

The Making of My Mother's Book: From a Family Database to Family Trees

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Problem statement



Barbara Bielawska-Dębowska (1937–2020), my mother, did family research (> 2300 persons in her data base), authored or edited six books about the family history:

- 1 Helena z Jaczynowskich Roth, Czasy. Miejsca. Ludzie. Wspomnienia z Kresów Wschodnich, Wydawnictwo Literackie, Kraków 2009.
- 2 BBD, Piotr Roth-Jaczynowski, O polskich Rothach, wyd. Piotr Roth-Jaczynowski, Łódź-Warszawa, marzec-lipiec 2000.
- 3 BBD, Wesołowscy z Rawy, Wydawnictwo WAM, Rawa Mazowiecka 2013.
- 4 BBD, Wesołowscy. Post scriptum, wyd. BBD, Łódź 2017.
- 5 BBD, Westernalia, czyli 10 pokoleń Westerskich, wyd. BBD, Łódź 2019.
- 6 **BBD, Bielawscy – Pięciu w linii prostej, wyd. Łukasz Dębowski, Łódź, 2021.**

How to make a family tree in \LaTeX ?

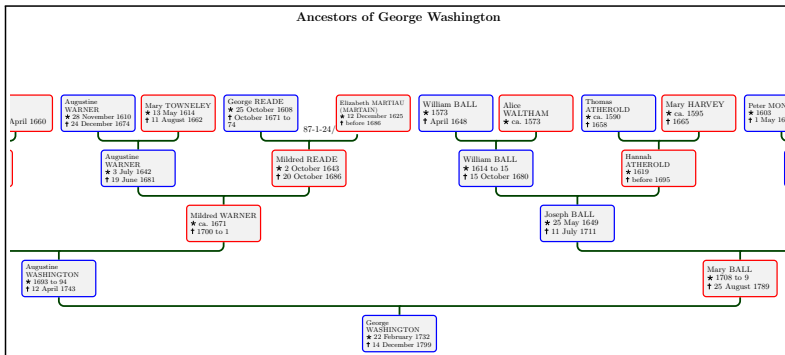
<https://ctan.org/tex-archive/macros/latex/contrib/genealogytree>

The \LaTeX package **genealogytree** – version 2.3.0 (2023/03/09)

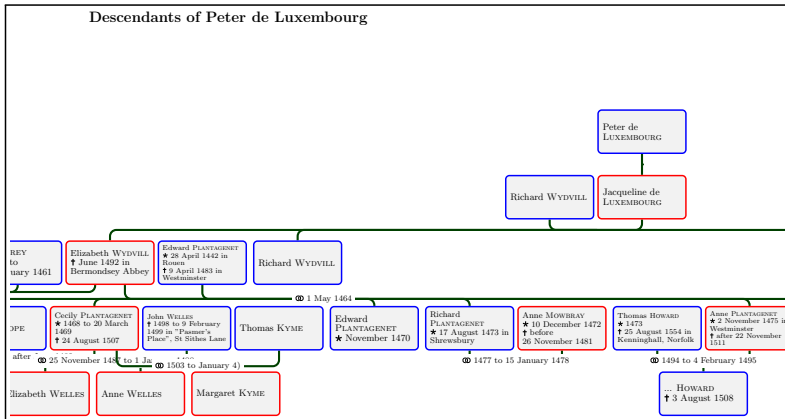
Copyright (c) 2013-2023 by Prof. Dr. Dr. Thomas F. Sturm

