```matlab
function c = read_sum_file(filename)

n = linecount(filename); % determine the number of lines
c(n) = struct; % create the struct with the right size for speed

fid = fopen(filename,'r');

line_cnt = 0;
while ~feof(fid) % read until the end of the file
try
% 20201201 0333 33.21 44 15.39 114W48.45   5.00   0.00  9 167 34.5 0.39  1.1
 34.6 C -    200001


    line = fgetl(fid); % get the next line --> which will be an event
    line_cnt = line_cnt + 1;

    year    = str2double( strip( line(1:4) ) );
    month   = str2double( strip( line(5:6) ) );
    day     = str2double( strip( line(7:8) ) );
    hour    = str2double( strip( line(10:11) ) );
    min     = str2double( strip( line(12:13) ) );
    seconds = str2double( strip( line(15:19) ) );
    lat     = str2double( strip( line(21:22) ) );
    NS      = line(23);
    lat_min = str2double( strip( line(24:28) ) );

    lon     = str2double( strip( line(30:32) ) );
    EW      = line(33);
    lon_min = str2double( strip( line(34:38) ) );
    depth   = str2double( strip( line(40:45) ) );
    mag     = str2double( strip( line(47:53) ) );
    rmse     = str2double( strip( line(60:64) ) );
     HErr    = str2double( strip( line(65:69) ) );
     VErr    = str2double( strip( line(72:75) ) );
     evt_no  = str2double( strip( line(88:93) ) );

    % Convert latitude and longitude if necesary
    if strcmp(NS,'S')
        lat = -lat;
    end

    if strcmp(EW,'W')
        lon = -lon;
    end

    % handle a dumb error by dm2degrees when minutes = 60.
    if lon_min == 60
        lon = lon+1;
        lon_min = 0;
    end
    if lat_min == 60
```

```matlab
        lat = lat+1;
        lat_min = 0;
    end

    % Convert degree-minutes to decimal degrees
    lat = dm2degrees( [lat, lat_min] );
    lon = dm2degrees( [lon, lon_min] );

    % Prepare the outputs
    t0 = datenum(year, month, day, hour, min, seconds);

    % update the catalog with this new event
    c(line_cnt).otime   = t0;
    c(line_cnt).lon     = lon;
    c(line_cnt).lat     = lat;
    c(line_cnt).depth   = depth;
    c(line_cnt).mag     = mag;
    c(line_cnt).magtype = [];
    c(line_cnt).quality = line(81);
    c(line_cnt).hypo_evt_no  = evt_no;
    c(line_cnt).rmse = rmse;
    c(line_cnt).Herr = HErr;
    c(line_cnt).Verr = VErr;


catch
     disp('bad line')
end


end
fclose(fid);

end

% -----------------------------------------------------------------------
function n = linecount(filename)

fid = fopen(filename,'r');
n = 0;
tline = fgetl(fid);
while ischar(tline)
    tline = fgetl(fid);
    n = n+1;
end

fclose(fid);

end

Not enough input arguments.

Error in read_sum_file (line 3)
n = linecount(filename); % determine the number of lines
```

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