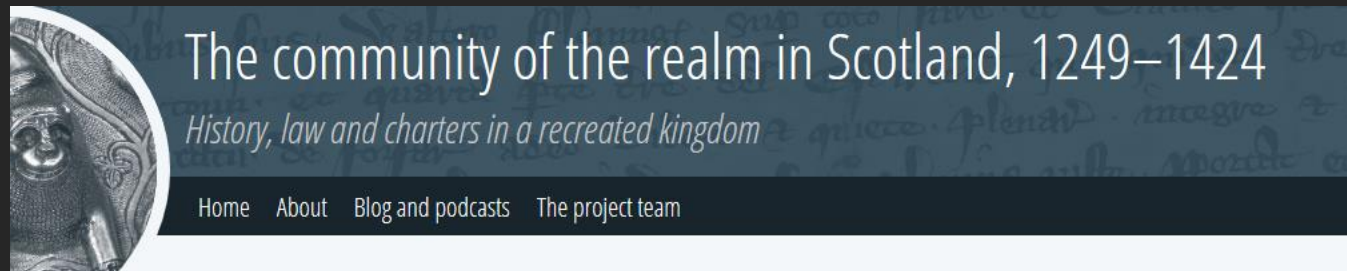


Dynamic Networks of Scottish Charter Witnesses, continued

Matthew Hammond

King's College London



The community of the realm in Scotland, 1249–1424

History, law and charters in a recreated kingdom

[Home](#) [About](#) [Blog and podcasts](#) [The project team](#)

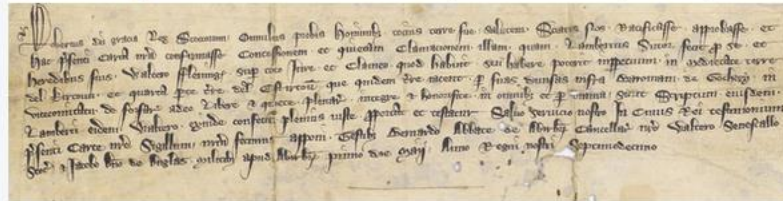
The 'community of the realm in Scotland' project (COTR) is an innovative collaborative research project which will show how new ways of representing medieval texts in digital media can yield new understandings of medieval political communities and their written manifestations. This website provides resources on medieval Scotland during the Wars of Independence with England for public consumption and highlights our new approach to representing key documents and texts from Scotland's medieval past.

Regiam Maiestatem: Scotland's ancient law?



What are the problems with Scotland's earliest surviving legal treatise?

The People of Medieval Scotland, 1093-1371 (PoMS)



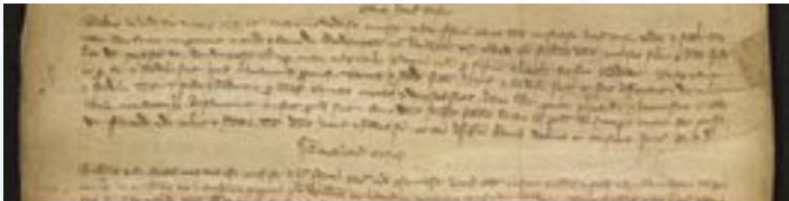
COTR is extending the PoMS database to 1371 – click here to search for any one who appears in a charter over a 400-year period.

Public Events: PoMS and COTR join forces!



Upcoming: 22 September – an afternoon of public history with the revamped PoMS database at Newbattle Abbey College

Robert I's charters: documents and itinerary



Find out more about Robert Bruce's charters and what they can tell us about what the king was doing, and when.

The Declaration of Arbroath: a new 'dynamic' digital edition



An edition of the declaration showing how the text changed over time.

What's behind our new Dynamic digital editions?



Check out the principles behind our 'dynamic' editions of the Declaration of Arbroath and Regiam Maiestatem

Social Network Researchers of the Middle Ages (SNARMA)

Social Network Analysis Researchers of the Middle Ages (SNARMA)
Closed group

AboutDiscussionChatsMembersEventsPhotosGrid PhotosHighlightsModerate group

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Shortcuts

- Social Network Analysis...
- Sofie's Darlings of R... 2
- The People of Medi... 20+
- Digital Medievalist 1
- Historical Social Networ...
- Yorkshire for Bernie Sa...

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NEW ACTIVITY ▾

Matthew Hunter Hammond shared a link.
Admin · 6 hrs
<https://www.eusn2019.ethz.ch/>

EUSN2019.ETHZ.CH
EUSN2019

INVITE MEMBERSEmbed invitation

+ Enter name or email address...

MEMBERS131 members

You have 2 new members this week. Write a post to welcome them.
[Write Post](#)

INVITEDSee more

catherine.healy92@...
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DESCRIPTIONEdit


The purpose of SNARMA is threefold:
1) in order for researchers ... [See more](#)

com/groups/366736340519859/photos/

Social Network Analysis Researchers of the Middle Ages (SNARMA)

- Facebook: @MedievalSNA
- The purpose of SNARMA is threefold:
 - 1) in order for researchers of the Middle Ages using social network analysis methods and concepts to provide support for each other
 - 2) in order for SNA medieval researchers to collaborate in terms of both research and teaching
 - 3) in order to spread the word about SNA to historians and other medievalists

@medievalSNA



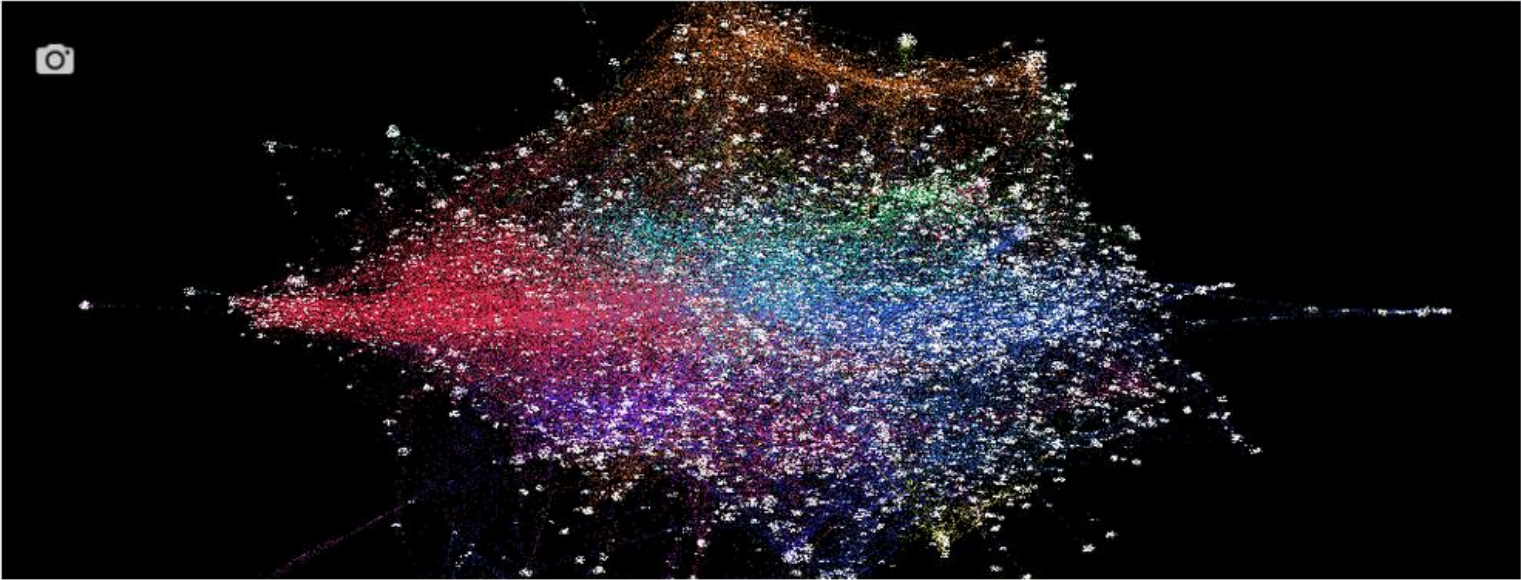
Social Network
Analysis
Researchers of the
Middle Ages
@MedievalSNA






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- Posts
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Learn which types of ads are recommended for Social Network ... by answering a few quick questions.


Get Started




  Liked  Following  Share 

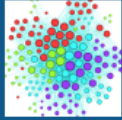
Send Message 

Create  Live  Event  Offer  Job

 No rating yet

 Write a post...

Your Pages (only visible to you)



MEDIEVAL SNA

Social Network Analysis Researchers of the Middle Ages (SNARMA)

[WELCOME!](#)[BLOG](#)[RESOURCES](#)[EVENTS](#)[SNA RESEARCHERS](#)[CONNECTIONS](#)[BIBLIOGRAPHY](#)[CONTACT](#)

Welcome!

This is the website of the Social Network Analysis Researchers of the Middle Ages (SNARMA). There is much more to come. For now, see our [Facebook group](#).

The purpose of SNARMA is threefold:

- 1) in order for researchers of the Middle Ages using social network analysis methods and concepts to provide support for each other
- 2) in order for SNA medieval researchers to collaborate in terms of both research and teaching
- 3) in order to spread the word about SNA to historians and other medievalists

[EDIT](#)

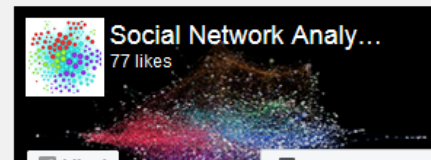
ARCHIVES

April 2019

August 2018

July 2018

@MEDIEVALSNA



Events

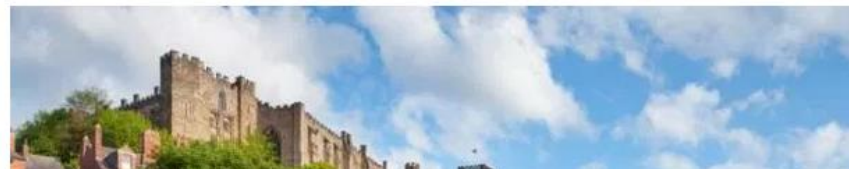

Leeds, 29 March 2019



An Introduction to Historical Social Network Analysis, Institute of Medieval Studies, University of Leeds, 29 March 2019.

[VIEW MATERIALS HERE](#)

Durham, 2 May 2019

ARCHIVES

April 2019

August 2018

July 2018

@MEDIEVALSNA



Social Network Analy...
77 likes

 Liked  Send Message

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SNA work can be found at <https://www.poms.ac.uk/help/social-network-analysis/>

Ms Esther Lewis is completing her PhD at the University of Nottingham on Popular Piety in Pre-Reformation Bristol, 1400-1500. Esther organized a successful day-conference in June 2018 at the Institute of Historical Research called 'Negotiating Networks'.

