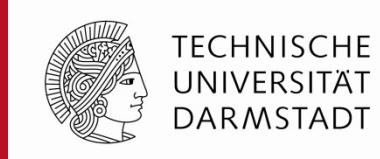


The INCEpTION Platform: Machine-Assisted and Knowledge- Oriented Interactive Annotation



Website: <https://inception-project.github.io>

Project team: <https://inception-project.github.io/info/>

License: Apache License 2.0

INCEpTION

Gefördert durch

DFG

Deutsche
Forschungsgemeinschaft



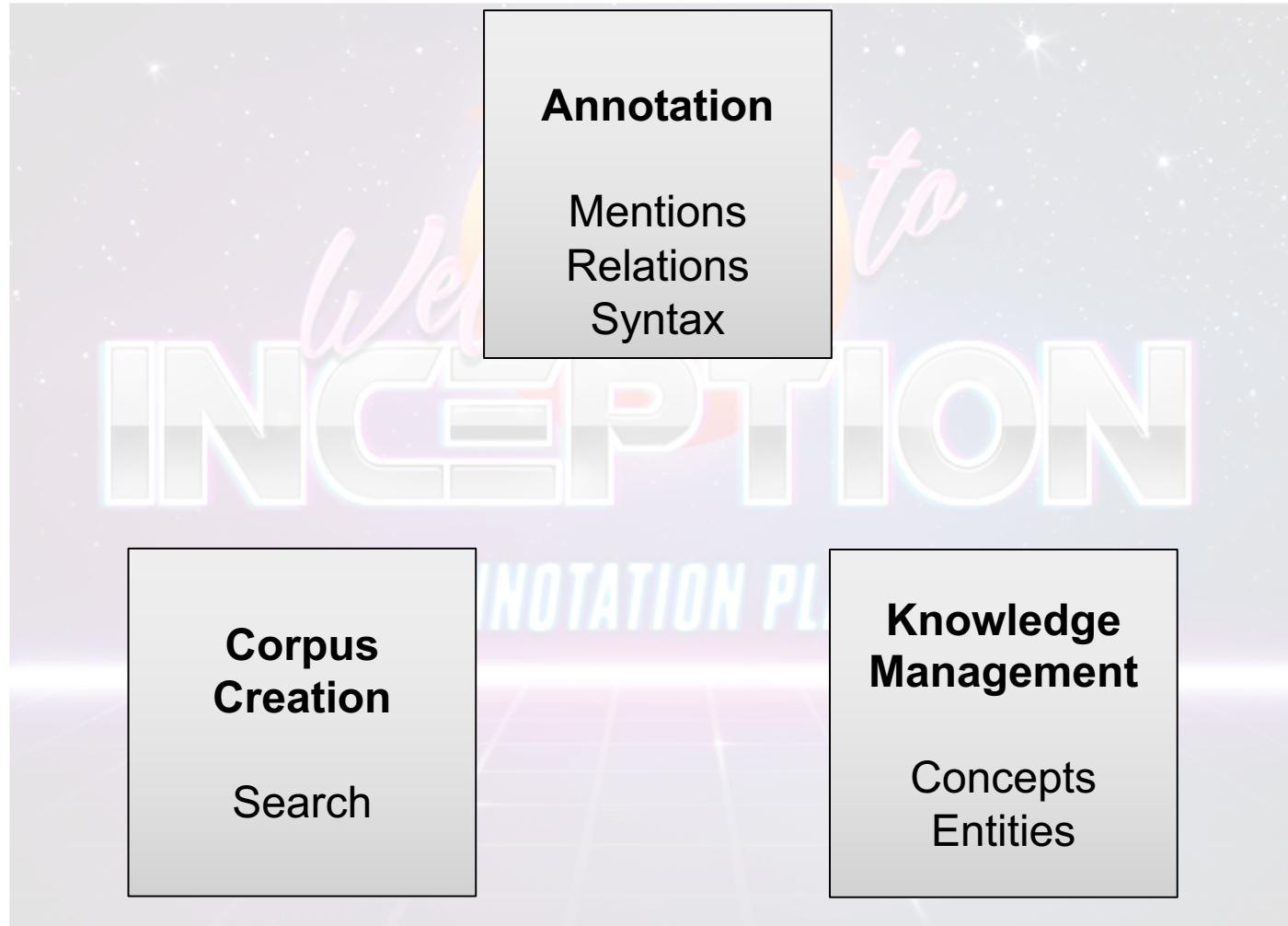
Getting and running INCEpTION



- Recommend browser: Chrome / Chromium
- Install Java version 11 or higher
 - <https://adoptopenjdk.net>
- Download the latest INCEpTON version
 - <https://inception-project.github.io/downloads/>
 - Make sure **not** to extract the JAR file during or after download!
- Run by double-clicking on the JAR file
 - Some tools like WinRAR grab the JAR extension...
 - In this case, right-click and select “Open with... Java”
- After a short moment, the splash screen should appear
 - Tray icon (on OS X: menu icon) appears – right-click for options
 - When start-up has completed, your default browser should open
- Login in as user “admin” with password “admin”



