```
{序號,姓名,字,號,排行,生日,卒日,配偶,
   子女序號,子女,過繼於,出宗,居地,職業,備註} = Range[15];
      (序號 姓名字 號排行 生日 卒日 配偶 子女序號 子女 過繼於 出宗 居地 職業 備註),
                                          (*to be filled*)
compare[a_, b_] := If[ToString[a == b] == "True", True, False]
(*compare anything with strange variables*)
namelist = {};
Do[info[[n, 子女序號]] = {};
  If[MemberQ[namelist, info[[n, 姓名]]] == False, AppendTo[namelist, info[[n, 姓名]]]];
  info[[n,序號]] = Position[namelist, info[[n,姓名]]][[1,1]];
  (*add a new person if he is not in namelist*)
  Do[If[MemberQ[namelist, info[[n, 子女, c, 1, 1]]] == False,
    AppendTo[namelist, info[[n, 子女, c, 1, 1]]]];
   (*add a new person's children if he is not in namelist*)
   If [MemberQ[Transpose[info][[姓名]], info[[n, 子女, c, 1, 1]]] == False,
    AppendTo[info, {Position[namelist, info[[n, 子女, c, 1, 1]]][[1, 1]],
      AppendTo[info[[n, 子女序號]], Position[namelist, info[[n, 子女, c, 1, 1]]][[1, 1]]];,
   {c, Length[info[[n,子女]]]}];
  , {n, 2, Length[info]}];
info = SortBy[info, First];
Do
  info[[Position[namelist, info[[n, 子女, c, 1, 1]]][[1, 1]] + 1, 排行]] =
   info[[n, 子女, c, 2, 1]], \{n, 2, Length[info]\}, \{c, Length[info[[n, 子女]]]\}
(*MatrixForm@info*)
tree = {};
Do[If[!compare[info[[n,子女序號]],□],
   AppendTo[tree, If[!compare[info[[info[[n,子女序號,c]]+1,過繼於]],□]&&
      ! compare[info[[n, 姓名]], info[[info[[n, 子女序號, c]]+1, 過繼於]]],
     {info[[n, 序號]] → info[[n, 子女序號, c]], "過繼"},
     info[[n, 序號]] → info[[n, 子女序號, c]]]]],
  {n, 2, Length[info]}, {c, Length[info[[n, 子女序號]]]}];
singlEfolD[x_List, idx_, label_] := Which[
   compare[label, "過繼"],
   {Dashed, Red, Thick, Arrowheads[{{.0, .0}}],
    Arrow@BSplineCurve[{First[x], First[x] - {0, 0.3}, (*Total[
        x[[{1,-1}]] If[First[x][[1]]>Last[x][[1]],{{0,1},{1,0}},{{1,0},{0,1}}]],*)
       Last[x] + \{0, 0.3\}, Last[x]\}, SplineWeights \rightarrow \{5, 10, 10, 5\}\},
   True, {Blue, Arrowheads[{{.0, .0}}], Arrow@BSplineCurve[
      {First[x], First[x] - {0, 0.3}, (*Total[
        x[[{1,-1}]] If[First[x][[1]]>Last[x][[1]],{{0,1},{1,0}},{{1,0},{0,1}}]],*)
       Last[x] + \{0, 0.3\}, Last[x]\}, SplineWeights \rightarrow \{5, 10, 10, 5\}]\};
VerticalChinese[str_, alignment_: "Top", style_] := 
  lines = StringSplit[str, "\n"];
  lineLength = Table[StringLength@lines[[1]], {1, Length[lines]}];
  chars = Table[StringSplit[lines[[1]], ""], {1, Length[lines]}];
```

```
width = Max[lineLength];
  chArray = Which[alignment == "Bottom", PadLeft[chars, {Length[lines], width}, ""],
    alignment == "Top", PadRight[chars, {Length[lines], width}, ""]];
  dim = Dimensions[chArray];
  mat = Table[el = ToString[chArray[[j, i]]];
    If [MemberQ[special, el], Rotate [el, -\frac{\pi}{2}], el], {i, dim[[2]]}, {j, dim[[1]], 1, -1}];
  (*matstr=StringJoin[mat]*)
  Style[Grid[mat, Spacings \rightarrow \{0.05, -0.05\}], style]
g = LayeredGraphPlot [tree, DirectedEdges → False,
   VertexRenderingFunction \rightarrow \Big[ \{ Opacity[0.8, White], EdgeForm[None], \} \Big] \Big]
       p = info[[#2 + 1]]; disp = DeleteCases[{
           If [compare [StringTake [ToString [p [[排行]]], -1],
             StringTake[ToString[p[[姓名]]], -1]], "", ToString[p[[排行]]] <> "\n"],
           ToString|p||姓名|||,
           "\n字 " <> ToString[p[[字]]], "\n號 " <> ToString[p[[號]]],
           "\n"<> If[compare[StringTake[ToString[p[[排行]]],-1],"女"],"適 ","妻 "] <>
            ToString[p[[配偶]]]}, _?(StringMatchQ[#, "*□"]&)];
       labellength = Min[Max[StringLength@disp], 5];
        (*Rectangle[#1-{\frac{1abellength}{16},0.2},#1+{\frac{1abellength}{16},0.2}]*)
       Disk[#1, labellength ], Opacity[1, Black],
       Inset[VerticalChinese[StringJoin@disp, "Top",
          {Which compare StringTake ToString p [排行]], -1, "女"],
            Darker[Red], compare[p[[出宗]],逐出宗], Darker[Green], True, Black],
           FontFamily \rightarrow "Kaiti TC", 11, Bold \}], #1] \} & ,
   EdgeRenderingFunction → (singlEfolD[#1, #2, #3] &),
   (*PlotRange→
    \{\{-10,0.8\},\{-32,40\}\},\star\}
   PlotRangePadding \rightarrow \{0.1, 0\},
   ImageSize → 3800,
   AspectRatio \rightarrow 1/4.5;
            ", VerticalChinese["洪都李氏渡江新譜 樹狀圖", "Top",
   {Red, FontFamily → "Heiti TC", FontSize → 30}]}]
```

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