⟨*program*⟩ ::= ⟨*command_line*⟩+

⟨*command_line*⟩ ::= ⟨*description*⟩ '=' ⟨*column*⟩ ':' ⟨*specification*⟩ ';'

⟨*decription*⟩ ::= ⟨*string*⟩

⟨*column*⟩ ::= ⟨*num*⟩

⟨*specification*⟩ ::= ⟨*concept*⟩ | ⟨*pivot*⟩
    | ⟨*boolean*⟩ | ⟨*enumeration*⟩ | ⟨*upward*⟩ | ⟨*downward*⟩
    | ⟨*integer*⟩
    | ⟨*date*⟩ | ⟨*time*⟩ | ⟨*week*⟩ | ⟨*month*⟩ | ⟨*year*⟩
    | ⟨*disjoint*⟩ | ⟨*overlapping*⟩ | ⟨*spanning*⟩ | ⟨*warping*⟩ | ⟨*checkpoints*⟩
    | ⟨*disdate*⟩ | ⟨*overdate*⟩ | ⟨*spandate*⟩ | ⟨*warpdate*⟩ | ⟨*cpdate*⟩
    | ⟨*distime*⟩ | ⟨*overtime*⟩ | ⟨*spantime*⟩ | ⟨*warptime*⟩ | ⟨*cptime*⟩
    | ⟨*disweek*⟩ | ⟨*overweek*⟩ | ⟨*spanweek*⟩ | ⟨*warpweek*⟩ | ⟨*cpweek*⟩
    | ⟨*dismonth*⟩ | ⟨*overmonth*⟩ | ⟨*spanmonth*⟩ | ⟨*warpmonth*⟩ | ⟨*cpmonth*⟩
    | ⟨*disyear*⟩ | ⟨*overyear*⟩ | ⟨*spanyear*⟩ | ⟨*warpyear*⟩ | ⟨*cp year*⟩

⟨*concept*⟩ ::= '**concept**'

⟨*pivot*⟩ ::= '**pivot**'

⟨*boolean*⟩ ::= '**bool**' '[' ⟨*anything*⟩{2} ']'

⟨*enumeration*⟩ ::= '**enum**' '[' ⟨*anything*⟩+ ']'

⟨*upward*⟩ ::= '**up**' '[' ⟨*anything*⟩+ ']'

⟨*downward*⟩ ::= '**down**' '[' ⟨*anything*⟩+ ']'

⟨*integer*⟩ ::= '**int**' ⟨*imin*⟩ ⟨*imax*⟩ ⟨*istep*⟩

⟨*istep*⟩ ::= '**step**' ⟨*num*⟩ | ⟨*empty*⟩

⟨*date*⟩ ::= '**date**' ⟨*dformat*⟩ ⟨*dmin*⟩ ⟨*dmax*⟩ ⟨*dstep*⟩

⟨*dformat*⟩ ::= 'yyyy-mm-dd'
    | 'dd/mm/yyyy' | 'mm/dd/yyyy'
    | 'dd.mm.yyyy' | 'mm.dd.yyyy'

⟨*dstep*⟩ ::= '**step**' ⟨*num*⟩ ⟨*dval*⟩ | ⟨*empty*⟩

⟨*dval*⟩ ::= 'y' | 'm' | 'd'

⟨*time*⟩ ::= '**time**' ⟨*tformat*⟩ ⟨*tmin*⟩ ⟨*tmax*⟩ ⟨*tstep*⟩

⟨*tformat*⟩ ::= 'hh' | 'mm' | 'ss' | 'hh:mm' | 'mm:ss' | 'hh:mm:ss'

⟨*tstep*⟩ ::= '**step**' ⟨*num*⟩ ⟨*tval*⟩ | ⟨*empty*⟩

⟨*tval*⟩ ::= 'h' | 'm' | 's'