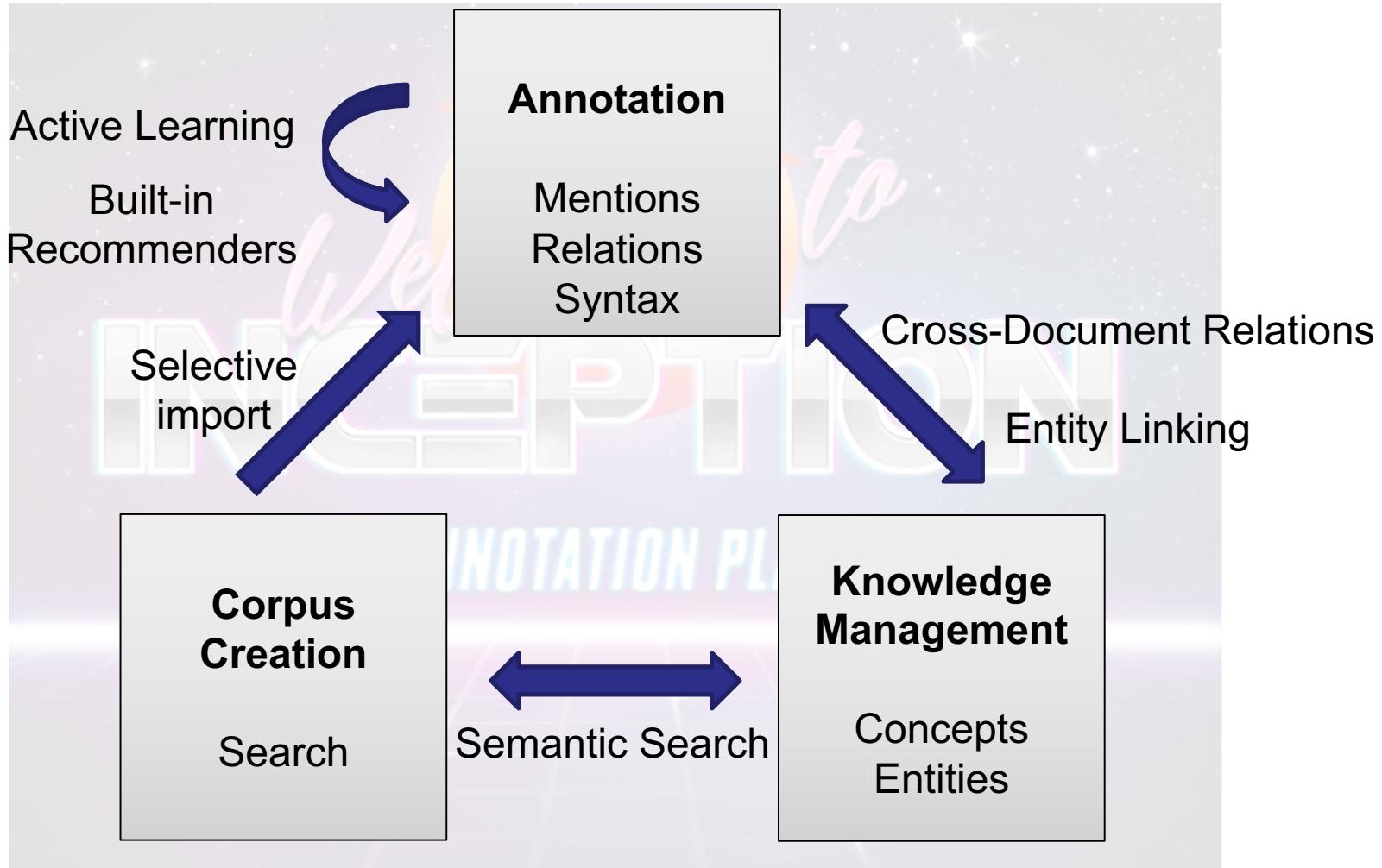
Made with <https://photofunia.com>



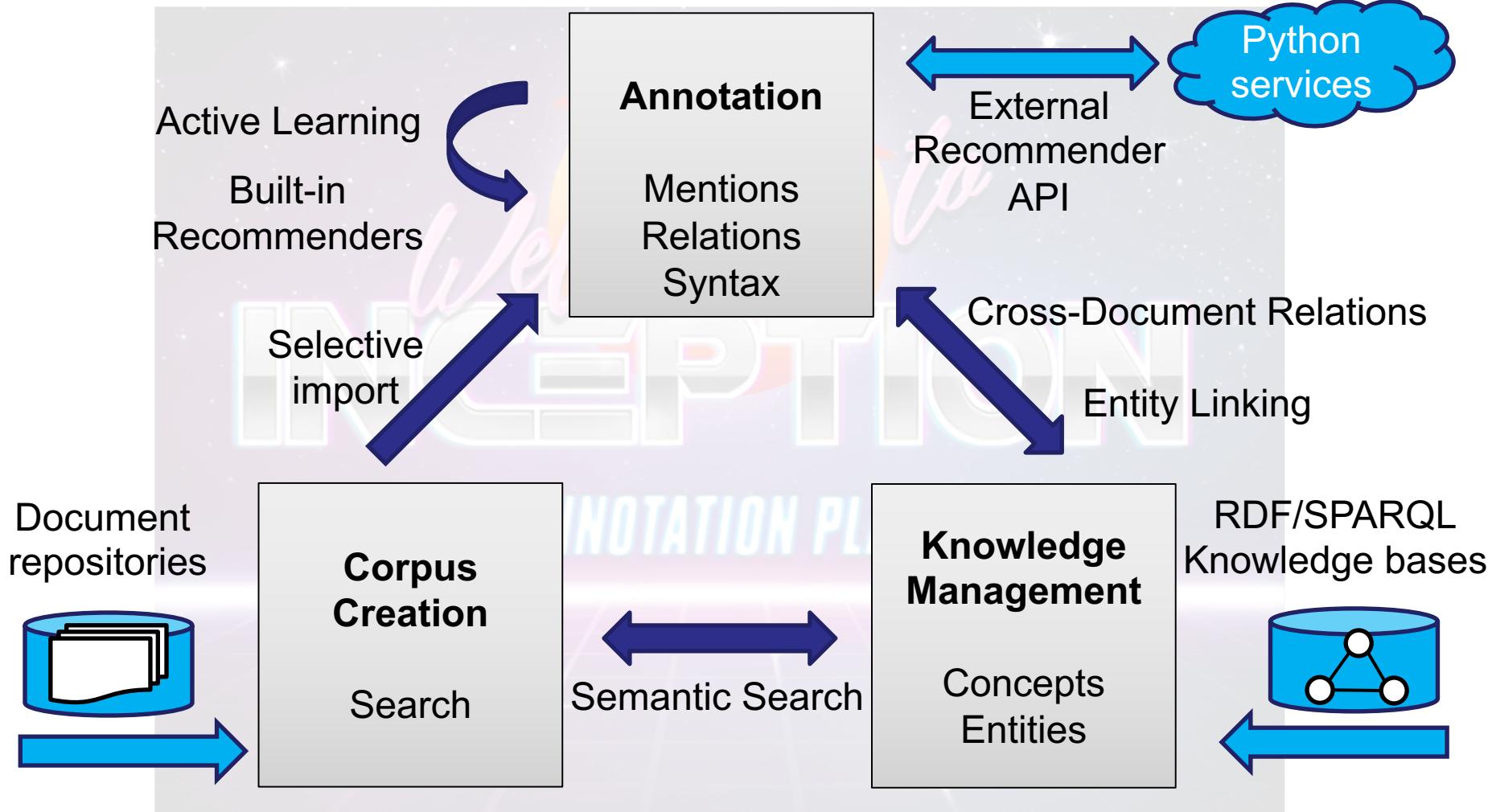
INCEPTION Platform



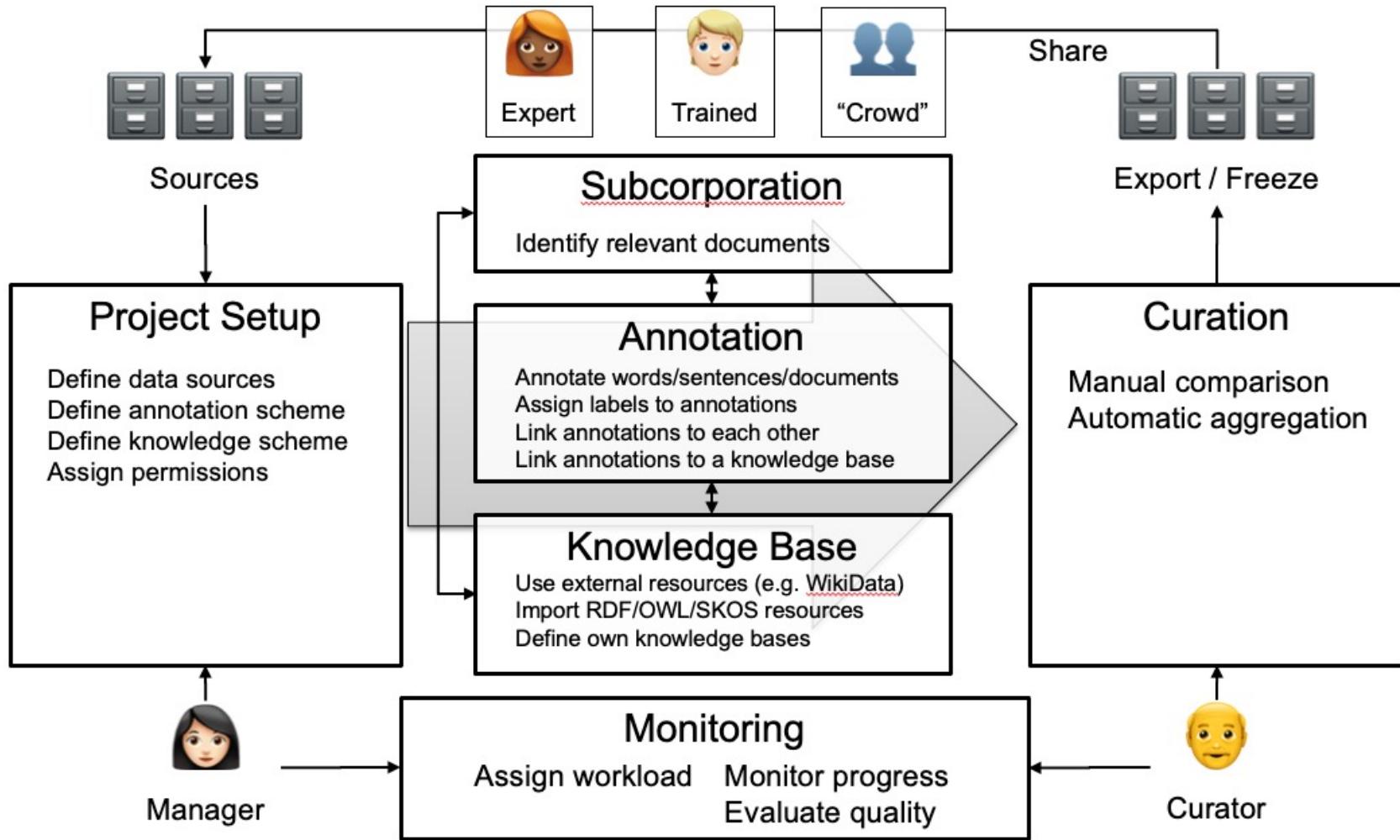
TECHNISCHE
UNIVERSITÄT
DARMSTADT



INCEPTION Platform



INCEPTION Workflow



Let's get started



The screenshot shows the INCEpTION web interface. At the top, there is a navigation bar with the INCEpTION logo, a 'Projects' button, and other links like 'Help', 'tutorial', 'Log out', and a timer showing '29 min'. Below the navigation bar, there is a button for 'Create new project ...' and a dropdown menu for 'Import project'. A red box highlights the 'Import project' dropdown. To the right of these buttons is a 'Start Tutorial' button.

TIP!
Access to quick project
templates

The screenshot shows the 'Create new project' dropdown menu open. It contains three items: 'Basic annotation (span/relation)' (which is highlighted with a red box), 'Entity linking (Wikidata)', and 'Standard project'. Above the menu, a message says 'Instantly create a project using one of these templates.'

Let's create a basic
annotation project with a
span and a relation layer.

Creates standard
(linguistic) project and
directly opens project
settings.

At the moment there are no projects. To create your first project, click the button 'Create new project'. To see how it works, click the button 'Start Tutorial'.

Project Dashboard



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The screenshot shows the INCEpTION Project Dashboard. On the left, a sidebar lists 'Annotation', 'Curation', 'Monitoring', 'Evaluation', and 'Settings'. The 'Settings' button is highlighted with a red box. The main area displays a project titled 'tutorial - New project'. Below the title, it says 'Project has no description.' A callout bubble points to the project name with the text 'Pssst... click me to change the project name'. Another callout bubble points to the top right of the dashboard with the text 'Documentation is available here!'. The top navigation bar includes 'Projects', 'Dashboard', 'Help', 'tutorial', 'Log out', and a timer showing '29 min'. The bottom footer contains the text 'Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)' and a small circular icon.

Importing a text



INCEPTION Projects Dashboard Help tutorial Log out 29 min

tutorial - New project

Details Documents Users Workload Layers Knowledge Bases Recruiters Tagsets Document Repositories CAS Doctor Guidelines

Select files... Delete project

Format CoNLL-U

Choose some plain text UTF-8 files from your computer to import.

Delete document(s)

File formats



Mind that segmentation
(token and sentence boundaries)
cannot be changed after import!

Typical formats without annotations

- Plain text
(different pre-segmentation options / UTF-8)
- PDF
- HTML

Typical pre-annotated formats

- UIMA CAS XMI
- WebAnno TSV 3
- CoNLL-U

Guidelines

- CoNLL 2000
- CoNLL 2002
- CoNLL 2003
- CoNLL 2006
- CoNLL 2009
- CoNLL 2012
- CoNLL CoreNLP
- CoNLL-U**
- Corpus Workbench Format (aka VRT)
- HTML**
- HTML (legacy)
- LAPPs Interchange Format
- NLP Interchange Format (NIF)
- PDF**
- Perseus treebank XML (2.1)
- Plain text**
- Plain text (one sentence per line)
- Plain text (space-separated tokens, one sentence per line)
- PubAnnotation Document with Sections (JSON)
- TEI
- UIMA CAS XMI (XML 1.0)
- UIMA CAS XMI (XML 1.1)
- UIMA binary CAS
- WebAnno TSV v1 (WebAnno v1.x)
- WebAnno TSV v2 (WebAnno v2.x)
- WebAnno TSV v3.3 (WebAnno v3.x)**
- WebLicht TCF



INCEpTION Projects **Dashboard** Help tutorial Log out 29 min

tutorial - New project Delete project

Files to import Select files... x Format Plain text Import

A_Golden_Crown.txt
A_Golden_Crown_recap.txt
A_Knight_of_the_Seven_Kingdoms.txt
A_Man_Without_Honor_recap.txt

Delete document(s)

Details Documents Users Workload Layers Knowledge Bases Recruiters Tagsets Document Repositories CAS Doctor Guidelines

Back at the project Dashboard



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The screenshot shows the INCEpTION project dashboard for a new project titled "tutorial". The left sidebar contains navigation links: Annotation (highlighted with a red box), Curation, Monitoring, Evaluation, and Settings. The main content area displays the project title "tutorial - New project" and a message stating "Project has no description." A vertical sidebar on the right lists "Recent activity". At the bottom, there is footer text: "Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)" and a small info icon.

Opening a document for annotation



If you are a **project manager**, you can select to view (not edit) annotations from other users. Regular annotators do not see this choice.

Left double-click to open.

Annotation screen



Which document do I see?

