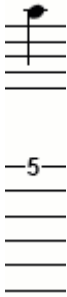
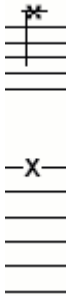
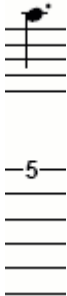
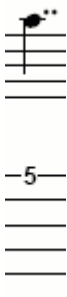

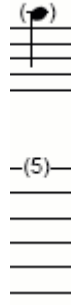
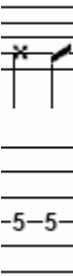



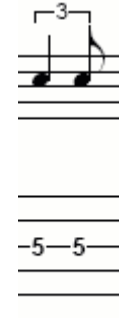
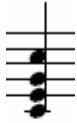
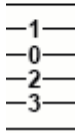






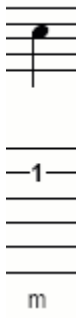
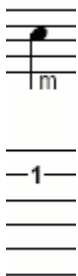
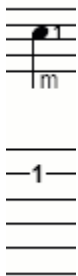
# Notes

Notes	DTD	Element	MusicXML Definition
<p><b>Note</b></p> <p>The <b>voice</b> element is optional, but should be included for compatibility with most notation programs.</p>	Note.dtd		<pre>&lt;note&gt;   &lt;pitch&gt;     &lt;step&gt;A&lt;/step&gt;     &lt;octave&gt;4&lt;/octave&gt;   &lt;/pitch&gt;   &lt;duration&gt;1&lt;/duration&gt;   &lt;voice&gt;1&lt;/voice&gt;   &lt;type&gt;quarter&lt;/type&gt;   &lt;stem&gt;up&lt;/stem&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt;</pre>
<b>Dead</b>	Note-dtd		<pre>&lt;note&gt;   :   &lt;notehead&gt;x&lt;/notehead&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;   :   &lt;/notations&gt; &lt;/note&gt;</pre>
<b>Dot</b>	Note-dtd		<pre>&lt;note&gt;   :   &lt;dot /&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;   :   &lt;/notations&gt; &lt;/note&gt;</pre>
<b>Double Dot</b>	Note-dtd		<pre>&lt;note&gt;   :   &lt;dot /&gt;   &lt;dot /&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;   :   &lt;/notations&gt; &lt;/note&gt;</pre>
<b>Ghost Note</b> – an note shown in the notation and tab that is optional to play. Normally surrounded with ().	Note-dtd		<pre>&lt;note&gt;   :   &lt;notehead parentheses="yes"&gt;normal   &lt;/notehead&gt;</pre>


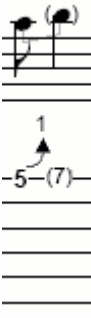

Notes	DTD	Element	MusicXML Definition
		parentheses 	<pre> &lt;notations&gt;   &lt;technical&gt;     &lt;string&gt;1&lt;/string&gt;     &lt;fret&gt;5&lt;/fret&gt;   &lt;/technical&gt;   : &lt;/notations&gt; &lt;/note&gt; </pre>
<b>Muted (Palm Mute)</b>  Most published music indicates muted strings with "P.M." above the notation to indicate the three bottom bass strings are muted with the palm. Others use a graphic similar to those shown to indicate the exact strings to be muted. This option is better as it indicates exactly which string to mute.	Note-dtd	notehead other-technical 	<pre> &lt;note&gt;   :   &lt;notehead&gt;x&lt;/notehead&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;4&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;       &lt;other-technical&gt;palm mute       &lt;/other-technical&gt;     :   &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; </pre>
Rest	Note-dtd	rest 	<pre> &lt;note&gt;   :   &lt;rest /&gt; &lt;/note&gt; </pre>
Staccato	Note-dtd	articulations staccato 	<pre> &lt;note&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;     &lt;articulations&gt;       &lt;staccato /&gt;     &lt;/articulations&gt;     :   &lt;/notations&gt; &lt;/note&gt; </pre>
<b>Tuplets</b>  This example is is a 1/4 note triplet. The <i>actual-notes</i> element can be set to 5,6,7... to obtain other tuplets.	Note.dtd	time-modification actual-notes normal-notes	<pre> &lt;note&gt;   :   &lt;type&gt;quarter&lt;/type&gt;   &lt;time-modification&gt;     &lt;actual-notes&gt;3&lt;/actual-notes&gt;     &lt;normal-notes&gt;2&lt;/normal-notes&gt; </pre>