⟨*week*⟩ ::= '**week**' ⟨*wmin*⟩ ⟨*wmax*⟩

⟨*wmin*⟩ ::= ⟨*weekday*⟩

1

$\langle wmax \rangle$	::=	$\langle weekday \rangle$
$\langle weekday \rangle$	::=	'Mon' | 'Tue' | 'Wed' | 'Thu' | 'Fri' | 'Sat' | 'Sun' | 'Monday' | 'Tuesday' | 'Wednesday' | 'Thursday' | 'Friday' | 'Saturday' | 'Sunday'
$\langle month \rangle$	::=	**'month'** $\langle monthmin \rangle$ $\langle monthmax \rangle$
$\langle monthmin \rangle$	::=	$\langle monthname \rangle$
$\langle monthmax \rangle$	::=	$\langle monthname \rangle$
$\langle monthname \rangle$	::=	'Jan' | 'Feb' | 'Mar' | 'Apr' | 'May' | 'Jun' | 'Jul' | 'Aug' | 'Sep' | 'Oct' | 'Nov' | 'Dec' | 'January' | 'February' | 'March' | 'April' | 'May' | 'June' | 'July' | 'August' | 'September' | 'October' | 'November' | 'December'
$\langle year \rangle$	::=	**'year'** $\langle ymin \rangle$ $\langle ymax \rangle$ $\langle istep \rangle$
$\langle ymin \rangle$	::=	$\langle num \rangle$
$\langle ymax \rangle$	::=	$\langle num \rangle$
$\langle disjoint \rangle$	::=	**'dj'** $\langle cardinality \rangle$ $\langle min \rangle$ $\langle max \rangle$
$\langle overlapping \rangle$	::=	**'over'** $\langle cardinality \rangle$ $\langle min \rangle$ $\langle max \rangle$ $\langle over \rangle$
$\langle spanning \rangle$	::=	**'span'** $\langle length \rangle$ $\langle min \rangle$ $\langle max \rangle$
$\langle warping \rangle$	::=	**'warp'** $\langle length \rangle$ $\langle min \rangle$ $\langle max \rangle$ $\langle over \rangle$
$\langle checkpoints \rangle$	::=	**'cp'** $\langle before \rangle$? $\langle num \rangle$+ $\langle after \rangle$?
$\langle disdate \rangle$	::=	**'dj'** **'date'** $\langle dformat \rangle$ $\langle cardinality \rangle$ $\langle dmin \rangle$ $\langle dmax \rangle$
$\langle overdate \rangle$	::=	**'over'** **'date'** $\langle dformat \rangle$ $\langle cardinality \rangle$ $\langle dmin \rangle$ $\langle dmax \rangle$ $\langle num \rangle$ $\langle dval \rangle$
$\langle spandate \rangle$	::=	**'span'** **'date'** $\langle dformat \rangle$ $\langle length \rangle$ $\langle dmin \rangle$ $\langle dmax \rangle$
$\langle warpdate \rangle$	::=	**'warp'** **'date'** $\langle dformat \rangle$ $\langle length \rangle$ $\langle dmin \rangle$ $\langle dmax \rangle$ $\langle num \rangle$ $\langle dval \rangle$
$\langle cpdate \rangle$	::=	**'cp'** **'date'** $\langle dformat \rangle$ $\langle before \rangle$? $\langle dnum \rangle$+ $\langle after \rangle$?
$\langle distime \rangle$	::=	**'dj'** **'time'** $\langle tformat \rangle$ $\langle cardinality \rangle$ $\langle tmin \rangle$ $\langle tmax \rangle$
$\langle overtime \rangle$	::=	**'over'** **'time'** $\langle tformat \rangle$ $\langle cardinality \rangle$ $\langle tmin \rangle$ $\langle tmax \rangle$ $\langle num \rangle$ $\langle tval \rangle$
$\langle spantime \rangle$	::=	**'span'** **'time'** $\langle tformat \rangle$ $\langle length \rangle$ $\langle tmin \rangle$ $\langle tmax \rangle$
$\langle warptime \rangle$	::=	**'warp'** **'time'** $\langle tformat \rangle$ $\langle length \rangle$ $\langle tmin \rangle$ $\langle tmax \rangle$ $\langle num \rangle$ $\langle tval \rangle$
$\langle cptime \rangle$	::=	**'cp'** **'time'** $\langle tformat \rangle$ $\langle before \rangle$? $\langle tnum \rangle$+ $\langle after \rangle$?
$\langle disweek \rangle$	::=	**'dj'** **'week'** $\langle cardinality \rangle$ $\langle wmin \rangle$ $\langle wmax \rangle$
$\langle overweek \rangle$	::=	**'over'** **'week'** $\langle cardinality \rangle$ $\langle wmin \rangle$ $\langle wmax \rangle$ $\langle num \rangle$
$\langle spanweek \rangle$	::=	**'span'** **'week'** $\langle length \rangle$ $\langle wmin \rangle$ $\langle wmax \rangle$
$\langle warpweek \rangle$	::=	**'warp'** **'week'** $\langle length \rangle$ $\langle wmin \rangle$ $\langle wmax \rangle$ $\langle num \rangle$

