

GODOT (Graph of Dated Objects and Texts)

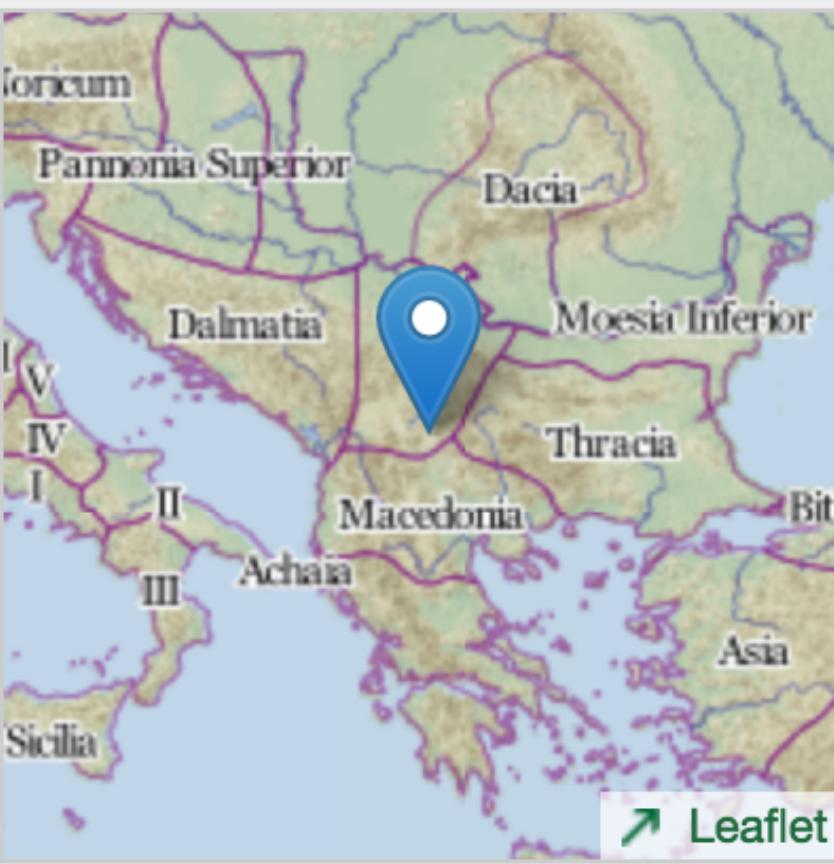
A Calendar Gazetteer for Linked Open Data Applications

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Heidelberg Academy of Sciences and Humanities



**HEIDELBERGER AKADEMIE
DER WISSENSCHAFTEN**
Akademie der Wissenschaften
des Landes Baden-Württemberg

Number 1: ➔ HD018571 – open detailed view...



Transcription: [I(ovi)] O(ptimo) M(aximo) D(olicheno) // pro salute / Imp(eratoris) M(arci) Aureli / Antonini Pii / Aug(usti) et Iuliae / Aug(ustae) matri(s) kast(rorum) / Achilleus eorun/dem servus pos(uit) / Kal(endis) Novembri[bus] / Sabino II et Anu/lino co(n)s(ulibus)

Find spot: ➔ Kumanovo?

Province: ➔ Moesia superior (Macedonia)