The screenshot shows the INCEpTION annotation interface. At the top, there's a navigation bar with 'INCEpTION' and links for 'Projects' and 'Dashboard'. On the right, there are 'Help', 'tutorial', 'Log out', and a timer showing '29 min'. Below the navigation bar is a toolbar with icons for file operations like 'New', 'Open', 'Save', and 'Print', followed by navigation controls (back, forward, search, etc.). A status bar at the bottom left says 'tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)' and '1-5 / 195 sentences [doc 1 / 4]'. To the right of the main document area is an 'Annotation' sidebar with the message 'No annotation selected'. A callout bubble points to the status bar with the question 'Which document do I see?'. Another callout bubble points to the 'Annotation' sidebar with the question 'Where am I within the document?'. Inside the main document area, several other callout bubbles provide instructions: one for navigating between documents (pointing to the sidebar), one for navigating within the document (pointing to the toolbar), and one for resetting or marking the document as finished (pointing to the bottom right of the document area). A 'Preferences' dialog box is open in the foreground, showing settings for 'General Display Preferences' such as 'Editor' (set to 'Auto (based on document format)'), 'Sidebar left' (20%), 'Sidebar right' (20%), 'Font zoom' (100%), 'Page size' (5 rows), and checkboxes for 'Auto-scroll' and 'Collapse arcs'. The dialog has 'Save' and 'Cancel' buttons at the bottom.

Creating span annotations



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-5 / 195 sentences [doc 1 / 4]

Annotation

Span:44008 sofa: _InitialView begin: 76 end: 91 label: <null>

Layer Span

Text Game of Thrones

No links or relations connect to this annotation.

Label

Double-left-click on a word to annotate it

Left-click on text, drag-mouse and release to annotate multiple words

Clicking on text creates a new annotation.

Single left click on a bubble selects an annotation.

Pitfall: Insufficiently pre-processed data



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-5 / 195 sentences [doc 1 / 4]

> Projects Dashboard ? Help tutorial Log out 29 min

Annotation Span

Span:44008 sofa: _InitialView begin: 76 end: 91 label: <null>

Layer Span

Text Game of Thrones

No links or relations connect to this annotation.

Label

1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.

2 It is the sixth episode of the series overall.

3 It premiered on May 22, 2011.

4 It was written by Jane Espenson, David Benioff & D.B. Weiss and directed by Daniel Minahan.

5 Weiss and directed by Daniel Minahan.

There should not be a sentence-break here. The built-in sentence splitter did not recognize the abbreviated name.

Who can spot the problem?

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)

Why is sentence-splitting important?



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-5 / 195 sentences [doc 1 / 4]

Annotation

Most recommenders sample their training data from sentences!

Try annotating “D.B. Weiss”

Allowing cross-sentence annotations is a configuration option on the span layer.

Error: MultipleSentenceCoveredException: Annotation covers multiple sentences, limit your annotation to single sentence! multiple sentences, limit your annotation to single sentence!

Behaviors

- Read-only
- Validation: Always
- Granularity: Token-level
- Overlap: Overlap only
- Allow crossing sentence boundaries

No annotation selected

Granularity is also configurable: characters, tokens, sentences

What happens if you double-click on a word if the granularity is “sentence-level”?

Creating a relation annotation



The screenshot shows the INCEpTION software interface. On the left, there's a toolbar with icons for file operations, search, and project management. The main area displays a text document titled "tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)". The text contains four numbered sentences about the episode "A Golden Crown". A red box highlights the first sentence: "1 A Golden Crown: "A Golden Crown" is the sixth episode of the first season of Game of Thrones.". A blue box highlights the fourth sentence: "4 It was written by David Benioff & D.B. Weiss, directed by Daniel Minahan." An annotation bubble is shown above the first sentence, with a callout pointing to it: "Left-click on an annotation bubble, hold the button ...". Another callout from the same bubble points to the word "Relation" in the sentence: "... drag the mouse to the target bubble And release the button". To the right, an "Annotation" panel is open, showing the details of a selected relation: "Relation:44236 sofa: _InitialView begin: 76 end: 91 Dependent: Span:44008". The panel includes fields for "From" (set to "A Golden Crown"), "To" (set to "Game of Thrones"), and "Label" (a dropdown menu). A thought bubble in the center says: "Whether cross-sentence relations are allowed is again configurable." A final callout at the bottom right states: "Caveat: Relations are only shown if both start and end span are within the visible part of the document!".

INCEpTION Projects Dashboard 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)

1 A Golden Crown: "A Golden Crown" is the sixth episode of the first season of Game of Thrones.

2 It is the sixth episode of the series overall.

3 It premiered on May 1, 2011.

4 It was written by David Benioff & D.B. Weiss, directed by Daniel Minahan.

Annotation

Relation:44236 sofa:
_InitialView begin: 76 end: 91
Dependent: Span:44008

Layer

Relation

From

A Golden Crown

To

Game of Thrones

Label

Whether cross-sentence relations are allowed is again configurable.

Caveat: Relations are only shown if both start and end span are within the visible part of the document!

Layers



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-5 / 195 sentences [doc 1 / 4]

Annotation Relation:44236 sofa:
_InitialView begin: 76 end: 91
Dependent: Span:44008

Relation

From A Golden Crown

Properties Name: Relation Description: Enabled

Technical Properties Internal Name: custom.Relation Type: Relation Attach to layer: Span

A layer defines a kind of annotation.

In this simple setup, we have two kinds:

- 1) "Span" – which is a layer of type "Span"
- 2) Relation – which is a layer of type "Relation" defined over the "Span" layer

Each layer has a **name** and a **type**. Because the example has one layer of each type, we simply used the type name as the layer name... sorry if this is confusing.

Technische Universität Darmstadt 07-04 13:06:08, build 88d68dc2

INCEpTION 20.x | <https://inception-project.github.io> 20 UKP

Features



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-5 / 195 sentences [doc 1 / 4]

Annotation

Relation:44236 sofa:
_InitialView begin: 76 end: 91
Dependent: Span:44008

Layer

Relation

From A Golden Crown

To Game of Thrones

Label

A layer can define any number of features.

In this simple setup, each of the two layers has one feature called "Label".

Each feature has a type (string, number, boolean, etc.)

String features can also be associated with a tagset.

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)

Assigning labels



The screenshot shows the INCEpTION annotation interface. On the left, there's a sidebar with icons for navigation, projects, dashboard, and help. The main area displays a document titled "tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)" with 1-5 / 195 sentences [doc 1 / 4]. The document content includes several spans and relations, with labels like "Episode", "Series", and "Span". A callout box highlights the following text:

The pre-configured tagset is an **open tagset**.

If we enter a new value into the “Label” field, it is automatically added to the tagset.

The “Span” and “Relation” layers were set up to use different tagsets, so values entered on spans are not available for relations and vice versa.

On the right, the "Annotation" panel shows a list of labels: "Span", "Layer", "Span", "Text", "Game of Thrones", "Relation", "A Golden Crown". A red box highlights the "Label" section where "Series" is listed. Another red box highlights the "Annotators may add new tags" checkbox at the bottom of the tagset details.



The screenshot shows the INCEpTION annotation interface. On the left is a sidebar with icons for navigation, projects, dashboard, help, tutorial, log out, and a search function. The main area displays a text document titled "tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)" with 1-5 / 195 sentences [doc 1 / 4]. The text content is as follows:

- 1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.
- 2 It is the sixth episode of the series overall.
- 3 It premiered on May 22, 2011.
- 4 It was written by Jane Espenson, David Benioff & D.B. Weiss and directed by Daniel Minahan.
- 5 Weiss and directed by Daniel Minahan.

Annotations are applied to the text. The word "Series" is highlighted with a red box, and the word "(Span)" is also highlighted with a red box. A callout bubble points to these annotations with the text: "The feature values are shown in the annotation labels."

A callout bubble points to the sidebar with the text: "The color of the annotation by default depends on the layer."

Another callout bubble points to the sidebar with the text: "There are ~10 colors built in. If there are more layers, colors are re-used."

It is possible to define custom coloring rules.

The annotation panel on the right shows the following settings:

- Annotation: Span (highlighted with a red box)
- Layer: Span
- Text: Game of Thrones
- Relation: A Golden Crown
- Label:
 - Series (highlighted with a red box)
 - Episode

Alternative feature editors



If you assign the same label multiple times in a row, "remember" the value from one annotation to the next.

Depending on the feature / tagset configuration, the tool tries to provide the most convenient UI.

Here, if the tagset is small and not annotator-extensible, a quick-access choice-list is offered.

You can also explicitly choose which editor is best for you.

If you want to create a "Notes" feature, the "multiple rows" option is useful.

The screenshot shows the INCEPTION annotation interface. On the left, there's a sidebar with settings like 'Required', 'Visible' (checked), 'Remember' (unchecked), and 'Multiple Rows' (unchecked). Below these are dropdowns for 'Tagset' (set to 'Span labels') and 'Editor type' (set to 'Auto (depending on tagset size)'). A red box highlights the 'Editor type' dropdown, which contains options: 'Auto (depending on tagset size)' (selected), 'Radio group (small tagsets)', 'Combo box (mid-size tagsets)', and 'Autocomplete (large tagsets)'. Another red box highlights the 'Label' section on the right, which lists 'Episode', 'FACTION', 'PER', 'Series' (selected), and 'TITLE'. The main workspace shows a text document with annotations like 'FACTION' and 'PER' applied to specific words. A large blue callout points to the 'Editor type' dropdown, explaining the choice-list feature.

Mysterious gray annotations



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-5 / 195 sentences [doc 1 / 4]

Episode Episode (Relation) Series

1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.
2 It is the sixth episode of the series overall.
3 It premiered on May 22, 2011.
4 It was written by Jane Espenson, David Benioff & D.B.
5 Weiss and directed by Daniel Minahan.

(Span)

Annotation

Span:44008 sofa: _InitialView begin: 76 end: 91 label: "Series"

Layer

Span

Text

Game of Thrones

Relation

A Golden Crown

Label

Series

Episode

Series

Hey, wait a sec...
Where does this gray
annotation come from?

Annotation suggestions



The screenshot shows the INCEpTION annotation interface. A tooltip is displayed over a list of annotations:

Span ID:rec:284-284-0#4735
"A Golden Crown"
Basic span recommender:
Score: 1,00

The list contains five items:

- 1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.
- 2 It is the sixth episode of the series overall.
- 3 It premiered on March 22, 2011.
- 4 It was written by David Benioff & D.B. Weiss and directed by Alan.
- 5 Weiss and directed by Alan.

A blue arrow points from the text "The gray annotation is an annotation suggestion." to the second item in the list, which is highlighted in gray. A blue callout box encloses the explanatory text at the bottom left.

The gray annotation is an **annotation suggestion**.

The "Basic annotation (span/relation)" setup comes with pre-configured recommenders.

Left-click on the gray suggestion label to accept it.

