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CODE V Optimization Reference Manual : Chapter 8 Macro Functions for Automatic Design : Using the @JMRCC Macro Function in AUT

Using the @JMRCC Macro Function in AUT

The macro function @JMRCC computes the signed perpendicular distance (in the YZ plane) from a line A to a point B. @JMRCC is useful for creating clearance or interference constraints when you are optimizing off-axis reflective systems, such as three-mirror anastigmat (TMA) configurations.

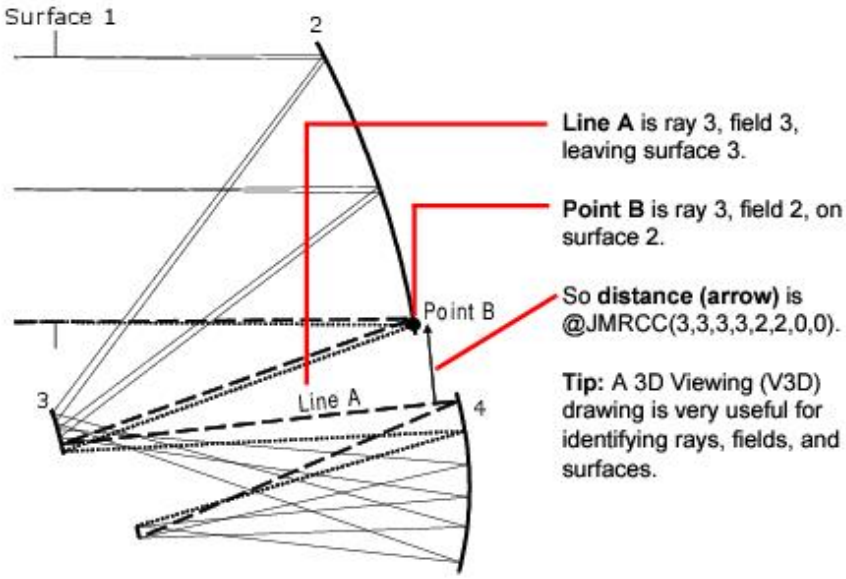
The syntax is:

```
@JMRCC(RA,FA,SA,RB,FB,SB,RC,FC)
```

where:

RA	–	Reference ray number for line A
FA	–	Field number for line A
SA	–	Surface number for line A
RB	–	Reference ray number for point B
FB	–	Field number for point B
SB	–	Surface number for point B
RC	–	Reference ray number for optional second ray
FC	–	Field number for optional second ray

The line A is a reference ray (ray RA) at field FA after it leaves a specified surface SA, and the point B is the intersection of any reference ray (ray RB) at field FB with a given surface SB, or optionally the intersection of two reference rays. The last two arguments, if non-zero, are the reference ray number RC and field number FC of the second reference ray; the "point" is then defined to be the intersection of the reference ray RB at field FB leaving surface SB with reference ray RC at field FC leaving the same surface SB. The sign convention is such that for a ray (line A) propagating generally in the +Z direction (N direction cosine > 0), the signed distance is positive if the "point" is on the +Y side of the line, as shown in the following figure.



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