For any question concerning the content of the workshop please contact Dr Matthew Hammond at matthew.hammond@kcl.ac.uk

Sponsored by University of Leeds Institute for Medieval Studies (IMS) and Social Network Analysis Researchers of the Middle Ages (SNARMA)

Website: <https://medievalсна.com/>; <https://www.facebook.com/MedievalSNA/>

With support of King's College London and AHRC-funded project Community of the Realm in Scotland, 1249-1424: history, law and charters (www.cotr.ac.uk)

Session 1 powerpoint

[Medieval Historians Social Network Analysis Presentation](#)

Sessions 2 and 3 powerpoint

[SNA Leeds Workshop](#)

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Facets

People and institutions

- Surnames (6521)
- Forenames (1430)
- Gender/type (5)
- Titles/occupations (2642)
- Institutions (525)
- Medieval Gaelic forename (296)
- Medieval Gaelic surname (10)
- Modern Gaelic forename (291)

Sources

- Document type (31)
- Document category (7)
- Grantor category (49)
- Place date modern (694)
- Language (6)

Search

Keyword(s)

Year from

1093

Year to

1371

Apply

Reset

Showing All Records (21830)

Listing items 1 to 50, page 1 of 437

Full Name	Floruit
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Database

Social Network Analysis

[Glossary of SNA Terms](#)[SNA Bibliography](#)[Relationships](#)[Royal Charter Witnesses](#)[Ecclesiastical Charter Witnesses](#)[Private Charter Witnesses](#)[Witnesses to all charters](#)[SNA Person Profiles](#)[Grantors and Beneficiaries](#)[Maps](#)

Social Network Analysis

The Leverhulme Trust generously funded a three-year project (2013-2016) called 'The Transformation of Gaelic Scotland in the Twelfth and Thirteenth Centuries'. The project team included Prof Dauvit Broun and Dr Matthew Hammond of the University of Glasgow School of Humanities and Mr John Bradley and Dr Cornell Jackson of Kings College London Department of Digital Humanities. This project provided for the mapping facilities now available on the website (thanks to Neil Jakeman) as well as exploratory research on using Social Network Analysis on the PoMS database.

Social Network Analysis is an interdisciplinary bundle of methods, techniques and concepts taken from matrix algebra, graph theory, and decades of sociological and anthropological research. The work conducted by this project marks the first time SNA has been applied to medieval society on such a large canvas. We hope that our findings will provide the disciplines of medieval history and digital humanities with new models, methods and ideas. In particular, our results offer insight into both exciting possibilities and perplexing challenges stemming from the application of SNA methods to a large-scale digital prosopographical database which has been carefully designed to represent the social context of documentary production.

This project is also unprecedented in the extent to which our workings are open and accessible to the public. First, the database from which the datasets were drawn is fully available on this website. Second, we have created a number of interactive SNA visualizations using the program Gephi, so that users can explore the some of the graphs (known as 'sociograms') in greater detail. Third, we are publishing most of our results in a nearly-500-page e-book, ***Social Network Analysis and the People of Medieval Scotland 1093-1286 (PoMS) Database***, available for free on this website. This explains in detail which SNA methods were most fruitful, describes the datasets and techniques fully, with dozens of tables and illustrations giving the results. We hope this will give medieval historians and historical social network researchers both a lot to engage with. Finally, we have provided over 60 Excel spreadsheets, laying out the makeup of datasets and the full results for centrality and other calculations. We hope that making our work so transparent and accessible will help encourage the greatest possible level of scholarly engagement.

[NEW SNA E-BOOK AVAILABLE HERE](#)

Choose graph: ---

Currently viewing: **Family relationships**

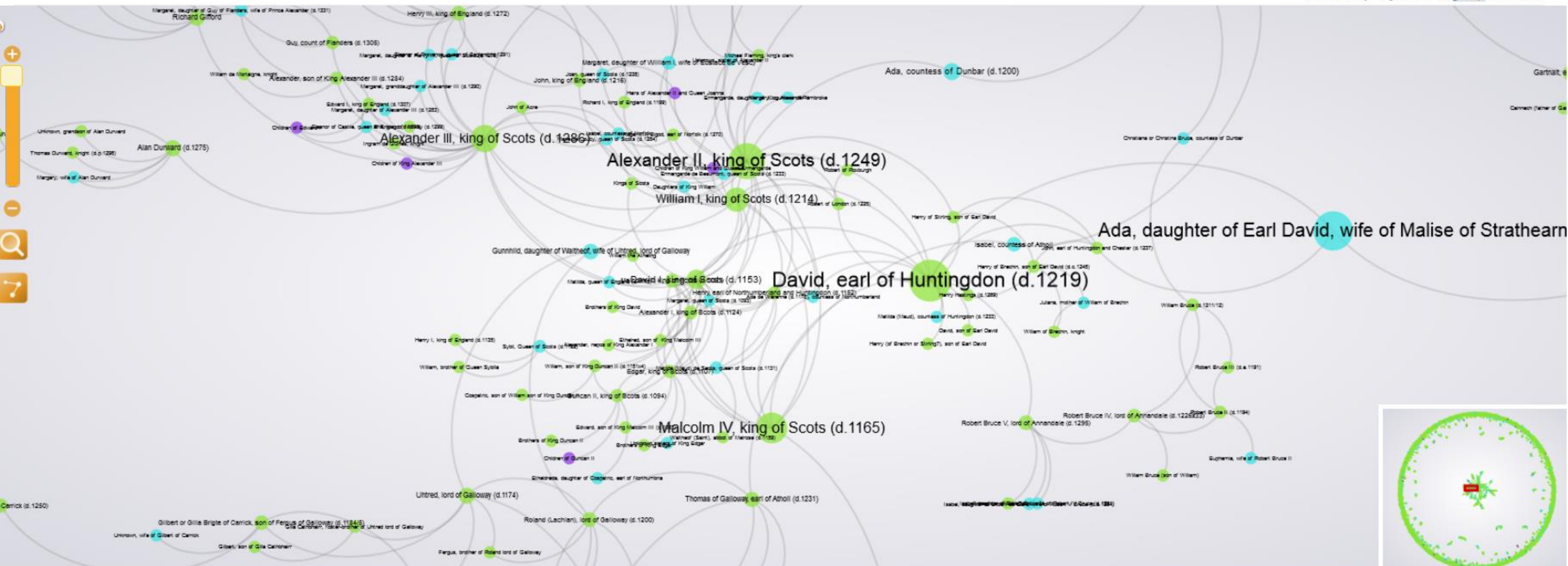
Children / Heirs

Female

Male

Locate an individual:

(Powered by Raphael Velt's [gexf-js](#) software.)



16 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 CMS.

Wilhelmus dei gra rex scottorum omnibus p[ro]p[ri]is hominib[us] toti terre sue salute. Satis q[uo]d me p[re]sente et p[re]sente p[re]s[ent]e
baronib[us] et p[re]s[ent]e aliis p[ro]p[ri]is hominib[us] regni mei die s[an]c[t]e luc[is] evangeliste. n[ost]r[is] monachos de geylros et ho[m]ines de Wad
sup[er] pascua fuisse me et q[ui]n antecessores mei et ego d[omi]nos monachos de geylros in pura et p[er]petua elemosina
dedit[ur] p[er] iuramentu[m] fidelium iuror[um] facta sunt pambulacio et certa finiu[m] limitacio. Iuraverunt siq[ui]de cora[m] me et
p[ro]p[ri]is hominib[us] meis p[ro]p[ri]i fideles q[uo]d hereditas mea que est pascua d[omi]n[or]um monachor[um] de geylros tendit usq[ue] ad
via[m] que vadit ad occidentem p[ar]te ecclesie de Wad et usque ad rivulu[m] qui vocatur felleburne. Quare volo
concedo et p[re]cipio q[uo]d d[omi]ni monachi tota p[re]dicta pascua cu[m] om[n]ib[us] assiametis et libertatib[us] suis pacifice teneant
et possideant usq[ue] ad p[re]dictas diuisas in pura lib[er]am et p[er]petua[m] elemosinam p[ro]p[ri]e s[ue] et suis successorib[us] ita q[uo]d
nulli omnino habeant n[isi] ip[s]os aut cu[m] ip[s]is infra p[re]dictas diuisas p[ro]p[ri]e pascue. Salus in et hereditib[us]
meis. feris et animalib[us] et uenacione infra damu[m] forestam. G[er]ardus sp[irit]us s[an]c[t]i And[ree]. Joacimo sp[irit]us s[an]c[t]i Olaf.
Totus abbe de balchoi. e[cc]lesie abbe de sed[un]gord. comite. d[omi]ni. Ricardus de geylro. constabularius et multis aliis.

Figure 5.64. Gephi: Witnesses to documents of William I (1165-1214)