The pre-configured recommender is a **String Matcher**. It provides suggestions for exactly matching strings.

Recommender sidebar



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

Recommender

Basic relation recommender

Sentence	F1	Precision	Recall
F1	0	0	0
Accuracy	0	0	0

Accept best

Basic span recommender

Sentence	F1	Precision	Recall
F1	0	0	0
Accuracy	0	0	0

Accept best

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)
1-5 / 195 sentences [doc 1 / 4]

Annotation

No annotation selected

The recommender sidebar provides detail information about the configured recommenders and their states.

We currently do not have enough annotations for the recommenders to perform their self-evaluation.

Ah, I remember!
Most recommenders sample their training data from sentences!

The recommender sidebar provides detail information about the configured recommenders and their states.

We currently do not have enough annotations for the recommenders to perform their self-evaluation.

Let's configure a new recommender

To get here: click “Dashboard” then “Settings”



The screenshot shows the INCEpTION web interface. On the left, a sidebar lists various project management and configuration options: Details, Documents, Users, Workload, Layers, Knowledge Bases, Recruiters (highlighted with a red box), Tagsets, Document Repositories, CAS Doctor, and Guidelines. The main content area is titled "tutorial - New project". It displays a "Recommenders" section with a "Create" button (also highlighted with a red box) and two listed options: "Basic relation recommender" and "Basic span recommender". To the right is a "Details" panel with fields for "Name" (with an "auto-generate" checkbox checked), "Enabled" (checkbox checked), "Layer" (set to "Span"), "Feature" (set to "Label"), and a "Tool" dropdown menu. The "Tool" dropdown is expanded, showing four options: "Choose One" (highlighted with a blue box), "Multi-Token Sequence Classifier (OpenNLP NER)" (highlighted with a blue box), "Remote classifier", and "String Matcher". A yellow arrow points from the bottom of the "Tool" dropdown to the "String Matcher" option. A callout bubble at the bottom left of the "Tool" dropdown states: "The choice of recommender tools depends on the layer and feature configuration (e.g. on granularity, overlap settings, feature type, etc.)". The footer of the page includes the text "Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)" and a small info icon.

Sequence classifier



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial - New project Delete project

Details Documents Users Workload Layers Knowledge Bases Recommenders Tagsets Document Repositories CAS Doctor Guidelines

Recommenders Create Basic relation recommender Basic span recommender

Details

Name [Span@Label] Multi-Token auto-generate

Enabled

Layer Span

Feature Label

Tool Multi-Token Sequence Classifier (OpenNLP NE)

Activation strategy Score threshold 0,0

Always active (no evaluation)

Max. recommendations 3

States used for training

- Annotation not started yet (new)
- Annotation in progress
- Annotation finished
- Document not available for annotation (locked)

Save Cancel

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2) ⓘ

Sequence classifier generalizes!



To get here: click “Dashboard” then “Annotation”

The screenshot shows the INCEpTION annotation interface. On the left, there's a sidebar with icons for Recommender, Basic relation recommender, Basic span recommender, and [Span@Label] Multi-Token Sequence Classifier (OpenNLP NER). The main area displays a document titled "tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)" with 21-30 / 195 sentences [doc 1 / 4]. Sentence 27 contains the text "Renly storms off, leaving Ser Barristan to look on concerned, as Lancel supply." A red box highlights the word "Lancel". A callout box from a sequence classifier suggests the label "PER" (Person). Sentence 30 continues with "He realizes that it's Ser Mountain", who is likely to punish the Riverlands - which are held by House Tully, the former House of his wife Catelyn, who now holds Tyrion captive." A blue callout box points to the classifier's suggestion for "Lancel" in sentence 27, stating: "The word ‘Lancel’ has not been annotated as a ‘PER’, yet the sequence classifier provides a suggestion!"

Sequence classifier generalizes!



To get here: click “Dashboard” then “Annotation”

INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

Recommender

Basic relation recommender

Sentence	0	Precision	0
F1	0	Accuracy	0
Recall	0		

Accept best

Basic span recommender

Sentence	6	5	
F1	0	Precision	0
Accuracy	0	Recall	0

Accept best

[Span@Label] Multi-Token Sequence Classifier (OpenNLP NER)

Sentence	6	5	
F1	0.095	Precision	0.333
Accuracy	0.091	Recall	0.056

Accept best

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)
21-30 / 195 sentences [doc 1 / 4]

share of violence that Robert is conveniently ignoring.
"Lancel"

27 Renly storms off, leaving Ser Barristan to look on
concerned, as Lancel supply.

PER

[Span@Label] Multi-Token Sequence Classifier (OpenNLP NER):
Score: 0,81

28 In King's Landing, at a meeting of the small council, a group of refugees come to tell of how their villages have been destroyed.

29 Eddard hears tales of a huge knight ravaging the Riverlands.

30 He realizes that it's Ser Gregor Clegane, "The Mountain", who is likely under Lannister orders to punish the Riverlands - which are held by House Tully, the former House of his wife Catelyn, who now holds

Tyrion captive.

PER

FACTION

Well... not quite perfect though

No links or relations connect to this annotation.

Label PER

?

Exporting label counts



The “export model” functionality of the String Matcher can be used to get a list of **annotated span texts**, their **labels** and the **label count**.

This format can also be imported as a “gazetteer” in the String Matcher settings to bootstrap the recommender.

Recommender

Basic relation recommender

Sentence F1 0 Precision 0 Accuracy 0 Recall 0

Accept best

Basic span recommender

Sentence F1 0 Precision 0 Accuracy 0 Recall 0

Accept best

[Span@Label] Multi-Token Sequence Classifier (OpenNLP NER)

Sentence 6 5

F1 0.095 Precision 0.333 Accuracy 0.091 Recall 0.056

Accept best

String Matcher

Annotation

an:44651 sofa: _InitialView
gin: 3003 end: 3010 label:
286-286-2984735
label: PER

PER | [Span@Label] Multi-Token Sequence Classifier (OpenNLP NER): model.txt — Edited

Index	Text	Label	Count
28	In King's Land group of refugees have been de	PER	1
29	Eddard hears of the Riverlands.	PER	1
30	He realizes that the Mountain", who will punish the Riv	PER	1
	the former Hand of the Iron Throne.	PER	1
	Tyrion captive	PER	1

Technische Universität Darmstadt -- Computer Science Department

Interpreting evaluation results



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

Recommender

Basic relation recommender

Sentence	0	Precision	0
F1	0	Accuracy	0
Recall	0		

Accept best

Basic span recommender

Sentence	6	5	
F1	0	Precision	0
Accuracy	0	Recall	0

Accept best

[Span@Label] Multi-Token Sequence Classifier (OpenNLP NER)

Sentence	6	5	
F1	0.095	Precision	0.333
Accuracy	0.091	Recall	0.056

Accept best

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345)
21-30 / 195 sentences [doc 1 / 4]

share of violence that Robert is conveniently ignoring.
"Lancel"

27 Renly storms off, leaving Ser Barristan to look on
concerned, as Lancel supply.

PER

[Span@Label] Multi-Token Sequence Classifier (OpenNLP NER):
Score: 0.81

No links or relations connect to

28 Riverland

29 realizes that it's Ser Gregor Clegane, "The Mountain", who is likely under Lannister orders to
punish the Riverlands - which are held by House Tully,
FACTION

Why are these numbers so low?

For more information, let's have a look at the confusion matrix

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)

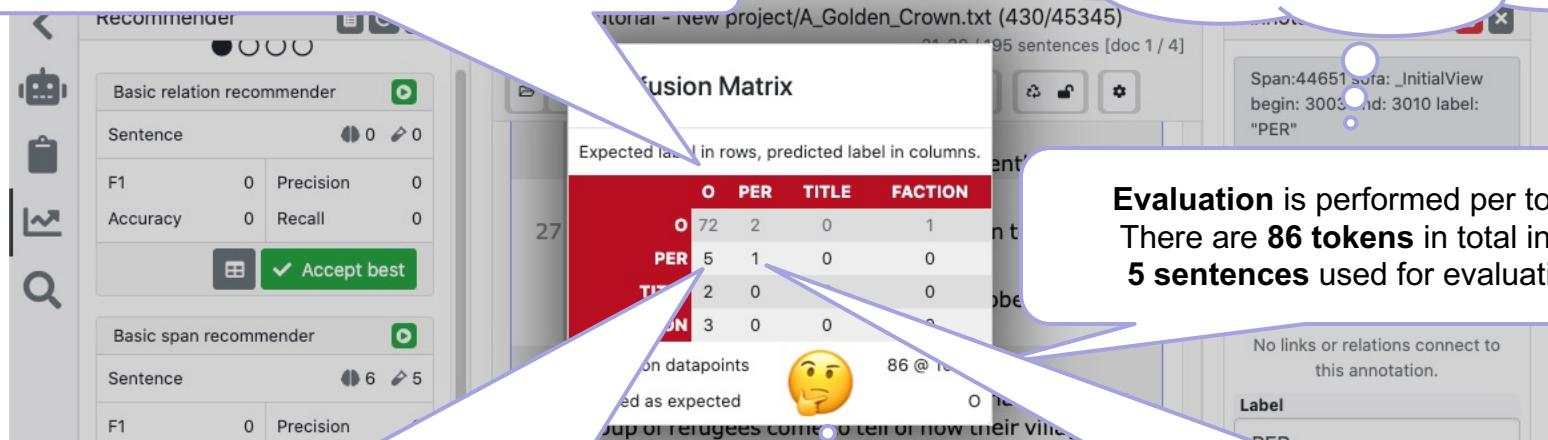
Confusion matrix



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The “O” tag represents tokens that are not annotated.

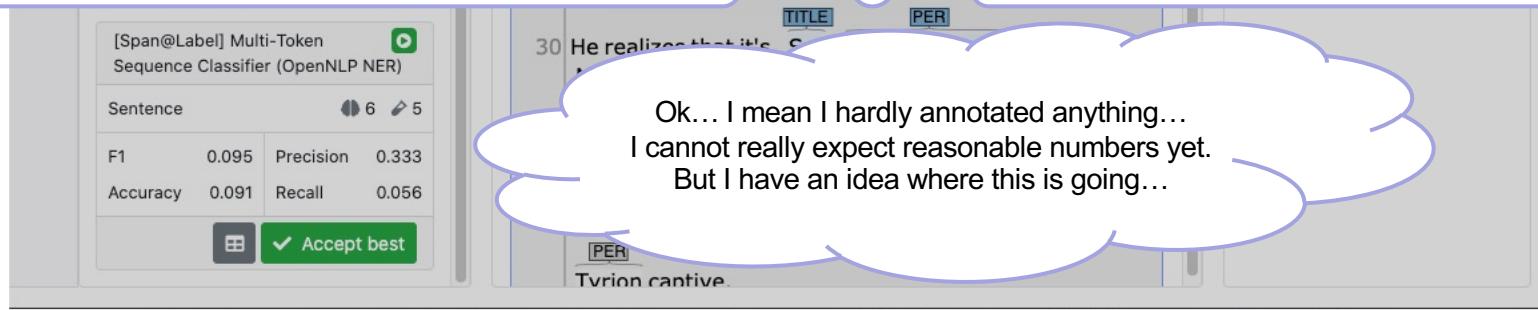
When generating suggestions,
all data is used to train the model
(i.e. here all 11 sentences).



