Pladao Office
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Agenda

- What is Pladao Office?
- History of Pladao Office
- What was done in PladaoOffice 1.0 and 2.0?
  - Thai features
What is Pladao Office?

- Pladao Office is OpenOffice.org
- Plus the enabling of Thai features
- And full Thai UI localization
Pladao Office Development Team

In OpenOffice.org Conference 2003
History of Pladao Office

- Pladao Office was endorsed by Thailand's Ministry of Information and Communication Technology.
- Pladao Office was supported by Sun Microsystem (Thailand) Ltd.
- The project was kicked off on 1\textsuperscript{st} June 2001
- Pladao Office 1.0 was released on 14 March 2002 (7 Months for development process)
  - Based on OpenOffice.org 638C
- Pladao Office 2.0 was released on 14 February 2003
  - Based on OpenOffice.org 1.0.2
Characteristic of Thai language

- Single Directional of Input (not a BiDi behaviour)
- Input direction from Left to Right
- In multibyte mode, Thai character is the single byte
- But have special zero width character
- 1 Thai Character Block (TCB)
- Can't contain more than 3 characters
  - Example

\[ \text{ชื่อ} = \text{ชื่อ} + \text{ชื่อ} + \text{ชื่อ} \]
• Thai was treated into CTL group
• Not yet implement for Thai
• Because of CTL not yet implement in OpenOffice.org 1.0.2
• We were create our own i18npool's CTL module for Solaris, Linux and Win32
• Also implement necessary function
  • In defaultnumberingprovider.cxx (Thai Numbering method)
Thai Breaking Iterator

- Breaking Iterator (i18n)
  - Since Thai language not always have word boundary.
  - Thai Breaking Iterator engine need special implementation
    - Currently using TRIE algorithm with more than 20,000 of Thai word in compressed dictionary lexicon file.
    - Source code can be found in tools/source/intntl/thaifunc.cxx
  - For example
    - Thaibasicfeatures = Thai + basic + features

สวัสดีครับค่ะเป็นการทดลอง

สวัสดี+ครับ+ค่ะ+เป็น+การ+ทดลอง
Thai Collating Order

- Thai collating order
  - Implemented follow OpenOffice.org standard
  - With provide Thai dictionary sorting method (Thai Royal Institute Dictionary 2525 B.E. Edition)
  - Sorting source code available in tools/source/intntl/intnlang.cxx
Thai IM (Input Method)

- Thai language need provide input sequence checking
- The method that Pladao Office use is “Replacement method”
- The sequence check engine will replace the input character if the incoming character is the same level as previous character in buffer.
- Implemented in tools/string/strimp.cxx
  - Example:
• Caret Movement
  • The sequence of caret movement left and right must skip TCB (Thai Character Block)
Caret movement and its combination key

- Ctrl + Left/Right = Skipping Word (pass through Breaking Iterator in i18n module)
- Ctrl + Shift + Left/Right = Select Thai Word
Deletion method

- **Deletion Method**
  - Single delete key = Deletion of Thai Character Block
  - Backspace = Deletion of Previous character of caret

- **With Combination key**
  - Ctrl + Delete key = Deletion of Thai Word (using Breaking Iterator in i18n)
  - Ctrl + Back Space = Deletion of Previous Thai Word of Caret
Paragraph DropCap and Word Count

- Enable Drop in TCB (Thai Character Block) format
- And Also enable document properties to call word segmentation in i18n
- Example *(demo)*
Thai Date/Time format

- **Date/Time format**
  - Due to Thai people need to use both English and Thai calendar at the same time.
  - New Thai Implementation of date/time token
    - For backward compatible with MS Office document.
    - Will be convert to standard format, with language identification, when save as OpenOffice.org format.