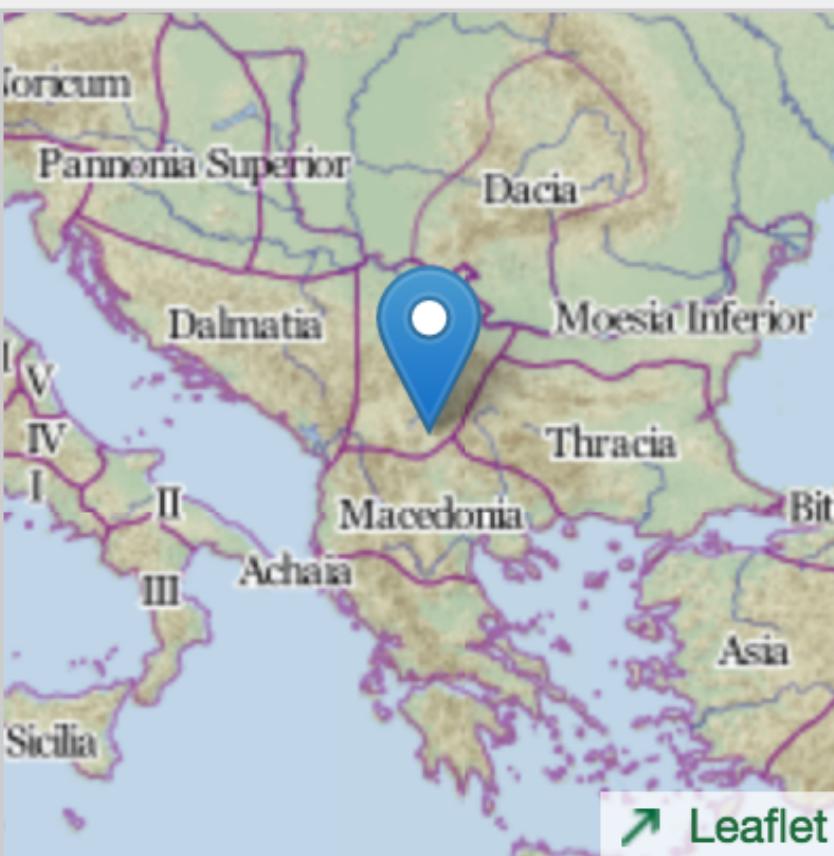
Chronological data: 1. November 216 AD

Literature [?] : IMS 6, 208; Foto und Zeichnung.
CIL 03, 01697.
CIL 03, 08243.
CCID 116; Taf. 27, 116.
PIR (2. Aufl.) C 1323.
PIR (2. Aufl.) C 571.

External images: ➔ <http://www.lupa.at/28403>

Kal(endis) Novembri[bus] / Sabino II et Anu/lino co(n)s(ulibus)

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Kal(endis) Novembri[bus] / Sabino II et Anu/lino co(n)s(ulibus)

=

1. November 216 AD



GODOT – Overview

- GODOT: “**Graph of Dated Objects and Texts**”
- Collaboration between
 - Prof. M. Depauw / Dr. H. Verreth (KU Leuven, Trismegistos Project)
 - Dr. F. Grieshaber (Heidelberg Academy of Sciences & Humanities)
 - Prof. C. Roueché (King’s College London)
- 6 months prototype phase (July – December 2018)
- supported by Andrew W. Mellon Foundation



GODOT – Overview (Features)

- is both a chronological gazetteer and a research infrastructure (searching & browsing / tools) aiming at scholars with focus on ancient chronology
- provides stable, citable URIs for instances of dates in major ancient calendar systems for Linked Open Data applications
- starting with sample data taken from:
 - Inscriptions of Roman Cyrenaica (C. Roueché)
 - papyri & ostraca in Berlin Collection (BGU, Trismegistos)
- testing of different data import options: manual data entry and bulk imports
- tools on GODOT website:
 - date conversions into Julian & Gregorian calendar
 - identifier tools for Roman Emperors, Roman Consulates
 - OpenRefine Reconciliation Services (Roman Consulates)
 - API for reusing GODOT data



GODOT – Data Model

GODOT: “**Graph** of Dated Objects and Texts”

Graph: set of objects that are related

- **nodes** (entities like person, place, event, ...)
- **edges** (relationship between nodes)



GODOT – Data Model

<http://epigraphy.packhum.org/text/227955>

Ἄρτεμίδωρος Πτολεμαίου, βασιλικὸς γραμματεὺς Ἐρμωνθείτου καὶ Λατοπολείτου, ἥκουσα Μέμνονος τοῦ θειοτάτου, μετὰ καὶ τῆς συνβίου Ἀρσινόης καὶ τῶν τέκνων Αἰλουρίωνος τοῦ καὶ Κοδράτου καὶ Πτολεμαίου, ἔτει ιε' Ἀδριανοῦ Καίσαρος τοῦ κυρίου, ια' Χοίακ.

