README.md 3/12/2019

Semesterarbeit Teil 1b (Beat Kappert)

csv_processor.py

ElektrischeEnergieEinfuhrAusfuhr.csv

CSV File ElektrischeEnergieEinfuhrAusfuhr.csv vom statistischen Amt: Ausfuhr und Einfuhr elektrischer Energie in GWh (inbegriffen Austauschenergie) nach Kalendarjahr

Das CSV File muss im "current directory" sein, wo das Python Programm csv_processor.py gestartet wird.

Die Daten werden tabellarisch ausgegeben. Optional noch als Bar Chart graphisch angezeigt (lädt pyplot und numpy).

"1980" 18128 9947 "1990" 24907 22799 "1991" 26801 24005 "1992" 26046 21757 "1993" 31053 23854 "1994" 34566 22723 "1995" 36219 28948 "1996" 34431 33485 "1997" 37409 30655 "1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2006" 50630 48568 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"Jahr" "	'Ausfuhr"	"Einfuhr"
1970" 9619 3594 1980" 18128 9947 1990" 24907 22799 1991" 26801 24005 1992" 26046 21757 1993" 31053 23854 1994" 34566 22723 1995" 36219 28948 1996" 34431 33485 1997" 37409 30655 1998" 43373 37419 1999" 47293 37064 12000" 46990 39920 12001" 68407 57963 12002" 51620 47112 12003" 45464 42352 12004" 38393 37690 12005" 40734 47084 12006" 46085 48788 12007" 50630 48568 12008" 51408 50273 12009" 54159 52002 12010" 66314 66834 12011" 80711 83298 12012" 89025 86825 1008" 1008	'1950" 9	948	306
"1980" 18128 9947 "1990" 24907 22799 "1991" 26801 24005 "1992" 26046 21757 "1993" 31053 23854 "1994" 34566 22723 "1995" 36219 28948 "1996" 34431 33485 "1997" 37409 30655 "1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2006" 50630 48568 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1960" 3	8822	1306
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"1991" 26801 24005 "1992" 26046 21757 "1993" 31053 23854 "1994" 34566 22723 "1995" 36219 28948 "1996" 34431 33485 "1997" 37409 30655 "1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2007" 50630 48568 "2008" 51408 50273 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1980" 1	18128	9947
"1992" 26046 21757 "1993" 31053 23854 "1994" 34566 22723 "1995" 36219 28948 "1996" 34431 33485 "1997" 37409 30655 "1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2007" 50630 48568 "2008" 51408 50273 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1990" 2	24907	22799
"1993" 31053 23854 "1994" 34566 22723 "1995" 36219 28948 "1996" 34431 33485 "1997" 37409 30655 "1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2007" 50630 48568 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1991" 2	26801	24005
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"1995" 36219 28948 "1996" 34431 33485 "1997" 37409 30655 "1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2007" 50630 48568 "2007" 50630 48568 "2008" 51408 50273 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1993" 3	31053	23854
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"1998" 43373 37419 "1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2007" 50630 48568 "2008" 51408 50273 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1996" 3	34431	33485
"1999" 47293 37064 "2000" 46990 39920 "2001" 68407 57963 "2002" 51620 47112 "2003" 45464 42352 "2004" 38393 37690 "2005" 40734 47084 "2006" 46085 48788 "2007" 50630 48568 "2007" 50630 48568 "2008" 51408 50273 "2009" 54159 52002 "2010" 66314 66834 "2011" 80711 83298 "2012" 89025 86825	"1997" 3	37409	30655
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"2014" 42929 37438	"2014" 4	12929	37438