## **Productivity**

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Prepared by Transportation Planning Missouri Department of Transportation

## Bridge Maps Labeling Script

```
def FindLabel ([struct design no], [Replaced by Br No], [direction], [desg], [direction of traffic], [Replaces Br No]):
      if ([direction of traffic] == '2-WAY TRAFFIC'):
        label = "<CLR red='0' green='0' blue='0'><PNT size = '14'>" + [struct_design_no] + "</FNT></CLR>"
      if ([direction_of_traffic] == '1-WAY TRAFFIC' and [desg] == 'RP'):
        label = "<CLR red='0' green='0' blue='0'><FNT size = '14'>" + [struct_design_no] + "</FNT></CLR>"
      if ([direction of traffic] == '1-WAY TRAFFIC' and [desg] <> 'RP' and [direction] == 'N'):
        label = "<CLR red='0' green='153' blue='255'><FNT size = '14'>" + [struct design no] + "</FNT></CLR>"
      if ([direction of traffic] == '1-WAY TRAFFIC' and [desg] <> 'RP' and [direction] == 'S'):
        label = "<CLR red='204' green='0' blue='102'><FNT size = '14'>" + [struct design no] + "</FNT></CLR>"
9
      if ([direction_of_traffic] == '1-WAY TRAFFIC' and [desg] <> 'RP' and [direction] == 'E'):
        label = "<CLR red='51' green='153' blue='51'><FNT size = '14'>" + [struct_design_no] + "</FNT></CLR>"
      if ([direction_of_traffic] == '1-WAY TRAFFIC' and [desg] <> 'RP' and [direction] == 'W'):
        label = "<CLR red='153' green='51' blue='255'><FNT size = '14'>" + [struct_design_no] + "</FNT></CLR>"
14
      if ([Replaced_by_Br_No] is not None):
15
        label = label + "<CLR red='255' ><FNT size = '14'>" + " (" + [Replaced by Br No] + ")" + "</FNT></CLR>"
16
      if ([Replaces Br No] is not None):
17
        label = label + "<CLR red='255' ><FNT size = '14'>" + " (" + [Replaces Br_No] + ")" + "</FNT></CLR>"
      return label
```

## **Description and Benefit**

Bridge Maps Labeling Script innovation is a python script that is used to automatically create, format and color code labels in bridge inspection maps. The programming code behind the script is uploaded into the mapping software ArcMap to interact with the bridge layer in the map to customize the labels. This allows the mapping group to speed up their creation of the county bridge inspection maps.

This innovation saves time by allowing the mapping group to be able to have the bridge labels automatically labeled and color coded without having to manually color code the labels. This innovation also simplifies work by cutting the time in half to create all the county bridge maps for the bridge inspectors. The mapping group used to have to manually label, color code, and adjust labels to create the county bridge maps which are used for bridge inspections. This process of making the maps used to take 3 months. Now using the python script, the automatic color coded labels allows the mapping group to create the county bridge maps in about 6 weeks. The other benefit to this script is that it can easily be modified to customize labels in other maps.

## **For More Information Contact**

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