- **The XML format after save Thai Date/Time format**
  - `<number:date-style style:name="N5106" style:family="data-style" number:language="th" number:country="TH" number:title=""/>
number:day number:style="long" number:language="th" number:country="TH"/>
<number:text> </number:text><number:month number:style="long" number:textual="true" number:language="th" number:country="TH"/>
<number:text> </number:text><number:year number:style="long" number:language="th" number:country="TH"/>
</number:date-style>
  - Implemented in xml/off/source/style/xmlnumfe.cxx and xml/off/source/style/xmlnumfi.cxx
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>๑</td>
<td>Day of the month in one or two numeric Thai digits, as needed</td>
</tr>
<tr>
<td>๒</td>
<td>Day of the month in two numeric Thai digits</td>
</tr>
<tr>
<td>๚</td>
<td>Thai abbreviation name of the weekday</td>
</tr>
<tr>
<td>๛</td>
<td>Thai full name of the weekday</td>
</tr>
<tr>
<td>๛๛</td>
<td>Same as the Thai Short Date predefined format</td>
</tr>
<tr>
<td>๛๛๛</td>
<td>Same as the Thai Long Date predefined format</td>
</tr>
<tr>
<td>๑</td>
<td>Day of week as a Thai digit</td>
</tr>
<tr>
<td>๒</td>
<td>Week of the year as a Thai digit</td>
</tr>
<tr>
<td>๓</td>
<td>Month of the year in one or two numeric Thai digits, as needed</td>
</tr>
<tr>
<td>๔</td>
<td>Month of the year in two numeric Thai digits</td>
</tr>
<tr>
<td>๛๛</td>
<td>Thai abbreviation name of month</td>
</tr>
<tr>
<td>๛๛๛</td>
<td>Thai full name of the month</td>
</tr>
<tr>
<td>๛๛๛</td>
<td>Date displayed as the quarter of the year using Thai digits</td>
</tr>
<tr>
<td>๛๛๛</td>
<td>Display number of the day of the year using Thai digits</td>
</tr>
<tr>
<td>๛๛๛</td>
<td>Display last two digits of the Thai year using Thai digits</td>
</tr>
<tr>
<td>๛๛๛๛</td>
<td>Display full Thai year using Thai digits</td>
</tr>
<tr>
<td>๛๛๛๛</td>
<td>Display last two digits of the English year using Thai digits</td>
</tr>
<tr>
<td>๛๛๛๛๛</td>
<td>Display full English year using Thai digits</td>
</tr>
<tr>
<td>Bb</td>
<td>Displays last two digits of the Thai year using Arabic digits.</td>
</tr>
<tr>
<td>Bbbb</td>
<td>Display full Thai year using Arabic digits</td>
</tr>
<tr>
<td>๒</td>
<td>Hour in one or two Thai digits</td>
</tr>
<tr>
<td>๓</td>
<td>Hour in two Thai digits</td>
</tr>
<tr>
<td>๔</td>
<td>Minute in one or two Thai digits.</td>
</tr>
<tr>
<td>๕</td>
<td>Minute in two Thai digits.</td>
</tr>
<tr>
<td>๖</td>
<td>Second in one or two Thai digits</td>
</tr>
<tr>
<td>๗</td>
<td>Second in two Thai digits</td>
</tr>
</tbody>
</table>
• 3 more Thai numbering were added
  • With IDL in OffAPI enabled “offapi\com\sun\star\style\NumberingType.idl”
  • And code enabling in i18npool
• Options Included :-
  • Thai Number
  • Thai Letter
  • And Thai Letter N
  ▪ Example :-

```plaintext
๐, ๑, ๒,...
๓, ๔, ๕,...
๖, ๗, ๘,...
```

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  • With IDL in OffAPI enabled “offapi\com\sun\star\style\NumberingType.idl”
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```plaintext
๐, ๑, ๒,...
๓, ๔, ๕,...
๖, ๗, ๘,...
```
• Created for backward/forward compatible
  • Since this function was created in Excel and widely used in Thai spreadsheet.
  • This function available in every Excel version. (included European edition)
  • Try this on your excel cell format “=bahttext(123.50)”
• Excel filter need to enable OpCode number 255
  • OcBahtText (the enum id number 255 in excel filter of sc module)
• Example

```excel
=BAHTTEXT(123.5)
```

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>หน่วยร้อยล้านบาทห้าสิบสามสตางค์</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Thai number as native number

- Ability to input Thai number
- Ability to format number to Thai number
- Example *(demo)*
Full Thai localized User Interface

- Need enable transex3 module to recognize Thai language
  - With Thai language code 66
  - LangID = 0x041e
- All Dialog Menu Messages are translated
- Also exports as GSI format for merge back to OpenOffice.org
Thai localized User Interface (2)
Thai localized User Interface (3)
RFE (Request For Enhancement)

- Enable OpenOffice.org to handle date/time with attachment of language Identification
  - XML file format extention request
- Check consistency of language Identification that refered by using international phone code.
  - Code 66 seem to be used by Hebrew
- More intelligent underline format
  - i.e. gjqypkç__________
  - This problem occurred in many characters in many languages
RFE (Request For Enhancement)

- Native digits enabling
  - i.e. Thai digits:
- Lunar calendar, used by religious purpose in Thai (Buddhist public holiday), China, Islam states, etc.
- Pladao.org http://www.pladao.org
- IssueZilla http://www.pladao.org/issues
- Check out the live source code today at CVSROOT=:
  pserver:anoncvs@pladao.org:/cvs

Questions?