

Excel Model

Sheet	Columns	column header	row key	get method
Temperature				
	A	'week'	1-52	
	B-L	year (2004-2014)	temperature (C)	input
	M	Norm(C30-yr)		input
	N-X	year (2004-2014)	Degree Week	if year temp > 22 add temp to row above
	Y	DWNorm		if norm temp > 22 add temp to row above
	Z-AJ	year (2004-2014)	Degree week diff	subtract DWNorm from year degree week
	AM-AW	year (2004-2014)	each season temp	average of all temperatures for season of given year
			each season abnormal temps	season temp - average of season of all years minus season for year
Precipitation				
	A	'week'	1-52	
	B-L	year (2004-2014)	weekly precipitation (cm)	input
	M	Norm(cm-30yr)		input
	N-X	year (2004-2014)	Abnormal weekly precipitation (cm)	temp minus norm for week of year
	AA-AK	year (2004-2014)	season precip	average of weeks precip / 10
			season abnormal precipd	average if weeks precip minus average all years season average
Model				
	A	year		input
	B	weeknum		input (1-52) for year
	C	cumulative weeknum		input (1-572) for all years
	D	Abn DW (30 yr)		Get - Temperature - Degree Week Difference
	E-H	Abn Wks [season] (C)		Get - Abnormal Temperature - by year and season
	I	Abn 1 Wk Prec (dm 30 yr)		Get - Precipitation - abnormal weekly precipitation
	J-M	abn yrly wks [season] (dm 30yr)		Get - precipitation - abnormal season
	N	Dayighthrs		Input
	O	Ind Model_18-38		=IF(AND(B54<44, B54>17), \$T\$4+\$T\$5*D53+\$T\$6*D52+\$T\$7*D51+\$T\$8*D50+\$T\$9*I53+\$T\$10*I52+\$T\$11*I51+\$T\$12*I50+\$T\$13*D53*I53+\$T\$14*D53*I52+\$T\$15*D53*I51+\$T\$16*D53*I50++\$T\$17*D52*I53+\$T\$18*D52*I52+\$T\$19*D52*I51+\$T\$20*D52*I50+\$T\$21*D51*I53+\$T\$22*D51*I52+\$T\$23*D51*I51+\$T\$24*D51*I50+\$T\$25*D50*I53+\$T\$26*D50*I52+\$T\$27*D50*I51+\$T\$28*D50*I50+\$T\$29*E54+\$T\$30*F2+\$T\$31*G2+\$T\$32*H2+\$T\$33*L54+\$T\$34*M2+\$T\$35*J2+\$T\$36*K2+\$T\$37*N54+\$T\$38*N53+\$T\$39*N52+\$T\$40*N51+\$T\$41*N50,0)

		Ind Model_18- 38 translation	if week of year [17,44] intercept + { dw_lag1 * deg_week_diff(row 1 up) } + { dw_lag2 * deg_week_diff(row 2 up) } + { dw_lag3 * deg_week_diff(row 3 up) } + { dw_lag4 * deg_week_diff(row 4 up) } + { preci_lag_1 * abnormal_weekly_precip(row 1 up) } + { preci_lag_2 * abnormal_weekly_precip(row 2 up) } + { preci_lag_3 * abnormal_weekly_precip(row 3 up) } + { preci_lag_4 * abnormal_weekly_precip(row 4 up) } + { dwlag1 * precilag1 * deg_week_diff(row 1 up) * abnormal_weekly_precip(row 1 up) } + { (dwlag1 * precilag2) * deg_week_diff(row 1 up) * abnormal_weekly_precip(row 2 up) } + { (dwlag1 * precilag3) * deg_week_diff(row 1 up) * abnormal_weekly_precip(row 3 up) } + { (dwlag1 * precilag4) * deg_week_diff(row 1 up) * abnormal_weekly_precip(row 4 up) } + { (dwlag2 * precilag1) * deg_week_diff(row 2 up) * abnormal_weekly_precip(row 1 up) } + { (dwlag2 * precilag2) * deg_week_diff(row 2 up) * abnormal_weekly_precip(row 2 up) } + { (dwlag2 * precilag3) * deg_week_diff(row 2 up) * abnormal_weekly_precip(row 3 up) } + { (dwlag2 * precilag4) * deg_week_diff(row 2 up) * abnormal_weekly_precip(row 4 up) } + { (dwlag3 * precilag1) * deg_week_diff(row 3 up) * abnormal_weekly_precip(row 1 up) } + { (dwlag3 * precilag2) * deg_week_diff(row 3 up) * abnormal_weekly_precip(row 2 up) } + { (dwlag3 * precilag3) * deg_week_diff(row 3 up) * abnormal_weekly_precip(row 3 up) } + { (dwlag3 * precilag4) * deg_week_diff(row 3 up) * abnormal_weekly_precip(row 4 up) } + { (dwlag4 * precilag1) * deg_week_diff(row 4 up) * abnormal_weekly_precip(row 1 up) } + { (dwlag4 * precilag2) * deg_week_diff(row 4 up) * abnormal_weekly_precip(row 2 up) } + { (dwlag4 * precilag3) * deg_week_diff(row 4 up) * abnormal_weekly_precip(row 3 up) } + { (dwlag4 * precilag4) * deg_week_diff(row 4 up) * abnormal_weekly_precip(row 4 up) } + { wks113temp * abnormal_seasonal_temp } + { wks1426temp * abnormal_seasonal_temp_last_year } + { wks2739temp * abnormal_next_seasonal_temp_last_year } + { wks4052temp * abnormal_2next_seasonal_temp_last_year } + { wks113preci * abnormal_precip 1-13 } + { wks1426precilag * abnormal_precip_last_year_14-26 { wks2739precilag * abnormal_precip_last_year_27-39 { wks4052precilag * abnormal_precip_last_year_40_52 { daylighththrs * daylighththrs} { daylightlag1* daylighththrs(1 row up)} { daylightlag2* daylighththrs(2 rows up)} { daylightlag3* daylighththrs(3rows up) } { daylightlag4* daylighththrs(4rows up)}
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