5 tokens should have been predicted as PER but were not suggested at all by the recommender.

Evaluation is performed per token.
There are **86 tokens** in total in the
5 sentences used for evaluation.

1 token was successfully identified as a PER.



Give me a hand: Active Learning



INCEpTION Projects Dashboard

Active Learning

Span

Play button

Active learning offers a way to guide you through the annotation suggestions.

Even while it is active, you can still accept suggestions and make annotations as usual in the main part of the view.

Casterly Rock, demanding Lord Tywin Lannister's presence in court to explain his bannerman's actions or be branded an enemy of the crown and a traitor to the realm.

34 'Littlefinger' Petyr Baelish, and Grand Maester Pycelle are both concerned with the harshness of these orders and Eddard's actions against the Lannisters, but

Eddard wants to see justice done.

35 Prince Joffrey comes to apologize to Sansa for the incident on the Kingsroad.

36 He calls her his lady love and gives her a necklace.

37 Sansa forgives him, and they seem reconciled.

38 Sansa is unaware that the Queen put Joffrey up to the

No annotation selected

Pitfall: Highlight not visible



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

Active Learning

Span

Recommendation

emanding Lord Tywin Lannister's presence in court

Suggestion

PER

Score

0.321 (Δ 0.321)

Label

PER

History

A Golden Crown Episode accepted

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 33-42 / 195 sentences [doc 1 / 4]

33 He also orders Grand Maester Pycelle to send word to Casterly Rock, demanding Lord Tywin Lannister's presence in court to explain his bannerman's actions or be branded an enemy of the crown and a traitor to the realm.

34 'Littlefinger' Petyr Baelish, and Grand Maester Pycelle are both concerned with the harshness of these orders and Eddard's actions against the Lannisters, but Eddard wants to see justice done.

35 Prince Joffrey comes to apologize to Sansa for the incident on the Kingsroad.

36 He calls her his lady love and gives her a necklace.

37 Sansa forgives him, and they see...

38 Sansa is unaware that the Queen

No annotation selected

If the highlighted suggestion is not visible immediately, I have to scroll...

Maybe I should reduce the number of visible lines to avoid this.

Active Learning: How does it work?



INCEpTION Projects Dashboard

Active Learning

Span

Recommendation

demanding Lord Tywin Lannister's presence in court

Suggestion

PER

Score

0.321 ($\Delta 0.321$)

Label

PER

History

A Golden Crown Episode accepted

Active learning uses a strategy called **uncertainty sampling** to choose the next suggestion for you to check.

Uncertainty sampling sorts the suggestions by the **difference between the first and the second suggested label** in ascending order (smallest first).

If there is only one label, the smallest score is preferred.

- 33 He also demands Lord Pycelle to send word to [TITLE] [PER] demanding Lord Tywin Lannister's presence in court to explain his bannerman's actions or he has funded an enemy of the crown and a traitor to the realm.
- 34 'Littlefinger' Petyr Baelish, and Grand Maester Pycelle are both concerned with the harshness of these orders and Eddard's actions against the Lannisters, but [TITLE] [PER] Eddard wants to see justice done.
- 35 Prince Joffrey comes to apologize to Sansa for the incident on the Kingsroad.
- 36 He calls her his lady love and gives her a necklace.
- 37 [TITLE] [PER] Sansa forgives him, and they seem reconciled.
- 38 [TITLE] [PER] Sansa is unaware that the Queen put Joffrey up to the

No annotation selected

Correct, Accept, Reject, Skip



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

Active Learning

Span

Recommendation

demanding Lord Tywin Lannister's presence in court

Suggestion

PER

Score

0.321 (Δ 0.321)

Label

PER

History

A Golden Crown Episode accepted

Annotation

If you make an action in the main view (including accept/reject), active learning does not move the view. Re-focus on active learning, click into the text box in the active learning sidebar.

Correct the suggestion if necessary.

No annotation selected

Skipped suggestions can be revisited once all other suggestions have been accepted or rejected.

Click to accept, reject or skip (for now) the suggestion.

Then automatically move on to the next suggestion.

This may even jump to another document.

33 He also orders Grand Maester Pycelle to send Casterly Rock, demanding Lord Tywin Lannister's presence in court to explain his bannerman's actions or be branded an enemy of the crown and a traitor to the realm.

34 Eddard wants to see justice done.

35 Prince Joffrey comes to apologize to Sansa for the attack on the Kingsroad.

36 He calls her and gives her a necklace

Learning history



INCEpTION Projects Dashboard ? Help user tutorial Log out 29 min

Active Learning

Span

Recommendation

emanding Lord Tywin Lannister's presence in court

Suggestion PER

Score 0.321 (Δ 0.321)

Label PER

History A Golden Crown Episode accepted

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 33-42 / 195 sentences [doc 1 / 4]

33 He also orders Grand Maester Pycelle to send word to Casterly Rock, demanding Lord Tywin Lannister's presence in court to explain his bannerman's actions or be branded an enemy of the crown and a traitor to the realm.

34 'Littlefinger' Petyr Baelish, and Grand Maester Pycelle are both concerned with the harshness of these orders and Eddard's actions against the Lannisters, but

If you mistakenly rejected a suggestion, you can delete the rejection (or acceptance or skip).

35 Prince Joffrey apologizes to Sansa for the incident at the Kingsroad.

36 Joffrey calls her his lady love and gives her a necklace.

37 Sansa forgives him, and they seem reconciled.

38 Sansa is unaware that the Queen put Joffrey up to the

No annotation selected

Normalization / disambiguation: Let's use a knowledge base



To get here: click “Dashboard” then “Settings”

The screenshot shows the INCEpTION web application interface. At the top, there is a navigation bar with links for 'Projects' and 'Dashboard'. On the right side of the top bar, there are links for 'Help', 'tutorial', 'Log out', and a timer indicating '29 min'. Below the top bar, the main content area has a title 'tutorial - New project'. To the left, a vertical sidebar contains several icons: a magnifying glass, a document, a user group, a helmet, a stack of books, a network icon (highlighted with a red box), a robot, a key, a database, a medical cross, and a clipboard. In the center, under the title, there is a section titled 'Knowledge Bases' with a blue '+' button next to it (highlighted with a blue box). At the bottom of the page, there is a footer with the text 'Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)' and a small info icon.

Creating the knowledge base



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial - New project

Delete project

Knowledge Bases

New Knowledge Base

General Settings

Name: GoT

Language: en

Base Prefix: Choose One

Access Setting

Type: Local

Remote (SPARQL)

Choose One

Cancel < Previous Next > Finish

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2) ⓘ

Importing existing data



INCEpTION Projects Dashboard ? Help tutorial Log out 28 min

tutorial - New project

Delete project

Knowledge Bases

New Knowledge Base

Import contents GoT_KB.ttl

Supported file types: RDF (XMI/.JSON/Binary), JSON-LD, N-Triples, N-Quads,

GoT_KB.ttl — Edited

```
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .  
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .  
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .  
@prefix wwo: <http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#> .  
@prefix xml: <http://www.w3.org/XML/1998/namespace> .  
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .  
  
skos:broader a rdf:Property;  
    skos:prefLabel "broader"@en .  
  
rdf:type a rdf:Property;  
    skos:prefLabel "type"@en .  
  
skos:prefLabel a rdf:Property;  
    rdfs:range "http://www.w3.org/2001/XMLSchema#string";  
    skos:prefLabel "prefLabel"@en .  
  
rdfs:comment a rdf:Property;  
    rdfs:range "http://www.w3.org/2001/XMLSchema#string";  
    skos:prefLabel "comment"@en .  
  
rdfs:subPropertyOf a rdf:Property;  
    skos:prefLabel "subPropertyOf"@en .  
  
wwo:1 a wwo:Character;  
    wwo:culture "Braavosi";  
    wwo:female true;  
    wwo:name "No Name";  
    skos:altLabel "The Daughter of the Dusk";  
    skos:prefLabel "No Name" .
```

Add

< Previous Next > Finish

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2) ⓘ

Selecting the knowledge base schema



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial - New project

Delete project

Knowledge Bases

New Knowledge Base

Schema Mapping

IRI Schema: RDF

Class/Instance M: RDF, WIKIDATA, OWL, SKOS (highlighted)

Class IRI

Subclass IRI

Type IRI

Description IRI: http://www.w3.org/2000/01/rdf-schema#comment

Label IRI: http://www.w3.org/2000/01/rdf-schema#label

Property Mapping

Cancel < Previous Next > Finish (highlighted)

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2) ⓘ

Having a first look at the knowledge base



To get here: click “Dashboard” then “Knowledge base”

The screenshot shows the INCEpTION knowledge base interface. At the top, there's a navigation bar with 'INCEpTION' and links for 'Projects' and 'Dashboard'. The main area is titled 'Character' and shows it as a 'Concept'. There are buttons for '+Create Subclass' and 'Delete'. Below this, there's a tree view under 'Concepts' with 'Concept' expanded, showing 'Character' as a child node. A callout box says: 'Concept tree. This KB contains only "Characters"'.

On the left, there's a sidebar with a 'Search...' field, a dropdown for 'GoT', and sections for 'Concepts' (with 'Concept' expanded) and 'Properties (8)'. The 'Properties' section lists: born, broader, culture, died, female, name, prefLabel, and title. A callout box for the properties says: 'Property list. These are the properties the Characters can have.'

The main content area has tabs for 'Instances' and 'Mentions'. Under 'Instances', it says 'Found: 1000' and lists several character names: Daemon Sand, Daenaera Velaryon, Daenerys Targaryen, Daeryssa, Dafyn Vance, Dagmer, Dagon Ironmaker, Dale, and Dale. A callout box for the instance list says: 'Instance list is limited to 1000 by default. More can be found via the "Search" field.'

