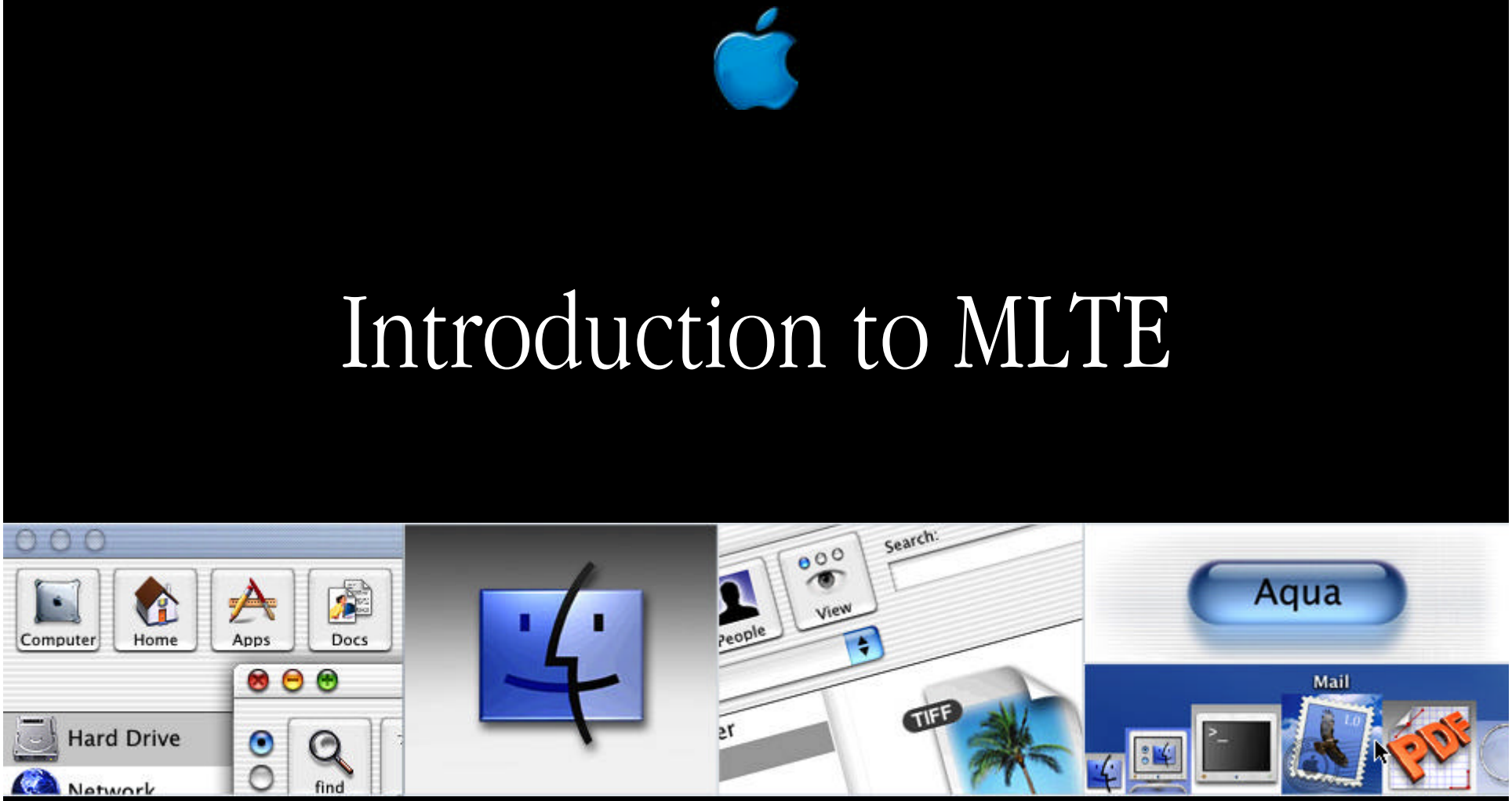

Introduction to MLTE

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What Can MLTE Do?

- Unicode input, editing, and display
- Support most-requested TextEdit enhancements
- Handle text files with Mac OS encodings and Unicode
- Provide easy access to advanced ATSUI typographic features

Unicode Support

- Unicode input based on TSM 1.5
- Unicode imaging based on ATSUI
  - Internationally correct text layout
- Expanded character and language repertoire surpasses that of WorldScript and QuickDraw Text

Features

- No more 32K limit!
- Tab support
- Embedded pictures, sounds, and movies
- Full justification support
- Multiple undo/redo

More Features

- Can read and write Unicode files ('utxt')
- Built-in printing support
- Built-in scrolling
  - Live scrolling
  - Proportional thumbs
- Built-in clipboard support
  - Automatically converts to/from Unicode

Ease of Development

- Scalability
  - From labels to edit text fields to editors
- Low-level managers handled transparently
  - Drag & Drop, TSM, Control Manager, etc.
- Fewer lines of code in your application than with TextEdit

Typographic Features

- Hierarchical font menu built automatically
- Simple access to linguistic and stylistic features
  - Ligatures, swashes, variations, …


Demo
Computer
Home
Apps
Docs
Hard Drive
Network
find
People
View
Search:
TIFF
Aqua
Mail
PDF

TXNObject

- Most API require a TXNObject.
  - Opaque data structure Encapsulates:
    - Text
    - Style run information
    - Layout Information

Creating a TXNObject

- TXNNewObject
  - 10 parameters. You can specify a file to read in, the encoding in which text should be output, and a number of options like read-only, auto-wrapping etc.

