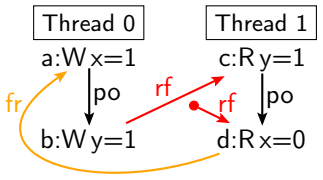
1 Macros

`\litmus{<name>}` - adds a figure of the litmus, if one does not already exist, typesets the litmus name and hyperlinks it to the figure, like this: MP (Figure 1).



MP AArch64

Thread 0	Thread 1

MOV W0,#1
STR W0,[X1] //a
MOV W2,#1
STR W2,[X3] //b
	LDR W0,[X1] //c
	LDR W2,[X3] //d

Initial state: 0:X3=y; 0:X1=x; 1:X3=x; 1:X1=y;

Allowed: 1:X0=1; 1:X2=0;

MP Power

Thread 0	Thread 1

li r1,1
stw r1,0(r2)//a
li r3,1
stw r3,0(r4)//b
	lwz r1,0(r2)//c
	lwz r3,0(r4)//d

Initial state: 0:r4=y; 0:r2=x; 1:r4=x; 1:r2=y;

Allowed: 1:r1=1; 1:r3=0;

MP RISC-V

Thread 0	Thread 1
sw t0, 0(t1)//a sw t0, 0(t2)//b	lw t0, 0(t1)//c lw t2, 0(fp)//d

Initial state: 0:x7=y; 0:x6=x; 0:x5=1; 1:x8=x; 1:x6=y;

Allowed: 1:x5=1; 1:x7=0;

Figure 1: Litmus test MP

`\litmus+{<name>}` - similar to `\litmus{<name>}` except that it forces a new figure, even if a previous one already exists.
`\litmus-{<name>}` - similar to `\litmus{<name>}` except that it never adds a figure (for forward referencing).
`\litmus*{<name>}` - just typesets the litmus name (without a figure or a link), like this: MP.

`\litmusref{<name>}` - reference a litmus figure, like this: Figure 1 (the MP (Figure 1) litmus figure).

2 litmuscfg

The followings are options that can be changed by `\litmuscfg{<options>}`.
`index` - can only be used in the preamble. Loads the index package and generates an index of litmus tests (use `\printindex[litmus]` to typeset the index).
`hyperref` - can only be used in the preamble. Loads the hyperref package and links litmus names to their figures.
`extern=false|true` - (initially false, default true) can only be used in the preamble. Externalise the litmus figures, that is, generates a separate pdf for each diagram (once), and then include those pdf in the document instead of typesetting them every time the document is built.
`strict translation=false|true` - (initially false, default true) be strict when translating litmus name between architectures (strict will fail if an edge has no mapping, non-strict will use the source name of the edge).
`default arch=<arch>` - (initially GEN) the default value of the optional argument of `\litmus`. For example, `\litmus*{MP+fens}` parses the litmus name as a generic (GEN) name and `\litmus*[A64]{MP+dmb.sys}` parses the litmus name as an AArch64 name.
`target arch=<arch>` - (initially empty) the target architecture of litmus names of `\litmus` (empty means same as the source arch). For example `\litmuscfg{target arch=PPC}\litmus*[A64]{MP+dmb.sys}` will translate the AArch64 name MP+dmb.sys to the Power name MP+syncs.
`target figs=<archs>` - (initially empty) a CSV of the architectures that are to appear in litmus diagrams (empty means same as the source arch).
`litmus ref=<macro>` - (initially equivalent to `\ref{#1}`) `<macor>` should take three arguments and typeset a reference to a litmus figure. The arguments are: #1 - label of the litmus figure; #2 - target architecture; #3 - target name.
`context=<name>` - (initially main) by changing context you can include multiple figures of the same litmus test and reference each one specifically.
`exp results midrule=none|<n>` - (initially none) determines if a midrule should be drawn every `<n>` lines in experimental results tables. With no argument the option is enabled with the previous value of `<n>` (initially 5).

3 litmus.names.cfg

This file defines how litmus names are translated between architectures.
The translation does not change the basic shape name (e.g. MP), which is the prefix of the name made of anything that is not a lower case letter, but not including the last '+' if the prefix ends with one (e.g. the name of 2+2W+dmb.sys is 2+2W).
The suffix of the name is then split to edges, separated by '+' and '-', And each edge is translated according to the mapping.
`\litmusedgetrans{<src>}{<e>}{<trg1>:<e1>,...}` - defines an edge mapping from the source architecture `<src>` edge `<e>` to the target architecture `<trgn>` edge `<en>` for every `n` in the list. For example `\litmusedgetrans{GEN}{fen}{A64:dmb`
`\litmusedgetransannot{<src>/<trg>}{<s1>/<t1>,...}` - defines a mapping for edge annotations from the source architecture `<src>` to the target architecture `<trg>`. For example `\litmusedgetransannot{GEN/A64}{p/p,aq/a,rl/l}`.
`\newlitmusnametrans{<src>}{<name>}{<trg>}{<name'>}` - defines a special case for the architecture `<src>` litmus `<name>` and target architecture `<trg>`. For example: `\newlitmusnametrans{GEN}{MP+addrs}{A64}{MP+addrs+V2}`.
`\renewlitmusnametrans{<src>}{<name>}{<trg>}{<name'>}` - similar to `\newlitmusnametrans{<src>}{<name>}{<trg>}{<name`