

Dednat6: some comparisons with diagxy

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A few weeks after my article about Dednat6 appeared in TUGBoat Michael Barr sent me an e-mail asking how I would do in Dednat6 two diagrams from the diagxy manual (sec.1) and two other diagrams (sec.2)...

1 “A few samples”

The section “A few samples” in the diagxy manual — section 4.9 or 5.9, depending on the version — has big two diagrams, one based on a 5×8 grid and one based on a triangle.

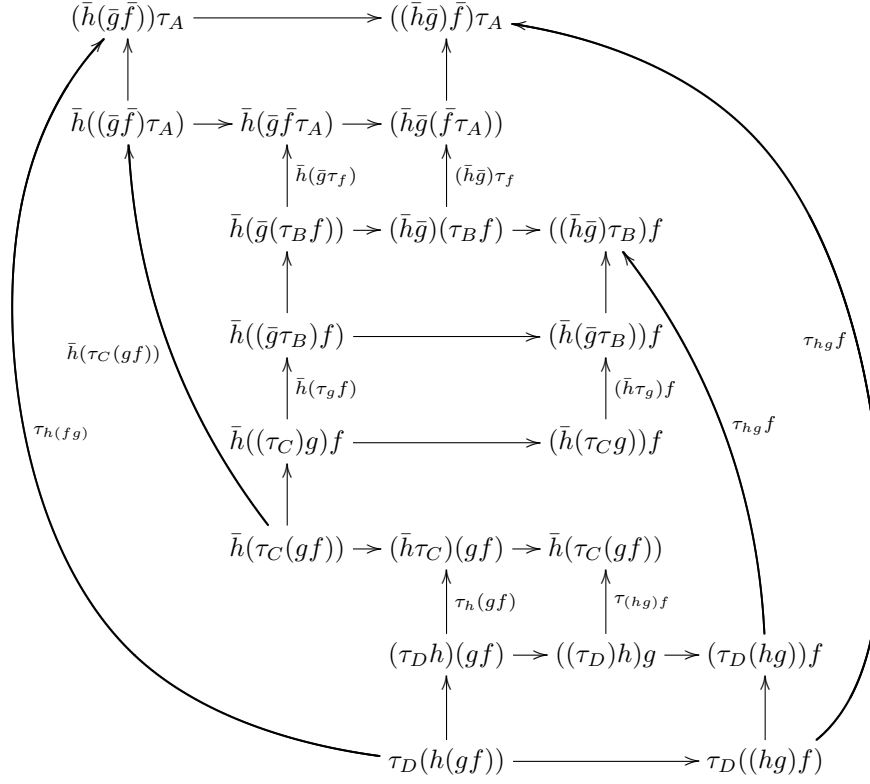
1.1 The 5×8 diagram

Barr’s 5×8 diagram uses splines for the outermost curved arrows, and he hardcodes their controls points: look for the ‘`c,(3000,0),(2700,2800),p`’ and the ‘`c,(-300,0),(-600,2400),p`’ in the last two ‘`\arrow`’s. In dednat6 the “low-level coordinates” of nodes are not trivial to get; I just hacked a way to insert these ‘`c,(_,_),(_,_),p`’s into ‘`\morphism`’s and guessed values that gave a result that looked reasonably well.

