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ProjectWSI18NLDMLShortCuts

WS-I18N LDML Shortcuts

This page describes a possible simplified way to point to an item in LDML.

The idea is enabling an easy access to common i18n preference items, using either Option B or C. Option A is the basic way to allow access to any LDML item. Option B and C provide a shortcut to several common items. With Option C, because no elements are defined for a specific preference item and still it is possible to select any item, it can be the only supported way.

Option A: Strictly LDML Based Structure

This is as originally proposed for simplicity of the specification. This approach uses LDML's native structure in the i18n:preferences element. Commonly used items such as date, time and number formats are not accessible using a simple path lookup, as evident in this example to indicate the format for a Gregorian calendar date and time.

```
(01) <i18n:preferences>
(02)   <ldml:calendar>
(03)     <ldml:dateFormats>
(04)       <ldml:dateFormatLength type="medium">
(05)         <ldml:dateFormat>
(06)           <ldml:pattern>MMM d, yyyy</ldml:pattern>
(07)         </ldml:dateFormat>
(08)       </ldml:dateFormatLength>
(09)     <ldml:dateFormats>
(10)     <ldml:timeFormats>
(11)       <ldml:timeFormatLength type="medium">
(12)         <ldml:timeFormat>
(13)           <ldml:pattern>h:mm:ss a</ldml:pattern>
(14)         </ldml:timeFormat>
(15)       </ldml:timeFormatLength>
(16)     <ldml:timeFormats>
(17)     <ldml:dateTimeFormats>
(18)       <ldml:dateTimeFormatLength type="medium">
(19)         <ldml:dateTimeFormat>
(20)           <ldml:pattern>{1} {0}</ldml:pattern>
(21)         </ldml:dateTimeFormat>
(22)       </ldml:dateTimeFormatLength>
(23)     <ldml:dateTimeFormats>
(23)   </ldml:calendar>
(24) </i18n:preferences>
```

The access path to get the date format of medium length would look like below:

```
ldml:calendar/ldml:dateFormats/ldml:dateFormatLength
[@type="medium"]/ldml:dateFormat/ldml:pattern
```

Option B: Simplified Reference Type 1

This is an alternate way for easy access to the value space of interest. This approach uses a shortcut to an item in LDML's native structure in the `i18n:preferences` element. Commonly used items such as date, time and number formats are easily accessible using a simple path lookup, as evident in the example below, which is equivalent to the previous example. See below for the items with predefined shortcuts.

```
(01) <i18n:preferences>
(02)   <i18n:date-medium>MMM d, yyyy</i18n:date-medium>
(03) </i18n:preferences>
```

The access path to get the date format of medium length cannot be simpler. It would be:

```
i18n:date-medium
```

Option C: Simplified Reference Type 2

This is yet another way to access to the value space of interest. This approach uses an LDML path to select an item in LDML's native structure. Preference items are easily accessible using the LDML path expression. The example below is equivalent to the previous two examples. See below for examples of LDML items.

```
(01) <i18n:preferences>
(02)   <i18n:preference type="ldml"
(03)     name="calendar-gregorian/pattern/date-medium">MMM d, yyyy</i18n:preference>
(04)   <i18n:preference type="x-oracle"
(05)     name="nls_date_format">Month DD, YYYY</i18n:preference>
(06) </i18n:preferences>
```

The access path to get the date format of medium length would be:

```
i18n:preference[@type="ldml"]
[@name="calendar-gregorian/pattern/date-medium"]/text()
```

Proposed Predefined Shortcuts

This table defines predefined shortcuts to an LDML item.

<i>Shortcut</i>	<i>LDML Path</i>	<i>Example</i>
date-full	calendar-gregorian/pattern/date-full	EEEE, MMMM d, yyyy
date-long	calendar-gregorian/pattern/date-long	MMMM d, yyyy
date-medium	calendar-gregorian/pattern/date-medium	MMM d, yyyy
date-short	calendar-gregorian/pattern/date-short	M/d/yy
date+time	calendar-gregorian/pattern/date+time	{1} {0}
time-full	calendar-gregorian/pattern/time-full	h:mm:ss a v
time-long	calendar-gregorian/pattern/time-long	h:mm:ss a z
time-medium	calendar-gregorian/pattern/time-medium	h:mm:ss a
time-short	calendar-gregorian/pattern/time-short	h:mm a
decimal	number/pattern/decimal	#,1###
scientific	number/pattern/scientific	#E0
percent	number/pattern/percent	#,##0%
currency	number/pattern/currency	¤#,100;(¤#,100)

Reference

- Unicode Locale Data Markup Language (LDML)
- LDML Chart