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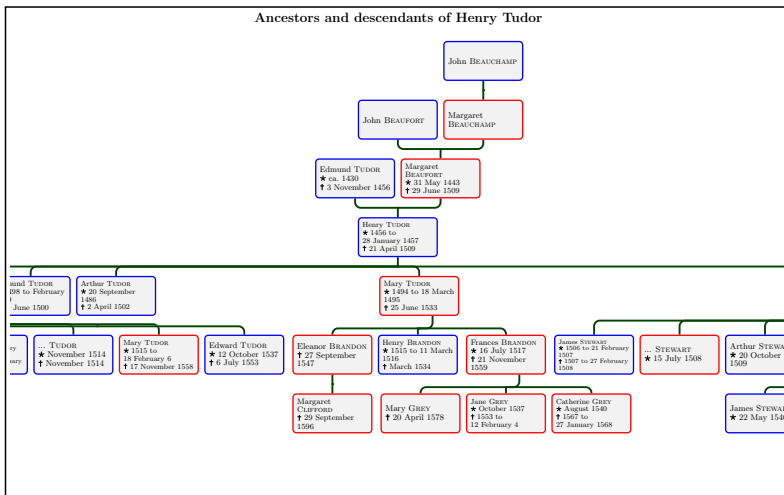
Ancestor tree



Descendant tree



Sandclock tree



Working with genealogytree.sty

```

\documentclass[landscape]{article}
\usepackage[paperwidth=80cm,paperheight=20cm,margin=0cm]{geometry}
\usepackage[OT4]{fontenc}
\usepackage[all]{genealogytree}
\begin{document}
\newcommand{\mytree}[2]{
\begin{tikzpicture}
\genealogytree[
processing=database, database format=medium,
date format=d month yyyy,
node size=3cm, level size=1.5cm, level distance=7mm,
label options={fill=white,node font=\footnotesize},
edges={rounded,foreground={line width=2pt}},
box={fit basedim=9pt,boxsep=2pt,segmentation style=solid,
halign=flush left,valign=center,\gtrDBsex}]{input{input_files/#2}}
\end{tikzpicture}
}
\mytree{Ancestors and descendants of Henry Tudor}{Henry_Tudor.tex}
\end{document}

```

Henry_Tudor.tex

```

sandclock[id=I1]{
  child[id=F1]{
    g[id=I1]{male,name={Henry \surn{Tudor}},birth={1456/1457-1-28}{},death={1509-4-21}{}}
    child[id=F13]{
      g[id=I14]{male,name={Henry \surn{Tudor}},birth={1491-6-28}{},death={1546/1547-1-28}{}}
      c[id=I265]{female,name={Elizabeth \surn{Tudor}},birth={1533-9-7}{},death={1603-3-24}{}}
      union[id=F174]{
        child[id=F175]{
          g[id=I264]{female,name={Catherine \surn{Carey}},birth={(caAD)1524}{},death={}{}}
        }
        child[id=F176]{
          g[id=I263]{male,name={Henry \surn{Carey}},birth={1525/1526-3-4}{},death={1596-7-23}{}}
        }
      }
    }
    union[id=F18]{
      child[id=F28]{
        g[id=I22]{male,name={Henry \surn{Fitzroy}},birth={1519}{},death={1536-7-22}{}}
      }
    }
    union[id=F12]{
      c[id=I32]{male,name={Henry \surn{Tudor}},birth={1510/1511-1-1}{},death={1510/1511-2-22}{}}
      c[id=I33]{male,name={... \surn{Tudor}},birth={1514-11}{},death={1514-11}{}}
      child[id=F177]{
        g[id=I266]{female,name={Mary \surn{Tudor}},birth={1515/6-2-18}{},death={1558-11-17}{}}
      }
    }
    union[id=F14]{
      c[id=I34]{male,name={Edward \surn{Tudor}},birth={1537-10-12}{},death={1553-7-6}{}}
    }
    union[id=F15]{
...

```


GEDCOM (Ancestris, Gramps, Family Tree Maker)

<https://en.wikipedia.org/wiki/GEDCOM>

„GEDCOM (JED-kom), complete name FamilySearch GEDCOM, is a de facto open file format specification to store genealogical data, and import or export it between compatible genealogy software.[2] GEDCOM is an acronym standing for **Genealogical Data Communication**. GEDCOM was developed by the **Church of Jesus Christ of Latter-day Saints** (LDS Church) as an aid to genealogical research.[3] Most genealogy software supports importing from and exporting to GEDCOM format.[4]

As of version 7.0, a GEDCOM file is defined as UTF-8 encoded plain text. This file contains genealogical information about individuals such as names, events, and relationships; metadata links these records together. GEDCOM 7.0 is the first version to use semantic versioning, and is the most recent minor version of the specification.”

Eight marriages of Henry VIII in GEDCOM

```

0 @I14@ INDI
1 NAME Henry /Tudor/
1 SEX M
1 BIRT
2 DATE 28 Jun 1491
2 PLAC Greenwich
1 DEAT
2 DATE 28 Jan 1546/1547
1 FAMS @F12@           % Catherine of /Aragon/
1 FAMS @F13@           % Anne /Boleyn/
1 FAMS @F14@           % Jane /Seymour/
1 FAMS @F15@           % Anne of /Cleves/
1 FAMS @F16@           % Catherine /Howard/
1 FAMS @F17@           % Catherine /Parr/
1 FAMS @F18@           % Elizabeth /Blount/
1 FAMS @F174@          % Mary /Boleyn/
1 FAMC @F1@            % Henry /Tudor/ & Elizabeth /Plantagenet/
1 TITL King Henry VIII
2 DATE FROM 22 Apr 1509

```

Henry VIII and Catherine of Aragon in GEDCOM

```

0 @F12@ FAM
1 HUSB @I14@           % Henry /Tudor/
1 WIFE @I15@          % Catherine of /Aragon/
1 CHIL @I32@          % Henry /Tudor/
1 CHIL @I33@          % ... /Tudor/
1 CHIL @I266@         % Mary /Tudor/
1 MARR
2 DATE 11 Jun 1509
2 PLAC Greyfriars, Greenwich
2 NOTE secretly
2 NOTE a papal dispensation was given
2 SOUR @S1@
3 PAGE Volume 3, page 442
1 EVEN
2 TYPE Marriage pronounced null
2 DATE 23 May 1533
2 SOUR @S1@
3 PAGE Volume 3, page 442

```

My solution

<https://github.com/lukasz-debowski/Gedcom2Latex>

[gedcom2latex.pl](#) (408 lines) GNU GPL

```
#!/usr/bin/perl
```

```
# A simple Perl script to extract the most important fields of a  
# GEDCOM formatted file to a family tree to be typeset with the  
# genealogytree.sty LaTeX package.
```

```
# USAGE
```

```
# ./gedcom2latex.pl find (name|id) NAME GEDCOM_FILE
```

```
# ./gedcom2latex.pl (up|down|both) HEIGHT (short|long) (name|id)  
NAME_OR_ID GEDCOM_FILE > OUTPUT_FILE
```

```
use utf8;
```

```
use strict;
```

Finding a person

```
# ./gedcom2latex.pl find (name|id) NAME GEDCOM_FILE
```

```
ldebowsk@halibook:~$ gedcom2latex.pl find name Helena Debowsky.ged
```

```
There are following persons named 'Helena':
```

```
[id=I0019]{female,name={Aleksandra Helena \surn{Wesołowska}},  
          birth={1883-2-26}{Rawa},death={1965-4-10}{Łódź}}
```

```
[id=I0084]{female,name={Helena \surn{Płodowska}},  
          birth={1861-2-7}{Stryków},death={1936-6-3}{}}
```

```
[id=I0169]{female,name={Helena \surn{Raczyńska}},  
          birth={},death={}}
```

```
[id=I0238]{female,name={Helena \surn{Szrajer}},  
          birth={1898-9-25}{Rawa},death={1968-8-30}{Warszawa}}
```

```
[id=I0260]{female,name={Helena \surn{Rudzińska}},  
          birth={1884}{},death={1979-2-23}{}}
```

```
[id=I0355]{female,name={Helena \surn{Skwarcz}},  
          birth={},death={}}
```

```
[id=I0378]{female,name={Helena (Lola) Wiktoria Aniela  
          \surn{Jaczynowska}},birth={1893-8-3}{St.Petersburg},  
          death={1980-4-14}{Kraków}}
```

```
...
```

Making a tree

```
# ./gedcom2latex.pl (up|down|both) HEIGHT (short|long) (name|id)
                        NAME_OR_ID GEDCOM_FILE > OUTPUT_FILE

ldebowsk@halibook:~$ gedcom2latex.pl up 2 short id I0378 Debowsky.ged
                        > Lola_ancestors.tex
ldebowsk@halibook:~$ cat Lola_ancestors.tex
parent[id=I0058_GTG_I0423]{
    g[id=I0378]{female,name={Helena (Lola) Wiktorja Aniela
        \surn{Jaczynowska}},birth={1893-8-3}{},
        death={1980-4-14}{}}
    parent[id=I0056_GTG_I0049]{
        g[id=I0058]{male,name={Stanisław Karol Jr.
            \surn{Jaczynowski}},birth={1855-4-17}{},
            death={1920-11-17}{}}
        p[id=I0056]{male,name={Stanisław \surn{Jaczynowski}},
            birth={1825}{},death={{caAD}1865}{}}
        p[id=I0049]{female,name={Marianna \surn{Roth}},
            birth={1835-4-1}{},death={1912-10-5}{}}
    }
...

```

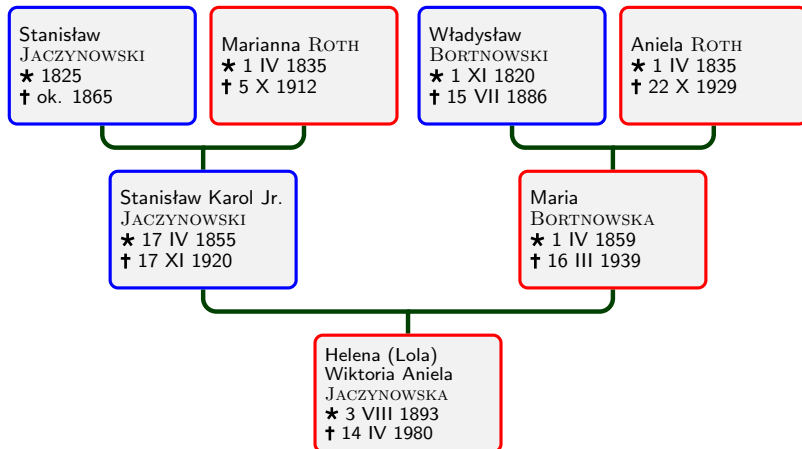
Formatting the tree with `genealogytree.sty`

```

\begin{tikzpicture}
  \gtrset{
    date format={d M yyyy},
    calendar text for=AD is {}{},
    calendar text for=BC is {}{ p.n.e.},
    calendar text for=ca is {ok. }{},
    date range full={}{--}{}", date range before={przed }{},
    date range after={po }{}, place text={\newline}{}},
  }\genealogytree[
    timeflow=down, processing=database,
    database format=medium, node size=3cm, level size=1.9cm,
    level distance=7mm,
    label options={fill=white,node font=\footnotesize},
    edges={rounded,foreground={line width=2pt}},
    box={fit basedim=9pt,boxsep=2pt,segmentation style=solid,
      halign=flush left,valign=center,\gtrDBsex
    }]{input{Lola_ancestors.tex}}
\end{tikzpicture}

```

Final tree



Abstract of this talk by ChatGPT

This presentation chronicles the journey of Barbara Bielawska-Dębowska (1937–2020), the author of six books on family history, from compiling a vast family database to creating intricate family trees. With over 2300 individuals meticulously cataloged, Barbara's work represents a remarkable dedication to preserving familial heritage.

The presentation introduces the audience to the genealogytree package in LaTeX, specifically version 2.3.0 by Prof. Dr. Dr. Thomas F. Sturm, which facilitates the creation of family trees. Through examples and demonstrations, attendees gain insights into the practical application of this tool in visualizing complex familial relationships.

