Pushing the VA Smalltalk Editor Onward and Upward

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VAST 8.6
(current release)

• Goals
  • Modernize the editor
  • Maintain compatibility with legacy editor
  • Custom scanner used for both syntax coloring and source analysis
  • A few new visual effects if time permits
VAST 8.6.1
(future release)

- Goals
  - Performance Improvements/Memory Reduction
  - Editor Themes
  - Code Analytics
    - Detect/Report/Repair
    - Real-time
  - Interactive Refactoring
    - (Near) Context-switchless workflow using visual effects for feedback and conflict detection
Performance Improvements
Memory Reduction

• Direct-Communication
  • Bypass Windows Message Queue in favor of platform function call
  • Up to 25x performance increase during intense communications

• Direct-Access API
  • The text buffer of the internal editor is used directly to avoid copying data into Smalltalk
  • Useful for algorithms requiring read-only access to large portions of the text content (i.e. parse-tree input, text search)

• Huge memory reduction
Editor Theme

```
Sample Method: arg1 with: arg2

<table>
<thead>
<tr>
<th>temp1</th>
<th>temp2</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;primitive: ThisIsAPrimitive&gt;</td>
<td></td>
</tr>
</tbody>
</table>

"This is a multi-line comment
This is a multi-line comment"

self activeBreakpoint.
self inactiveBreakpoint.
self mixed: [self activeBreakpoint] with:
self disabledBreakpoint.

1 to: temp1 size do: [:blockArg | temp2]

(temp3 := temp2 := temp1 at: blockArg)

setSensitive: true;
setLabel: CwConstants::XmOK;
backgroundColor: #65535 // 2 + 1;

smartHighlight;
smartHighlight;
addAll: #(1 #B 3);
propertyAt: false put: #1 2 3 4.

self callcallbacks; temp2 callData: instVar2];

self

propertyAt: $A;
propertyAt: 'aString' put: nil.
temp1 recomputesize.
^super sampleMethod: arg1 with: temp1]]
```
Bracket Matching

- Uses indicator underlays as default styling
- Margin marker used to indicate offscreen matches
Comment Folding

- Auto-Collapse
  - All comments
  - First comment
  - First method comment

- Folding Threshold
  - User can specify then number of lines in a comment before folding is considered
Code Analytics

- Demo
  - Lint Analysis
  - Type Analysis
  - Interactive Refactoring
  - Action List Calltips
Code Completion

- Auto-Insert arguments for calls to ‘super’ with same selector
- Define Accessors
More VA Smalltalk Additions

- Come to John O’Keefe’s talk **Friday at 10:30am** for an update on what else has been happening in VA Smalltalk