On the right, there's a detailed view of 'Daenerys Targaryen' as an 'Instance'. It shows 'prefLabel' as 'Daenerys Targaryen' and 'type' as 'Character'. A callout box for this view says: 'Details of an instance. Scroll down to see more.'

At the bottom, there's a footer with 'Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2020-05-20)' and a note: 'Local KBs can be editable. Remote KBs are read-only'.

Let's add a new feature ...



To get here: click “Dashboard” then “Settings”

The screenshot shows the INCEpTION application interface. The top navigation bar includes links for 'Projects', 'Dashboard', 'Help', 'tutorial', 'Log out', and a timer indicating 29 min. The main title is 'tutorial - New project'. On the left, a vertical sidebar lists various project components: 'Information' (selected), 'File', 'Team', 'Build', 'Database', 'Robot', 'API', 'Validation', and 'Logs'. The 'Layers' section is currently active, showing a list with a single item 'Span' highlighted by a red box. The 'Layer Details' panel contains fields for 'Name' (Span), 'Description' (empty), and a checked 'Enabled' checkbox. The 'Technical Properties' panel shows 'Internal Name' as 'custom.Span' and 'Type' as 'Span'. The 'Behaviors' panel has an unchecked 'Read-only' checkbox and a 'Validation' dropdown set to 'Always'. The 'Features' panel shows a 'Label : [String]' field and a blue 'Create' button, which is also highlighted by a red box.

... to link to the knowledge base!



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial - New project

Delete project

Layers ? Import Create Relation Span

Layer Details Export Save Cancel ; Properties ? Name Span Description Enabled Internal Name custom.Span Type Span Behaviors ? Read-only Validation Always

Features ? Label : [String] Create Feature Details Save Cancel Internal Name Name Identity Choose One Choose One KB: Concept/Instance/Property Link: <Any> Link: Span Primitive: Boolean Primitive: Float Primitive: Integer Primitive: String Primitive: String Enabled Required Visible Show in feature text in tooltip popup

Choose One Image URL KB: Concept/Instance/Property Link: <Any> Link: Span Primitive: Boolean Primitive: Float Primitive: Integer Primitive: String Primitive: String Enabled Required Visible Show in feature text in tooltip popup

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION 13:06:08, build 88d68dc2

A first look at the new feature



To get here: click “Dashboard” then “Annotation”

INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt (430/45345) 1-10 / 195 sentences [doc 1 / 4]

Episode Episode (Relation) Series

1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.
2 It is the sixth episode of the series overall.

Single left-click on the bubble to select an annotation

5 Weiss and directed by Daniel Minahan. PER

6 Reinstated as the Hand, Ned sits for the King while Robert is on a hunt. PER TITLE Robert

7 Ned issues a decree that could have long-term consequences throughout the Seven Kingdoms. PER

8 At the Eyrie, Tyrion confesses to his "crimes," and demands that Lysa give him a trial by combat. PER

9 Joffrey apologizes to Sansa; Viserys receives from Drogo his PER PER

10 Lord Eddard Stark wakes up after a long period of unconsciousness inflicted on him by Jaime Lannister's men. TITLE PER

Annotation

Span:44409 sofa: _InitialView begin: 314 end: 320 Identity: <null> label: "PER"

Layer

Span

Text

Robert

No links or relations connect to this annotation.

Identity

Label

PER

Simply press the space bar to get suggestions...
... or start typing the name of an entry from the knowledge base.

Disambiguating the annotated entity



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt

2 It is the sixth episode of the series overall.
3 It premiered on May 22, 2011.

4 It was written by Jane Espenson

5 Weiss and directed by Daniel M

6 Reinstated as the Hand, Ned s

7 Ned issues a decree that could

8 At the Eyrie, Tyrion confesses to

9 Joffrey apologizes to Sansa; Viserys receives from Dr

FACTON PER PER PER PER

Unfortunately, the example knowledge base contains no descriptions for the concepts.

No links or relations connect to this annotation.

Identity

[1] Torbert
<http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#26>

[2] Robert Brax
<http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#896>

[3] Robert Brax
<http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#897>

[4] Robert Frey
<http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#899>

[5] Robert Frey
<http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#900>

[6] Roger Hogg
[http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#901](#)

47 items found

21 items found

Suggestions are ranked by similarity to the annotated words and their context ...

... as well as by similarity to the search term you entered.

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)

Multiple features in the annotation bubble



INCEpTION Projects Dashboard ? Help tutorial Log out 29 min

tutorial: tutorial - New project/A_Golden_Crown.txt 1-10 / 195 sentences [doc 1 / 4]

Episode Episode (Relation) Series

1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.

2 It is the sixth episode of the series overall.

3 Premiered on May 22, 2011.

4 Span ID:44409

5 "Robert" FACTION PER

Identity: http://www.ukp.informatik.tu-darmstadt.de/inception/got/1.0#901

Label: Robert I Baratheon

6 Reinstated as the Hand, Ned sits for the King while Robert is on a hunt

PER TITLE Robert I Baratheon | PER

7 Ned issues a decree that could have long-term consequences throughout the Kingdoms.

PER

8 At the Eyrie, Tyrion confesses to his "crimes" combat

If an annotation has multiple features, they are all shown in the bubble by default.

So what if I want to assign a color for each label? How would that work?

Annotation x x

Layer Span

Text Robert

No links or relations connect to this annotation.

Identity Robert I Baratheon

no description

Label

PER

Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT (2021-07-04 13:06:08, build 88d68dc2)

Let's get something out



INCEPTION Projects Dashboard ? Help tutorial Log out 28 min

tutorial: tutorial - New project/A_Golden_Crown.txt 1-10 / 195 sentences [doc 1 / 4]

Annotation

No annotation selected

Individual documents can be exported directly from the annotation page.

As a project manager, you would usually export the entire project from the project settings instead.

1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.
2 It is the second episode of the series overall.
3 It premiered on 11 April 2011.
4 It was written by David Benioff & D.B. Weiss and directed by...
5 Reindeer...
6 Ne...
7 Ne...
8 At...
9 Joffrey apologizes to Sansa; Viserys receives from Drogo his final payment for Daenerys.
10 Lord Eddard Stark wakes up after a long period of unconsciousness, due to the injuries inflicted on him by Jaime Lannister's men.

PER PER PER PER

The screenshot shows the INCEPTION annotation interface. On the left, there's a sidebar with icons for navigation, projects, dashboard, help, tutorial, log out, and a search function. The main area displays a document titled 'tutorial: tutorial - New project/A_Golden_Crown.txt' containing ten numbered sentences from the Game of Thrones episode 'A Golden Crown'. Annotations are visible above sentence 1, pointing to 'Golden Crown' (Episode), 'Game of Thrones' (Series), and the year '2011'. A large blue callout bubble highlights two points: 'Individual documents can be exported directly from the annotation page.' and 'As a project manager, you would usually export the entire project from the project settings instead.' The top right shows the status '1-10 / 195 sentences [doc 1 / 4]'. The bottom right panel is labeled 'Annotation' and 'No annotation selected'. The bottom left corner contains the INCEPTION logo and URL.

WebAnno TSV format



```
#FORMAT=WebAnno TSV 3.3
#T_SP=custom.Span|Identity|label
#T_RL=custom.Relation|label|BT_custom.Span
```

The header tells us what is shown in each column.

Important: the columns are not always the same!
If you write a script to parse this format, mind the header!

```
#Text=A Golden Crown
#Text="A Golden Crown" is the sixth episode of the first season of Game of Thrones.
1-1    0-1    A      *[1]    Episode[1]      -      -
1-2    2-8    Golden  *[1]    Episode[1]      -      -
1-3    9-14   Crown   *[1]    Episode[1]      -      -
1-4    15-16   "      -      -      -      -
1-5    16-17   A      *[2]    Episode[2]      -      -
1-6    18-24   Golden  *[2]    Episode[2]      -      -
1-7    25-30   Crown   *[2]    Episode[2]      -      -
1-8    30-31   "      -      -      -      -
1-9    32-34   is      -      -      -      -
1-10   35-38   the     -      -      -      -
1-11   39-44   sixth   -      -      -      -
1-12   45-52   episode -      -      -      -
1-13   53-55   of      -      -      -      -
1-14   56-59   the     -      -      -      -
1-15   60-65   first   -      -      -      -
1-16   66-72   season  -      -      -      -
1-17   73-75   of      -      -      -      -
1-18   76-80   Game    *[3]    Series[3]      *      1-5 [2_3]
1-19   81-83   of      *[3]    Series[3]      -      -
1-20   84-91   Thrones -      *[3]    Series[3]      -      -
1-21   91-92   .       -      -      -      -
```

WebAnno TSV format



```
#FO
#T_ Episode Episode (Relation) Series
#T_ 1 A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.
```

```
#Text=A Golden Crown
#Text="A Golden Crown" is the sixth episode of the first season of Game of Thrones.
```

1-1	0-1	A	*[1]	Episode[1]	-	-
1-2	2-8	Golden	*[1]	Episode[1]	-	-
1-3	9-14	Crown	*[1]	Episode[1]	-	-
1-4	15-16	"				
1-5	16-17	A	*[2]	Episode[2]	-	-
1-6	18-24	Golden	*[2]	Episode[2]	-	-
1-7	25-30	Crown	*[2]	Episode[2]	-	-
1-8	30-31	"				
1-9	32-34	is	-	-	-	-
1-10	35-38	the	-	-	-	-
1-11	39-44	sixth	-	-	-	-
1-12	45-52	episode	-	-	-	-
1-13	53-55	of	-	-	-	-
1-14	56-59	the	-	-	-	-
1-15	60-65	first	-	-	-	-
1-16	66-72	season	-	-	-	-
1-17	73-75	of	-	-	-	-
1-18	76-80	Game	*[3]	Series[3]	*	1-5 [2_3]
1-19	81-83	of	*[3]	Series[3]	-	
1-20	84-91	Thrones	*[3]	Series[3]	-	
1-21	91-92	.	-	-	-	

The sentence text.

Every block in the format is a sentence.
Blocks are separated by an empty line.

This sentence contains a line break!

Ok...
another segmentation mistake...

