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<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE X3D PUBLIC "ISO//Web3D//DTD X3D 3.3//EN" "http://www.web3d.org/specifications/x3d-3.3.dtd">
<X3D xmlns:xsd="http://www.w3.org/2001/XMLSchema-instance"
xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:xenc="http://www.w3.org/2001/04/xmlenc#"
version="3.3" profile="Interchange">
  <head>

    <unit category="length" name="meter" conversionFactor="1"/>
    <meta name="created" content="11 Nov 2019"/>
    <meta name="source" content="Bill Gutelius, Qntfi" />
    <meta name="modifiedBy" content="Nicholas Polys, VT" />

  </head>

  <Scene>

    <MetadataSet name="Scan Information" reference="Web3D_proposed_vocabulary_v1" >

      <MetadataSet name="Acquisition" reference="Hardware" containerField='metadata'>
        <MetadataString containerField="value" name="Scanner" content="Emesent HOVERMAP"/>
        <MetadataString containerField="value" name="ScannerModel" content="Model: HF-1"/>
        <MetadataFloat containerField="value" name="Pulse rate (kHz)" content="300" />
        <MetadataFloat containerField="value" name="Wavelength (nm)" content="903"/>
        <MetadataFloat containerField="value" name="Max range (m)" content="100"/>
      </MetadataSet>

      <MetadataSet name="Scan Session" containerField='metadata'>
        <MetadataString containerField="value" name="acquisition_timestamp"
value=""2019-11-05T10:15:32.3+0500"/>
      </MetadataSet>

      <MetadataSet name="LAS Fields"
reference="http://www.asprs.org/wp-content/uploads/2019/03/LAS_1_4_r14.pdf" containerField='metadata'
>
        <MetadataString containerField="value" name="number of points" value='18102106'/>
        <MetadataInteger containerField="value" name="point_format" value='1'/>

      <MetadataSet name="LAS.scalar fields">
        <MetadataInteger containerField="value" name="num.fields" value='3'/>
        <MetadataString containerField="value" name="scalar" value='Intensity'/>
        <MetadataString containerField="value" name="scalar1" value='ReturnNumber'/>
        <MetadataString containerField="value" name="scalar1" value='GpsTime'/>
      </MetadataSet>
    </Scene>
  </X3D>

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<!-- we should have a double precision version too
<MetadataSFVec3f containerField="value" name="Global shift" value='131.45, 91.94, 3.18'/>
-->
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<MetadataFloat containerField="value" name="LAS.Global_shift.x" content="131.45"/>
<MetadataFloat containerField="value" name="LAS.Global_shift.y" content="91.94"/>
<MetadataFloat containerField="value" name="LAS.Global_shift.z" content="3.18"/>
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```
<MetadataInteger containerField="value" name="Scalar.fields" value='3'/>
<MetadataInteger containerField="value" name="Version.Major" value='1'/>
<MetadataInteger containerField="value" name="Version.Minor" value='4'/>
<MetadataFloat containerField="value" name="LAS.scale.x" content="2.13564e-7"/>
<MetadataFloat containerField="value" name="LAS.scale.y" content="2.35058e-7"/>
<MetadataFloat containerField="value" name="LAS.scale.z" content="5.6171e-8"/>
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</MetadataSet>
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</MetadataSet>
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<MetadataSet name="Scene Information" >
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<MetadataSet containerField="value" name="Provenance" value="this">
```

```
<MetadataSet name='this - 1'>
  <MetadataString name='Last Modified' value=""Jan 1 2019""/>
  <MetadataString name='Institution' value=""Virginia Tech Visionarium""/>
  <MetadataString name='Authors' value=""Nicholas Polys""/>
  <MetadataString name='Tools' value=""LAS2X3D.py""/>
  <MetadataString name='Algorithms' value=""lexical sampling by interval stride""/>
</MetadataSet>
```

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</MetadataSet>
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</MetadataSet>
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```
<Transform translation='131.45, 91.94, 3.18'> <!-- by global shift value -->
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```
<Switch whichChoice='0' boundingBox='213.564 235.058 56.171' boundingBoxCenter='106.781 117.532
28.0086' DEF=">
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<Group>
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<Shape DEF='Highest_Resolution'>

    <MetadataSet name="LAS Fields"
reference="http://www.asprs.org/wp-content/uploads/2019/03/LAS_1_4_r14.pdf">
        <MetadataString containerField="value" name="number of points" value='1810210'/>
    </MetadataSet>

    <MetadataSet containerField="value" name="Permissions">
        <MetadataBoolean containerField="value" name="recording" value="false"/>
        <MetadataBoolean containerField="value" name="systematization" value="false"/>
        <MetadataBoolean containerField="value" name="accumulation" value="false"/>
    </MetadataSet>

</Shape>
</Group>

    <Group>
        <Shape DEF='Med_Resolution'>
            <MetadataSet name="LAS Fields"
reference="http://www.asprs.org/wp-content/uploads/2019/03/LAS_1_4_r14.pdf">
                <MetadataString containerField="value" name="number of points" value='181021'/>
            </MetadataSet>

            <MetadataSet containerField="value" name="Permissions">
                <MetadataBoolean containerField="value" name="recording" value="false"/>
                <MetadataBoolean containerField="value" name="systematization" value="true"/>
                <MetadataBoolean containerField="value" name="accumulation" value="true"/>
            </MetadataSet>

        </Shape>
    </Group>

    <Group>
        <Shape DEF='Low_Resolution'>
            <MetadataSet name="LAS Fields"
reference="http://www.asprs.org/wp-content/uploads/2019/03/LAS_1_4_r14.pdf">
                <MetadataString containerField="value" name="number of points" value='72408'/>
            </MetadataSet>

            <MetadataSet containerField="value" name="Permissions">
                <MetadataBoolean containerField="value" name="recording" value="true"/>
                <MetadataBoolean containerField="value" name="systematization" value="true"/>
                <MetadataBoolean containerField="value" name="accumulation" value="true"/>
            </MetadataSet>

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</MetadataSet>

</Shape>

</Group>

</Switch>

</Scene>

</X3D>