GODOT Date Information ×

**Egyptian Calendar Date
(Roman Period):**
Year 15 of Hadrian, Choiak,
day 11 (7. Dec 130 AD)

[Click here](#) for all 7 attestations
of this date in GODOT.

Data provided by <https://www.godot.date>



GODOT – Data Model

Emperor Hadrian, year 15, month Choiak, day 11



GODOT – Data Model

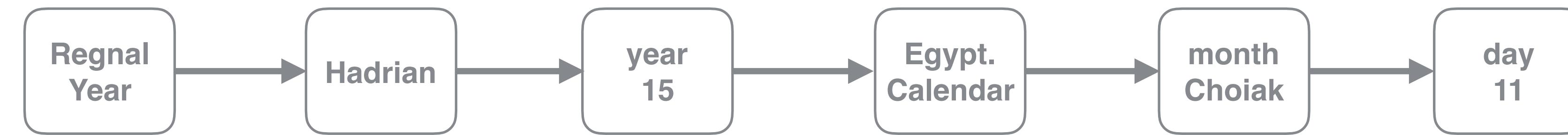
Emperor Hadrian, year 15, month Choiak, day 11





GODOT – Data Model

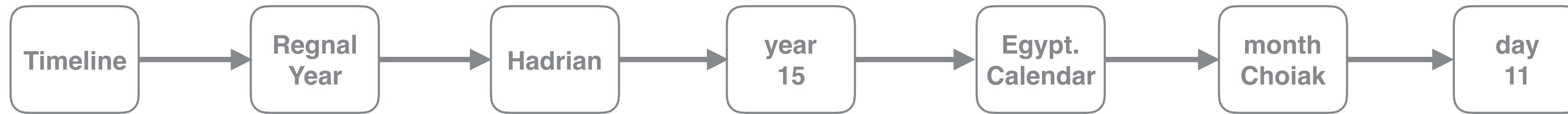
Emperor Hadrian, year 15, month Choiak, day 11





GODOT – Data Model

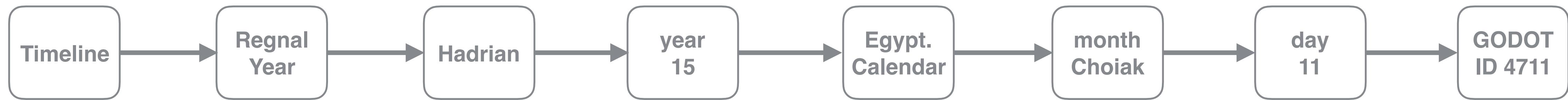
Emperor Hadrian, year 15, month Choiak, day 11





GODOT – Data Model

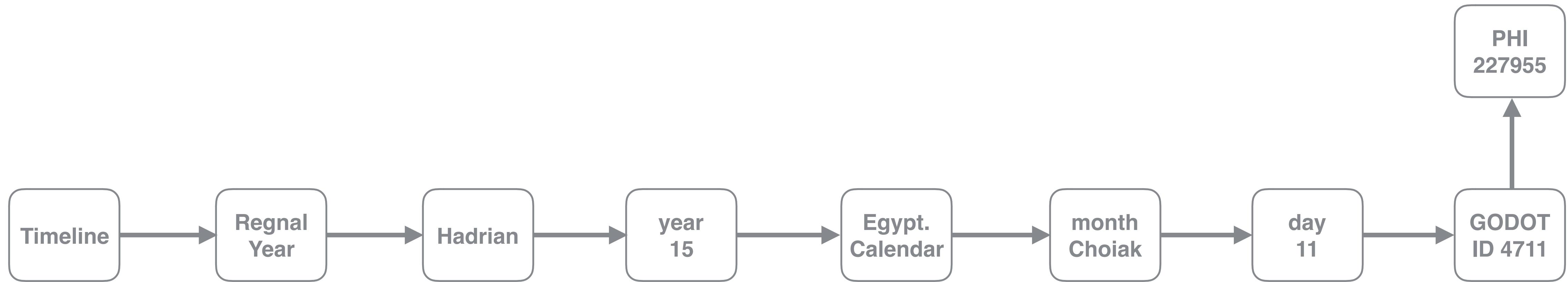
Emperor Hadrian, year 15, month Choiak, day 11





