

This section defines the data files which specify what instruments are available. The precise definition of the file syntax is provided in Backaus-Naur form below. It must

- a) begin with a “type” field consisting of **type=** followed by a description of a type which the system knows. This can be a constant, shorthand for one of the default generic types (at the moment: **MIDI**) or a file name (ending in **.ck**). In the case of a file name the system will check the first line for **// type=**. It will then attempt to match the remainder of the line to a constant defined in the **Server.ck** file, at which point it should add the file to the virtual machine and instantiate an object. Note that this code will have to be added to **Server.ck** when a new instrument is added by a **.ck**.
- b) follow this with a name, specified by **name=name**
- c) a MIDI file will now look for a port, specified as **port=number or name** (if the name of the port is specified, it can be in quotes, but it is not required)
- d) follow this with 0 or more translation lines.

A file with 0 translation lines would cause the server to instantiate the object specified, and may therefore be of some use.

0.1 Grammar

$\langle file \rangle$	$::= \langle type \rangle \langle linebreak \rangle \langle name \rangle \langle linebreak \rangle (\langle file-element \rangle \langle linebreak \rangle)^*$
$\langle type \rangle$	$::= \text{“type=”} \langle type-string \rangle \langle linebreak \rangle$
$\langle type-string \rangle$	$::= \text{“MIDI”}$
$\langle name \rangle$	$::= \text{“name=”} \langle name-string \rangle \langle linebreak \rangle$
$\langle name-string \rangle$	$::= \text{‘[a-zA-Z][a-zA-Z0-9_]*’}$
$\langle file-element \rangle$	$::= \langle midi-port \rangle$ $\langle translation \rangle$
$\langle midi-port \rangle$	$::= \text{‘port=’} \langle midi-port-desc \rangle$
$\langle midi-port-desc \rangle$	$::= \text{‘[a-zA-Z][a-zA-Z0-9]*’}$ ‘[0-9]+’
$\langle translation \rangle$	$::= \langle osc-message-desc \rangle \text{‘=’} \langle output-message-desc \rangle \langle linebreak \rangle$
$\langle osc-message-desc \rangle$	$::= \text{“”} \langle osc-addr-pat \rangle \langle osc-typetag \rangle \text{“”}$
$\langle osc-addr-pat \rangle$	$::= (\text{‘/’} \langle osc-string \rangle)^+$
$\langle osc-typetag \rangle$	$::= \text{‘,’} \langle osc-type \rangle^+$

$\langle osc-type \rangle$::= 'i' 'f' 's' 'b'
$\langle osc-string \rangle$::= '[^\0]+'
$\langle output-message-desc \rangle$::= $\langle midi-message \rangle$ future message types
$\langle midi-message \rangle$::= $\langle midi-stat-byte \rangle$ ',' $\langle midi-data-byte \rangle$ ',' $\langle midi-data-byte \rangle$
$\langle midi-stat-byte \rangle$::= 128–255
$\langle midi-data-byte \rangle$::= 0–127 $\langle osc-arg \rangle$
$\langle osc-arg \rangle$::= '\$'[0-9]+'