Furthermore, the presentation highlights the GEDCOM format, a standard for storing genealogical data, and showcases a Perl script, `gedcom2latex.pl`, developed by the presenter. This script efficiently extracts essential fields from GEDCOM files and transforms them into LaTeX-compatible family tree structures, streamlining the process of generating family trees from existing genealogical data.

Attendees leave with a comprehensive understanding of the tools and techniques employed in translating raw family data into visually compelling family trees, honoring the legacy of Barbara Bielawska-Dębowska and her contributions to the field of genealogy.

My own abstract

We introduce a \LaTeX -based pipeline that allows for typesetting of family trees extracted from popular genealogy databases. Our work is motivated by the posthumous publication of Barbara Bielawska-Dębowska's (1937–2020) final book, *Bielawscy – Pięciu w linii prostej*, where we applied this pipeline.

Our framework rests on the CTAN `genealogytree` package, by Thomas F. Sturm, which facilitates the creation of complex customizable family trees via `tikz pictures`. Unfortunately, this package does not provide a tool for extracting the \LaTeX source code of family trees from sheer genealogical text data bases, usually stored in the GEDCOM format, a de facto standard developed by the Church of Jesus Christ of Latter-day Saints. For example, Bielawska-Dębowska's database counts over 2300 individuals.

Seeing the need for extracting the \LaTeX code from GEDCOM databases, we wrote `gedcom2latex.pl`, a Perl script that generates the \LaTeX code in three standard tree formats of the `genealogytree` package: the ancestor tree, the descendant tree, and the sandclock tree. Script `gedcom2latex.pl` can locate an individual's ID in the GEDCOM database and draw a tree with a desired number of generations starting from this individual.

Script `gedcom2latex.pl` and accompanying examples have been published on GitHub (<https://github.com/lukasz-debowski/Gedcom2Latex>) and are available through the GNU General Public License.

Po polsku (tłumaczenie ChatGPT + korekta)

Przedstawiamy potok oparty na \LaTeX -u, który umożliwia składanie drzew genealogicznych wydobywanych z popularnych baz danych genealogicznych. Nasza praca jest motywowana pośmiertnym wydaniem ostatniej książki Barbary Bielawskiej-Dębowskiej (1937–2020), *Bielawscy – Pięciu w linii prostej*, w której zastosowaliśmy ten potok.

Nasza metoda opiera się na pakiecie `genealogytree` dostępnym na CTAN-ie, autorstwa Thomasa F. Sturma, który ułatwia tworzenie złożonych i konfigurowalnych drzew genealogicznych jako obrazków `tikz`. Niestety, pakiet ten nie dostarcza narzędzia do generowania kodu źródłowego \LaTeX -a drzew genealogicznych na podstawie obszernych tekstowych baz danych genealogicznych, zazwyczaj przechowywanych w formacie GEDCOM, standardzie de facto opracowanym przez Kościół Jezusa Chrystusa Świątych w Dniach Ostatnich. Przykładowo, baza danych Barbary Bielawskiej-Dębowskiej zawiera ponad 2300 osób.

Dostrzegając potrzebę generowania kodu \LaTeX -owego z baz danych GEDCOM, napisaliśmy skrypt w Perlu o nazwie `gedcom2latex.pl`, który generuje kod \LaTeX -a w trzech standardowych formatach drzew pakietu `genealogytree`: drzewa przodków, drzewa potomków i drzewa klepsydry. Skrypt `gedcom2latex.pl` umożliwia zlokalizowanie identyfikatora danej osoby w bazie danych GEDCOM i narysowanie drzewa z zadaną liczbą pokoleń rozpoczynającego się od tej osoby.

Skrypt `gedcom2latex.pl` z przykładami użycia został opublikowany na platformie GitHub (<https://github.com/lukasz-debowski/Gedcom2Latex>) i jest dostępny na licencji GNU General Public License.