GODOT – Data Model

Emperor Hadrian, year 15, month Choiak, day 11





GODOT – Data Model (Importing Data)

Manual data entry:

- for “Inscriptions of Roman Cyrenaica” (IRCyr, Prof. C. Roueché)
- project-specific data entry masks on GODOT website
 - single year dates (regnal years of Roman emperors, Actian era, ...)
 - Titulature of Roman emperors (Trib. Pot; Cos.; Imp.; victory titles)
 - Eponymous Officials
- allow for create/read/update/(delete) of data

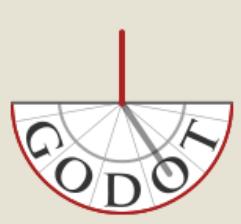
Bulk import:

1. Data Export by Content Provider

- for Trismegistos (BGU Greek Papyri, Prof. M. Depauw & Dr. H. Verreth)
 - preprocessing of data (NER workflow)
 - export in CSV
 - import into GODOT graph

2. Access via API of Content Provider

- for Epigraphic Database Heidelberg (Roman Consulates; Tribunicia Potestas)
- for Online Coins of the Roman Empire OCRE (Tribunicia Potestas)



GODOT – Website (Browse Data by Drill-Down)

Browse Data

Filter by Year Reference System:

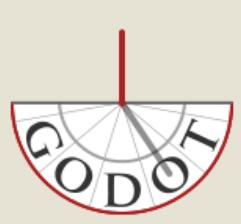
- All
- Cycles - Indiction Cycle
- Eponymous officials
- Era - Actian
- None
- Regnal Years - Ptolemies
- Regnal Years - Roman Emperors
- Roman Consulships
- Titulature of Roman Emperors
- Unknown

Roman Emperors (alphabetically)

Aemilius Aemilianus Antoninus Pius Augustus Aurelian Balbinus Caligula Caracalla Carinus Carus Claudius Claudius II Gothicus Commodus Decius Didius Julianus Diocletian Domitian Elagabal Galba Gallienus Geta Gordian I Gordian II Gordian III Hadrian Hostilianus Macrianus Macrinus Marc Aurel Maximinus Thrax Nero Nerva Numerianus Otho Pertinax Pescennius Niger Philippus Arabs Probus Pupienus Quietus Quintillus Septimius Severus Severus Alexander Tacitus Tiberius Titus Trajan Trebonianus Gallus Valerian Vespasian Vitellius Volusianus

Regnal Years

- [Year 18](#)
- [Year 20](#)
- [Year 21](#)
- [Year 22](#)
- [Year 23](#)
- [Year 24](#)
- [Year 25](#)
- [Year 26](#)
- [Year 27](#)
- [Year 28](#)
- [Year 29](#)
- [Year 30](#)
- [Year 31](#)



GODOT – Website (Browse Data by Drill-Down)

[GODOT](#) [About...](#) [Browse](#) [Convert Date... ▾](#) [Tools... ▾](#) [Cyrenaica... ▾](#) [Logout \(grieshaber\)](#)

GODOT Detail View

<https://godot.date/id/VAENtNY6MC2KW2JwN9dnUm>
[Copy URI to clipboard](#)

Calendar Date Information

- Regnal Years
- Roman Emperors

name: Commodus
year: 29

GODOT Information:

- GODOT URI: <https://godot.date/id/VAENtNY6MC2KW2JwN9dnUm>
- Not Before: 188 AD
- Not After: 189 AD

Attestations

[BGU wilck 203 1, l. 26](#) [edit](#) [delete](#)
[[ετους]] [κθ] Αύρηλιου Κομμόδου Άντω[νίου] [Καίσαρος] [τοῦ] [κυρίου]
Contributor: Trismegistos (Depauw/Verreth) (last update: 2018-12-10)

Attested Dates in this Period

Mesore (BGU 7 1686, l. 1-3)
(ἔτους) κθ Μάρκου Αύρηλιου Κομμόδου Άντωνείνου Καίσαρος τοῦ κυρίου Μεσορή

Mesore (BGU 1 116 2, l. 24-26)
(ἔτους) κθ Αύρηλιου Κομμόδου Άντωνίου] Καίσαρος τοῦ κυρίου Μεσο(ρή) ἐπ[αγ(ομενῶν)] [ε]

Mesore (BGU 1 116 1, l. 15-16)
(ἔτους?) κθ Αύρηλιου Κομόδου [Άντ(ωνείνο)] Καίσαρος <τοῦ> κυρίου Μεσορή ἐπ(αγομενῶν) ε

Mesore (BGU 1 116 1, l. 15-16)
(ἔτους?) κθ Αύρηλιου Κομόδου [Άντ(ωνείνο)] Καίσαρος <τοῦ> κυρίου Μεσορή ἐπ(αγομενῶν) ε

Mesore (BGU 1 116 2, l. 24-26)
(ἔτους) κθ |gap=unknown| Αύρηλιου Κομμόδου Άντω[νίου] Καίσαρος τοῦ κυρίου Μεσο(ρή) ἐπ[αγ(ομενῶν)] [ε]

Mesore (BGU 1 116 1, l. 15-16)
(ἔτους?) κθ Αύρηλιου Κομόδου [Άντ(ωνείνο)] Καίσαρος <τοῦ> κυρίου Μεσορή ἐπ(αγομενῶν) ε



GODOT - Website (Browse Data by Drill-Down)

GODOT About... Browse Convert Date... Tools... Cyrenaica...

Logout (grieshaber)

GODOT Detail View

<https://godot.date/id/eubQn4M7gRQ57pxLnnAq3c>

[Copy URI to clipboard](#)

Calendar Date Information

- Regnal Years
- Roman Emperors
 - name: Commodus
 - year: 29
- type: Egyptian Calendar
 - month: Mesore

Attestations

BGU 7 1686, l. 1-3

[edit](#)

[delete](#)

(ἔτους) κθ Μάρκου Αύρηλίου Κομμόδου Ἀντωνείνου Καίσαρος τοῦ κυρίου Μεσορή

Contributor: Trismegistos (Depauw/Verreth) (last update: 2018-12-10)

BGU 1 116 2, l. 24-26

[edit](#)

[delete](#)

(ἔτους) κθ Αύρηλίου Κομμόδου Ἀντω[νίου] Καίσαρος τοῦ κυρίου Μεσο(ρή) ἐπ[αγ(ομενῶν)] [ε]

Contributor: Trismegistos (Depauw/Verreth) (last update: 2018-12-10)

BGU 1 116 1, l. 15-16

[edit](#)

[delete](#)

(ἔτους?) κθ Αύρηλίου Κομόδου [Ἀντ(ωνείνο)] Καίσαρος <τοῦ> κυρίου Μεσορή ἐπ(αγομενῶν) ε

Contributor: Trismegistos (Depauw/Verreth) (last update: 2018-12-10)

Attested Dates in this Period

28 (BGU 1 120, l. 13-15)

(ἔτους) κθ Αύρηλίου Κομμόδου Ἀντωνίνου Καίσαρος τοῦ κυρίου Μεσορή κη

20 (BGU 1 71, l. 24-25)

ἔτους κθ [Α]ύρηλίου Κομόδου Ἀντωνίνου Καίσαρος τοῦ κυρίου Μεσορή κ

27 (BGU 1 117, l. 21-22)

[(ἔτους)] [κθ] Μάρκου Αύρηλίου Κομμόδου Ά[ντωνίνου] [Καίσαρος] [τοῦ] κυρίου Μεσορή κζ



GODOT – Website (Browse Data by Drill-Down)

<https://godot.date/id/uXBfr4rU9gaccyUjRzkhZD>
[Copy URI to clipboard](#)

Calendar Date Information

- Regnal Years
- Roman Emperors
name: Commodus
year: 29
- type: Egyptian Calendar
month: Mesore
day: 28