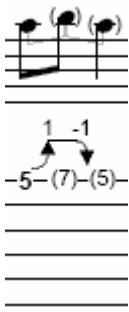
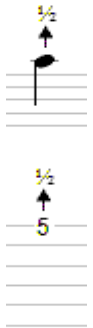
Notes	DTD	Element	MusicXML Definition
			<pre> &lt;/time-modification&gt; &lt;notations&gt;   &lt;technical&gt;     &lt;string&gt;3&lt;/string&gt;     &lt;fret&gt;5&lt;/fret&gt;   &lt;/technical&gt;   : &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;type&gt;quarter&lt;/type&gt;   &lt;time-modification&gt;     &lt;actual-notes&gt;3&lt;/actual-notes&gt;     &lt;normal-notes&gt;2&lt;/normal-notes&gt;   &lt;/time-modification&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;3&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;     :   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;type&gt;quarter&lt;/type&gt;   &lt;time-modification&gt;     &lt;actual-notes&gt;3&lt;/actual-notes&gt;     &lt;normal-notes&gt;2&lt;/normal-notes&gt;   &lt;/time-modification&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;3&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;     :   &lt;/notations&gt; &lt;/note&gt; </pre>
<b>Tuplets – Mixed Note Durations</b>	<b>Note-dtd</b>	<b>time-modification</b> <b>actual-notes</b> <b>normal-notes</b> <b>normal-type</b> 	<pre> &lt;note&gt;   :   &lt;type&gt;quarter&lt;/type&gt;   &lt;time-modification&gt;     &lt;actual-notes&gt;3&lt;/actual-notes&gt;     &lt;normal-notes&gt;2&lt;/normal-notes&gt;     &lt;normal-type&gt;eighth&lt;/normal-type&gt;   &lt;/time-modification&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;3&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;     :   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;type&gt;eighth&lt;/type&gt;   &lt;time-modification&gt;     &lt;actual-notes&gt;3&lt;/actual-notes&gt;     &lt;normal-notes&gt;2&lt;/normal-notes&gt;   &lt;/time-modification&gt;   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;3&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;     &lt;/technical&gt;     :   &lt;/notations&gt; &lt;/note&gt; </pre>



Notes	DTD	Element	MusicXML Definition
Chord	Note.dtd	chord  	<pre> &lt;note&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;5&lt;/string&gt;       &lt;fret&gt;3&lt;/fret&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   &lt;chord/&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;4&lt;/string&gt;       &lt;fret&gt;2&lt;/fret&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   &lt;chord/&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;3&lt;/string&gt;       &lt;fret&gt;0&lt;/fret&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   &lt;chord/&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;2&lt;/string&gt;       &lt;fret&gt;1&lt;/fret&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; </pre>
Fret Hand Finger (Program Default)	Note.dtd	finger  	<pre> &lt;note&gt;   :   &lt;notations&gt;     &lt;string&gt;2&lt;/string&gt;     &lt;fret&gt;1&lt;/fret&gt;     &lt;finger&gt;1&lt;/finger&gt;   :   &lt;/notations&gt; &lt;/note&gt; </pre>
Fret Hand Finger (Precise)	Note.dtd Common.dtd	finger 	<pre> &lt;note&gt;   :   &lt;notations&gt;     &lt;string&gt;2&lt;/string&gt;     &lt;fret&gt;1&lt;/fret&gt;     &lt;finger relative-x="10"&gt;1&lt;/finger&gt;   :   &lt;/notations&gt; &lt;/note&gt; </pre>

