

**Vysoké učení technické v Brně
Fakulta elektrotechniky a komunikačních technologií
Ústav elektroenergetiky**

Bakalářská práce

Termodynamický cyklus

Příloha C - Zdrojový kód funkce pro načtení vstupních dat „dataread.m“

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function [Tc,Th,Vk,Vc,pp,nr,Cancel] = dataread()
% Funkce pro nacteni dat z obrazovky
%
% This is the machine-generated representation of a Handle Graphics
object
% and its children. Note that handle values may change when these
objects
% are re-created. This may cause problems with any callbacks written to
% depend on the value of the handle at the time the object was saved.
% This problem is solved by saving the output as a FIG-file.
%
% To reopen this object, just type the name of the M-file at the MATLAB
% prompt. The M-file and its associated MAT-file must be on your path.
%
% NOTE: certain newer features in MATLAB may not have been saved in this
% M-file due to limitations of this format, which has been superseded by
% FIG-files. Figures which have been annotated using the plot editor
tools
% are incompatible with the M-file/MAT-file format, and should be saved
as
% FIG-files.

load dataread
%definice jednotlivych prvku na obrazovce
h0 = figure('Color',[0.925490196078431 0.913725490196078
0.847058823529412], ...
    'Colormap',mat0, ...
    'FileName','C:\MATLABR11\work\dataread.m', ...
    'PaperPosition',[18 200 576 432], ...
    'PaperUnits','points', ...
    'Position',[559 459 560 304], ...
    'Tag','Fig1', ...
    'ToolBar','none');
h1 = uicontrol('Parent',h0, ...
    'Units','points', ...
    'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
    'ListboxTop',0, ...
    'Position',[51 196.5 258.75 12.75], ...
    'String','Zadejte vstupni data', ...
    'Style','text', ...
    'Tag','StaticText1');
h1 = uicontrol('Parent',h0, ...
    'Units','points', ...
    'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
    'ListboxTop',0, ...
    'Position',[51 165.75 147 13.5], ...
    'String','Spodni pracovni teplota [K]', ...
    'Style','text', ...
    'Tag','StaticText2');
h1 = uicontrol('Parent',h0, ...
    'Units','points', ...
    'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
    'ListboxTop',0, ...
    'Position',[51.75 146.25 146.25 13.5], ...
    'String','Horni pracovni teplota [K]', ...
    'Style','text', ...
    'Tag','StaticText2');
h1 = uicontrol('Parent',h0, ...

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        'Units','points', ...
        'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
        'ListboxTop',0, ...
        'Position',[51.75 126.75 147 13.5], ...
        'String','Objem kompresního prostoru [m3]', ...
        'Style','text', ...
        'Tag','StaticText2');
h1 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
        'ListboxTop',0, ...
        'Position',[51.75 107.25 147 13.5], ...
        'String','Celkový objem válců [m3]', ...
        'Style','text', ...
        'Tag','StaticText2');
h1 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
        'ListboxTop',0, ...
        'Position',[51.75 87.75 147 13.5], ...
        'String','Plnicí tlak náplně [Pa]', ...
        'Style','text', ...
        'Tag','StaticText2');
h1 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
        'ListboxTop',0, ...
        'Position',[51.75 67.75 147 13.5], ...
        'String','Účinnost regenerace [%]', ...
        'Style','text', ...
        'Tag','StaticText2');
h2 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[1 1 1], ...
        'ListboxTop',0, ...
        'Position',[214.5 165 96 14.25], ...
        'String','310', ...
        'Style','edit', ...
        'Tag','Edit_SpodniTeplota');
h3 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[1 1 1], ...
        'ListboxTop',0, ...
        'Position',[214.5 144.75 96 14.25], ...
        'String','750', ...
        'Style','edit', ...
        'Tag','Edit_HorniTeplota');
h4 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[1 1 1], ...
        'ListboxTop',0, ...
        'Position',[214.5 126 96 13.5], ...
        'String','0.001', ...
        'Style','edit', ...
        'Tag','Edit_ObjemKompresníhoProstoru');
h5 = uicontrol('Parent',h0, ...
        'Units','points', ...

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        'BackgroundColor',[1 1 1], ...
        'ListboxTop',0, ...
        'Position',[214.5 106.5 96 14.25], ...
        'String','0.01', ...
        'Style','edit', ...
        'Tag','Edit_CelkovyObjem');
h6 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[1 1 1], ...
        'ListboxTop',0, ...
        'Position',[214.5 87.75 96 14.25], ...
        'String','1000000', ...
        'Style','edit', ...
        'Tag','Edit_PlniciTlak');
h7 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[1 1 1], ...
        'ListboxTop',0, ...
        'Position',[214.5 67.75 96 14.25], ...
        'String','0', ...
        'Style','edit', ...
        'Tag','Edit_UcinnostRegenerace');
h1 = uicontrol('Parent',h0, ...
        'Units','points', ...
        'BackgroundColor',[0.925490196078431 0.913725490196078
0.847058823529412], ...
        'Callback','checkdata(gcf)', ...
        'ListboxTop',0, ...
        'Position',[216.75 15.25 94.5 35.25], ...
        'String','Počítat', ...
        'Tag','Pushbutton1');
if nargout > 0, fig = h0; end

uiwait

Tc = 0;
Th = 0;
Vk = 0;
Vc = 0;
pp = 0;
nr = 0;
Cancel = 1;

if ishandle(h2)
    %nacteni hodnot zadanych do jednotlivych poli
    Tc = str2num(get(h2,'String')); %Spodni pracovni teplota
    Th = str2num(get(h3,'String')); %Horni pracovni teplota
    Vk = str2num(get(h4,'String')); %Objem kompresniho prostoru
    Vc = str2num(get(h5,'String')); %Celkovy objem valce
    pp = str2num(get(h6,'String')); %Plnici tlak naplne
    nr = str2num(get(h7,'String')); %Ucinnost regenerace
    Cancel = 0;
end

close

```