
Subject: EADS company intern fluid-data application
Posted by [yeus](#) on Tue, 28 Nov 2006 17:17:14 GMT
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well her is a little screenshot...

I used up to write a little company intern application which looks up and calculates fluid data from a database (company is EADS). It is used mainly for research in the field of space engineering. Not really a GUI which will win a price for its beauty but well.. its only used for looking up & exporting data.

File Attachments

1) [gaspakscreeny.JPG](#), downloaded 8424 times

Gaspak 3.3 Interface

Constant Values:

Pressure upper limit:	30000.000 kPa
Temperature upper limit:	1000.000 K
Temperature lower limit:	68.120 K
Gas constant:	8.314 J/mol×K
Critical pressure:	3493.500 Pa
Critical temperature:	132.800 K
Critical density:	10.850 mol/l
Triple point pressure:	15.433 Pa
Triple point temperature:	68.120 K
Triple point vapor density:	0.028 mol/m³
Triple point liquid density:	30.250 mol/m³
Molecular weight:	28.010 kg/mol
Pressure of the standard state:	101.325 Pa
Accentric factor:	0.051
Specific gas constant:	3.300 J/kg×K

Information:

Fluidname: Carbon monoxide (85)

- Ammonia (79)
- Argon (83)
- Butane, ISO (86)
- Butane, normal (86)
- Carbon dioxide (89)
- Carbon monoxide (85)**
- Deuterium (86)
- Ethane (86)
- Ethylene (81)
- Ethylene (86)
- Helium (89)
- Hydrogen, equilibrium (96)
- Hydrogen, normal (91)
- Hydrogen, ortho (96)
- Hydrogen, para (75)
- Hydrogen, sulfide (93)
- Krypton (90)
- Methane (86)

Unit: SI units

Phase: Single

Calculate Value:

Input n°1 : Pressure Pa

Input n°2 : Temperature K

Result: Density kg/m³

Increment of n°2: Final Value: Calculate one Value only

Temperature (n°2) [K]	Entropy [J/kgK]	Enthalpy [J/kg]	Internal energy [J/kg]	dp/dD [Pa×r]
438.000	7768.81723	378818.22177	248806.34687	130012.0070:
439.000	7771.18561	379856.76043	249548.05402	130308.8395:
440.000	7773.54863	380895.30441	250289.76649	130605.6721:
441.000	7775.90629	381933.85379	251031.48438	130902.5046:
442.000	7778.25862	382972.40867	251773.20776	131199.3371:
443.000	7780.60565	384010.96912	252514.93672	131496.1697:
444.000	7782.94740	385049.53524	253256.67135	131793.0022:
445.000	7785.28389	386088.10710	253998.41173	132089.8347:
446.000	7787.61515	387126.68480	254740.15795	132386.6672:
447.000	7789.94121	388165.26842	255481.91009	132683.4997:
448.000	7792.26208	389203.85804	256223.66824	132980.3321:
449.000	7794.57779	390242.45375	256965.43248	133277.1646:
450.000	7796.88836	391281.05564	257707.20291	133573.9971:
451.000	7799.19381	392319.66379	258448.97960	133870.8295:
452.000	7801.49418	393358.27829	259190.76265	134167.6620: