

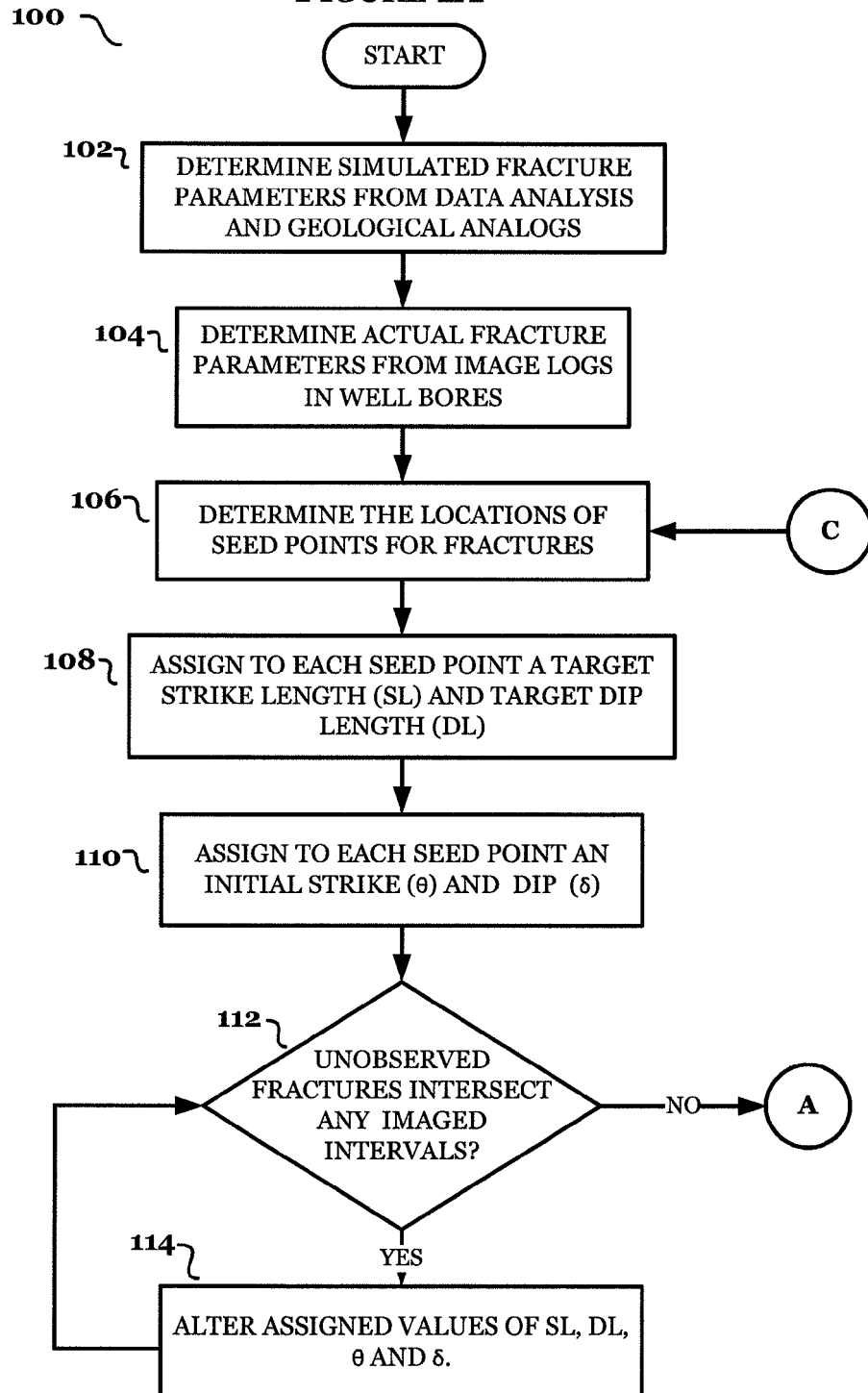
FIGURE 1A

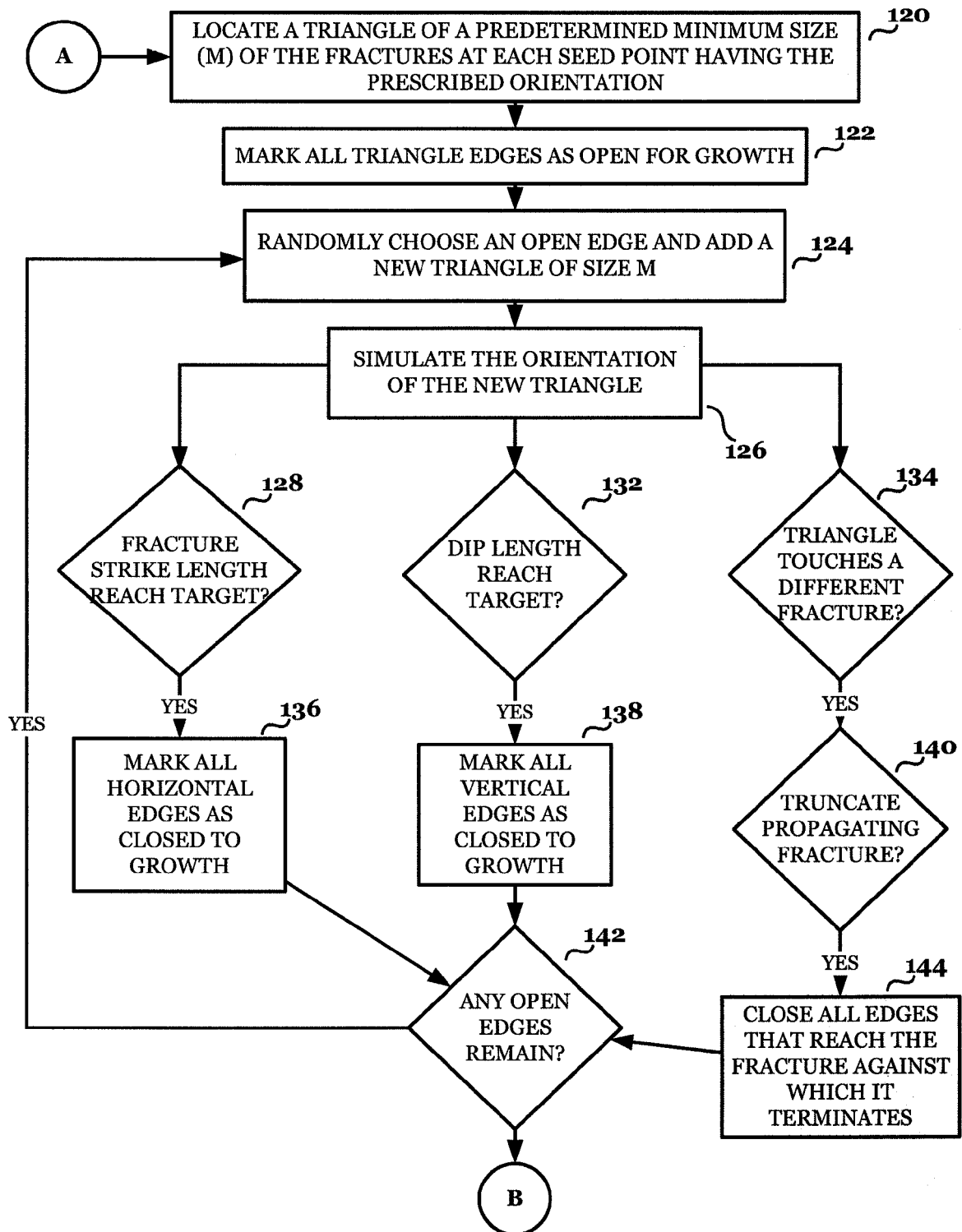
FIGURE 1B

FIGURE 1C

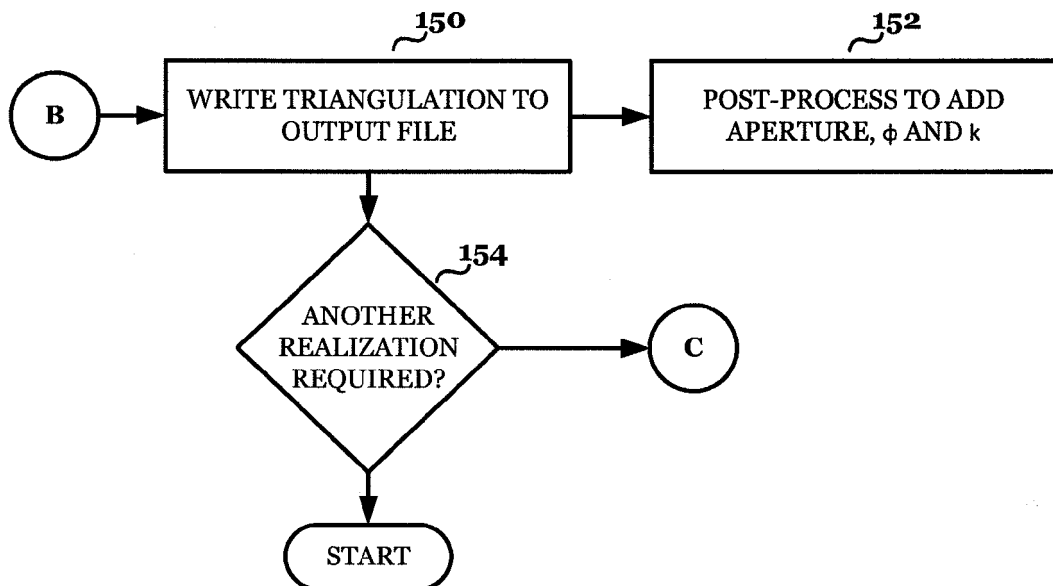


FIGURE 2

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Determine_Simulated_Fracture_Parameters (geological_analogs){
    Determine the minimum size of the fractures to be simulated [M];
    Determine number of fracture sets [NS];
    For Each Fracture Set (i) {
        Determine the cumulative frequency distribution the strike length [L] for fractures in the set [fi,i];
        Determine the probability distribution of the ratio of strike length to dip length [R] for fractures in the set
        [fr,i];
        Determine the probability distribution of the strike angle [θ] for fractures in the set [fθ,i];
        Determine the probability distribution of the dip angle [δ] for fractures in the set [fδ,i];
        Determine the degree of clustering of the fractures for fractures in the set [Ci];
        Determine the degree of smoothness of the fracture surfaces for fractures in the set [Si];
    }
    For each pair of fracture sets (i, j){
        Determine the probability that a fracture from set i truncates against a fracture from set j (Prob{Ti j});
    }
}

```

FIGURE 3

```
Determine_Actual_Fracture_Parameters (image logs in well bores){  
    Determine the number of observed fractures;  
    For each observed fracture{  
        Determine location coordinates where it intersects the well bore;  
        Determine the strike and dip of the fracture where it intersects the well bore;  
    }  
    Determine the number of imaged intervals over which the image log provides data;  
    For each imaged interval{  
        Determine the coordinates of the endpoints of the imaged interval;  
    }  
}
```

FIGURE 4