Inputting Text

- TXNKeydown
  - Handle simple keyboarding.
- TXNTSMCheck
  - MLTE fully supports input through TSM input methods. TXNTSMCheck should be called for NULL events. This helps to provide enough events to input methods so that they stay responsive.

Handling clicks

- TXNClick
  - Does a lot of work for you.
    - Drag & Drop
    - Selection
    - Scrolling
      - With or without scrollbars

Activation

- Activation is a two step process in MLTE.
  - TXNActivate
    - Activates Scrollbars
  - TXNFocus
    - Activates text input (i.e selection and typing)

Drawing and Updating

- TXNUpdate
  - Redraws the entire window. Calls Begin/EndUpdate. Always redraws the selection.
- TXNDraw
  - Does not call Begin/EndUpdate, but simply redraws text and scrollbars.
  - Second parameter (iDrawPort) controls whether selection is drawn.

Setting type attributes

- TXNSetTypeAttributes
  - Flexible method allows you to change QD or ATSUI type attributes.
  - Attributes are specified as a tag and data.
  - More than one attribute can be modified in a single call.

Saving and Reverting Files

- TXNSave
  - Supports saving data to plain text with either SimpleText ‘styl’ resource or MPW ‘MPSR’ resource.
  - Supports plain Unicode Text (‘utxt’).
  - Supports the custom MLTE format.
- TXNRevert
  - Reverts to the last saved version.

Menu Support

- MLTE provides functions that make it easier for you to correctly display the File Menu and Edit Menu.
- Additionally there are functions to completely support a Font Menu.

File and Edit Menu

- TXNGetChangeCount

  Returns the number of changes since the file was last created or saved.

  If Change count >0 highlight the Save item in the File menu.

- TXNIsScrapPastable
  - If true highlight the Paste item in the Edit menu.
- TXNIsSelectionEmpty

  If false highlight Cut, Copy, Clear in the Edit menu.

Font Menu

- MLTE provides functions to create and handle the font menu.
- MLTE supports either Quickdraw(QD) or Apple Type Support for Unicode Imaging (ATSUI). The way QD or ATSUI deal with fonts is reflected in the font menu.

Creating and Using the Font Menu

- TXNNewFontMenuObject
  TXNDisposeFontMenuObject
  - Create and dispose the FontMenuObject. Caller is responsible for creating the MenuHandle and disposing it. MLTE will dispose any sub-menus that it creates.
- TXNPrepareFontMenu
  - If font selection is continuous check the font name in the menu.
- TXNDoFontMenuSelection
  - Change the text based on the users choice in the font menu.

Clipboard Support

- MLTE supports copying and pasting:
  - Plain text
  - Plain text with ‘styl’ resources
  - Unicode Text
  - Flattened Unicode style information
  - Pictures (optional)
  - Movies (optional)
  - Sound (optional)

Using the Clipboard

- TXNCut
  - Cut the selection to the clipboard.
- TXNCopy
  - Copy the selection to the clipboard.
- TXNClear

  Clear the selection.
- TXNPaste

  Paste the contents of the clipboard into the TXNObject.

Exporting and Importing the Clipboard

- TXNConvertToPublicScrap
  - Convert the private clipboard to public formats. Call this when application is becoming inactive or when a dialog is displayed.
- TXNConvertFromPublicScrap
  - Convert the public clipboard to the private format. Call this when application becomes active or dialog is dismissed.

Extracting Data

- TXNCountRunsInRange
  - Tells you number of runs (where a run is a change in text style or data type).
- TXNGetIndexedRunInfoFromRange
  - To determine the type of run (and possibly to obtain type attributes)
- TXNGetData
  - To obtain a copy of the data

Inserting Data

- TXNSetData
  - Inserts data directly from memory.
- TXNSetDataFromFile
  - Insert data from a file on disk.

Static drawing

- TXNDrawUnicodeTextBox
  - Draws an unicode string in the specified rectangle.
  - Easy and independent of MLTE.
  - Supports vertical text.
  - Comes in 2 flavors : CFString or (UniCharPtr, Len)

In Summary

- A complete text editing solution which removes the limitations of TextEdit
- Supports Unicode, media embedding, and modern UE features
- For intermediate text editing needs
- Developers with advanced requirements can use ATSUI and TSM directly

Http://developer.apple.com/macos/macos9.html#mlte


Q&A
Computer
Home
Apps
Docs
Hard Drive
Network
find
People
View
Search:
TIFF
Aqua
Mail
PDF