Notes	DTD	Element	MusicXML Definition
			
Pick Hand Finger (Program Default)	Note.dtd	<p>pluck</p> 	<pre> &lt;note&gt; : &lt;notations&gt;   &lt;string&gt;2&lt;/string&gt;   &lt;fret&gt;1&lt;/fret&gt;   &lt;pluck&gt;m&lt;/pluck&gt; : &lt;/notations&gt; &lt;/note&gt; </pre>
Pick Hand Finger (Precise)	Note.dtd Common.dtd	<p>pluck</p> 	<pre> &lt;note&gt; : &lt;notations&gt;   &lt;string&gt;2&lt;/string&gt;   &lt;fret&gt;1&lt;/fret&gt;   &lt;pluck relative-x="5"     relative-y="-35"&gt;m&lt;/pluck&gt; : &lt;/notations&gt; &lt;/note&gt; </pre>
Pick & Fret Hand Finger (Precise)	Note.dtd Common.dtd	<p>finger pluck</p> 	<pre> &lt;note&gt; : &lt;notations&gt;   &lt;string&gt;2&lt;/string&gt;   &lt;fret&gt;1&lt;/fret&gt;   &lt;finger relative-x="10"&gt;1&lt;/finger&gt;   &lt;pluck relative-x="5"     relative-y="-35"&gt;m&lt;/pluck&gt; : &lt;/notations&gt; &lt;/note&gt; </pre>

# Bends

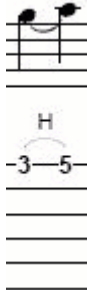
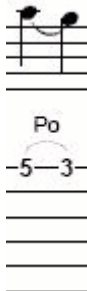
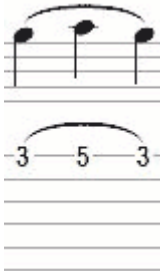
Notes	DTD	Element	MusicXML Definition
<p>Basic Bend – played by picking the note then pushing the string up to the desired pitch.</p> <p>In this example the push is one semitone.</p>	Note.dtd	<p>bend bend-alter</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;bend&gt; &lt;bend-alter&gt;0.5&lt;/bend-alter&gt; &lt;/bend&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
<p>Basic Bend (2<sup>nd</sup> variation) – Using a format similar to hammers and pulls, the individual notes can be shown in the notation enclosed in parenthesis to indicate the bent note and connected with a slur arc.</p> <p>NOTE: the slur arc is a side wise bracket if the image.</p> <p><i>Future versions of MusicXML might consider adding start/stop to bend similar to hammer-on and pull-off.</i></p>		<p>bend slur</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;bend&gt; &lt;bend-alter&gt;1&lt;/bend-alter&gt; &lt;/bend&gt; &lt;/technical&gt; &lt;slur type="start" /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notehead parentheses="yes"&gt;normal &lt;/notehead&gt; &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;/technical&gt; &lt;slur type="stop" /&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
<p>Bend and Release– played by picking the note, pushing the string up to the desired pitch, then releasing the push back to normal.</p> <p>In this example the push is one semitone.</p>	Note.dtd	<p>bend alter-bend release</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;bend&gt; &lt;bend-alter&gt;0.5&lt;/bend-alter&gt; &lt;release /&gt; &lt;/bend&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt;</pre>

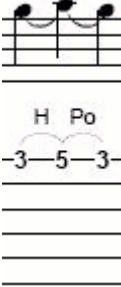
Notes	DTD	Element	MusicXML Definition
<p><b>Bend and Release (2<sup>nd</sup> variation) –</b>  This variation shows two slurs. It could just as easily be a single slur covering all three notes.</p>		<p><b>bend</b>  <b>slur</b></p> 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;bend&gt; &lt;bend-alter&gt;1&lt;/bend-alter&gt; &lt;/bend&gt; &lt;/technical&gt; &lt;slur type="start" number="1"/&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notehead parentheses="yes"&gt;normal &lt;/notehead&gt; &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;/technical&gt; &lt;slur type="stop" number="1" /&gt; &lt;slur type="start" number="2"/&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notehead parentheses="yes"&gt;normal &lt;/notehead&gt; &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;/technical&gt; &lt;slur type="stop" number="2"/&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
<p><b>Pre-Bend – played pushing the string up to the desired pitch, then picking the note.</b></p> <p>In this example the push is one semitone.</p>	Note.dtd	<p><b>bend</b>  <b>pre-bend</b></p> 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;bend&gt; &lt;bend-alter&gt;0.5&lt;/bend-alter&gt; &lt;pre-bend /&gt; &lt;/bend&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
<p><b>Pre-Bend/Release – played pushing the string up to the desired pitch, then picking the note, then releasing the push back to normal.</b></p> <p>In this example the push is one semitone.</p>	Note.dtd	<p><b>pre-bend</b></p>	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;bend&gt; &lt;bend-alter&gt;0.5&lt;/bend-alter&gt; &lt;pre-bend /&gt; </pre>

