Package 'igoR'

August 25, 2026

Title Access the Intergovernmental Organizations ('IGO') Database

Version 1.1.0

Description Provides tools for searching, extracting and recoding the Intergovernmental Organizations ('IGO') Database (version 3), distributed by the Correlates of War Project <https://correlatesofwar.org/>. Includes 'IGO-year' and country-year membership data, state system data and functions for deriving 'dyad-year' joint membership results. For a description of the data, see Pevehouse, J. C. et al. (2020) <doi:10.1177/0022343319881175>.

License GPL (>= 3)

URL https://dieghernan.github.io/igoR/, https://github.com/dieghernan/igoR

BugReports https://github.com/dieghernan/igoR/issues

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Contents

`igo_dyadic` *Extract dyad-year joint IGO membership*

Description

Creates dyad-year IGO data. Each row represents a pair of states in one year and summarizes their joint memberships across IGOs.

Usage

```
igo_dyadic(country1, country2, year = 1816:2014, ioname = NULL)
```

Arguments

`country1`, `country2`	A state or a vector of states to compare. Each value can be any state name or Correlates of War code in states2024.
`year`	An integer or vector of years to assess.
`ioname`	An optional IGO identifier or vector of identifiers. If `NULL` (the default), all IGOs are included. Use `igo_search()` to find valid identifiers.

Details

The arguments `country1` and `country2` are named for compatibility with earlier versions of **igoR**. Values are matched against states in states2024.

This function reproduces the structure of the original dyad-year file distributed by the Correlates of War Project (`dyadic_format3.dta`). That file is not included in this package due to its size.

The result contains one row for each dyad-year selected by `country1`, `country2` and `year` that is available for both states.

The `dyadid` column identifies each relationship and is computed as `(1000 * ccode1) + ccode2`.

For each selected IGO, the result includes a column named after its lowercase identifier and uses this coding scheme:

Category	Numerical value
No Joint Membership	0
Joint Full Membership	1
Missing data	-9
State Not System Member	-1

Use `igo_recode_dyadic()` to recode the numerical values as factors.

If one state in an IGO is a full member but the other is an associate member or observer, that IGO is not coded as a joint membership.

Value

A coded `data.frame` with one row per state-pair-year and one column per selected IGO. See **Details** for the membership status coding scheme.

Differences from the original data set

For some IGOs, results differ from the original data set in the coding of "Missing data" (`-9`) and "State Not System Member" (`-1`). The available documentation does not fully specify how to reproduce those values.

See Codebook Version 3 IGO Data.

Source

Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

igo_recode_dyadic() to recode results, igo_search() to find IGO identifiers, states2024 for state identifiers and state_year_format3 for the source membership data.

Extract IGO membership data: igo_members(), igo_state_membership()

Examples

```
usa_esp <- igo_dyadic("USA", "Spain")
nrow(usa_esp)
ncol(usa_esp)

dplyr::tibble(usa_esp)

# Use custom arguments.
custom <- igo_dyadic(
  country1 = c("France", "Germany"), country2 = c("Sweden", "Austria"),
  year = 1992:1993, ioname = "EU"
)

dplyr::glimpse(custom)
```

---

igo_members *Extract IGO membership records by organization*

Description

Extracts state-level membership records for one or more IGOs and years.

Usage

```
igo_members(ioname, year = NULL, status = "Full Membership")
```

Arguments

ioname	An IGO identifier or vector of identifiers from igo_year_format3. Use igo_search() to find valid identifiers.
year	An integer or vector of years to assess. If NULL, the latest available year for each IGO is used.
status	A character vector of membership statuses to extract from state-level IGO membership records. See state_year_format3 for valid statuses.

Value

A data.frame with one row per matching state, IGO-year and membership status.

Source

Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

`igo_search()` to find IGO identifiers, igo_year_format3 for IGO-year data and state_year_format3 for state-year membership data.

Extract IGO membership data: `igo_dyadic()`, `igo_state_membership()`

Examples

```
library(dplyr)
igo_members("EU", year = 1993) |> as_tibble()
igo_members("EU") |> as_tibble()
igo_members("NAFTA", year = c(1995:1998)) |> as_tibble()

# Extract multiple membership statuses.
igo_members("ACCT", status = c("Associate Membership", "Observer")) |>
  as_tibble()

# States that are not members of the UN.
igo_members("UN", status = "No Membership") |>
  as_tibble()

# Vectorized search.
igo_members(c("NAFTA", "EU"), year = 1993) |>
  as_tibble() |>
  arrange(state)

# Use the countrycode package to add codes.
if (requireNamespace("countrycode", quietly = TRUE)) {
  library(countrycode)
  EU <- igo_members("EU")
  EU$iso3c <- countrycode(EU$ccode, origin = "cown", destination = "iso3c")

  EU$continent <- countrycode(EU$ccode,
    origin = "cown",
    destination = "continent"
  )

  tibble(EU)
}
```

igo_recode *Recode membership status values*

Description

Converts the numeric membership status values in igo_year_format3, state_year_format3 and `igo_dyadic()` into factors. Use `igo_recode_igoyear()` with values from igo_year_format3, `igo_recode_stateyear()` with values from state_year_format3 and `igo_recode_dyadic()` with values from `igo_dyadic()`.

