Pensieve header: Testing notebook for Scatter and Glow in OneCo. Continued pensieve://2016-01/.

In the U(T)U(H) conventions.

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\2015-12"];
<< SnG.m
```

Bases

```
UUBasis[{1, 2}, {3, 4}, f]
```

$\{$UU$[\beta[f[b_1, b_2]]]$, UU$[a[f[b_1, b_2], 1, 3]]$, UU$[\delta a[f[b_1, b_2], 1, 3]]$,
 UU$[a[f[b_1, b_2], 1, 4]]$, UU$[\delta a[f[b_1, b_2], 1, 4]]$, UU$[a[f[b_1, b_2], 2, 3]]$,
 UU$[\delta a[f[b_1, b_2], 2, 3]]$, UU$[a[f[b_1, b_2], 2, 4]]$, UU$[\delta a[f[b_1, b_2], 2, 4]]$,
 UU$[\delta\beta[f[b_1, b_2]]]$, UU$[c[f[b_1, b_2], 3]]$, UU$[c[f[b_1, b_2], 4]]$,
 UU$[ca[f[b_1, b_2], 3, 1, 3]]$, UU$[ca[f[b_1, b_2], 3, 1, 4]]$, UU$[ca[f[b_1, b_2], 3, 2, 3]]$,
 UU$[ca[f[b_1, b_2], 3, 2, 4]]$, UU$[ca[f[b_1, b_2], 4, 1, 3]]$, UU$[ca[f[b_1, b_2], 4, 1, 4]]$,
 UU$[ca[f[b_1, b_2], 4, 2, 3]]$, UU$[ca[f[b_1, b_2], 4, 2, 4]]$, UU$[\delta aa[f[b_1, b_2], 1, 3, 1, 3]]$,
 UU$[\delta aa[f[b_1, b_2], 1, 3, 1, 4]]$, UU$[\delta aa[f[b_1, b_2], 1, 4, 1, 4]]$,
 UU$[\delta aa[f[b_1, b_2], 1, 3, 2, 3]]$, UU$[\delta aa[f[b_1, b_2], 1, 3, 2, 4]]$,
 UU$[\delta aa[f[b_1, b_2], 1, 4, 2, 4]]$, UU$[\delta aa[f[b_1, b_2], 2, 3, 2, 3]]$,
 UU$[\delta aa[f[b_1, b_2], 2, 3, 2, 4]]$, UU$[\delta aa[f[b_1, b_2], 2, 4, 2, 4]]\}$

Meta-associativity for tm

```
((# // tm[1, 2, 1] // tm[1, 3, 1]) == (# // tm[2, 3, 2] // tm[1, 2, 1])) & /@
  UUBasis[{1, 2, 3, 4}, {5, 6}, f] // Union
```

{True}

Meta-associativity for hm

```
((# // hm[1, 2, 1] // hm[1, 3, 1]) == (# // hm[2, 3, 2] // hm[1, 2, 1])) & /@
  UUBasis[{5, 6}, {1, 2, 3, 4}, f] // Union
```

{True}

Compatibility between tm and hts

```
(((# // tm[1, 2, 1] // hts[4, 1]) ==
      (# // hts[4, 1] // hts[4, 2] // tm[1, 2, 1])) & /@
   UUBasis[{1, 2, 3}, {4, 5}, f]) // Union
```

{True}

Compatibility between hm and hts

```
(((# // hm[1, 2, 1] // hts[1, 4]) ==
      (# // hts[2, 4] // hts[1, 4] // hm[1, 2, 1])) & /@
    UUBasis[{4, 5}, {1, 2, 3}, f]) // Union
```

{True}

Meta-associativity for dm

```
((# // dm[1, 2, 1] // dm[1, 3, 1]) == (# // dm[2, 3, 2] // dm[1, 2, 1])) & /@
  UUBasis[4, f] // Union
```

{True}