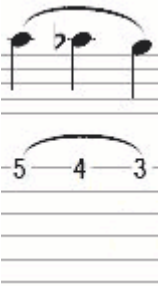
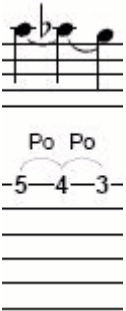
Notes	DTD	Element	MusicXML Definition
		release  	<pre>           &lt;release /&gt;           &lt;/bend&gt;           &lt;/technical&gt;           &lt;/notations&gt;           &lt;/note&gt;         </pre>
<p>Basic Bend with Tremolo (2<sup>nd</sup> variation) – same as a simple bend, but extend the bent note with a tremolo. The tremolo can also be added to the end of a bend and release.</p>	Note.dtd	bend slur ornaments tremolo  	<pre>           &lt;note&gt;           :           &lt;notations&gt;           :           &lt;technical&gt;           &lt;string&gt;1&lt;/string&gt;           &lt;fret&gt;5&lt;/fret&gt;           &lt;bend&gt;           &lt;bend-alter&gt;1&lt;/bend-alter&gt;           &lt;/bend&gt;           &lt;/technical&gt;           &lt;slur type="start" /&gt;           &lt;/notations&gt;           &lt;/note&gt;           &lt;note&gt;           :           &lt;notehead parentheses="yes"&gt;normal           &lt;/notehead&gt;           &lt;notations&gt;           :           &lt;technical&gt;           &lt;string&gt;1&lt;/string&gt;           &lt;fret&gt;7&lt;/fret&gt;           &lt;/technical&gt;           &lt;slur type="stop" /&gt;           &lt;ornaments&gt;           &lt;tremolo placement="above"&gt;3           &lt;/tremolo&gt;           &lt;/ornaments&gt;           &lt;/notations&gt;           &lt;/note&gt;         </pre>

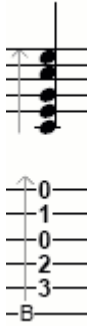
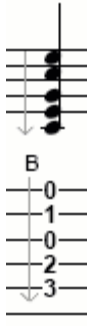


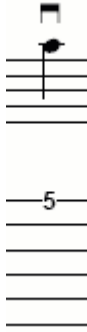
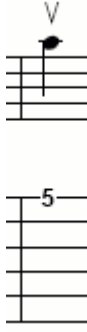
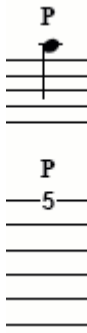

# Effects

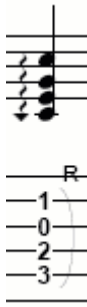
Notes	DTD	Element	MusicXML Definition
Hammer On	Note.dtd	hammer-on slur 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;hammer-on type="start"&gt;H &lt;/hammer-on&gt; &lt;/technical&gt; &lt;slur type="start" /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;hammer-on type=" /&gt; &lt;/technical&gt; &lt;slur type="stop" /&gt; &lt;/notations&gt; &lt;/note&gt;           </pre>
Pull Off	Note.dtd	pull-off slur 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;pull-off type="start"&gt;Po&lt;/pull-off&gt; &lt;/technical&gt; &lt;slur type="start" /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;pull-off type="stop" /&gt; &lt;/technical&gt; &lt;slur type="stop" /&gt; &lt;/notations&gt; &lt;/note&gt;           </pre>
Hammer On / Pull Off	Note.dtd	hammer-on pull-off slur 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;3&lt;/fret&gt; &lt;hammer-on type="start" number="1"&gt;H &lt;/hammer-on&gt; &lt;/technical&gt; &lt;slur type="start" number="1" /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; :           </pre>