Usage

```
igo_recode_igoyear(x)

igo_recode_stateyear(x)

igo_recode_dyadic(x)
```

Arguments

x	A numeric membership status value or vector of values to recode.

Value

A factor with the recoded membership status values.

See Also

igo_year_format3, state_year_format3 and `igo_dyadic()` for the data corresponding to each recoding function.

Examples

```
data("igo_year_format3")

# Recode membership status values for selected states.
library(dplyr)

samp <- igo_year_format3 |>
  select(ioname:year, spain, france) |>
  filter(year > 2000) |>
  as_tibble()

glimpse(samp)

# Recode the membership columns.
samp |>
  mutate(
    spain = igo_recode_igoyear(spain),
    france = igo_recode_igoyear(france)
```

```
) |>
glimpse()
```

`igo_search` *Search for IGOs*

Description

Searches for IGOs by name or regular expression.

Usage

```
igo_search(pattern = NULL, exact = FALSE)
```

Arguments

`pattern`	A regular expression used to match IGO names and identifiers. If `NULL`, all IGOs in igo_year_format3 are returned. Numeric identifiers are accepted.
`exact`	A logical value. If `TRUE`, `pattern` is anchored to require a complete match.

Details

The information for each IGO is retrieved from the latest year available in igo_year_format3.

The `label` column provides a cleaned version of `longorgname`.

Value

A `data.frame` with IGO identifiers, names, years and other metadata from the latest available IGO-year for each IGO.

Source

Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

igo_year_format3 for the IGO metadata being searched.

Search IGO and state metadata: `igo_search_states()`

Examples

```
# Return all values.
library(dplyr)
all <- igo_search()

all |> tibble()

# Search by pattern.
igo_search("EU") |>
  select(ionum:orgname) |>
  tibble()

igo_search("EU", exact = TRUE) |>
  select(ionum:orgname) |>
  tibble()

# Search by numeric identifier.
igo_search(10) |>
  select(ionum:orgname) |>
  tibble()

igo_search(10, exact = TRUE) |>
  select(ionum:orgname) |>
  tibble()

# Search with a regular expression.
igo_search("NAFTA|UN|EU") |>
  select(ionum:orgname) |>
  tibble()

# Search for several exact identifiers.
igo_search("^NAFTA$|^UN$|^EU$") |>
  select(ionum:orgname) |>
  tibble()
```

---

igo_search_states *Find Correlates of War state codes, abbreviations and names*

Description

Finds Correlates of War country codes, abbreviations and names for states.

Usage

```
igo_search_states(state)
```

Arguments

state	A state name or code, or a vector of names or codes, as specified in states2024.

Value

A data.frame with Correlates of War country codes, abbreviations, names and the matching state identifiers used by state_year_format3.

Source

Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

states2024 for state codes, abbreviations and names.

Search IGO and state metadata: igo_search()

Examples

```
library(dplyr)

igo_search_states("Spain") |> as_tibble()

igo_search_states(c(20, 150)) |> as_tibble()

igo_search_states("congo") |> as_tibble()

igo_search_states(c("Germany", "papal states")) |> as_tibble()

igo_search_states(c("FRN", "United Kingdom", 240, "italy")) |> as_tibble()
```

---

igo_state_membership *Extract IGO membership records by state*

Description

Extracts IGO membership records for one or more states and years.

Usage

```
igo_state_membership(state, year = NULL, status = "Full Membership")
```

Arguments

state	A state name or code, or a vector of names or codes, as specified in states2024.
year	An integer or vector of years to assess. If NULL, the latest available year for each state is used.
status	A character vector of membership statuses to extract from IGO-level state membership records. See igo_year_format3 for valid statuses.

Value

A data.frame with one row per matching state, IGO-year and membership status.

Source

Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

igo_search_states() to find state identifiers, igo_year_format3 for IGO-year membership data and states2024 for state metadata.

Extract IGO membership data: igo_dyadic(), igo_members()

Examples

```
# Memberships in selected years.
igo_state_membership("Spain", year = 1850)
igo_state_membership("Spain", year = 1870)
igo_state_membership("Spain", year = 1880:1882)

# Use the latest available year.
igo_state_membership("ZAN")[, 1:7]

# Search by state code.
igo_state_membership("2", year = 1865)

# Extract multiple membership statuses.
igo_state_membership("kosovo", status = c(
  "Associate Membership", "Observer",
  "Full Membership"
))

# Vectorized search.
igo_state_membership(c("usa", "spain"), year = 1870:1871)

# Use the countrycode package to add codes.
```

```
if (requireNamespace("countrycode", quietly = TRUE)) {
  library(countrycode)
  IT <- igo_state_membership("Italy", year = 1880)
  IT$iso3c <- countrycode(IT$ccode, origin = "cown", destination = "iso3c")
  head(IT)
}
```

`igo_year_format3` *IGO-year membership data*

Description

Data on intergovernmental organizations (IGOs) from 1816 to 2014 at the IGO-year level. Each row represents one IGO in one year. Years are recorded at five-year intervals through 1965 and annually thereafter.