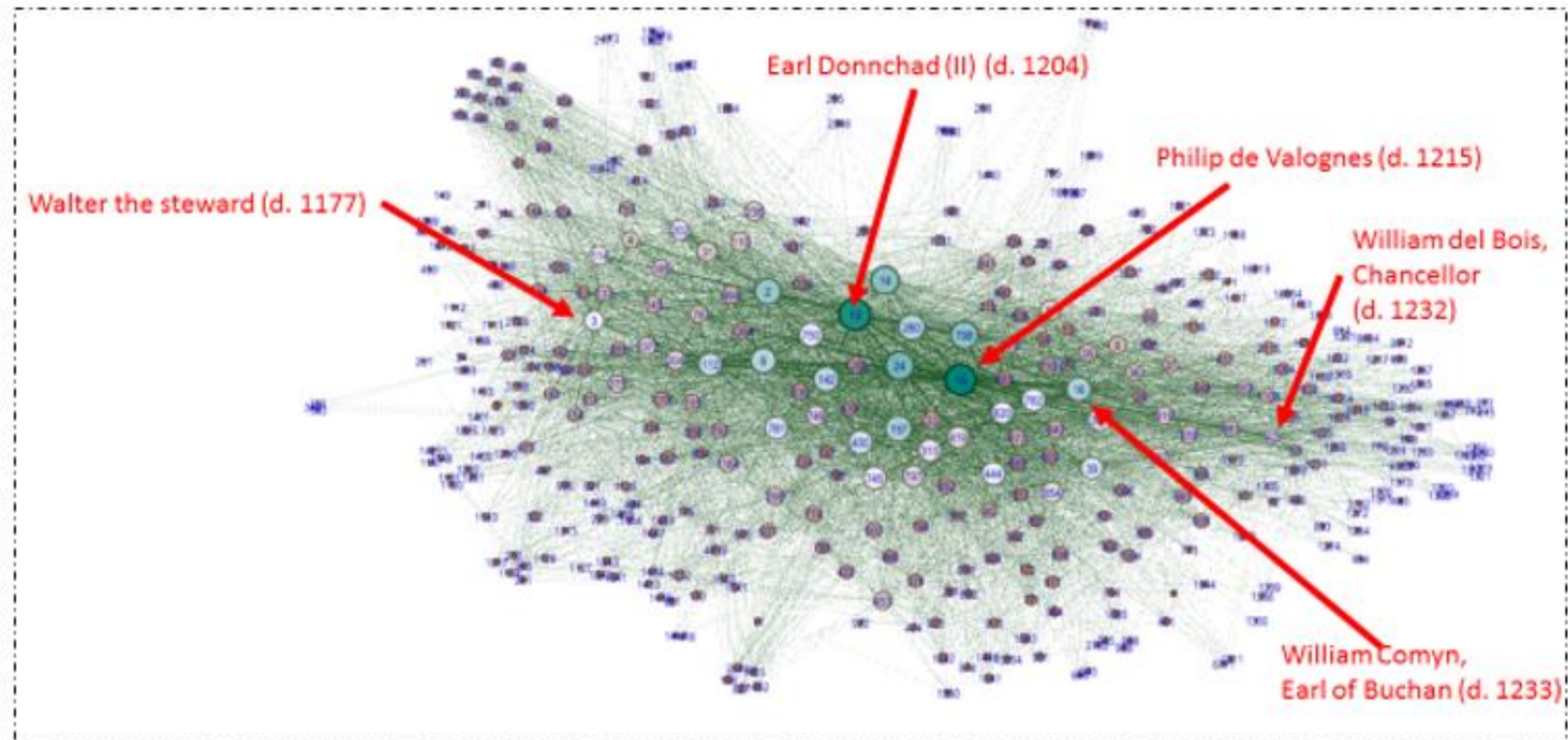
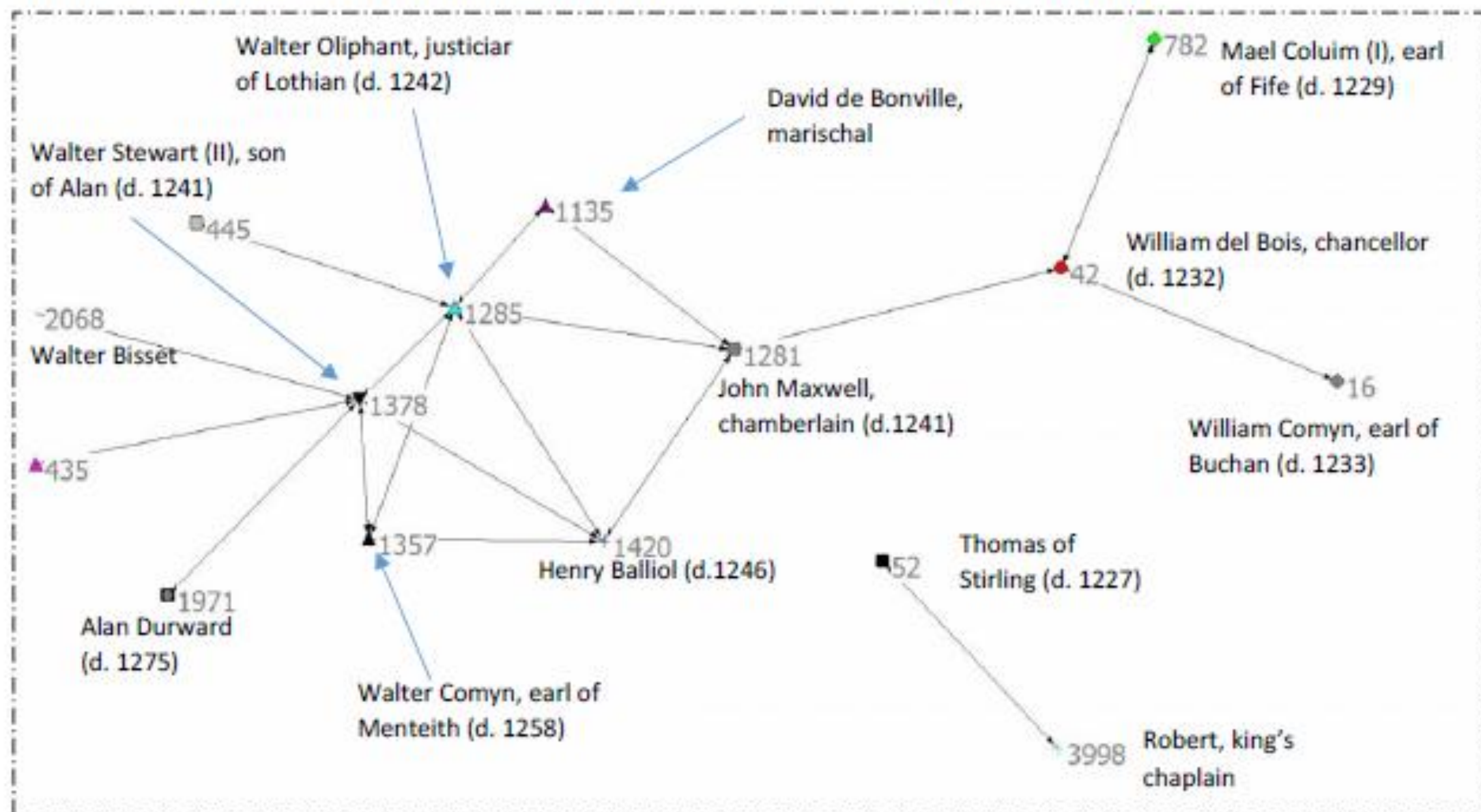
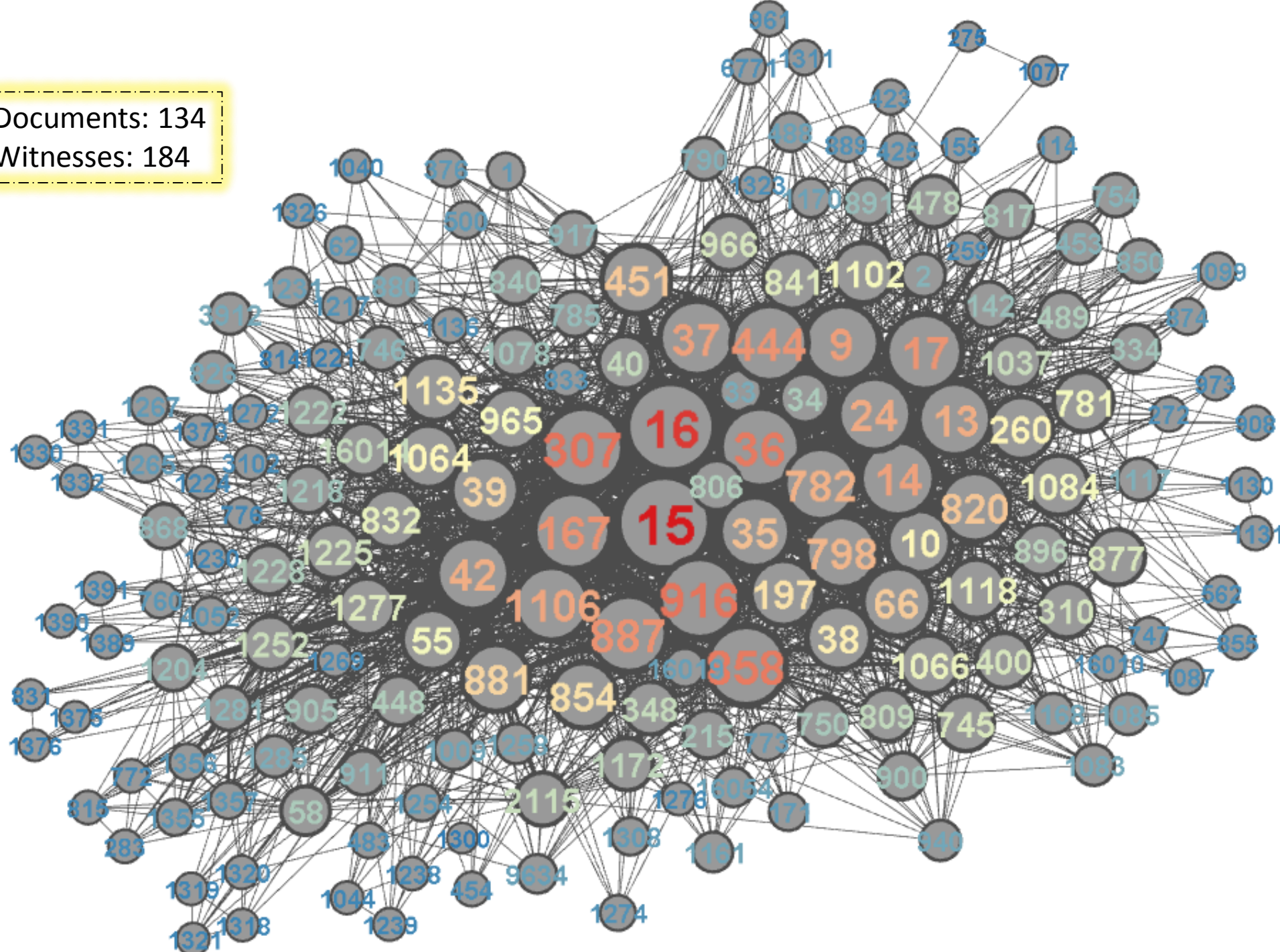


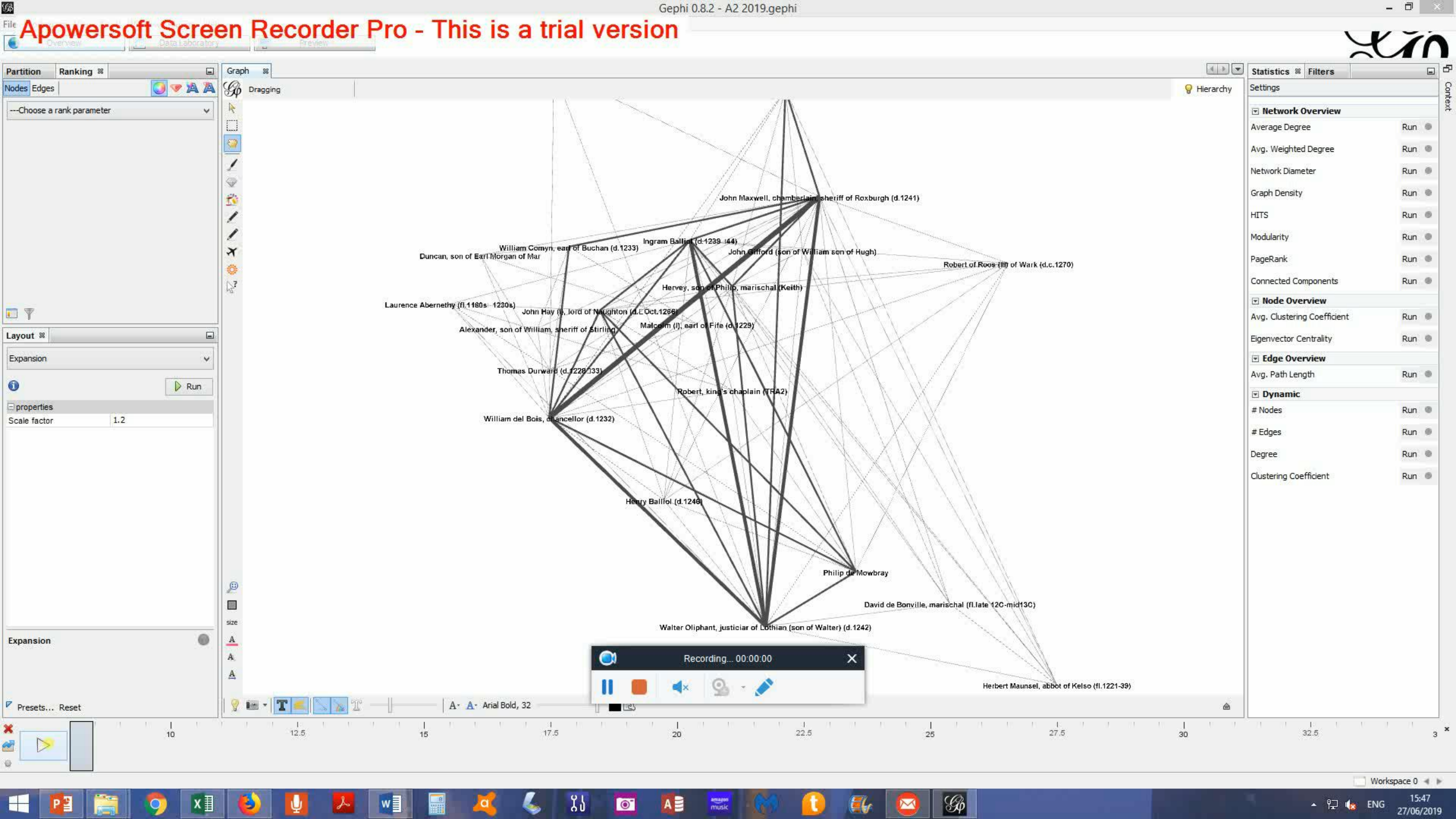
Figure 5.96. Netdraw: Alexander II witnesses, > 15 co-witnessing acts



