

# Mozile Development

Mozile 0.6.22.6 - 1<sup>st</sup> February 2006

## ***Known Bugs and Issues***

### Caret Movement and Navigation

1. **Left and right arrow keys**

The cursor gets stuck sometimes. I found some bugs in the back/forward navigation and fixed them but have not sorted them all (and may have caused new ones!). E.g. images at the end of a line seem to cause problems. Can get round this by using mouse to position cursor.

2. **General Caret Movement Problems**

The eDOM cursor manipulation is not very good. E.g. It can't move the cursor correctly to the start/end of a line, it always goes to the start/end of the Line container. The normal browser caret navigation has improved with Firefox 1.5, and using the Home/End keys now moves the cursor correctly to the start/end of line. The only problem with this is that if you have tag view enabled using the browser navigation Home/End keys moves to the start/end of the tags, not the start/end of the editable text. This causes an error with Mozile because the cursor is not then in an editable position. It is maybe better to live with this than go to the start/end of a block. A similar argument applies to the Up/Down keys. You can choose which method you want by commenting out the relevant lines in mozileKeyboard.js. Ideally, at some point the eDOM navigation needs to be improved to hook into the existing browser caret movement functions, if this is possible. Don't forget, that the eDOM should ideally constrain the cursor movement to the editable area and not let you move out of it. Just using the built in browser navigation doesn't let you do this. In most cases, if you are editing a large block of text it doesn't matter. But for anyone who wants to edit small chunks of text (e.g. just the odd word here and there) constraining the cursor to a fixed area is much more important.

3. **Caret Movement around end of line in "*white-space: pre*" sections**

I started looking at this bug but have not had time to get to the bottom of it yet. What happens at the end of a pre line is that the visual caret sticks at the end of the line when it should have moved to the beginning of the next line. Internally the browser keeps track of the correct position however and knows that it is at the start of the next line. When you use the left and right arrow keys this gets very confusing because the cursor appears to jump over the first character of the next line. What's worse, this behaviour doesn't always happen, sometimes the cursor movement works correctly, although most of the time it doesn't. This is a bug that has been around a long time but would be a good one to get fixed. Either a fix (or compensation code) in the eDOM, or if it is the browser at fault a bug report needs to be filed. (The notes in the eDOM code suggest it is a browser bug, but I haven't had time to check.)

4. **Caret movement around the XHTML `<br/>` element.**

Produces a similar error to the white-space:pre problem. Needs to be checked to see if it is an eDOM or browser issue. Again, an annoying bug that makes using breaks unpleasant.

5. **Caret disappears**

Sometimes the caret disappears for no good reason and you have to click around to try and get it back. It will appear in some pieces of text but not others. If you know where it should be you can usually still carry on typing and everything else appears to work correctly. Sometimes closing the source edit window if it is open makes the caret reappear.

## Detection and Wakeup

1. Toolbar detection has been improved when switching between multiple browser tabs but it is still not complete and probably never will be. Ideally, switching to a new tab would always reset the Mozile toolbar to match the configuration for that page. If you are editing multiple documents in multiple tabs, each document could have a different MES and hence a different toolbar. At the moment, most of the time you would probably have to click in an editable area to reset the toolbar to its correct state. In reality this is only a minor issue, because not many people edit multiple documents with different MES at the same time.

## MES

1. Key overrides not yet implemented. The purpose of these is to re-map standard keyboard commands such as enter, tab, etc to other commands to give complete control over the editing environment. The data is currently parsed from the MES, but nothing is done with it.
2. More of the basic editing commands could be made available via the MES. E.g. insert character, split line, etc. Also, there aren't any of the simple "advanced" commands that might be useful such as split an element, delete an element, etc.
3. Only one MES can be used per page. No plans to implement multi MES per page in the 0.6 Series. Technically it wouldn't be difficult to do because essentially it would just involve parsing and storing more data, then selecting the correct MES for each editable area.

4. **font-weight: bold**

Note that the CSS 2.1 spec does not provide for an equivalent mapping between the font-weight scale (100, 200, ...,900) and the *bolder* value. The default value for the bold tag is *bolder*, whereas for editing you are likely to use the absolute scale. Hence, if you want the bold tag <b> to show up as equivalent to *font-weight: bold*, which itself is equivalent to *font-weight: 700*, you must redefine the default style for the bold tag. i.e. Put this in your CSS file:

```
b {
  font-weight: bold;
}
```

## RSD Configuration

1. Serving up the RSD file with the "correct" content-type always used to lock Firefox 1 completely on my system. Haven't tried Fx 1.5 yet to see what happens.