Format

A `data.frame` with 19,335 rows. Relevant fields:

- `ioname`: Short identifier for the IGO name.
- `orgname`: Full IGO name.
- `year`: Calendar year.
- `afghanistan...zimbabwe`: Membership status of each state in the IGO. See the **Details** section.
- `sdate`: Start year for the IGO.
- `deaddate`: End year for the IGO.
- `longorgname`: Longer IGO name, including previous names.
- `ionum`: IGO identifier in versions 2.1 and 3.0 of the data.
- `version`: Correlates of War version number.

Details

Possible values for the status of a state in the IGO are:

Category	Numerical value
No Membership	0
Full Membership	1
Associate Membership	2
Observer	3
Missing data	-9
State Not System Member	-1

Use `igo_recode_igoyear()` to recode the numerical values as factors.

Note

Data distributed with **igoR**.

Source

Intergovernmental Organizations (version 3), IGO Data Stata files from the Correlates of War Project.

See the Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

IGO data sets: `state_year_format3`, `states2024`

Examples

```
data("igo_year_format3")

# Show a glimpse.
library(dplyr)

igo_year_format3 |>
  select(ioname:year, spain, france) |>
  filter(year > 1990) |>
  glimpse()

# Prepare a sample of numerical membership values.
sample_igo_year <- igo_year_format3 |>
  as_tibble() |>
  select(ioname:year, spain, france) |>
  filter(year == 1990)

sample_igo_year |> glimpse()

# Recode the membership columns.
sample_igo_year_recoded <- sample_igo_year |>
  mutate(across(c(spain, france), igo_recode_igoyear))

sample_igo_year_recoded |> glimpse()
```

`states2024` *State system membership (v2024)*

Description

A list of states with Correlates of War abbreviations and identifiers, plus the `state` field from state_year_format3.

Format

A `data.frame` with 244 rows and 11 variables:

`ccode` Correlates of War state number.

`stateabb` Correlates of War state abbreviation.

`statenme` Primary Correlates of War state name.

`styear` Beginning year of state tenure.

`stmonth` Beginning month of state tenure.

`stday` Beginning day of state tenure.

`endyear` Ending year of state tenure.

`endmonth` Ending month of state tenure.

`endday` Ending day of state tenure.

`version` Data file version number.

`state` Abbreviated state name as it appears in `state_year_format3`.

Details

This data set contains the states in the international system as updated and distributed by the Correlates of War Project.

It identifies states, their standard Correlates of War country code or state number, state abbreviations and dates of membership as states and major powers in the international system.

The Correlates of War Project includes a state in the international system from 1816 to 2024 according to the following criteria:

- **Before 1920**, the entity must have had a population greater than 500,000 and have had diplomatic missions at or above the rank of chargé d'affaires with Britain and France.
- **After 1920**, the entity must be a member of the League of Nations or the United Nations, or have a population greater than 500,000 and receive diplomatic missions from two major powers.

Note

The `state` variable was added to the original data to support comparisons across data sets in this package.

Source

State System Membership (v2024). The Correlates of War Project.

References

Correlates of War Project. 2025. "State System Membership, v2024." Online, https://correlatesofwar.org/.

See Also

IGO data sets: igo_year_format3, state_year_format3

Examples

```
data("states2024")
dplyr::glimpse(states2024)
```

---

state_year_format3 *Country-year IGO membership data*

Description

Data on IGO membership from 1816 to 2014 at the country-year level. Each row represents one country in one year. Years are recorded at five-year intervals through 1965 and annually thereafter.

Format

A data.frame with 15,557 rows. Relevant fields:

- ccode: Correlates of War country number. See states2024.
- year: Calendar year.
- state: Abbreviated state name, identical to variable names in igo_year_format3.
- aaaid...wassen: IGO variables containing state membership status. See the **Details** section.

Details

Possible values for the status of a state in the IGO are:

Category	Numerical value
No Membership	0
Full Membership	1
Associate Membership	2
Observer	3
Missing data	-9
IGO Not In Existence	-1

Use `igo_recode_stateyear()` to recode the numerical values as factors.

See the Codebook Version 3 IGO Data.

Note

Data distributed with **igoR**.

Source

Intergovernmental Organizations (version 3), IGO Data Stata files from the Correlates of War Project.

See the Codebook Version 3 IGO Data for the full reference.

References

Pevehouse, J. C., Nordstrom, T., McManus, R. W. & Jamison, A. S. (2020). Tracking organizations in the world: The Correlates of War IGO Version 3.0 data sets. *Journal of Peace Research*, **57**(3), 492–503. doi:10.1177/0022343319881175.

See Also

`countrycode::countrycode()` to convert between different country code schemes.

IGO data sets: `igo_year_format3`, `states2024`

Examples

```
data("state_year_format3")
dplyr::tibble(state_year_format3)
```

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