Attestations

BGU 1 120, l. 13-15 [edit](#) [delete](#)
(ἔτους) κθ Αύρηλου Κομμόδου Ἀντωνίνου Καίσαρος τοῦ κυρίου Μεσορή κη
Contributor: Trismegistos (Depauw/Verreth) (last update: 2018-12-10)

[Graph of Dated Objects and Texts](#)



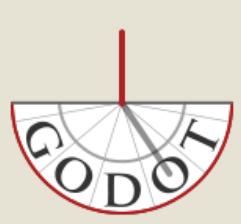
GODOT – Website (Date Conversions)

The screenshot shows the GODOT website's interface for Roman calendar date conversion. The top navigation bar includes links for GODOT, About..., Browse, Convert Date..., Tools..., Cyrenaica..., and Logout (grieshaber). The main content area is titled "Roman Calendar Conversion – Consular Dating" and specifies the period from "(30 BC – 534 AD)". It features a form for inputting consular dating details: Consulship (set to "121 AD: M. Annus Verus II (January–February) / Cr"), Day ("a.d. III"), Kalends/Nones/Ides ("Kalends"), Month ("March"), and two buttons for "Convert..." and "Reset...". At the bottom of the page is a link to "Graph of Dated Objects and Texts".



GODOT – Website (Date Conversions)

The screenshot shows a web interface for date conversion. At the top, there is a header bar with the GODOT logo on the right. Below the header is a banner featuring a photograph of an ancient Roman inscription on stone. The inscription includes large letters 'F IIII N P' and smaller Latin text. To the right of the inscription is another GODOT logo. The main content area has a title 'Roman Calendar Conversion – Consular Dating: Result'. Below the title, it says '121 AD: M. Annus Verus II (January–February) / Cn. Arrius Augur a.d. III Kalends March' and 'Result: 28 February 121 AD'. There is also a link 'New conversion'. At the bottom of the main content area is a link 'Graph of Dated Objects and Texts'.



GODOT – Website (Identifier Tool)

The screenshot shows the GODOT website's 'Identify Roman Emperor by Titulature' feature. At the top, there is a navigation bar with links: GODOT, About..., Browse, Convert Date... ▾, Tools... ▾, Cyrenaica... ▾, and Logout (grieshaber). The main form has fields for Trib Pot Number (18), Imperator Number (7), Consul Number (6), and a checkbox for 'consul designatus'. A dropdown menu for Victory Titles lists: Adiabenicus, Adiabenicus max., Aegyptiacus max., Alamannicus max., Arabicus, Arabicus max., Armeniacus, Armeniacus max., Britannicus, and Britannicus max. Below the form are 'Submit...' and 'Reset...' buttons. At the bottom of the page is a link: Graph of Dated Objects and Texts.

Identify Roman Emperor by Titulature

Trib Pot Number:
18

Imperator Number:
7

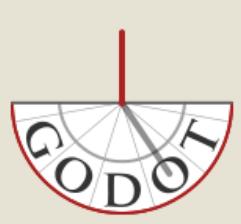
Consul Number:
6 consul designatus

Victory Titles:

Adiabenicus
Adiabenicus max.
Aegyptiacus max.
Alamannicus max.
Arabicus
Arabicus max.
Armeniacus
Armeniacus max.
Britannicus
Britannicus max.

Submit... Reset...

Graph of Dated Objects and Texts



GODOT – Website (Identifier Tool)

The screenshot shows the GODOT website interface. At the top, there is a navigation bar with links: GODOT, About..., Browse, Convert Date... ▾, Tools... ▾, Cyrenaica... ▾, and Logout (grieshaber). Below the navigation bar is a banner featuring a photograph of an ancient Roman inscription fragment with large letters F IIII N P and some Latin text. To the right of the banner is the GODOT logo.

Identify Roman Emperor by Titulature – Results

Search for:

- Consul Number: 6
- Tribunicia Potestas Number: 18
- Imperial Acclamation Number: 7

Potential Roman Emperors:

Numbers in parenthesis provide information about the number of temporal overlaps in given titulature data, e.g. (2/3) = two out of three titulature partials show a temporal overlap. The list of emperors is sorted by this ratio with those emperors with highest ratio first.

