

How to Update Extensions for Thunderbird 3

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Part 1

Keeping in Sync with Thunderbird Development

Discovering Changes

- ❑ Standard tests with latest trunk
- ❑ Nightly builds with latest trunk: (not only) useful for C++ parts
- ❑ Automated unit-tests for JS and XUL components against nightly TB builds:
 - Desirable but high effort for extensions
 - Difficult to cover UI components
- ❑ Developers newsgroups: way too much traffic to follow regularly

Minimizing the Effort

Development Strategies

- ❑ Thunderbird-internal methods & functions change frequently → wrap Thunderbird functionality

- ❑ Don't adopt too early

Part 2

Impacts of new Thunderbird 3 APIs to Extensions

Tabbed Mail

- ❑ Many formerly window-related properties apply to tabs now:
 - View mode
 - Single message window
 - Selected messages

- ❑ Use gFolderDisplay instead of TB-internal JS-functions (and gDBView)

- ❑ Event listeners on window: listen to messagepane instead

New gFolderDisplay API

- ❑ Provides methods for anything related to viewing and selecting messages, showing columns etc.
- ❑ gFolderDisplay works on currently visible tab
- ❑ References to displayedFolder, messageDisplay, selectedMessage(s), messenger, msgWindow, ...
 - IsMessagePaneCollapsed → gFolderDisplay.messageDisplay.visible
 - gDBView.numSelected / GetNumSelectedMessages() → gFolderDisplay.selectedCount
 - GetFirstSelectedMessage → gFolderDisplay.selectedMessageUris[0]
 - messenger.msgHdrFromURI(uri) → gFolderDisplay.selectedMessage
- ❑ Check `mail/base/content/folderDisplay.js` for details

Note: SeaMonkey 2.0 only supports a reduced set of methods

New Header Pane

- ❑ “Compact Header” view mode is gone (available as separate extension)
- ❑ *gCollapsedHeaderList* is gone
- ❑ New XUL structure inside *expandedHeaderView*: 3 levels of `<vbox>`, `<hbox>` and `<grid>` instead of flat `<mail-*field>` structure
- ❑ `vbox` *expandedHeaderView* still exists, but *expanded-HeadersBox* is now probably better for overlaying
- ❑ Check *mail/base/content/msgHdrViewOverlay.xul* – documentation has improved a lot!

- ❑ CSS of the header view was changed (colors, sizes, etc.)