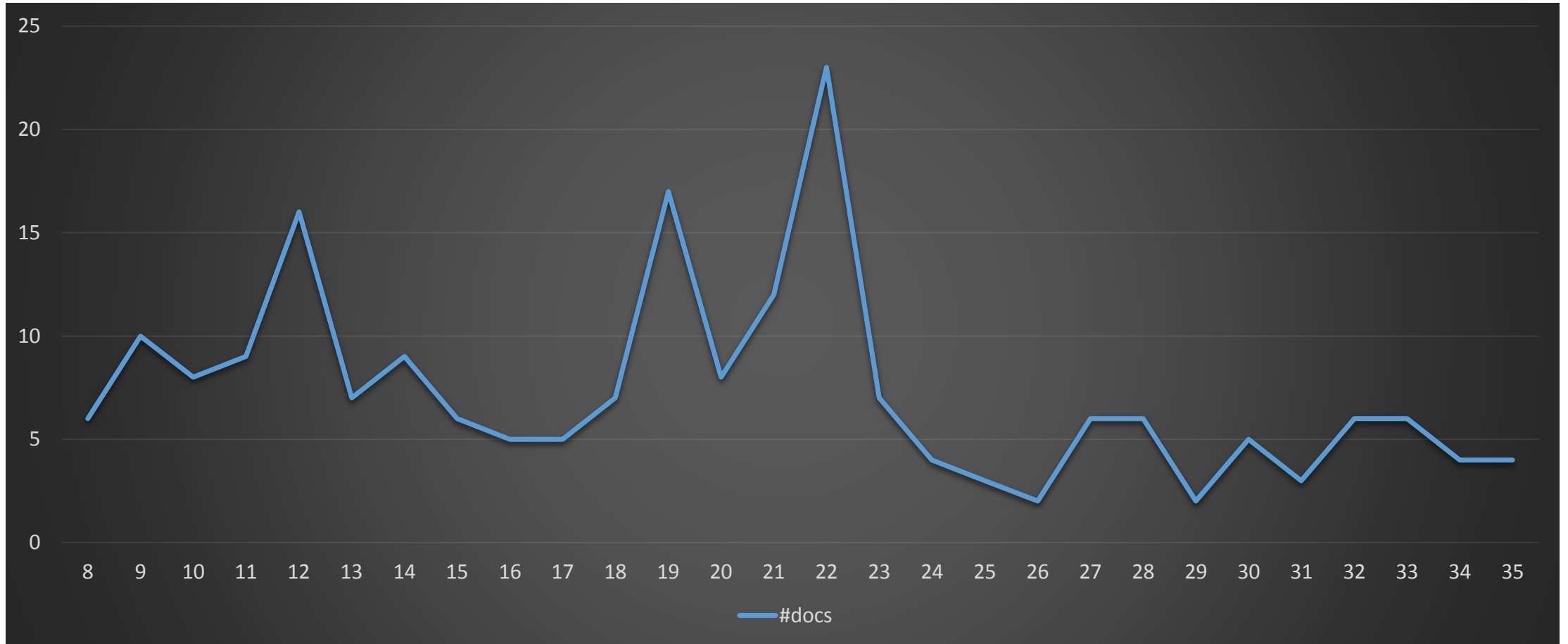
Documents: 134
Witnesses: 184

William,
T3
(1195-
1214)

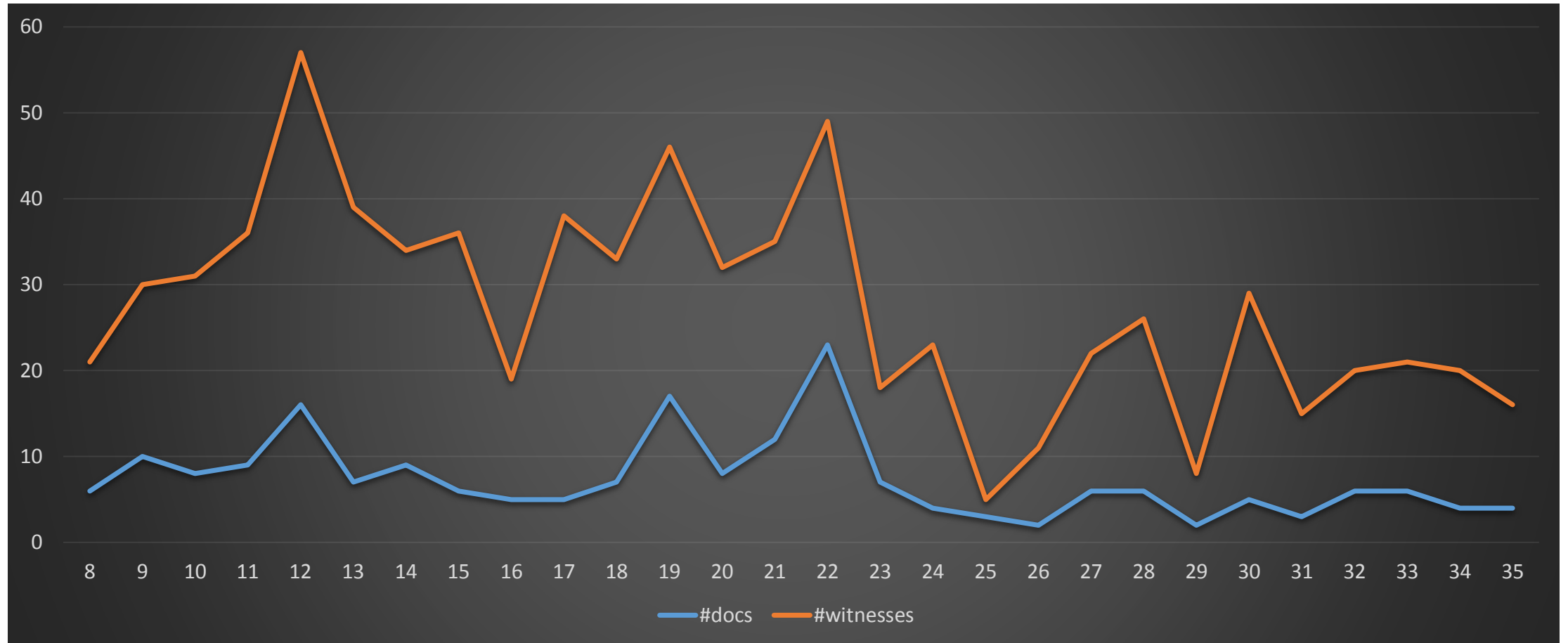




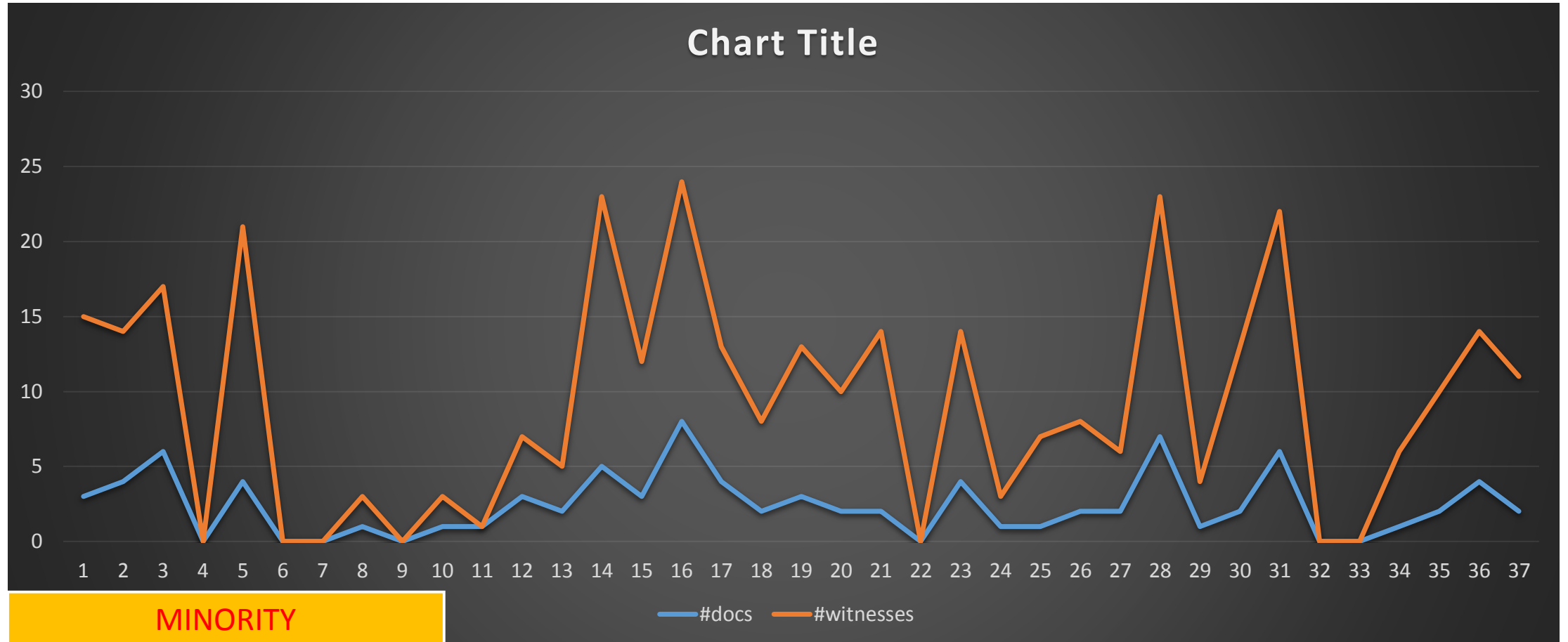
Alexander II, yearly witnessed documents, 1222-49

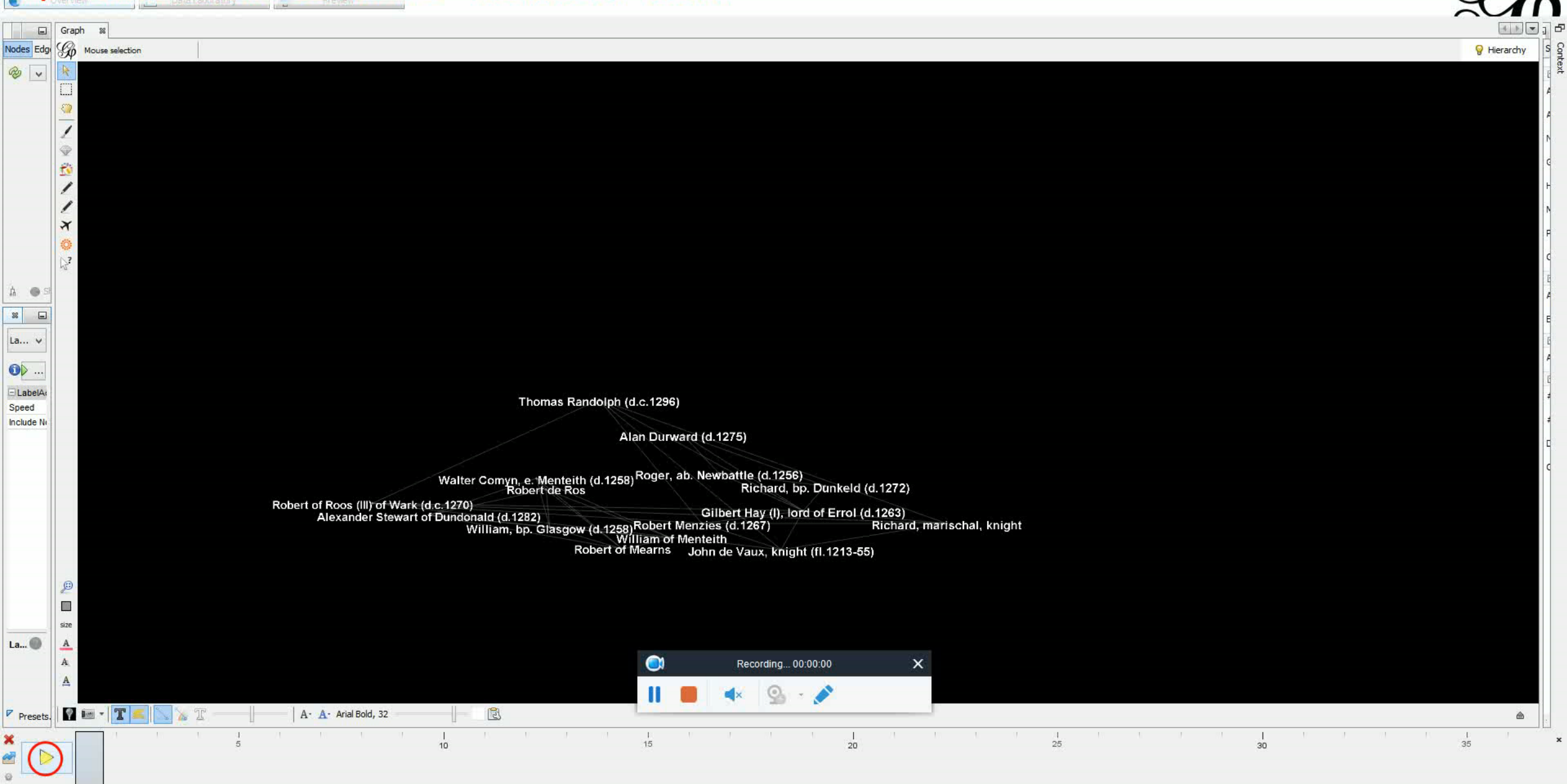


Numbers of documents and witnesses, 1222-49



Alexander III, 1249-86





MINORITY

File

Apowersoft Screen Recorder Pro - This is a trial version

Overview

Data Laboratory

Preview

Workspace 0

10:55 28/06/2019

Nodes

Edges

Configuration

Add node

Add edge

Search/Replace

Import Spreadsheet

Export table

More actions

Filter:

Nodes

Nodes	Id	Label	poms id	name	Time Interval
● William, bp. Glasgow (d.1258)	1	William, bp. Glasgow (d.1258)	<[1.0, Infinity, 435]>	<[1.0, Infinity, "William of Bondington, bishop of Glasgow (d.1258)"]>	<[1.0, 2.0]; [3.0, 4.0]>
● Walter Comyn, e. Menteith (d.1258)	2	Walter Comyn, e. Menteith (d.1258)	<[1.0, Infinity, 1357]>	<[1.0, Infinity, "Walter Comyn, earl of Menteith (d.1258)"]>	<[1.0, 2.0]; [3.0, 4.0]; [5.0, 6.0]; [10.0, 11.0]>
● William of Menteith	3	William of Menteith	<[1.0, Infinity, 2060]>	<[1.0, Infinity, William of Menteith]>	<[1.0, 2.0]>
● Alexander Stewart of Dundonald (d.1282)	4	Alexander Stewart of Dundonald (d.1282)	<[1.0, Infinity, 1358]>	<[1.0, Infinity, "Alexander Stewart of Dundonald (d.1282)"]>	<[1.0, 4.0]; [5.0, 6.0]; [12.0, 13.0]; [16.0, 17.0]>
● Robert de Ros	5	Robert de Ros	<[1.0, Infinity, 14098]>	<[1.0, Infinity, "Robert de Ros (AYR) (mid-late 13C)"]>	<[1.0, 2.0]; [5.0, 6.0]>
● Robert of Mearns	6	Robert of Mearns	<[1.0, Infinity, 2061]>	<[1.0, Infinity, Robert of Mearns]>	<[1.0, 2.0]>
● Robert of Roos (III) of Wark (d.c.1270)	7	Robert of Roos (III) of Wark (d.c.1270)	<[1.0, Infinity, 4479]>	<[1.0, Infinity, "Robert of Roos (III) of Wark (d.c.1270)"]>	<[1.0, 4.0]; [5.0, 6.0]>
● Robert Menzies (d.1267)	8	Robert Menzies (d.1267)	<[1.0, Infinity, 2065]>	<[1.0, Infinity, "Robert Menzies (d.1267)"]>	<[1.0, 4.0]; [8.0, 9.0]>
● Gilbert Hay (I), lord of Errol (d.1263)	9	Gilbert Hay (I), lord of Errol (d.1263)	<[1.0, Infinity, 2067]>	<[1.0, Infinity, "Gilbert Hay (I), lord of Errol (d.1263) (son of David)"]>	<[1.0, 4.0]>
● John de Vaux, knight (fl.1213-55)	10	John de Vaux, knight (fl.1213-55)	<[1.0, Infinity, 2081]>	<[1.0, Infinity, "John de Vaux, knight (fl.1213-55)"]>	<[1.0, 4.0]>
● Richard, marischal, knight	11	Richard, marischal, knight	<[1.0, Infinity, 2132]>	<[1.0, Infinity, "Richard, marischal, knight (TRA)"]>	<[1.0, 2.0]; [5.0, 6.0]>
● Thomas Randolph (d.c.1296)	12	Thomas Randolph (d.c.1296)	<[1.0, Infinity, 2139]>	<[1.0, Infinity, "Thomas Randolph (d.c.1296)"]>	<[1.0, 2.0]; [5.0, 6.0]; [17.0, 18.0]; [19.0, 20.0]; [25.0, 26.0]; [28.0, 29.0]; [31.0, 32.0]>
● Richard, bp. Dunkeld (d.1272)	13	Richard, bp. Dunkeld (d.1272)	<[1.0, Infinity, 2032]>	<[1.0, Infinity, "Richard of Inverkeithing, bishop of Dunkeld (d.1272)"]>	<[1.0, 2.0]; [3.0, 4.0]; [15.0, 17.0]; [21.0, 22.0]>
● Roger, ab. Newbattle (d.1256)	14	Roger, ab. Newbattle (d.1256)	<[1.0, Infinity, 2082]>	<[1.0, Infinity, "Roger, abbot of Newbattle (d.1256)"]>	<[1.0, 2.0]>
● Alan Durward (d.1275)	15	Alan Durward (d.1275)	<[1.0, Infinity, 1971]>	<[1.0, Infinity, "Alan Durward (d.1275)"]>	<[1.0, 2.0]; [3.0, 4.0]; [12.0, 13.0]; [16.0, 17.0]; [18.0, 21.0]>

