# Availability of Meth8/VŁ4 demo for 2-variables (p,q) with unlimited sequents

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### New utility produces ASCII\_FILE.txt encoding for any exe file

The product exe2ascii.exe is available for \$47. Source code is not included, and exe is standalone.

It is delivered in its own ascii\_file.txt.pdf and reconstructed using the same free source code below.

#### Update for anonymous download of 2-variable student demo

Three text files are needed to reconstruct the free *student\_demo.exe* file:

The text file of ASCII character values for the product is the pdf file:

## ASCII\_FILE.txt.pdf

After copying the pdf contents above into the text file *ascii\_file.txt*, the program below automatically searches for and removes any carriage return, line feed controls (cf-lf) to make the text into a single character string.

The source code file to convert the above to the EXE file named above is the pdf file.

#### convert.ascii.to.exe.tru.pdf

The above source code is copied into the programming window of a free Bronze copy of TrueBASIC available from truebasic.com by download. The user directory should be the same containing all files listed here before running.

The text file for input to the demo is contents of the pdf file:

## METH8\_INPUT\_FILE.txt.pdf

The contents of this pdf file are copied to the text *file meth8\_input\_file.txt* for subsequent use of the *student\_demo.exe* in the same directory.

The instruction file with hints and anomalies is in the pdf file:

Meth8.Demo.Installation.Usage.Tips.2019.08.30-01.pdf

This is also free on request from info@ersatz-systems.com, and shipping costs may apply.

Please state name and organization to receive:

Unrestricted m8\_02.exe;

Instructions.txt with known anomalies; and

Editable sample meth8\_input\_file.txt.

The input file contains the shortest confirmation of McCune's proof of Huntington's equation.

From: en.wikipedia.org/wiki/Robbins\_algebra

LET p, q: a, b. 
$$(\sim(\sim p+q)+\sim(\sim p+\sim q))=p\;; \qquad \qquad \text{TTTT TTTT TTTT}$$

(Try changing a p or q to an r or s to see the exception raised.)

The input file contains the shortest refutation of paraconsistent logic.

From: en.wikipedia.org/wiki/Paraconsistent\_logic#An\_ideal\_threevalued\_paraconsistent\_logic

(4) To establish that a formula  $\Gamma$  is equivalent to  $\Delta$  in the sense that either can be substituted for the other wherever they appear as a subformula, one must show

$$\begin{array}{ll} ((\Gamma \rightarrow \Delta) \land (\Delta \rightarrow \Gamma)) \land ((\neg \Gamma \rightarrow \neg \Delta) \land (\neg \Delta \rightarrow \neg \Gamma)). \\ \\ & \text{LET} \quad p, q: \quad \Gamma, \Delta. \\ \\ ((p \geq q) \& (q \geq p)) \& ((\sim p \geq \sim q) \& (\sim q \geq \sim p)) \ ; & \text{TFFT} \ \texttt{TFFT} \ \texttt{TFT} \ \texttt{TFFT} \ \texttt{TFT} \ \texttt{TFFT} \ \texttt{TFT} \ \texttt{TTFT} \ \texttt{TTFT} \ \texttt{$$

The input file also contains the refutation for provability logic of the Gödel-Löb axiom GL as, "The necessity of *choice*, as always implying *a choice*, implies always *a choice*."

 $\Box(\Box p \rightarrow p) \rightarrow \Box p.$ LET p: choice. #(#p > p) > #p;  $\underline{CTCT} \ \underline{CTCT} \ \underline{CTCT} \ \underline{CTCT}$