New Features in Radiance 3.8

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Anyhere Software

Overview of Features

- **fieldcomb** to convert video fields

- **ran2tiff** to automate animation exposures

- New color scale for **falsecolor**

- **rtcontrib** -V option for contributions

- **optics2rad** to import Optics 5 glazings

FIELDCOMB SCRIPT

- Splits full-frame image renderings into odd and even fields

- Takes a list of animation frames and produces half as many field-based frames

- Options for field ordering

RAN2TIFF SCRIPT

- Runs **pcond** and **ra_tiff** on a sequence of frames

- Employs a "moving average" of luminance histograms to manage exposure changes

- Transfers **pcond** and **ra_tiff** options
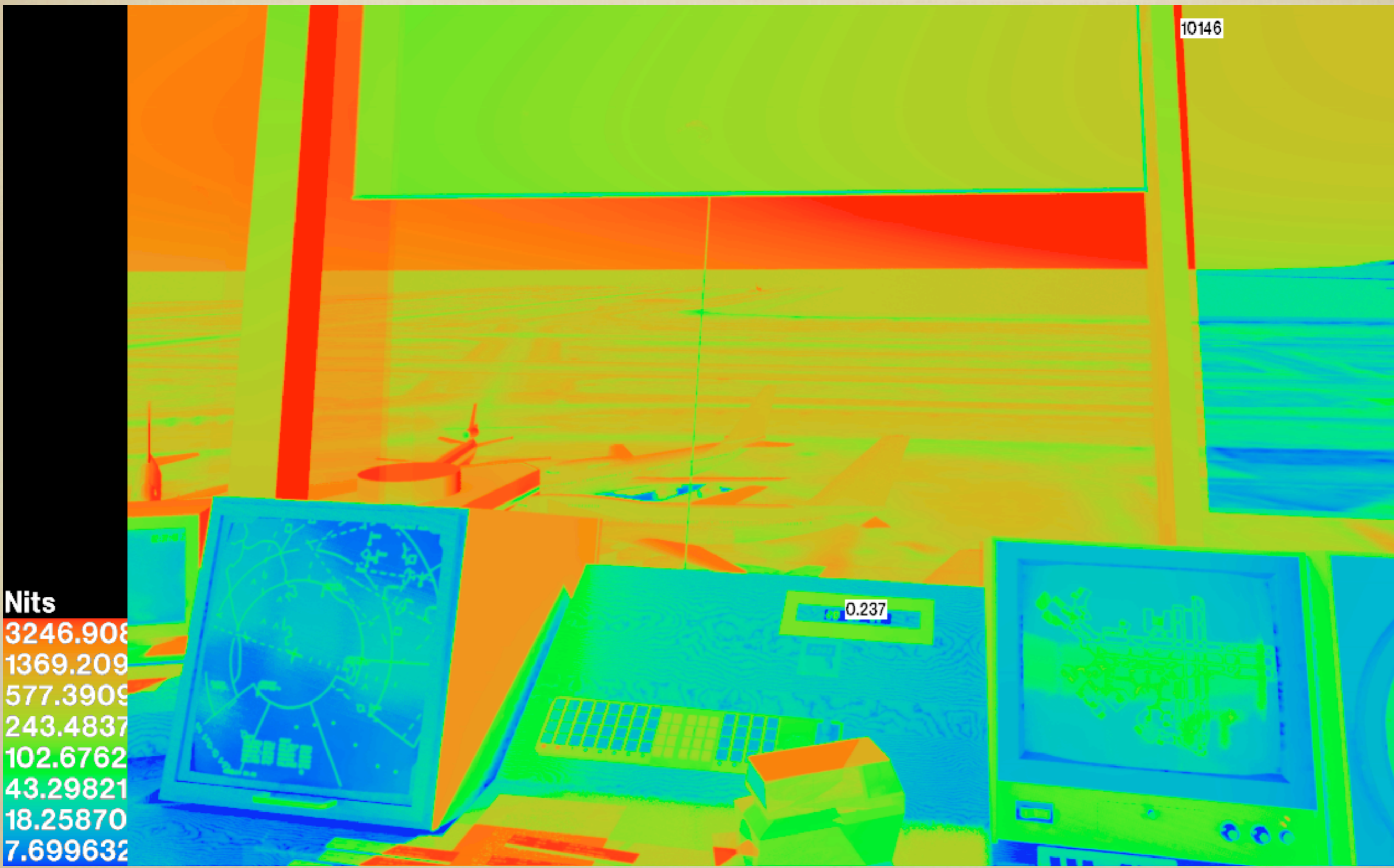
- Additional options for time constant & output directory

OLD FALSECOLOR SCALE

New scale
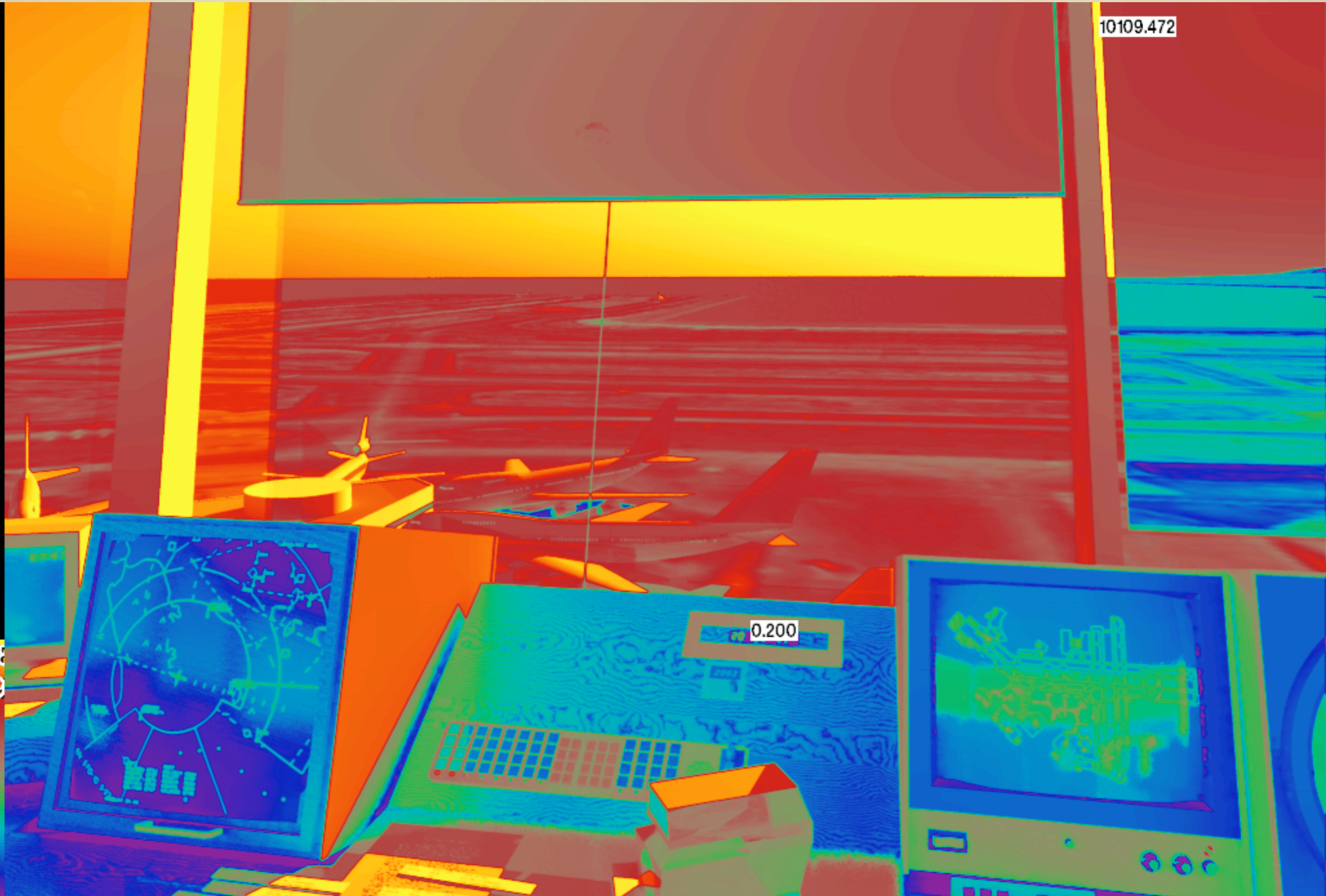
RTCONTRIB -V OPTION

- Originally, **rtcontrib** would only report contribution coefficients

  - disregards actual ray contribution

- New -V option reports actual ray contribution (in partial radiance units)

- Handy for light sources because it includes output distributions

OPTICS2RAD SCRIPT

- Takes current Optics 5 output intended for Radiance and corrects

- Takes three Optics materials and turns into one

  - if reflectance is the same front and back, glass material is used

  - otherwise, BRTDfunc is used

Turns:

```
void   glass            GlzSys_glass
0
0
3        0.807       0.875       0.849


void   BRTDfunc       GlzSys_front
10
      0.134        0.147        0.147
      0.740        0.803        0.779
      0 0 0
         .
0
9 0 0 0 0 0 0 0 0 0


void   BRTDfunc       GlzSys_back
10
      0.134        0.147        0.147
      0.740        0.803        0.779
      0 0 0
         .
0
9 0 0 0 0 0 0 0 0 0
```

Into:

```
void glass  GlzSys
0
0
3  0.807  0.875  0.849
```

Turns:

```
void  glass          GlzSys1_glass
0
0
3 .235 .172 .016

void  BRTDfunc       GlzSys1_front
10
     0.134       0.147       0.147
     .215        .158        .015
    0 0 0
     .
0
9 0 0 0 0 0 0 0 0 0

void  BRTDfunc       GlzSys1_back
10
     0.051       0.072       0.083
     .215        .158        .015
    0 0 0
     .
0
9 0 0 0 0 0 0 0 0 0
```

Into:

```
void BRTDfunc GlzSys1
10
        rR_bronze rG_bronze rB_bronze
        0.215*tR_bronze   0.158*tG_bronze   0.015*tB_bronze
    0 0 0
    window.cal
0
15 0 0 0 0 0 0 0 0 0
        0.134        0.147       0.147
        0.051        0.072       0.083
```

WINDOW.CAL CONTAINS GLAZING MODEL FROM Window 3.0

Where is 3.8 release?

- Release is being held up by website migration

- Actually, that's just a convenient excuse

- Release is really being held up by a bad case of project overcommitmentitus

- November is most likely release date