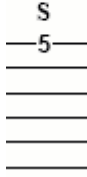

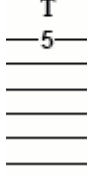
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<p>Hammer On / Pull Off (2<sup>nd</sup> variation)</p>	<p>Note.dtd</p>	<p>hammer-on pull-off slur</p> 	<pre> &lt;note&gt;   :   &lt;notations&gt;   :   &lt;technical&gt;     &lt;string&gt;1&lt;/string&gt;     &lt;fret&gt;3&lt;/fret&gt;     &lt;hammer-on type="start" number="1"&gt;H   &lt;/hammer-on&gt;   &lt;slur type="start" number="1" /&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;notations&gt;   :   &lt;technical&gt;     &lt;string&gt;1&lt;/string&gt;     &lt;fret&gt;5&lt;/fret&gt;     &lt;hammer-on type="stop" number="1" /&gt;     &lt;pull-off type="start" number="2"&gt;Po   &lt;/pull-off&gt;   &lt;/technical&gt;   &lt;slur type="stop" number="1" /&gt;   &lt;slur type="start" number="2" /&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;notations&gt;   :   &lt;technical&gt;     &lt;string&gt;1&lt;/string&gt;     &lt;fret&gt;3&lt;/fret&gt;     &lt;pull-off type="stop" number="2" /&gt;   &lt;/pull-off&gt;   &lt;/technical&gt;   &lt;slur type="stop" number="2" /&gt;   &lt;/notations&gt; &lt;/note&gt; </pre>
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Notes	DTD	Element	MusicXML Definition
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<p data-bbox="99 995 451 1020">Double Pull Off (2<sup>nd</sup> variation)</p>	<p data-bbox="532 995 643 1020">Note.dtd</p>	<p data-bbox="662 995 748 1047">pull-off slur</p> 	<pre data-bbox="867 995 1430 1969"> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;pull-off type="start" number="1"&gt;Po &lt;/pull-off&gt; &lt;/technical&gt; &lt;slur type="start" number="1" /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;6&lt;/fret&gt; &lt;pull-off type="stop" number="1" /&gt; &lt;pull-off type="start" number="2"&gt;Po &lt;/pull-off&gt; &lt;/technical&gt; &lt;slur type="stop" number="1" /&gt; &lt;slur type="start" number="2" /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;pull-off type="stop" number="2" /&gt; &lt;slur type="stop" number="2" /&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>



Notes	DTD	Element	MusicXML Definition
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<b>Brush Stroke Down</b>	<b>Note.dtd</b>	<b>down-bow</b> <b>chord</b> 	<pre> &lt;note&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;5&lt;/string&gt; &lt;fret&gt;3&lt;/fret&gt; &lt;down-bow/&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;4&lt;/string&gt; &lt;fret&gt;2&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;3&lt;/string&gt; &lt;fret&gt;0&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;2&lt;/string&gt; &lt;fret&gt;1&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
<b>Brush Stroke Up – same as brush stroke down except replace <i>down-bow</i> with <i>up-bow</i>.</b>	<b>Note.dtd</b>	<b>up-bow</b> 	
<b>Pick Stroke Down – for flat picked note this indicates the direction of the picked note.</b>	<b>Note.dtd</b>	<b>down-bow</b>	<pre> &lt;note&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;down-bow/&gt; &lt;/technical&gt; &lt;/notations&gt; </pre>

Notes	DTD	Element	MusicXML Definition
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<p>Pick Stroke Up - for flat picked note this indicates the direction of the picked note.</p>	Note.dtd	<p>up-bow</p> 	<pre data-bbox="865 581 1195 842">&lt;note&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;up-bow/&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
Pop		<p>other-technical</p> 	<pre data-bbox="865 1041 1442 1302">&lt;note&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;other-technical&gt;pop&lt;/other-technical&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
Rasgueado			
<p>Roll Down (arpeggiate chord) – a way to play a chord fingerstyle where each string is played with a slight delay, starting from the bass string.</p>		<p>chord arpeggiate</p> 	<pre data-bbox="865 1541 1195 1982">&lt;note&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;5&lt;/string&gt; &lt;fret&gt;3&lt;/fret&gt; &lt;/technical&gt; &lt;arpeggiate /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;4&lt;/string&gt; &lt;fret&gt;2&lt;/fret&gt;</pre>