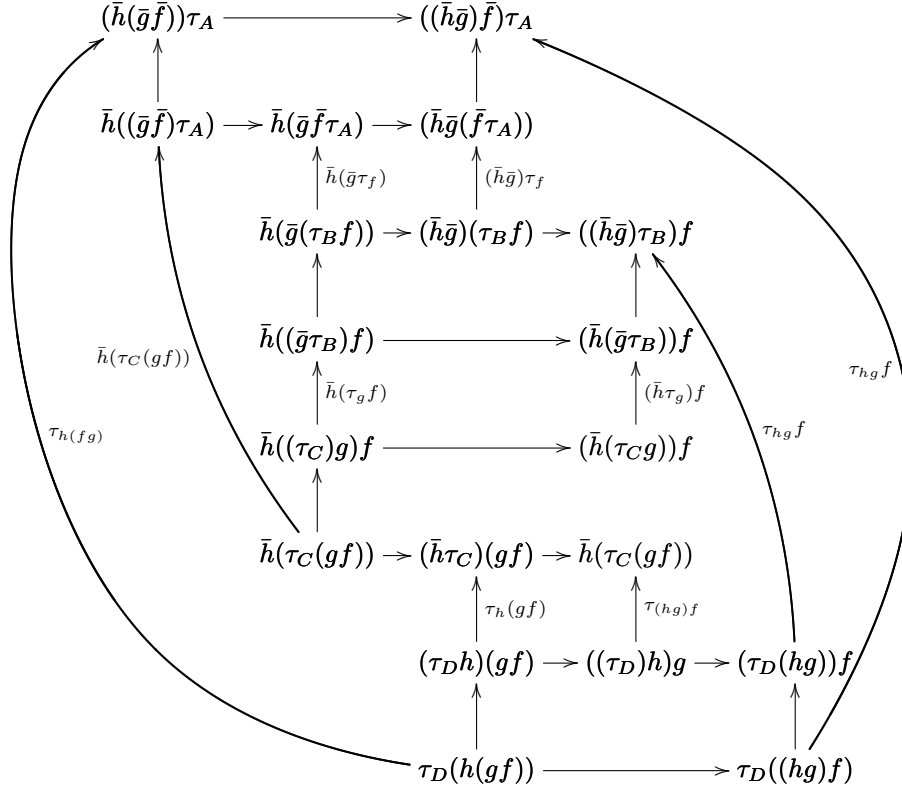
22

33

Output of Barr's code:



Output of my conversion of it to dednat6:



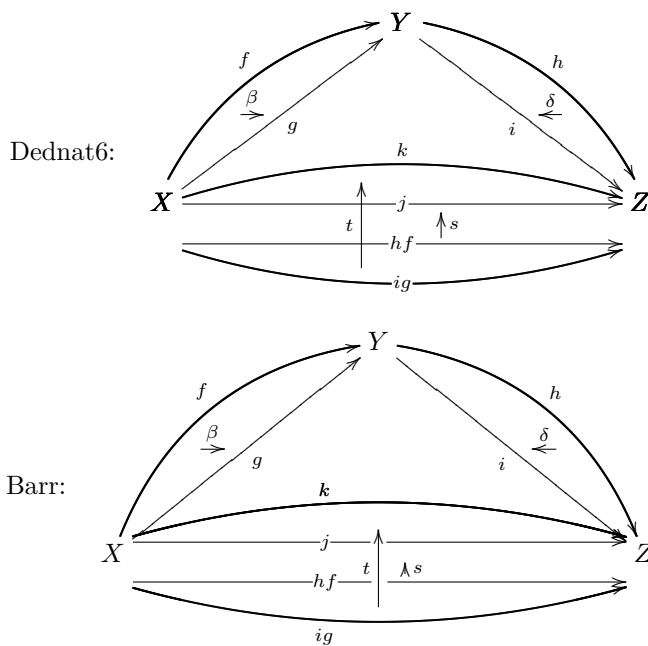
1.2 The triangle diagram

The source in `diagxy` for this triangle diagram can be found in `diagxydoc.tex`. I don't have support for "holes" in `dednat6` yet, so I simplified the original diagram a bit; note that in the `dednat6` version some arrows cross.

```

%%\big
\node 1(1000,800)[Y]
\node 21(0,0)[X]
\node 22(2000,0)[Z]
\node aa(300,400)[]
\node ab(450,400)[]
\node ba(1550,400)[]
\node bb(1700,400)[]
\arrow|a|/{\theta>}\@{-20pt}/[21'1;f]
\arrow|b|[21'1;g]
\arrow[aa'ab;]\betaeta]
\arrow[bb'ba;]\deltaeta]
\arrow|b|[1'22;ig]
\arrow|a|/{\theta>}\@{-20pt}/[1'22;h]
\arrow/{\theta>}\@{-15pt}/\theta<5pt>^{(.4)k}/[21'22;]
\arrow/{\theta>}\@{-15pt}/\theta<5pt>^{(.4)k}/[21'22;]
\arrow/{\theta>}\theta<5pt>|(.4)j|(.5)hole/[21'22;]
\arrow/{\theta>}\theta<10pt>|(.4)hf|{-hole}/[21'22;]
\arrow/{\theta>}\theta\@{-15pt}/\theta<10pt>_{(0.4)ig}/[21'22;]
\node c(1000,150)[]
\node f(1000,-200)[]
\arrow|1|[f'c;t]
\node d(1100,25)[]
\node e(1100,-75)[]
\arrow|r|[e'd;s]
\efig
%%

```



2 Other diagrams

<pre> %D diagram HAFAGAKA %D 2Dx 100 +30 +15 +15 +30 %D 2D 100 A %D 2D / \ %D 2D v v v %D 2D +25 HA --> FA --> GA --> KA %D 2D %D ((A HA -> A FA -> A GA -> A KA -> %D HA FA -> FA GA -> .plabel= b TA GA KA -> %D A FA GA midpoint --> %D)) %D enddiagram %D \$\$\pu \diag{HAFAGAKA} \$\$ </pre>	<pre> %D diagram XCX %D 2Dx 100 +30 +30 %D 2D 100 A --> X --> C %D 2D \ ^ ^ %D 2D \ / %D 2D v v / %D 2D +30 Y %D 2D %D ren A ==> C %D %D ((A X -> .plabel= a f X C -> .plabel= a g %D A Y -> .plabel= l kf Y C -> .plabel= r g\ell %D X Y -> sl_ .plabel= l k %D X Y <- sl^ .plabel= r \ell %D)) %D enddiagram %D \$\$\pu \diag{XCX} \$\$ </pre>
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