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//
// FILENAME: eText.Annotation.m
// SUMMARY: Implementation of interactions between eText and Annotations
// CATEGORY: Annotation
// PROTOCOLS: Uses <Annotation>
// INTERFACE: None
// AUTHOR: Rohit Khare
// COPYRIGHT: ©1993,94 California Institute of Technology, eText Project
//
// Implementation Comments
// These methods are "syntactic sugar" to replace NeXT's cell terminology.
//
// History
// 11/26/94: Added -runForAnnotation.
// 10/17/94: Cleaned up for eText5.
// 08/05/94: Completely Rearchitected for 5.0. RK
//
// Imported Interfaces
//
// #import "eText.Annotation.h"
//
@implementation eText(Annotation)
//
// Embedding Annotations
//
- insertAnnotation:theAnnotation {
    int from = sp0.cp;

    if (![self isEditable]) return nil;
    [self undoSelChange:"Insert Annotation"];
    [self replaceSelWithAnnotation:theAnnotation];
    [self undoAffectedRange:from to:from+1];
    [self touch];
    return self;
}

- replaceSelWithAnnotation:theAnnotation {
    [self replaceSelWithCell:theAnnotation];
    return self;
}

//
// Locating Annotations
//
- (int) positionForAnnotation:theAnnotation {
    int pos, k, N;
    NXRun *curr;
```

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    if (theAnnotation == nil) return -1;
    pos=0;
    N = theRuns->chunk.used/sizeof(NXRun);
    curr = theRuns->runs;
    for (k=0; k < N; k++) {
        if (curr->info == theAnnotation) return pos;
        pos += curr->chars;
        curr++;
    }
    return -1;
}

- (NXRun *) runForAnnotation:theAnnotation {
    int      k,N;
    NXRun    *curr;

    if (theAnnotation == nil) return NULL;
    N = theRuns->chunk.used/sizeof(NXRun);
    curr = theRuns->runs;
    for (k=0; k < N; k++) {
        if (curr->info == theAnnotation) return curr;
        curr++;
    }
    return NULL;
}
@end

```