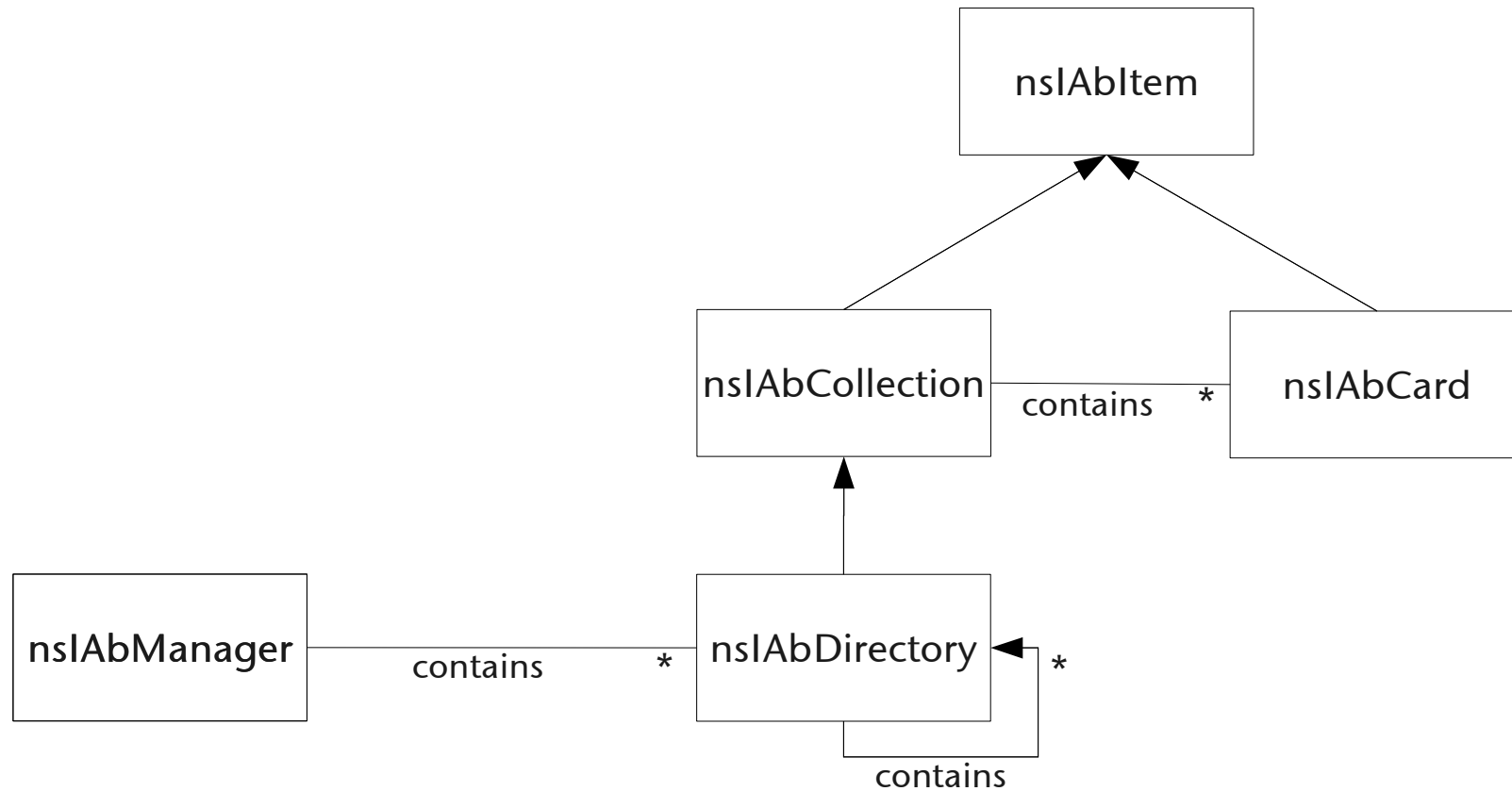
Address Book

API Changes

- ❑ New *nsIAbManager*: access to multiple address books
- ❑ *nsIAbCard*: attributes are now accessible through properties
eg. `card.homeCity` → `card.getProperty("HomeCity", "")`
- ❑ *nsIAbDirectory*: several API changes
e.g. `searchDuringLocalAutocomplete` → `useForAutoComplete()`

- ❑ Check
https://developer.mozilla.org/En/Address_Book_Interfaces

Address Book Hierarchy Overview



Improved Hooks For Sending Mails

Avoid incompatibility with other extensions – don't modify `GenericSendMessage()` anymore:

- ❑ Observer *mail:composeOnSend* before mail is processed
- ❑ Event *compose-send-message* just before message is sent

```
window.addEventListener('compose-send-message', enigSendMessageListener, true);

function enigSendMessageListener(event) {
    enigModifyCompFields();
    if (! enigEncryptMsg()) {
        enigRemoveAttachedKey();
        event.preventDefault();
        event.stopPropagation();
    }
}
```

MIME Message Structure

Header

- ↪ Plain/HTML text
- ↪ Attachment(s)

Header

- ↪ Plain text
 - ↪ MIME Sub-Part 1
 - ↪ Plain/HTML Text
 - ↪ Attachment
 - ↪ MIME Sub-Part 2
 - ↪ ...

S/MIME and PGP/MIME do not handle multiple MIME parts very well

Easy to Use MIME Parser

API Available in JavaScript

❑ `MsgHdrToMimeMessage(message, obj, callbackFunc)`

→ `callbackFunc(message, mimePart)`

- `mimePart.contentType`
- `mimePart.headers[]`
- `mimePart.parts[]`

❑ For SeaMonkey:

- `Components.utils.import("resource://app/modules/gloda/mimemsg.js")`

Various other New Stuff

- ❑ New “Gnomestripe” theme for Linux

- ❑ STEEL (Scriptable Thunderbird Easy Extension Library):
 - Implements *extIApplication*
 - Work in progress – “only” *steellApplication* in TB3

- ❑ *nsILoginManager* replaced *nsIPasswordManager*

- ❑ Custom Filter actions available for extensions

Links

Mozilla Developer Center

https://developer.mozilla.org/en/Extensions/Thunderbird/An_overview_of_the_Thunderbird_interface

https://developer.mozilla.org/en/Thunderbird_3_for_developers

Custom Filter Actions

<http://mesquilla.com>

<http://enigmail.mozdev.org>