Add column

Merge columns

Delete column

Clear column

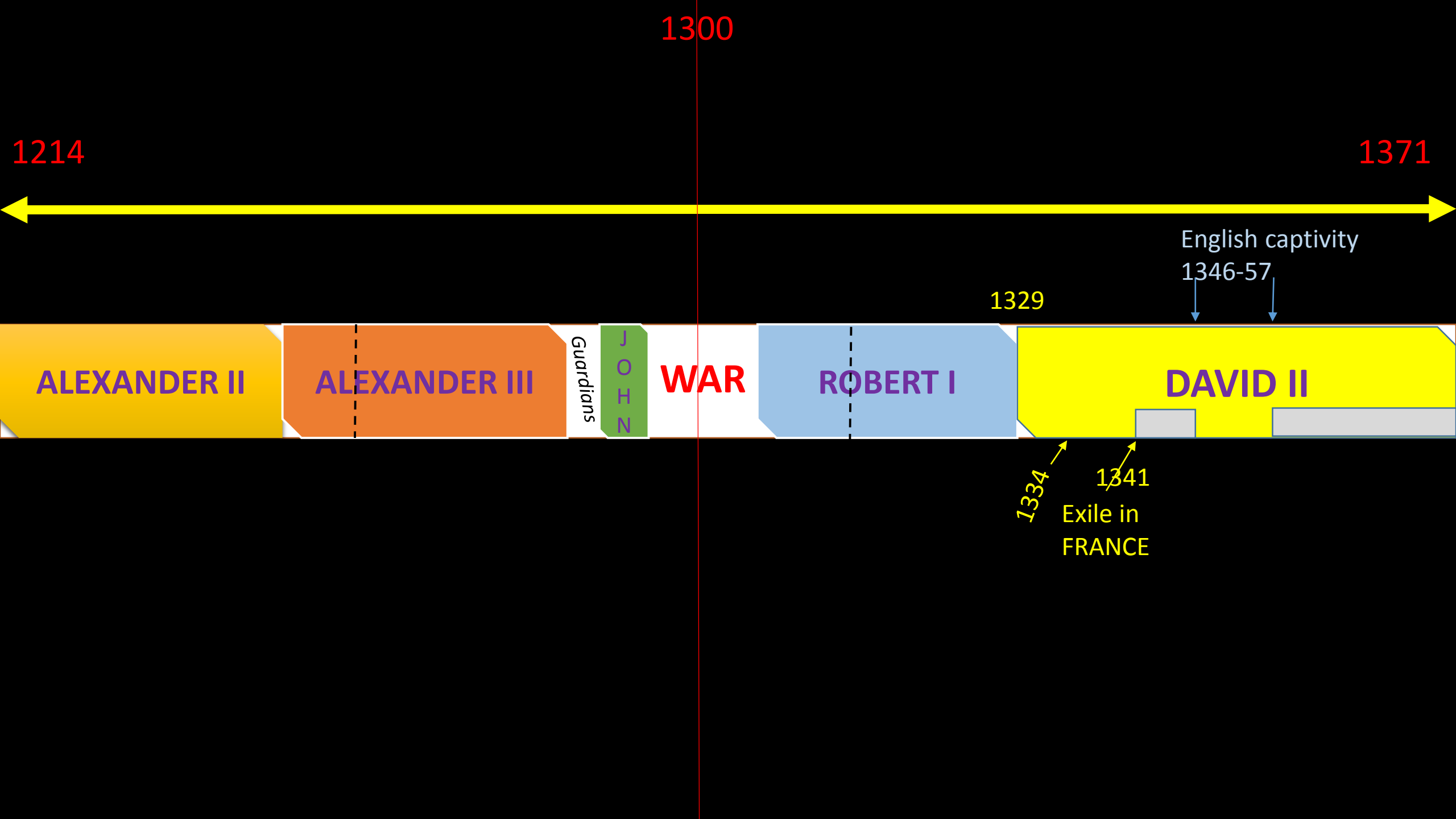
Copy data to other column

column with list of

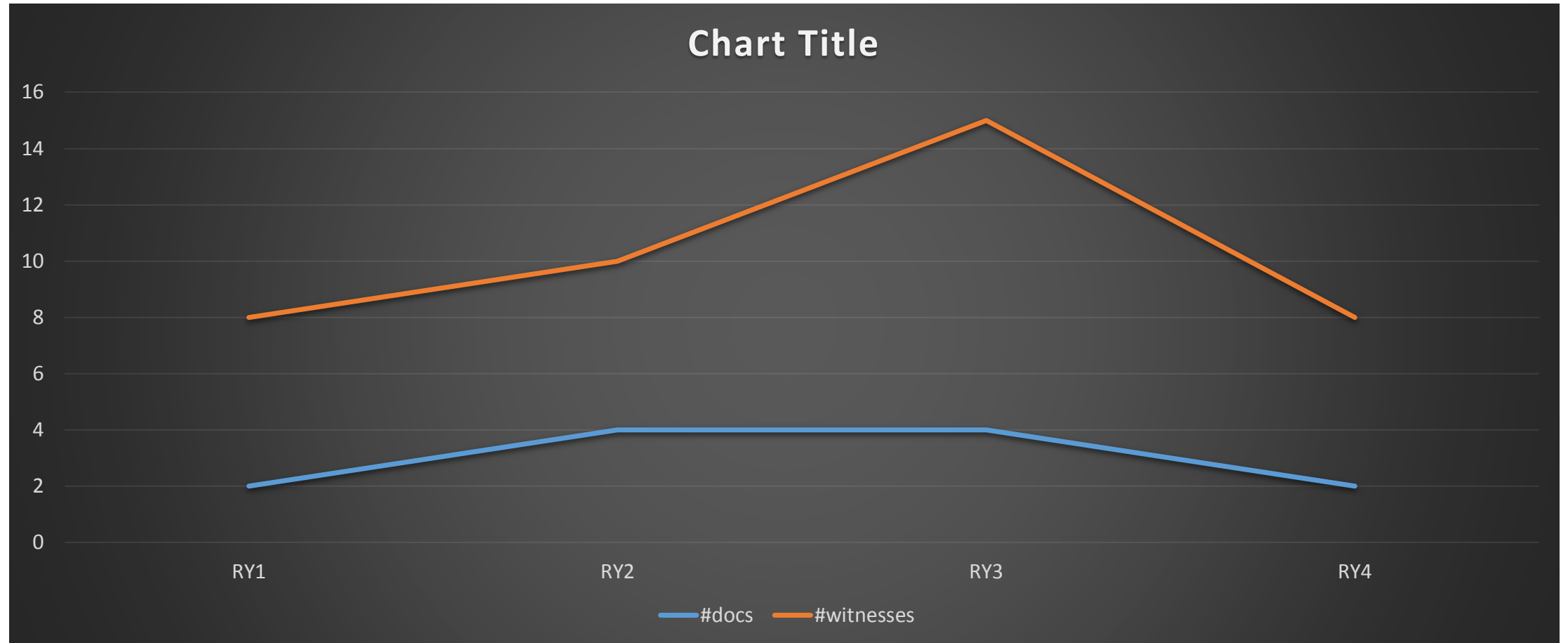
Negate boolean values

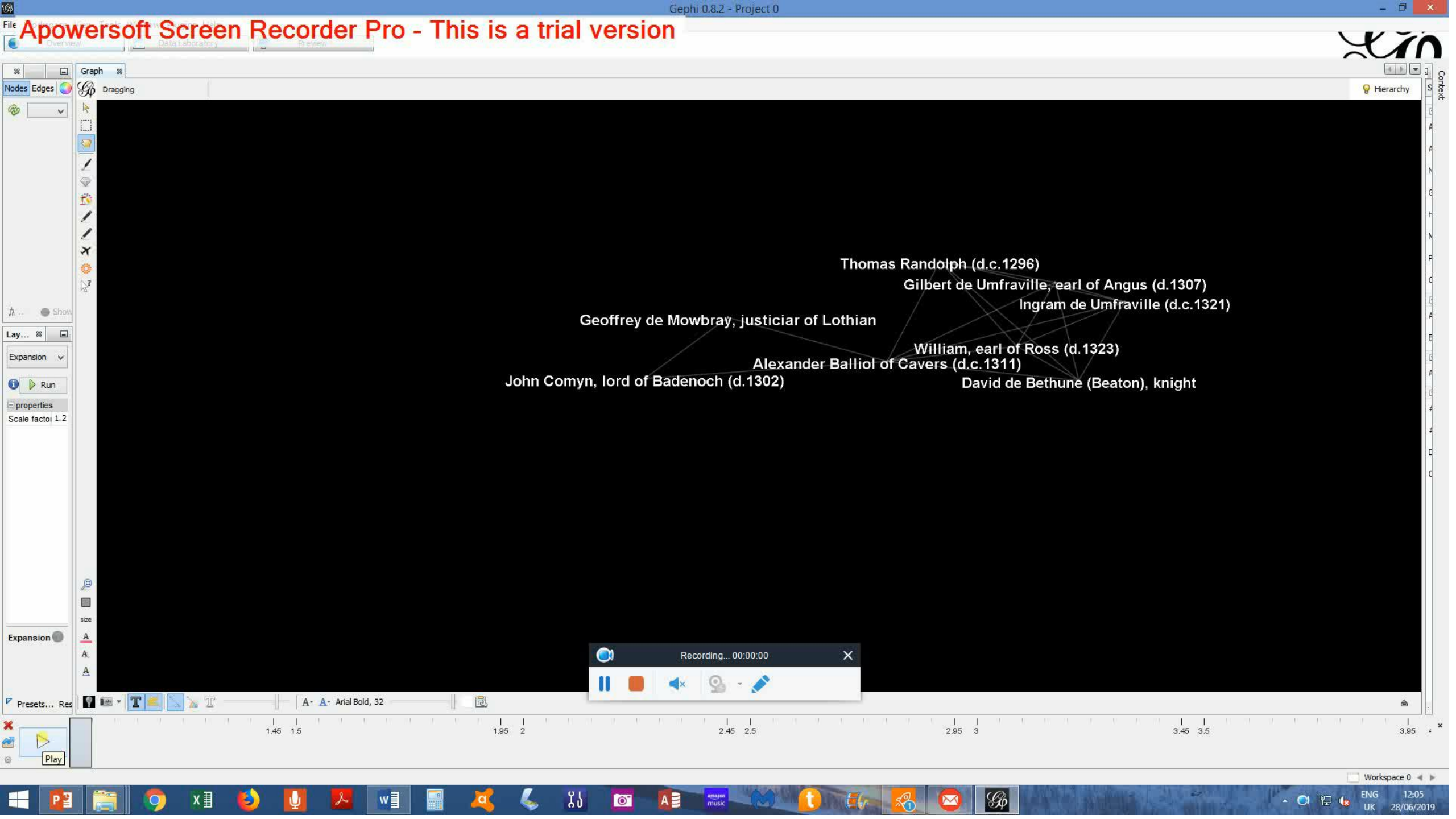
Convert column to dynamic

Recording... 00:00:00