1-5 [2_3]



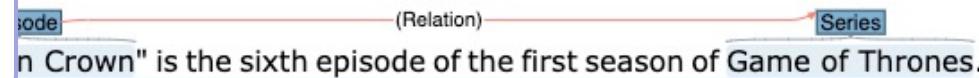
WebAnno TSV format



Column 1: Sentence and token Ids

Column 2: Character offsets of the tokens

Column 3: Token texts



#Text	#Text+	start	end	text	type	relation	series
#Text	A Golden Crown						
#Text+="#Text"	"A Golden Crown" is the sixth episode of the first season of Game of Thrones.						
1-1	0-1	A	*	[1]	Episode[1]	-	-
1-2	2-8	Gold	*	[1]	Episode[1]	-	-
1-3	9-14	Crown	*	[1]	Episode[1]	-	-
1-4	15-16	"	-			-	-
1-5	16-17	A	*	[2]	Episode[2]	-	-
1-6	18-24	Gold	*	[2]	Episode[2]	-	-
1-7	25-30	Crown	*	[2]	Episode[2]	-	-
1-8	30-31	"	-	-	-	-	-
1-9	32-34	is	-	-	-	-	-
1-10	35-38	the	-	-	-	-	-
1-11	39-44	sixth	-	-	-	-	-
1-12	45-52	episode	-	-	-	-	-
1-13	53-55	of	-	-	-	-	-
1-14	56-59	the	-	-	-	-	-
1-15	60-65	first	-	-	-	-	-
1-16	66-72	seaso	-	-	-	-	-
1-17	73-75	of	-	-	-	-	-
1-18	76-80	Game	*	[3]	Series[3]	*	1-5 [2_3]
1-19	81-83	of	*	[3]	Series[3]	-	-
1-20	84-91	Thrones	*	[3]	Series[3]	-	-
1-21	91-92	.	-	-	-	-	-

WebAnno TSV format



```
#FO  
#T_ |  
#T_ | Episode | Episode |  
#T_ | 1 A Golden Crown "A Golden Crown" is the sixth e
```

Column 4: „Identity“ feature of layer Span
Column 5: „Label feature of layer Span

#Text=A Golden Crown						
#Text="A Golden Crown" is the sixth episode of the first season of Game of Thrones.						
1-1	0-1	A	*[1]	Episode[1]	-	-
1-2	2-8	Golder	*[1]	Episode[1]	-	-
1-3	9-14	Crown	*[1]	Episode[1]	-	-
1-4	15-16	"				
1-5	16-17	A	*[2]	Episode[2]	-	-
1-6	18-24	Golder	*[2]	Episode[2]	-	-
1-7	25-30	Crown	*[2]	Episode[2]	-	-
1-8	30-31	"				
1-9	32-34	is	-	-	-	-
1-10	35-38	the	-	-	-	-
1-11	39-44	sixth	-	-	-	-
1-12	45-52	episode	-	-	-	-
1-13	53-55	of	-	-	-	-
1-14	56-59	the	-	-	-	-
1-15	60-65	first	-	-	-	-
1-16	66-72	season	-	-	-	-
1-17	73-75	of	-	-	-	-
1-18	76-80	Game	*[3]	Series[3]	*	1-5 [2_3]
1-19	81-83	of	*[3]	Series[3]	-	-
1-20	84-91	Thrones	*[3]	Series[3]	-	-
1-21	91-92	.	-	-	-	-

WebAnno TSV format



```
#FO
#T_ 1 A Golden Crown "A Golden Crown" is the sixth e
```

Column 6: „label“ feature of layer Relation
 Column 7: the source of the relation

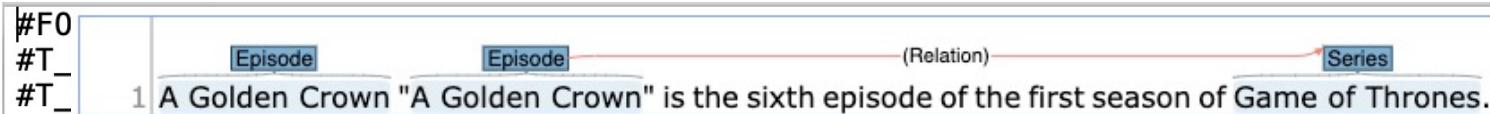
					Column 6: „label“ feature of layer Relation	Column 7: the source of the relation
#Text=A	Golden	Crown				
#Text="A	Golden	Crown"	is	the	sixth	episode
1-1	0-1	A	*[1]	Episode	[1]	-
1-2	2-8	Golden	*[1]	Episode	[1]	-
1-3	9-14	Crown	*[1]	Episode	[1]	-
1-4	15-16	"				-
1-5	16-17	A	*[2]	Episode	[2]	-
1-6	18-24	Golden	*[2]	Episode	[2]	-
1-7	25-30	Crown	*[2]	Episode	[2]	-
1-8	30-31	"				-
1-9	32-34	is	-	-	-	-
1-10	35-38	the	-	-	-	-
1-11	39-44	sixth	-	-	-	-
1-12	45-52	episode	-	-	-	-
1-13	53-55	of	-	-	-	-
1-14	56-59	the	-	-	-	-
1-15	60-65	first	-	-	-	-
1-16	66-72	season	-	-	-	-
1-17	73-75	of	-	-	-	-
1-18	76-80	Game	*[3]	Series	[3]	*
1-19	81-83	of	*[3]	Series	[3]	-
1-20	84-91	Thrones	*[3]	Series	[3]	-
1-21	91-92	.	-	-	-	-

WebAnno TSV format



#FO						
#T_		Episode	Episode	(Relation)	Series	
#T_	1	A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.				
#Text=A Golden Crown						
#Text="A Golden Crown"						
1-1 0-1 A * [1]		Episode [1]				
1-2 2-8 Golden * [1]		Episode [1]				
1-3 9-14 Crown * [1]		Episode [1]				
1-4 15-16 "						
1-5 16-17 A * [2]		Episode [2]				
1-6 18-24 Golden * [2]		Episode [2]				
1-7 25-30 Crown * [2]		Episode [2]				
1-8 30-31 "						
1-9 32-34 is	-	-	-	-		
1-10 35-38 the	-	-	-	-		
1-11 39-44 sixth	-	-	-	-		
1-12 45-52 episode	-	-	-	-	-	
1-13 53-55 of	-	-	-	-		
1-14 56-59 the	-	-	-	-		
1-15 60-65 first	-	-	-	-		
1-16 66-72 season	-	-	-	-		
1-17 73-75 of	-	-	-	-		
1-18 76-80 Game * [3]		Series [3]	*		1-5 [2_3]	
1-19 81-83 of * [3]		Series [3]				
1-20 84-91 Thrones * [3]		Series [3]				
1-21 91-92 .	-	-	-	-		

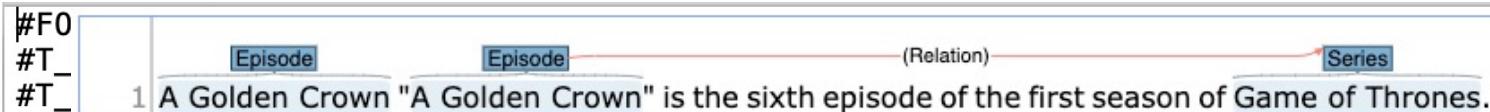
WebAnno TSV format



#Text=A Golden Crown						
#Text="A Golden Crown"						
1-1	0-1	A	*[1]	Episode[1]	-	-
1-2	2-8	Golden	*[1]	Episode[1]	-	-
1-3	9-14	Crown	*[1]	Episode[1]	-	-
1-4	15-16	"				
1-5	16-17	A	*[2]	Episode[2]	-	-
1-6	18-24	Golden	*[2]	Episode[2]	-	-
1-7	25-30	Crown	*[2]	Episode[2]	-	-
1-8	30-31	"	-	-	-	-
1-9	32-34	is	-	-	-	-
1-10	35-38	the	-	-	-	-
1-11	39-44	sixth	-	-	-	-
1-12	45-52	episode	-	-	-	-
1-13	53-55	of	-	-	-	-
1-14	56-59	the	-	-	-	-
1-15	60-65	first	-	-	-	-
1-16	66-72	season	-	-	-	-
1-17	73-75	of	-	-	-	-
1-18	76-80	Game	*[3]	Series[3]	*	1-5 [2_3]
1-19	81-83	of	*[3]	Series[3]	-	-
1-20	84-91	Thrones	*[3]	Series[3]	-	-
1-21	91-92	.	-	-	-	-

Multi-token annotation.
The number in brackets is the unique „disambiguation ID“ which binds the different tokens together into one multi-token annotation.

WebAnno TSV format



#Text=A Golden Crown						
#Text="A Golden Crown"						
is the sixth episode of the first season of Game of Thrones.						
1-1 0-1 A * [1] Episode[1]						
1-2 2-8 Golden * [1] Episode[1]						
1-3 9-14 Crown * [1] Episode[1]						
1-4 15-16 "						
1-5 16-17 A > [2] Episode[2]						
1-6 18-24 Golden * [2] Episode[2]						
1-7 25-30 Crown * [2] Episode[2]						
1-8 30-31 "						
1-9 32-34 is	-	-	-	-	-	
1-10 35-38 the	-	-	-	-	-	
1-11 39-44 sixth	-	-	-	-	-	
1-12 45-52 episode	-	-	-	-	-	
1-13 53-55 of	-	-	-	-	-	
1-14 56-59 the	-	-	-	-	-	
1-15 60-65 first	-	-	-	-	-	
1-16 66-72 season	-	-	-	-	-	
1-17 73-75 of	-	-	-	-	-	
1-18 76-80 Game > [3] Series[3]	*					
1-19 81-83 of * [3] Series[3]						
1-20 84-91 Thrones * [3] Series[3]						
1-21 91-92 .	-	-	-	-	-	

Relation from 1-5 [2] to 1-18 [3]

1-5 [2_3]