## Cut and Paste

1. Only *text* cut and paste is currently working. Most of the code for *xml* and *xhtml* cut and paste seems to be there but needs finishing off.

## Toolbar

1. **Menu text formatting**  
The underline on the "M" of Mozile, and "C" of Commands is too high. Maybe a CSS fix?
2. **Active toolbar - displaying which commands are active. (Buttons pressed in, tick in menu.)**  
Only the *toggleStyle* and *toggleAttribute* commands are currently handled.

## Saving

1. Saving all editable areas, or all those that have been modified, is not implemented.

## Browser bugs

1. **DOM Inspector / Venkman** has changed for Firefox 1.5. All the getters and setters are now being evaluated for some reason. (Or at least, that is how it appears to me.) Maybe this is a feature, although I doubt it, because why would you need to execute all the setters? If the getters are all being executed without any write buffering then there is the potential to change properties without meaning to. This is because some getters modify properties; they just execute functions and are not necessarily read only. Having said that, there aren't too many eDOM getters that modify properties so the chances of errors occurring may not be that great. Presumably, if you don't open the DOM Inspector or Venkman then everything should be ok. Haven't had time to get to the bottom of this but any thoughts about this issue welcome.
2. **Javascript *instanceof* in XUL**  
Another bug that has appeared with Firefox 1.5. For some reason the Javascript *instanceof* operator has stopped working in two of the .JS files used with XUL dialogs. It is now returning false all the time, but the code worked fine in Fx 1.0. Any ideas on this one?
3. **Special Chars XUL Dialog**  
Window doesn't always redraw correctly on the right hand side when you make a new selection from the dropdown box. Looks like a 1 pixel strip on the inside edge of the right border is not being filled in.

## Javascript warnings and errors

1. Always on the lookout for these! Mozile should work in strict Javascript mode and not produce any warnings or errors. Please report any reproducible warnings or errors.

## eDOM Limitations

1. Problems navigating *white-space: pre* end of lines.
2. XHTML `<br/>` not fully implemented; problems with navigation.
3. Problems when the editable container is not a *div*. E.g. if the editable container is a paragraph there is nothing to stop you pressing Enter - this causes the text to split and nests two paragraphs within the top container paragraph. Either need logic in eDOMXHTML to check if line can be split, or need to be able to override standard commands via the MES.
4. Editing Token - can not be easily changed.
5. Backspace deletes the container of a Token Contained Line if it is the top line. There should be an option to prevent the deletion of the container.

## Namespace issues

1. Report any namespace issues.

## XML Specific Issues

1. Report any XML specific issues.

## XHTML features not implemented

1. Forms.
2. Tables, other than basic table insertion.
3. Definition lists
4. Nested lists (ol/ul) not complete.
5. Editing of page title.
6. Editing and insertion/deletion of meta tags.
7. Images - very basic. Can't link, edit properties, upload image files.
8. Proper handling of the class attribute. i.e. commands to style using class, and also to correctly normalize class attributes.
9. Proper handling of inline elements such as <b>, <strong>, etc.

## Browsers

1. Only works in Firefox 1.5. Should work in Firefox 1 and Mozilla with minor changes. Not sure about Netscape.

## Minor Bugs

1. Some minor problems converting between Bounded and Contained Lines. The Contained Lines sometimes end up with invalid whitespace at the start / end of the line.
2. Switching between Bounded and Contained Lines - cursor sometimes moves - due to whitespace handling issues.
3. Inserting an image at the end of a Contained Line - cursor moves to start of next line instead of staying at the end of the line
4. Additional problems with deleting images when they are at the end of a Contained Line, and the Contained Line is at the end of the editable area.

[Inserting images is not really sorted out but it appears to work well enough in most cases. Not sure what happens if you set the CSS *display* value for images to *block* or *inline*, or if Mozile is meant to handle this automatically - there doesn't appear to be any code for this. The eDOM code used to insert images says it shouldn't be used for images and similar xhtml empty elements...]

## Bug Reports

Please report any bugs you find. They might not get fixed very quickly, but if you don't report them they probably won't get fixed at all. There are several different versions of Mozile. The 0.5 series is no longer under development. This document refers to the 0.6 series. The 0.7 series is a complete redesign of the 0.6 series. In general, bugs will only be considered for the latest version of the Mozile 0.6 Series. If you report a bug for an old version, the first thing you will be asked to do is verify that bug still exists in the current version. There are also a few cross-platform issues, so it helps if you say what sort of OS you are using.

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