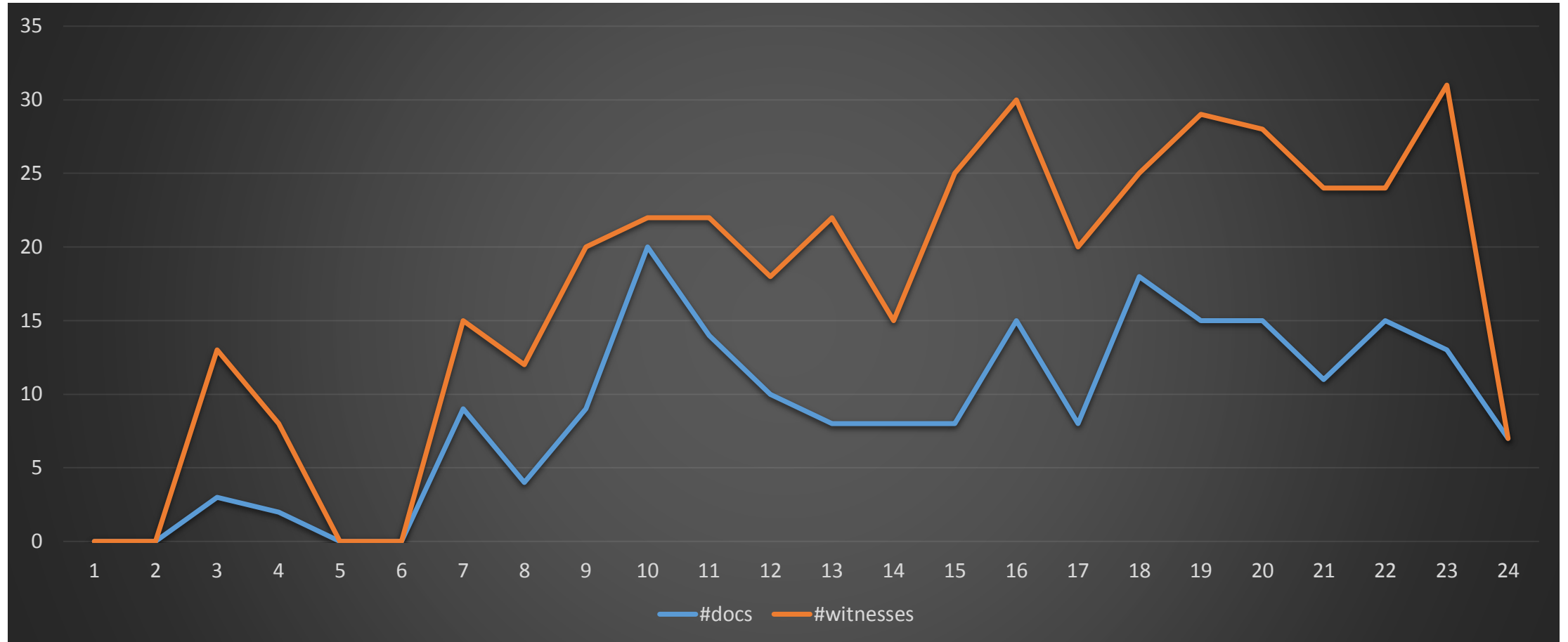


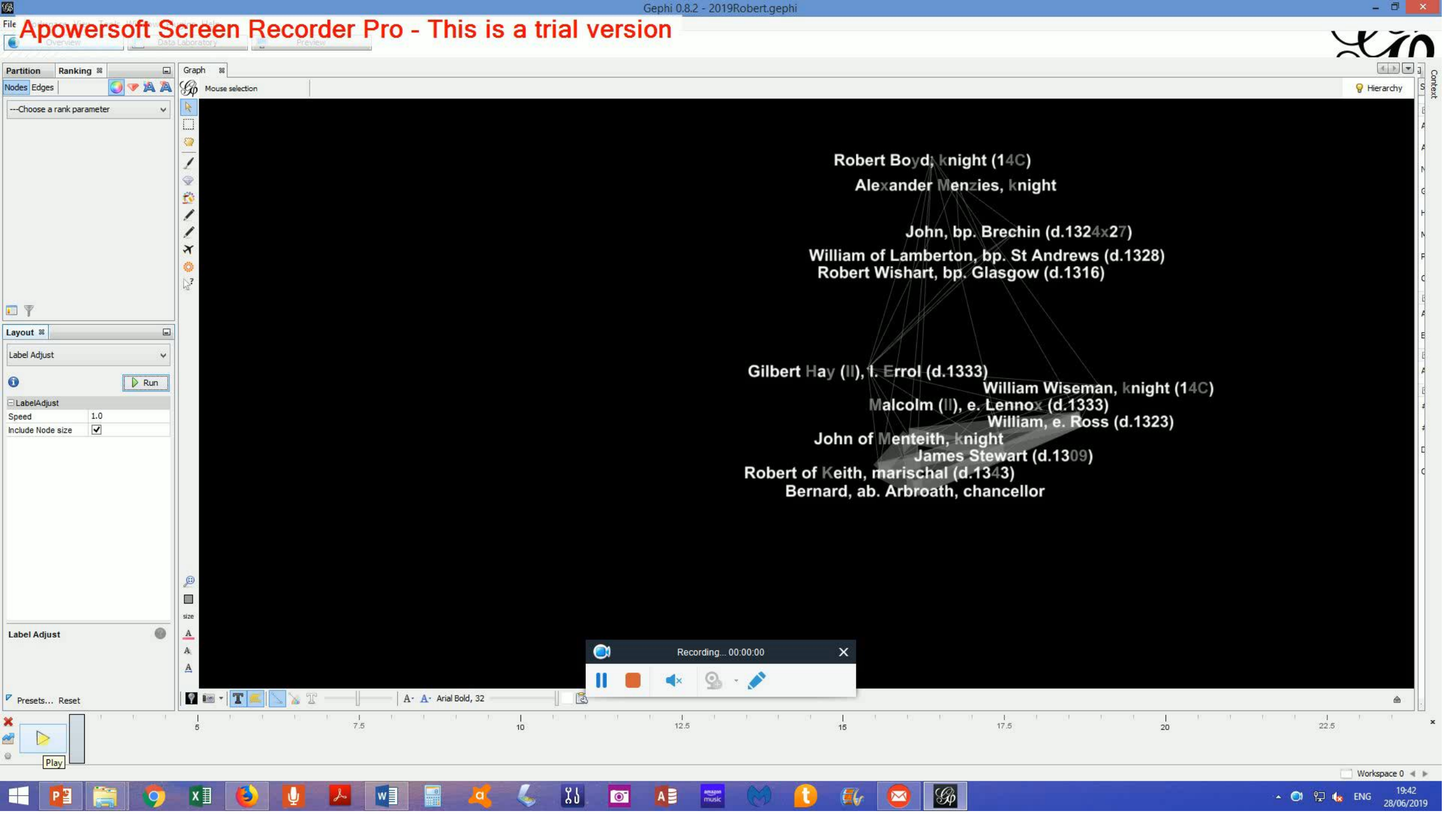
King John, 1292-96



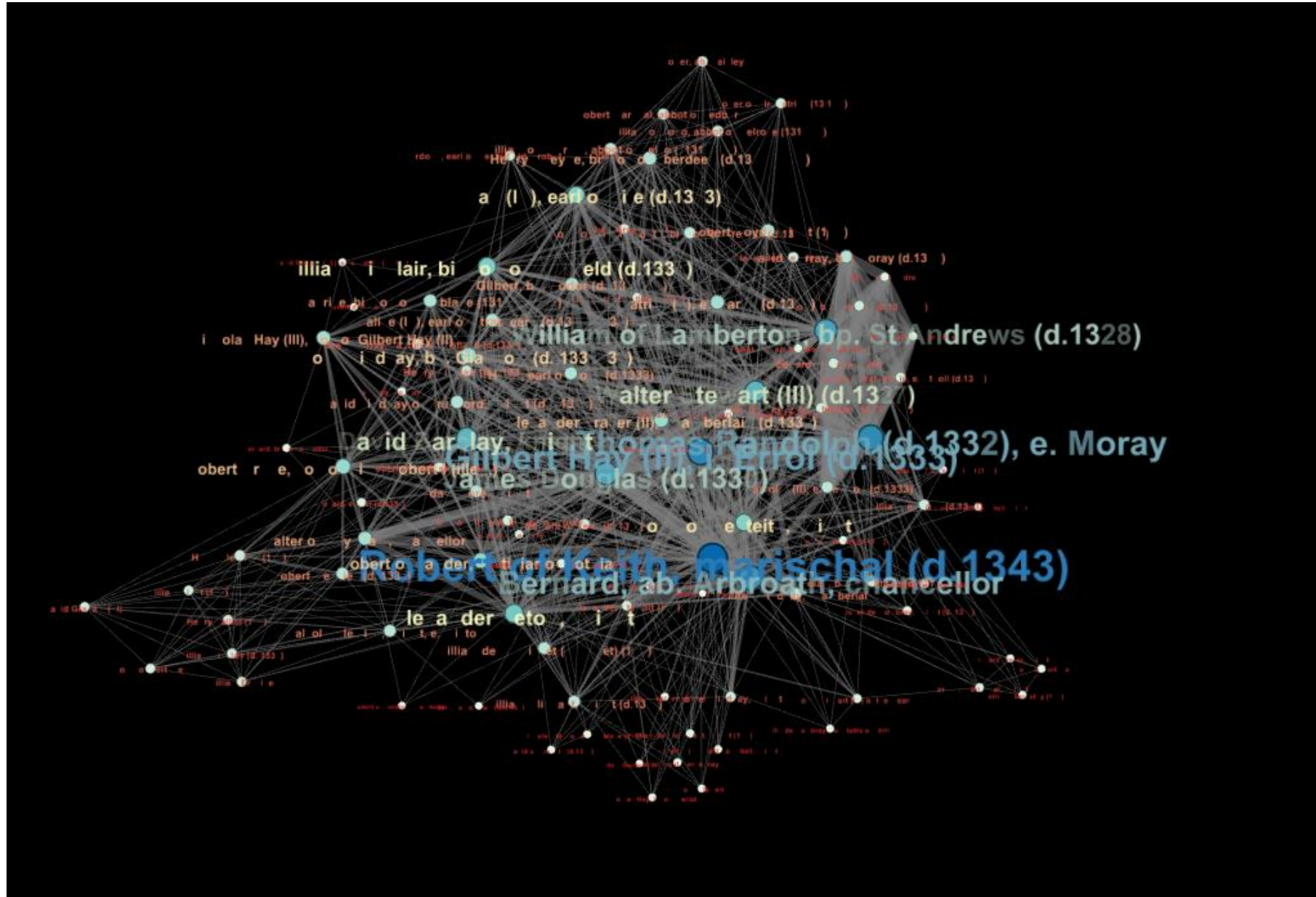


King Robert, 1306-29



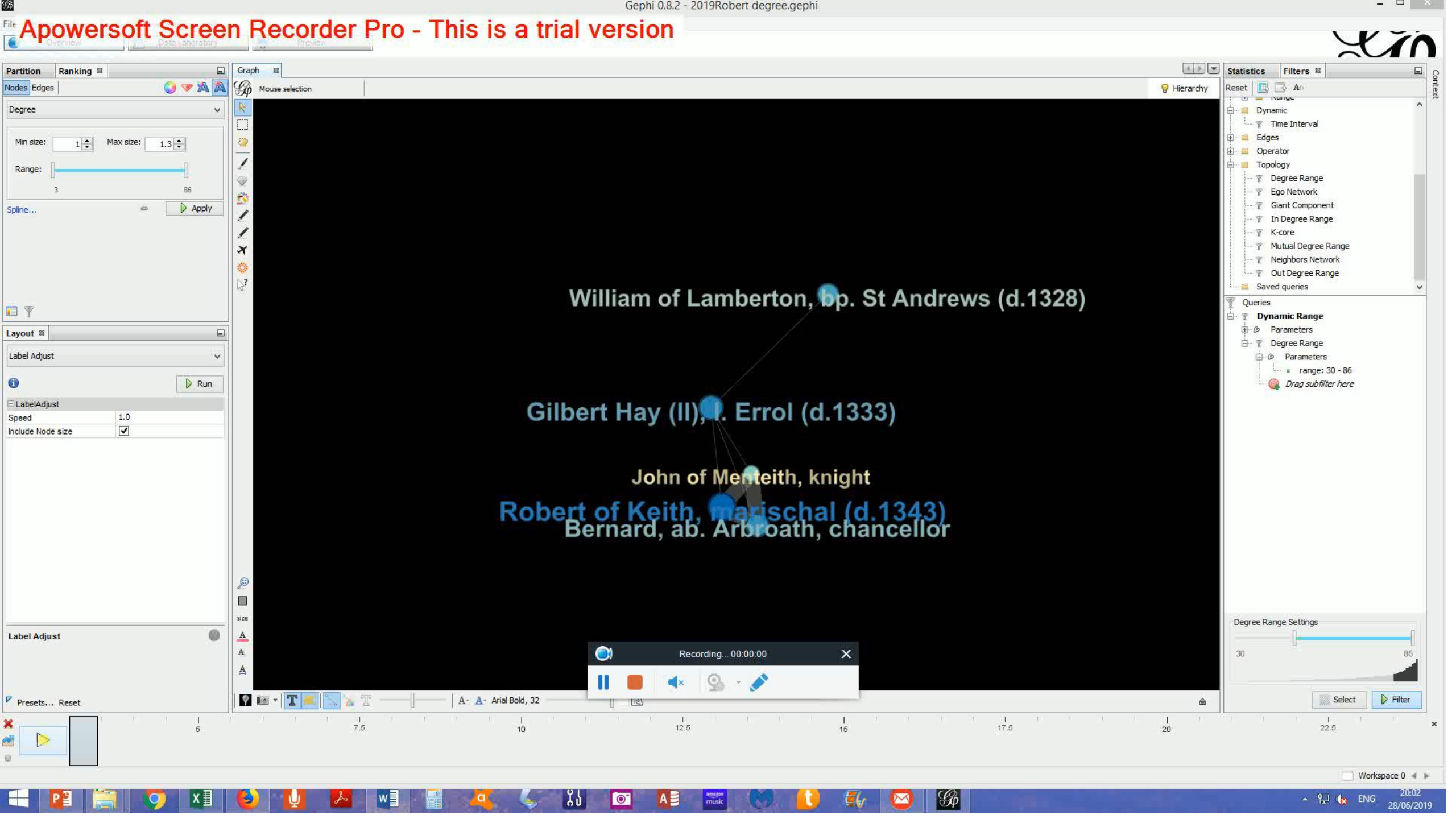


Adjusted by degree: whole network

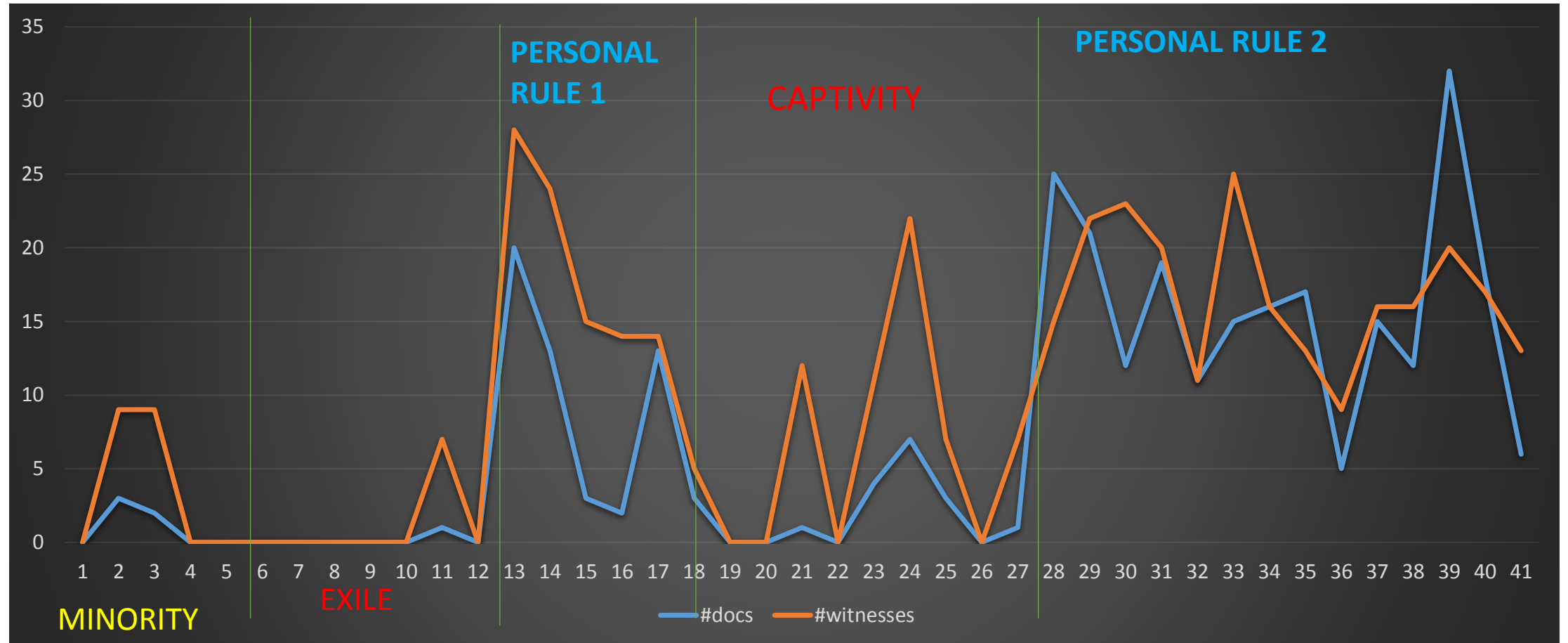


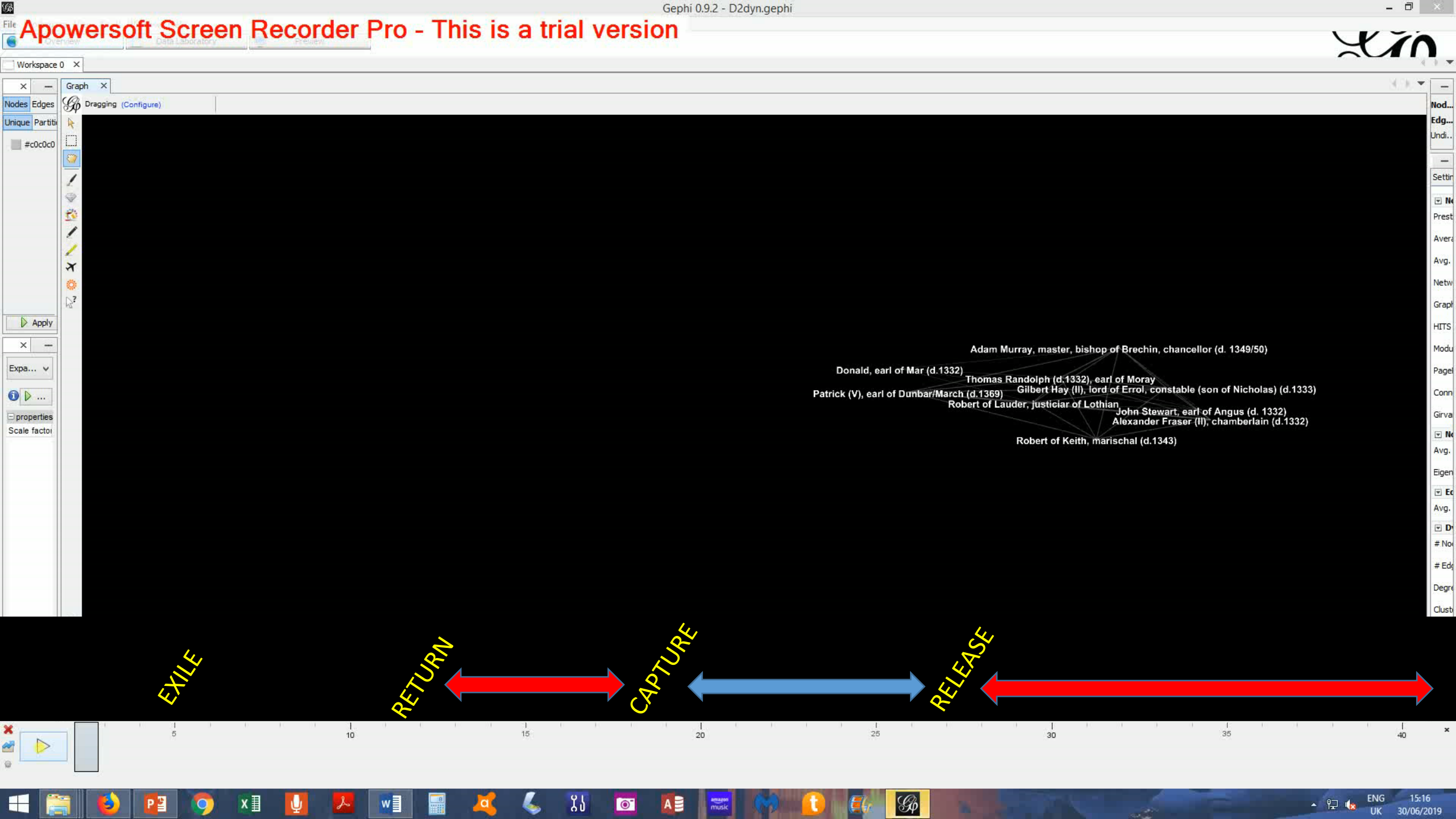