Notes	DTD	Element	MusicXML Definition
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<p>Roll Up (arpeggiate chord) - a way to play a chord fingerstyle where each string is played with a slight delay, starting from the highest treble string. The graphic has an arrow head to indicate the direction of the roll.</p>	Note.dtd	<p>chord arpeggiate</p> 	<pre> &lt;note&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;2&lt;/string&gt; &lt;fret&gt;1&lt;/fret&gt; &lt;/technical&gt; &lt;arpeggiate /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;3&lt;/string&gt; &lt;fret&gt;0&lt;/fret&gt; &lt;/technical&gt; &lt;arpeggiate /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;4&lt;/string&gt; &lt;fret&gt;2&lt;/fret&gt; &lt;/technical&gt; &lt;arpeggiate /&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; &lt;chord/&gt; : &lt;notations&gt; &lt;technical&gt; &lt;string&gt;5&lt;/string&gt; &lt;fret&gt;3&lt;/fret&gt; &lt;/technical&gt; &lt;arpeggiate /&gt; &lt;/notations&gt; &lt;/note&gt; </pre>

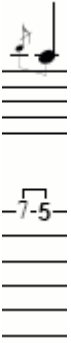
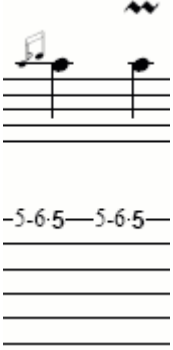
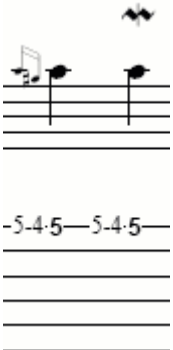
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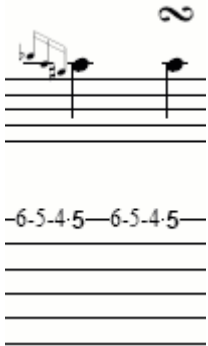
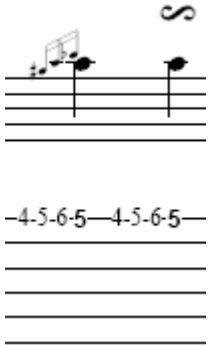


# Grace Notes

Notes	DTD	Element	MusicXML Definition
<p><b>Grace Note – Hammer On</b></p> <p>Minimal implementation can just use <code>&lt;grace /&gt;</code> and allow the program determine how the grace note is displayed.</p> <p>Slash = no :: the first half of the base note's duration has the pitch of the grace note (the first two-thirds if the base note is a dotted note).</p> <p>Slash = yes :: the base note's duration begins with the pitch of the grace note for only a very small part of the base note's value.</p> <p><code>steal-time-before</code> and <code>steal-time-after</code> informs the program whether the grace note is before the beat on the beat.</p>	Note.dtd	<p>grace hammer-on</p> 	<pre> &lt;note&gt;   &lt;grace slash="yes"     steal-time-previous="12%"&gt;   &lt;/grace&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;3&lt;/fret&gt;       &lt;hammer-on type="start"&gt;H       &lt;/hammer-on&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;notations&gt;     :     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;       &lt;hammer-on type="stop" /&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; </pre>
<p><b>Grace note – Pull Off</b></p> <p>See above</p>	Note.dtd	<p>grace pull-off</p> 	<pre> &lt;note&gt;   &lt;grace slash="yes"     steal-time-previous="12%"&gt;   &lt;/grace&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;7&lt;/fret&gt;       &lt;pull-off type="start"&gt;P       &lt;/pull-off&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;notations&gt;     :     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;       &lt;pull-off type="stop" /&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; </pre>
<p><b>Grace Note – Slide Up To</b></p> <p>See above</p>	Note.dtd	<p>grace slide</p>	<pre> &lt;note&gt;   &lt;grace slash="yes"     steal-time-previous="12%"&gt;   &lt;/grace&gt;   :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;3&lt;/fret&gt;       &lt;slide type="start" /&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt;   :   &lt;notations&gt; </pre>

