

Re: Accuracy of converting semicircles to degrees

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From: Fred Hiltz (*not_at_home.ca*)

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Bruce Stemplewski wrote:

> *Garmin's formula for converting degrees to semicircles to degrees*

> *is:*

>

> $d = s * (180.0D / 2^{31})$

>

> *When $s = 119304640$*

>

> $d = 9.9999994039536$

>

> *But 10 was entered on the GPS. Does anyone know of a more*

> *accurate formula for converting semicircles to degrees?*

The difference lies not in the formula, but in the representation of an angle by 31 bits (plus sign) in the computer. Here the difference is less than one millionth of one degree.

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