File Apowersoft Screen Recorder Pro - This is a trial version



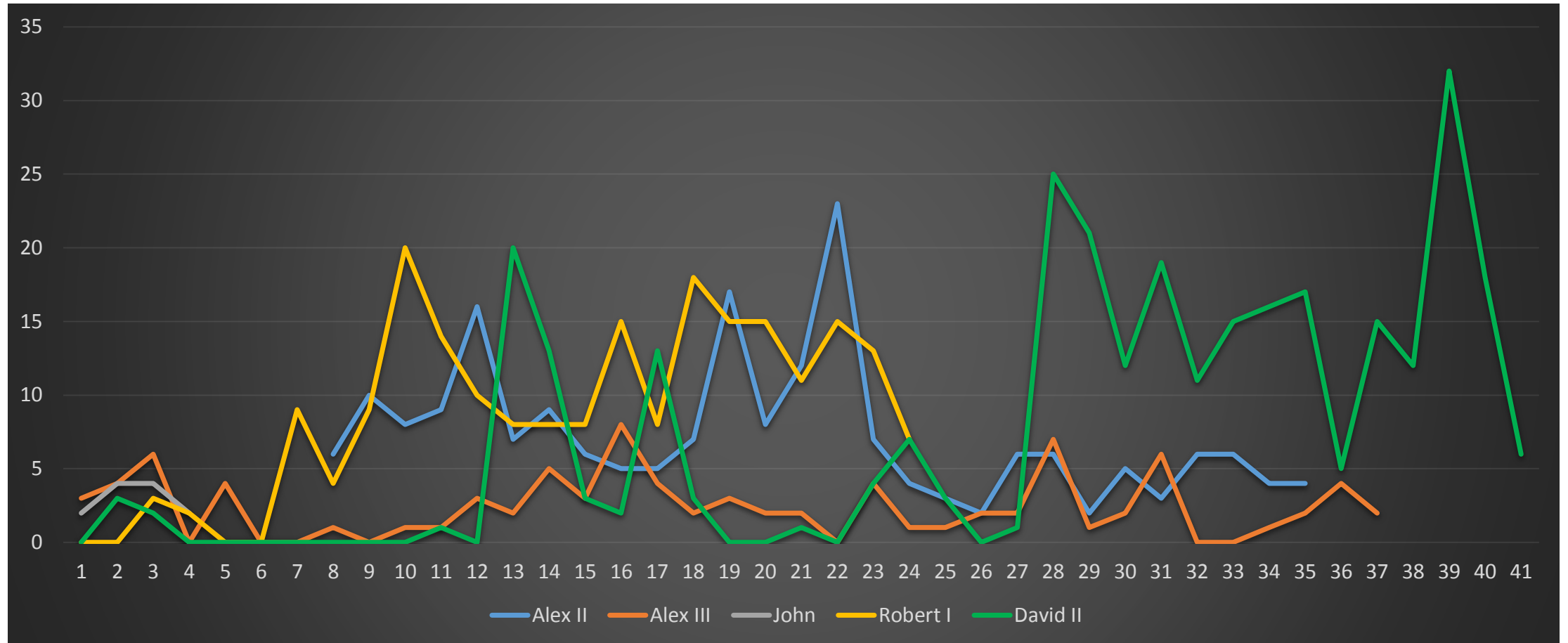


King David II, 1329-71

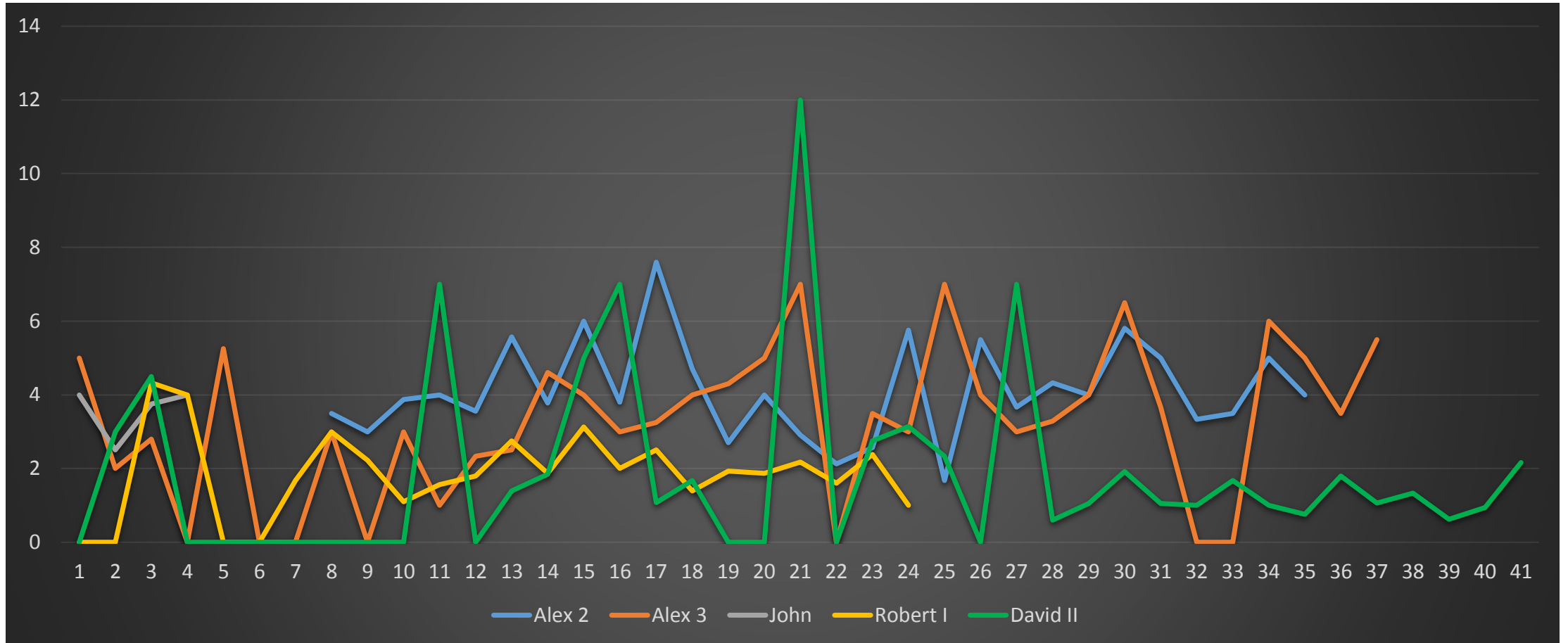




Comparison of reigns: documents per year



Comparison of ratios



Records of events

- Assemblies: 'in council', 'in parliament'

