

# convertDurationToDateTime

Syntax	<pre>set aDateTime = aDurationString. convertDurationToDateTime() set aDateTime = convertDurationToDateTime(LITERAL)</pre>					
Semantics	<p>Converts a string having the <a href="#">XML Schema Duration</a> format into a <b>DateTime</b> object.</p> <p><b>Duration</b> may be expressed using all the parts of a DateTime type (from year to fractions of a second) and are, therefore, defined as a "six-dimensional space". As the relation between some of the date parts is not fixed (such as the number of days in a month), the order relationship between durations is only partial and the result of a comparison between two durations may be undetermined.</p> <p>The lexical space of <code>xsd:duration</code> is the format defined by ISO 8601 under the form of <code>PnYnMnDnHnMnS</code>. The capital letters are delimiters and can be omitted when the corresponding member is not used.</p> <p><u>Example:</u></p> <table><tr><td>Valid Values</td><td><ul style="list-style-type: none"><li>PT1004199059S</li><li>PT130S</li><li>PT2M10S</li><li>P1DT2S</li><li>-P1Y</li><li>P1Y2M3DT5H20M30.123S</li></ul></td></tr><tr><td>Invalid Values</td><td><ul style="list-style-type: none"><li>1Y (leading "P" is missing)</li><li>P1S ("T" separator is missing)</li><li>P-1Y (all parts must be positive)</li><li>P1Y-1M (all parts must be positive)</li><li>P1M2Y (parts order is significant and Y must precede M)</li></ul></td></tr></table>		Valid Values	<ul style="list-style-type: none"><li>PT1004199059S</li><li>PT130S</li><li>PT2M10S</li><li>P1DT2S</li><li>-P1Y</li><li>P1Y2M3DT5H20M30.123S</li></ul>	Invalid Values	<ul style="list-style-type: none"><li>1Y (leading "P" is missing)</li><li>P1S ("T" separator is missing)</li><li>P-1Y (all parts must be positive)</li><li>P1Y-1M (all parts must be positive)</li><li>P1M2Y (parts order is significant and Y must precede M)</li></ul>
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Substitutables	aString	Can be any variable or object attribute having the type <b>String</b> . The format must correspond to the XML Schema Duration format.				
	LITERAL	String literal. The format must correspond to the XML Schema Duration format.				
Error Codes	Find the related error codes on <a href="#">System Errors of type conversion operations</a> .					
Examples	<p>This example generates a DateTime object that corresponds to the duration of two days. This object can then be used to do time arithmetic, that is, adding and subtracting durations from dates.</p> <p>You can find a xUML example of how to apply durations in section <a href="#">Arithmetic Operations</a>.</p> <pre>set aDateTime = convertDurationToDateTime ("P2D");</pre>					

## Related Pages:

- [Arithmetic Operations](#)
- [System Errors of type conversion operations](#)

## Related Documentation:

- [XML Schema Duration](#)