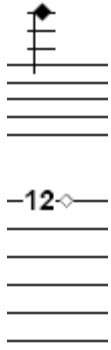
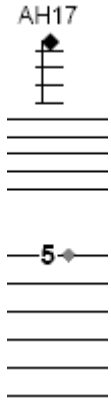


Notes	DTD	Element	MusicXML Definition
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<p>Grace Note – Slide down To</p> <p>See above</p>	Note.dtd	<p>grace slide</p> 	<pre> &lt;note&gt;   &lt;grace slash="yes"     steal-time-previous="12%"&gt;   &lt;/grace&gt; :   &lt;notations&gt;     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;7&lt;/fret&gt;       &lt;slide type="start" /&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; :   &lt;notations&gt; :     &lt;technical&gt;       &lt;string&gt;1&lt;/string&gt;       &lt;fret&gt;5&lt;/fret&gt;       &lt;slide type="stop" /&gt;     &lt;/technical&gt;   &lt;/notations&gt; &lt;/note&gt; </pre>
<p>Grace Note – Bend</p> <p><i>The bend and pre-bend/release grace notes are valid, but insure how to handle them.</i></p>			
Grace Note – Pre-Bend Release			

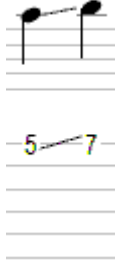
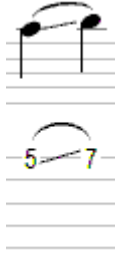


Notes	DTD	Element	MusicXML Definition
			
<p><b>Inverted Mordent (Upper)</b> - An insertion of the semitone above the base note within its value .</p> <p>Alternate ways to display the mordent.</p>	Note.dtd	<p>ornaments inverted-mordent</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;ornaments&gt; &lt;inverted-mordent placement="above"/&gt; &lt;/ornaments&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
<p><b>Mordent (Lower)</b> - An insertion of the semitone below the base note within its value</p> <p>Alternate ways to display the mordent.</p>	Note-dtd	<p>ornaments mordent</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;ornaments&gt; &lt;mordent placement="above"/&gt; &lt;/ornaments&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
Double Mordent (lower)			
Double Mordent (upper)			
<p><b>Upper Gruppetto (turn)</b> - combines an upper mordent and a lower mordent, in that order, into the specified note's value.</p> <p>Alternate ways to display the gruppetto.</p>	Note-dtd	<p>ornaments turn</p>	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;ornaments&gt; &lt;turn placement="above"/&gt; &lt;/ornaments&gt; &lt;/notations&gt; &lt;/note&gt;</pre>




Notes	DTD	Element	MusicXML Definition
			
<p><b>Lower Gruppetto (inverted turn)</b> – the lower mordent is played first and the symbol is reversed.</p> <p>Alternate ways to display the gruppetto.</p>			
<p><b>Tremolo</b> – a rapid series of up and down strokes with a pick The duration of each hammer-on or pull-off is indicated by the number of slashes through the stem. Three slashes would mean 1/32<sup>nd</sup> notes, etc.</p>	Note.dtd	<p>ornaments tremolo</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;ornaments&gt; &lt;tremolo placement="above"&gt;3&lt;/tremolo&gt; &lt;/ornaments&gt; &lt;/notations&gt; &lt;/note&gt;</pre>
<p><b>Trill</b> - A rapid alternation by a series of hammer-ons and pull-offs between the specified note and the next higher tone or semitone within its duration. When followed by a wavy horizontal line, this symbol indicates an extended, or running, trill.</p>	Note.dtd	<p>ornaments trill-mark</p> 	<pre>&lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;ornaments&gt; &lt;trill-mark placement="above"/&gt; &lt;/ornaments&gt; &lt;/notations&gt; &lt;/note&gt;</pre>