[Trajan \(3/3\)](#) [Augustus \(1/3\)](#) [Commodus \(1/3\)](#) [Constantin I \(1/3\)](#) [Maximian \(1/3\)](#) [Diocletian \(0/3\)](#)

Trajan (3/3)
Temporal Overlap: 0114-09-01 – 0114-10-31
Consulate 0112-01-01 – 0112-01-13 (0117-08-07)

- date is uncertain
- Part of Consulate(s):
<https://godot.date/id/e5jdHY46XWJeEpgYdGvRq8>

Tribunicia Potestas 0113-12-10 – 0114-12-09
Imperial Acclamation 0114-09 – (0114-10)

Augustus (1/3)
Partial Temporal Overlap(s):

- -0028-01-01 – -0027-01-01

Consulate -0028-01-01 – -0028-12-31 (-0027-01-01)

- Part of Consulate(s):
<https://godot.date/id/chtkaf4FhR5hhQGmjKF7f>

Tribunicia Potestas -0006-06-26 – -0005-06-25
Imperial Acclamation -0029 – (-0025)



GODOT – Website (Tools: OpenRefine Reconciliation Service)

The screenshot shows the GODOT website's tools section. At the top, there is a header with the GODOT logo and navigation links: GODO, About..., Browse, Convert Date... ▾, Tools... ▾, Cyrenaica... ▾, and Logout (grieshaber). Below the header is a large image of an ancient Roman inscription on stone.

GODOT – Tools

OpenRefine Reconciliation Services:

OpenRefine (formerly Google Refine) is a powerful tool for working with messy data: cleaning it; transforming it from one format into another; and extending it with web services and external data.

Roman Consulships

For matching your data against ancient Roman consulates in the GODOT graph you can use the GODOT OpenRefine Reconciliation Service, the URL for this API is: <https://godot.date/api/openrefine/reconcile>. Results (GODOT URIs) are ordered by score.

The main content area displays a screenshot of the OpenRefine interface. The interface shows a table with 4910 rows of data, specifically focusing on Roman consuls. The columns include ID, HD-No., name, praenomen, nomen, cognomen, and full name. A sidebar on the left provides filtering options for full name, judgment, and date range (71 BC - 101 AD). The reconciliation results are shown as a dropdown menu for each row, listing various historical figures and their dates of office. At the bottom of the interface, there is a link to "Graph of Dated Objects and Texts".



GODOT Summary

- Gazetteer: stable & citable URIs for chronological data
- GODOT URIs for :
 - reuse in Linked Open Data applications, TEI/EpiDoc XML or database projects
 - defining start/end point of periods (PeriodO, Chronontology) or events
- detail view/description of each date and all its attestations
- browse through chronological data on GODOT website & find contemporaneous texts from various projects
- visualize dates on a timeline to see contemporary dates/texts even if in a different calendar system
- increased visibility of project and its data (by links from GODOT website back to project website)
- tools related to dating texts (conversions, openRefine, identifier, API):
 - Javascript widget

The screenshot shows a modal window titled "GODOT Date Information" with a close button. Inside, it displays the following information:
Egyptian Calendar Date (Roman Period):
Year 15 of Hadrian, Choiak, day 11 (7. Dec 130 AD)
[Click here for all 7 attestations of this date in GODOT.](#)
Data provided by <https://www.godot.date>

At the top left of the main page, there is a URL: <http://epigraphy.packhum.org/text/227955>

The main content area contains a block of Greek text:
Ἄρτεμίδωρος Πτολεμαίου, βασιλικὸς γραμματεὺς Ἐρμωνθείτου καὶ Λατοπόλείτου, ἥκουσα Μέμνονος τοῦ θειοτάτου, μετὰ καὶ τῆς συνβίου Ἀρσινόης καὶ τῶν τέκνων Αἰλουρίωνος τοῦ καὶ Κοδράτου καὶ Πτολεμαίου, ἔτει ιε' Ἀδριανοῦ Καίσαρος τοῦ κυρίου, ια' Χοίακ.