 1516** **C** In the Mountains files explorer, it not possible to expand more than one folder.
- 1522** **C** The 3D reserve's copy while this one is in mode full screen, gives a picture in the reserve's resolution on the document and not in full-screen resolution.
- 1536** **C** X/Y dimensions of lower resolution surface 3D view became invalid when a zero Z amplification is selected.
- 1555** **C** In the contour study, the residue box could be displayed off the screen.
- 1559** **C** When a document with deactivated operators is opened using the option 'Displays the operators dialogs', the dialogs of the deactivated operators are opened (and those operators are not reactivated if the dialogs are closed using the OK button).
- 1569** **C** Mountains' menu appears in full screen mode after changing preferences.
- 1592** **C** The "About the measurement" reserve cannot be copied in image format.
- 1607** **C** By clicking right in the Interactive Abbott curve's reserve, the contextual menu doesn't appear.
- 1610** **C** During a zoom on a profile, there's not alert message when the defined value is too big.
- 1623** **C** On the " Profile extraction" dialog, after one press on the key " F1 ", online help opens on the page "Presentation " of Mountains it's not the good page.
- 1627** **C** On a series of surfaces: On the operator "Fill in non-measured points", after a press on the key "F1" the online help doesn't open to the good page.
- 1628** **C** On the "Fusion of layers" operator, there is sentence "More about this operator...", but it is not shown as a link, it's impossible to click on.
- 1629** **C** On the study of a surface: On the reservation of the Interactive Abbott Curve, after a press on the key "F1", online help opens with the page of "Presentation of Mountains" instead of the page with the "Interactive Abbott curve (surface)".
- 1655** **C** On dialogs "Profile Identity" and "Post-treatments" about the measurement, after one press on the "F1" key, online help does not open in the good directory.
- 1658** **C** On dialog "Printer settings", the "Help" button, which is apparently actived, makes nothing after one click over.
- 1662** **C** In the metrological preferences, on "Non-measured Points", afterwards click on the "F1" key, online help does not open on the good page.
- 1663** **C** In dialog "Axes settings", on the thumb-index "X-axis settings", online help does not open to the goog page.
- 1668** **C** In the Table of results, it is not possible to copy the content, using Ctrl+A and Ctrl+C.
- 1680** **C** The ZIP files can be seen from the Mountains Studiabls explorer.

May 28th 2009

Version 5.0.4.5261

Fixed Bugs

- 1473** **A** The stepheight study computes each parameters of each rofiles of a series. The parameter export is then full due to these parameters.
- 1528** **A** The Smc parameter is calculated from the top instead of the bottom. For a bearing ratio set at zero, the Smc is equal to zero.

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|-------------|----------|--|
| 1534 | A | Mountains crashes when a layer is extracted from a multilayer surface using the opeartor of layer extraction. |
| 1539 | A | Mountains may crash when a zoom operator is applied to a series of profiles. |
| 1542 | A | Mountains crash at the substitution of a studiable displayed in a 3D Reserve. |
| 1549 | A | Converting a series of profiles to a disc crashes Mountains |
| 1519 | B | In some studiables, the unit u can be displayed instead of "μ". Even if the option settings are OK. |
| 1523 | B | In production mode, the function "Apply a template" is activated whereas it shouldn't. Effectively, it is obviously not possible to open a studiable in that mode.it is not possible to apply a template because we cannot open a studiable. |
| 1529 | B | Autocorrelation : The Sla and the Str could be erroneous with certain configuration depending on the surface resolution. |
| 1537 | B | In the parameters table, and depending on the profile, the cut-off proposed by the software might be not adapted. |
| 1554 | B | The 3D view may display the surface below the bulk. |
| 1566 | B | In the profile frequency spectrum study, the data are not updated when the cursor is moved. |