# Harmonics

Notes	DTD	Element	MusicXML Definition
<p>Natural Harmonic – played by lightly touching the 12<sup>th</sup> fret and picking the note.</p> <p>Other natural harmonics can be found on frets 2,3,4,5,7,9,16,19 and 24.</p> <p>The tab diamond graphic is used by TableEdit to indicate natural (unfilled) and artificial (filled) harmonics. Others may use &lt;&gt; to enclose the fret number. Still others may add "Harm" to indicate it is a natural harmonic.</p>	Note.dtd	<p>harmonic natural</p> 	<pre> &lt;note&gt; : &lt;notehead filled="yes"&gt;diamond&lt;/notehead&gt; &lt;notations&gt; : &lt;technical&gt;   &lt;string&gt;1&lt;/string&gt;   &lt;fret&gt;12&lt;/fret&gt;   &lt;harmonic&gt;     &lt;natural /&gt;   &lt;/harmonic&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
<p>Artificial Harmonic – played by lightly touching the string 12 frets above the fretted string and picking the note.</p> <p>Other artificial harmonics can be found by touching frets 2,3,4,5,7,9,16,19 and 24 above the fretted string.</p> <p>See above for the graphic information. An extension for some notation is to also include the touch fret enclosed in () as opposed to adding AH17 above the note in the notation.</p>	Note.dtd	<p>harmonic artificial</p> 	<pre> &lt;note&gt; : &lt;notehead filled="yes"&gt;diamond&lt;/notehead&gt; &lt;notations&gt; : &lt;technical&gt;   &lt;string&gt;1&lt;/string&gt;   &lt;fret&gt;5&lt;/fret&gt;   &lt;harmonic&gt;     &lt;artificial /&gt;     &lt;touching-pitch&gt;17&lt;/touching-pitch&gt;   &lt;/harmonic&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>

# Slides

Notes	DTD	Element	MusicXML Definition
Normal slide – the second note is picked at the end of the slide.	Note.dtd	slide 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;slide type="start" number="1" /&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; : &lt;slide type="stop" number="1"/&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
Legato slide – the second note is not picked at the end of the slide.	Note.dtd	slide 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;slide type="start" number="1" /&gt; &lt;slur type="start" number="1" /&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; &lt;note&gt; : &lt;notations&gt; : &lt;slide type="stop" number="1" /&gt; &lt;slur type="stop" number="1" /&gt; &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;7&lt;/fret&gt; &lt;/technical&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
Indeterminate slide to the note from a lower fret.	Note.dtd	scoop 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;articulations&gt; &lt;scoop /&gt; &lt;/articulations&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
Indeterminate slide to the note from a higher fret.	Note.dtd	plop 	<pre> &lt;note&gt; : &lt;notations&gt; : &lt;technical&gt; </pre>

Notes	DTD	Element	MusicXML Definition
			<pre data-bbox="922 149 1252 359"> &lt;string&gt;1&lt;/string&gt; &lt;fret&gt;5&lt;/fret&gt; &lt;/technical&gt; &lt;articulations&gt;   &lt;plop /&gt; &lt;/articulations&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
<p data-bbox="99 516 537 569">Indeterminate slide from a note to a higher fret.</p>	<p data-bbox="578 516 678 537">Note.dtd</p>	<p data-bbox="729 516 781 537">doit</p> 	<pre data-bbox="922 516 1252 848"> &lt;note&gt; : &lt;notations&gt; :   &lt;technical&gt;     &lt;string&gt;1&lt;/string&gt;     &lt;fret&gt;5&lt;/fret&gt;   &lt;/technical&gt;   &lt;articulations&gt;     &lt;doit /&gt;   &lt;/articulations&gt; &lt;/notations&gt; &lt;/note&gt; </pre>
<p data-bbox="99 909 537 961">Indeterminate slide from a note to a lower fret.</p>	<p data-bbox="578 909 678 930">Note.dtd</p>	<p data-bbox="729 909 805 930">falloff</p> 	<pre data-bbox="922 909 1252 1241"> &lt;note&gt; : &lt;notations&gt; :   &lt;technical&gt;     &lt;string&gt;1&lt;/string&gt;     &lt;fret&gt;5&lt;/fret&gt;   &lt;/technical&gt;   &lt;articulations&gt;     &lt;falloff /&gt;   &lt;/articulations&gt; &lt;/notations&gt; &lt;/note&gt; </pre>