⟨*cpweek*⟩	::=	'**cp**' '**week**' ⟨*before*⟩? ⟨*weekday*⟩+ ⟨*after*⟩?
⟨*dismonth*⟩	::=	'**dj**' '**month**' ⟨*cardinality*⟩ ⟨*monthmin*⟩ ⟨*monthmax*⟩
⟨*overmonth*⟩	::=	'**over**' '**month**' ⟨*cardinality*⟩ ⟨*monthmin*⟩ ⟨*monthmax*⟩ ⟨*num*⟩
⟨*spanmonth*⟩	::=	'**span**' '**month**' ⟨*length*⟩ ⟨*monthmin*⟩ ⟨*monthmax*⟩
⟨*warpmonth*⟩	::=	'**warp**' '**month**' ⟨*length*⟩ ⟨*monthmin*⟩ ⟨*monthmax*⟩ ⟨*num*⟩
⟨*cpmonth*⟩	::=	'**cp**' '**month**' ⟨*before*⟩? ⟨*monthname*⟩+ ⟨*after*⟩?
⟨*disyear*⟩	::=	'**dj**' '**year**' ⟨*cardinality*⟩ ⟨*ymin*⟩ ⟨*ymax*⟩
⟨*overyear*⟩	::=	'**over**' '**year**' ⟨*cardinality*⟩ ⟨*ymin*⟩ ⟨*ymax*⟩ ⟨*num*⟩
⟨*spanyear*⟩	::=	'**span**' '**year**' ⟨*length*⟩ ⟨*ymin*⟩ ⟨*ymax*⟩
⟨*warpyear*⟩	::=	'**warp**' '**year**' ⟨*length*⟩ ⟨*ymin*⟩ ⟨*ymax*⟩ ⟨*num*⟩
⟨*cpyear*⟩	::=	'**cp**' '**year**' ⟨*before*⟩? ⟨*num*⟩+ ⟨*after*⟩?
⟨*cardinality*⟩	::=	⟨*num*⟩
⟨*min*⟩	::=	'−'? ⟨*num*⟩	'−'? ⟨*float*⟩
⟨*max*⟩	::=	'−'? ⟨*num*⟩	'−'? ⟨*float*⟩
⟨*imin*⟩	::=	'−'? ⟨*num*⟩
⟨*imax*⟩	::=	'−'? ⟨*num*⟩
⟨*dnum*⟩	::=	⟨*num*⟩{4}'−'⟨*num*⟩{2}'−'⟨*num*⟩{2}
	|	⟨*num*⟩{2}'/'⟨*num*⟩{2}'/'⟨*num*⟩{4}
	|	⟨*num*⟩{2}'.'⟨*num*⟩{2}'.'⟨*num*⟩{4}
⟨*tnum*⟩	::=	⟨*num*⟩	⟨*num*⟩':'⟨*num*⟩	⟨*num*⟩':'⟨*num*⟩':'⟨*num*⟩
⟨*over*⟩	::=	⟨*num*⟩	⟨*float*⟩
⟨*length*⟩	::=	⟨*num*⟩	⟨*float*⟩
⟨*anything*⟩	::=	⟨*string*⟩	'−'? ⟨*num*⟩	'−'? ⟨*float*⟩	'?'
⟨*string*⟩	::=	[_a-zA-Z0-9\-]+ $\qquad$ (\w+ in Perl)
⟨*num*⟩	::=	[0-9]+ $\qquad$ (\d+ in Perl)
⟨*float*⟩	::=	[0-9]*'.'[0-9]+ $\qquad$ (\d*\.\d+ in Perl)
⟨*before*⟩	::=	'^'	'-inf'
⟨*after*⟩	::=	'$'	'+inf'