

Generate Container Maps

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Generate a Container map with any time of data

Create a container map with float, int, string, and matrix

```
close all;
clear all;

% Create A Map with String Keys and any values
param_map = containers.Map('KeyType','char','ValueType','any');
param_map('share_unbanked_j') = 12;
param_map('equi_r_j') = 2;
param_map('equi_w_j') = 'abc';
param_map('equi_P_j') = zeros(2,3);
disp(param_map.keys);
```

```
'equi_P_j'    'equi_r_j'    'equi_w_j'    'share_unbanked_j'
```

```
disp(param_map.values);
```

```
[2×3 double]    [2]    'abc'    [12]
```

Access Multiple Values of a container map

Values been accessed need to be of the same type

```
% Parameter Dealing from Map
params_group = values(param_map, {'share_unbanked_j', 'equi_r_j'});
[equi_P_j, equi_r_j] = params_group{:};
disp(['equi_P_j:' num2str(equi_P_j) ', equi_r_j:' num2str(equi_r_j)]);
```

```
equi_P_j:12, equi_r_j:2
```

```
% Access Scalar Elements of Map and Convert the Array
disp(cell2mat(values(param_map, {'share_unbanked_j', 'equi_r_j'})));
```

```
12    2
```

Create a container map of color values and generate a array of color choices:

```
% Container map with three colors
mp_colors = containers.Map('KeyType','char','ValueType','any');
mp_colors('blue') = [57 106 177]./255;
mp_colors('red') = [204 37 41]./255;
mp_colors('black') = [83 81 84]./255;
% An selection array
ar_st_colors_pick = {'blue', 'blue', 'red', 'black', 'blue'};
ar_colors = values(mp_colors, ar_st_colors_pick);
% Print selected colors
celldisp(ar_colors);
```

```
ar_colors{1} =  
    0.2235    0.4157    0.6941
```

```
ar_colors{2} =  
    0.2235    0.4157    0.6941
```

```
ar_colors{3} =  
    0.8000    0.1451    0.1608
```

```
ar_colors{4} =  
    0.3255    0.3176    0.3294
```

```
ar_colors{5} =  
    0.2235    0.4157    0.6941
```