

## **MultiSurf 5.0 Build 170 release notes**

Build 170 is being released primarily to fix a set of bugs that have come to light since the Sept. 1, 2004 release of MultiSurf 5.0 (build 168). (The 4-digit codes are the identifying bug report numbers in our bug database.)

### **#7565 Bugs in Create/ Copies dialog**

There were two bugs related to naming of copies: (1) Sometimes the dialog would refuse a perfectly legal choice of names, saying they were already in use. (2) When the dialog comes up, the "Specify names" checkbox would be checked, but the 2 controls for root name and starting index would be grayed out.

### **#7584 Needless invalidations during editing**

Any edit of an object -- including such innocent changes as name, user data, layer, color, and visibility -- was causing invalidation of all the descendants of the object. This could result in slow performance, especially if the object had a large number of descendants (which would all need to be recomputed before the view could update).

### **#7590 Formatting of unit weights**

Version 5.0 provided more decimal places for unit weights in the weight schedule, depending on the model units, but the additional places were not shown during editing, or maintained when the model file was written out.

### **#7596 Crash editing multiple surfaces**

Certain edits of a set of selected surfaces resulted in a crash; for example, changing a group of surfaces to a turned-off layer could do this.

### **#7599 Missing contours on narrow TrimSurf**

A contour cutting a narrow enough portion of a TrimSurf could be missing. In this case the TrimSurf was a chine flat, and the missing contour cut prevented the XContours from making valid offsets for hydrostatics.

### **#7600 Beads at wrong places on SubCurve.**

A programming error resulted in incorrect locations for IntBeads and XYZBeads hosted by a SubCurve.

### **#7601 Erratic contour passing close to a pole**

A contour passing through or close to a surface singularity could have spikes or "bloops" in smooth wireframe mode, resulting from incorrect derivatives.

### **#7602 Crash during creation of IntRing**

This crash occurred during creation of an IntRing, while selecting the supporting snake by picking in the wireframe view. There are likely other combinations of entity and

support that would behave similarly. (The program was trying to evaluate the IntRing before its data was complete.)

### **#7604 Display of surface breaklines in wireframe view**

This is a deliberate change of behavior for the program in wireframe view (smooth wireframe mode only -- Settings/ Preferences/ Smooth wireframe). Degree-1 breaklines are now drawn along with other  $u=\text{constant}$  and  $v=\text{constant}$  lines, but with a somewhat wider line to make them stand out. This is to help the user be aware of the presence of breaklines. Breaklines in surfaces are perfectly legal and are supported in principle; but to date, they do cause some problems, such as irregularities where snakes and contours cross a breakline.

### **#7604 Warnings for surface breaklines**

Degree-1 breaklines in a surface trigger a warning at the time of creation, and when opening a model file. This is to help the user be aware of the presence of breaklines. Breaklines in surfaces are perfectly legal and are supported in principle; but to date, they do cause some problems, such as irregularities where snakes and contours cross a breakline.

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