WebAnno TSV format

- Simple and human-readable as long as the annotations are simple
- Annotations are encoded close to the text they annotate
- Becomes complicated when there are complex annotations
 - Full spec: https://inception-project.github.io/releases/0.19.7/docs/user-guide.html#sect_webannotsv
- Supports custom annotation layers with exceptions
 - E.g. Document-level annotations
- In principle a nice idea, but problematic to maintain as new things are added to INCEpTION
- Supported by some third-party tools
 - Pepper (<https://github.com/korpling/pepper>)
-> ANNIS (<https://corpus-tools.org/annis/>)
 - <https://pypi.org/project/web-anno-tsv/>

```
<?xml version="1.0" encoding="UTF-8"?>
<xmi:XMI ... xmi:version="2.0">
  <cas:NULL xmi:id="0"/>
  <tvne2:DocumentMetaData xmi:id="8" sofa="1" begin="0" end="93" ... />
  <type4:Sentence xmi:id="19" sofa="1" begin="0" end="92"/>
  <type4:Token xmi:id="24" sofa="1" begin="0" end="1" order="0"/>
  <type4:Token xmi:id="43" sofa="1" begin="2" end="8" order="0"/>
  <type4:Token xmi:id="56" sofa="1" begin="9" end="14" order="0"/>
  <type4:Token xmi:id="69" sofa="1" begin="15" end="16" order="0"/>
  <type4:Token xmi:id="82" sofa="1" begin="16" end="17" order="0"/>
  <type4:Token xmi:id="101" sofa="1" begin="18" end="24" order="0"/>
  <type4:Token xmi:id="114" sofa="1" begin="25" end="30" order="0"/>
  <type4:Token xmi:id="127" sofa="1" begin="30" end="31" order="0"/>
  <type4:Token xmi:id="140" sofa="1" begin="32" end="34" order="0"/>
  <type4:Token xmi:id="153" sofa="1" begin="35" end="38" order="0"/>
  <type4:Token xmi:id="166" sofa="1" begin="39" end="44" order="0"/>
  <type4:Token xmi:id="179" sofa="1" begin="45" end="52" order="0"/>
  <type4:Token xmi:id="192" sofa="1" begin="53" end="55" order="0"/>
  <type4:Token xmi:id="205" sofa="1" begin="56" end="59" order="0"/>
  <type4:Token xmi:id="218" sofa="1" begin="60" end="65" order="0"/>
  <type4:Token xmi:id="231" sofa="1" begin="66" end="72" order="0"/>
  <type4:Token xmi:id="244" sofa="1" begin="73" end="75" order="0"/>
  <type4:Token xmi:id="257" sofa="1" begin="76" end="80" order="0"/>
  <type4:Token xmi:id="283" sofa="1" begin="81" end="83" order="0"/>
  <type4:Token xmi:id="296" sofa="1" begin="84" end="91" order="0"/>
  <tvne4:Token xmi:id="309" sofa="1" begin="91" end="92" order="0"/>
  <custom:Span xmi:id="37" sofa="1" begin="0" end="14" label="Episode"/>
  <custom:Span xmi:id="95" sofa="1" begin="16" end="30" label="Episode"/>
  <custom:Span xmi:id="270" sofa="1" begin="76" end="91" label="Series"/>
  <custom:Relation xmi:id="276" sofa="1" begin="76" end="80" Dependent="270" Governor="95"/>
  <type2:TagsetDescription xmi:id="326" sofa="1" begin="0" end="0" layer="custom.Relation"
    name="Relation labels" input="false"/>
  <type2:TagsetDescription xmi:id="339" sofa="1" begin="0" end="0" layer="custom.Span" name="Span
    labels" input="false"/>
  <cas:Sofa xmi:id="1" sofaNum="1" sofaID="_InitialView" mimeType="text" sofaString="A Golden
    Crown"; is the sixth episode of the first season of Game of Thrones.&#10;"/>
  <cas:View sofa="1" members="8 19 24 43 56 69 82 101 114 127 140 153 166 179 192 205 218 231 244 257
    283 296 309 37 95 270 276 326 339"/>
</xmi:XMI>
```

Segmentation annotations
(tokens and sentences)
are modelled explicitly.



	Episode	Episode	(Relation)	Series
1	A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.			
<pre> <type4:Token xmi:id="24" sofa="1" begin="0" end="1" order="0"/> <type4:Token xmi:id="43" sofa="1" begin="2" end="8" order="0"/> <type4:Token xmi:id="56" sofa="1" begin="9" end="14" order="0"/> <type4:Token xmi:id="69" sofa="1" begin="15" end="16" order="0"/> <type4:Token xmi:id="82" sofa="1" begin="16" end="17" order="0"/> <type4:Token xmi:id="101" sofa="1" begin="18" end="24" order="0"/> <type4:Token xmi:id="114" sofa="1" begin="25" end="30" order="0"/> <type4:Token xmi:id="127" sofa="1" begin="30" end="31" order="0"/> <type4:Token xmi:id="140" sofa="1" begin="32" end="34" order="0"/> <type4:Token xmi:id="153" sofa="1" begin="35" end="38" order="0"/> <type4:Token xmi:id="166" sofa="1" begin="39" end="44" order="0"/> <type4:Token xmi:id="179" sofa="1" begin="45" end="52" order="0"/> <type4:Token xmi:id="192" sofa="1" begin="53" end="55" order="0"/> <type4:Token xmi:id="205" sofa="1" begin="56" end="59" order="0"/> <type4:Token xmi:id="218" sofa="1" begin="60" end="65" order="0"/> <type4:Token xmi:id="231" sofa="1" begin="66" end="72" order="0"/> <type4:Token xmi:id="244" sofa="1" begin="73" end="75" order="0"/> <type4:Token xmi:id="257" sofa="1" begin="76" end="80" order="0"/> <type4:Token xmi:id="283" sofa="1" begin="81" end="83" order="0"/> <type4:Token xmi:id="296" sofa="1" begin="84" end="91" order="0"/> <type4:Token xmi:id="309" sofa="1" begin="91" end="92" order="0"/> <custom:Span xmi:id="37" sofa="1" begin="0" end="14" label="Episode"/> <custom:Span xmi:id="95" sofa="1" begin="16" end="30" label="Episode"/> <custom:Span xmi:id="270" sofa="1" begin="76" end="91" label="Series"/> <custom:Relation xmi:id="276" sofa="1" begin="76" end="80" Dependent="270" Governor="95"/> <type2:TagsetDescription xmi:id="320" sofa="1" begin="0" end="0" layer="custom.Relation"/> name="Relation labels" input="false"/> <type2:TagsetDescription xmi:id="339" sofa="1" begin="0" end="0" layer="custom.Span" name="Span labels" input="false"/> <cas:Sofa xmi:id="1" sofaNum="1" sofaID="_InitialView" mimeType="text" sofaString="A Golden Crown";&quot;A Golden Crown&quot; is the sixth episode of the first season of Game of Thrones.&#10;"/> <cas:View sofa="1" members="8 19 24 43 56 69 82 101 114 127 140 153 166 179 192 205 218 231 244 257 283 296 309 37 95 270 276 326 339"/> </xmi:XMI></pre>				

Every annotation is an XML element.
Labels are in the attributes.

The position of the annotation is encoded
in the begin/end attributes.



	Episode	Episode	(Relation)	Series
1	A Golden Crown "A Golden Crown" is the sixth episode of the first season of Game of Thrones.			

```

<type4:Token xmi:id="24" sofa="1" begin="0" end="1" order="0"/>
<type4:Token xmi:id="43" sofa="1" begin="2" end="8" order="0"/>
<type4:Token xmi:id="56" sofa="1" begin="9" end="14" order="0"/>
<type4:Token xmi:id="69" sofa="1" begin="15" end="16" order="0"/>
<type4:Token xmi:id="82" sofa="1" begin="16" end="17" order="0"/>
<type4:Token xmi:id="101" sofa="1" begin="18" end="24" order="0"/>
<type4:Token xmi:id="114" sofa="1" begin="25" end="30" order="0"/>
<type4:Token xmi:id="127" sofa="1" begin="30" end="31" order="0"/>
<type4:Token xmi:id="140" sofa="1" begin="32" end="34" order="0"/>
<type4:Token xmi:id="153" sofa="1" begin="35" end="38" order="0"/>
<type4:Token xmi:id="166" sofa="1" begin="39" end="44" order="0"/>
<type4:Token xmi:id="179" sofa="1" begin="45" end="52" order="0"/>
<type4:Token xmi:id="192" sofa="1" begin="53" end="55" order="0"/>
<type4:Token xmi:id="205" sofa="1" begin="56" end="59" order="0"/>
<type4:Token xmi:id="218" sofa="1" begin="60" end="65" order="0"/>
<type4:Token xmi:id="231" sofa="1" begin="66" end="72" order="0"/>
<type4:Token xmi:id="244" sofa="1" begin="73" end="75" order="0"/>
<type4:Token xmi:id="257" sofa="1" begin="76" end="80" order="0"/>
<type4:Token xmi:id="283" sofa="1" begin="81" end="83" order="0"/>
<type4:Token xmi:id="296" sofa="1" begin="84" end="91" order="0"/>
<type4:Token xmi:id="309" sofa="1" begin="91" end="92" order="0"/>
<custom:Span xmi:id="37" sofa="1" begin="0" end="14" label="Episode"/>
<custom:Span xmi:id="95" sofa="1" begin="16" end="30" label="Episode"/>
<custom:Span xmi:id="270" sofa="1" begin="76" end="91" label="Series"/>
<custom:Relation xmi:id="276" sofa="1" begin="76" end="80" Dependent="270" Governor="95"/>
<type2:TagsetDescription xmi:id="326" sofa="1" begin="0" end="0" layer="custom.Relation"
name="Relation labels" input="false"/>
<type2:TagsetDescription xmi:id="339" sofa="1" begin="0" end="0" layer="custom.Span" name="Span
labels" input="false"/>
<cas:Sofa xmi:id="1" sofaNum="1" sofaID="_InitialView" mimeType="text" sofaString="A Golden
Crown"> A Golden Crown </cas:Sofa> is the sixth episode of the first season of Game of Thrones.&#10;"/>
<cas:View sofa="1" members="8 19 24 43 56 69 82 101 114 127 140 153 166 179 192 205 218 231 244 257
283 296 309 37 95 270 276 326 339"/>
</xmi:XMI>

```

The begin/end attributes point into the text which is encoded in yet another XML element/attribute.



- Data-oriented stand-off format – no locality of information
- Easy to process automatically
- Only one ID-IDREF mechanism instead of multiple
- No redundancy for multi-token annotations
- Very close to the actual internal annotation representation
- Remains stable even when new functionalities are added to INCEpTION
- Supports all custom layers including document-level annotations

- How to best work with it?
 - Java: Apache UIMA framework <https://github.com/apache/uima-uimaj>
 - Python: DKPro Cassis <https://pypi.org/project/dkpro-cassis/>

So what if there is more than one annotator?



TECHNISCHE
UNIVERSITÄT
DARMSTADT

- Annotators cannot see each others annotations
- Annotators mark completed documents as finished
- Curators can compare annotations and adjudicate

So what if there is more than one annotator?



TECHNISCHE
UNIVERSITÄT
DARMSTADT

- Annotators cannot see each others annotations
- Annotators mark completed documents as finished
- Curators can compare annotations and adjudicate

Static assignment

- Small, fixed team
- Every annotator works on every document

So what if there is more than one annotator?



TECHNISCHE
UNIVERSITÄT
DARMSTADT

- Annotators cannot see each others annotations
- Annotators mark completed documents as finished
- Curators can compare annotations and adjudicate

Static assignment

- Small, fixed team
- Every annotator works on every document

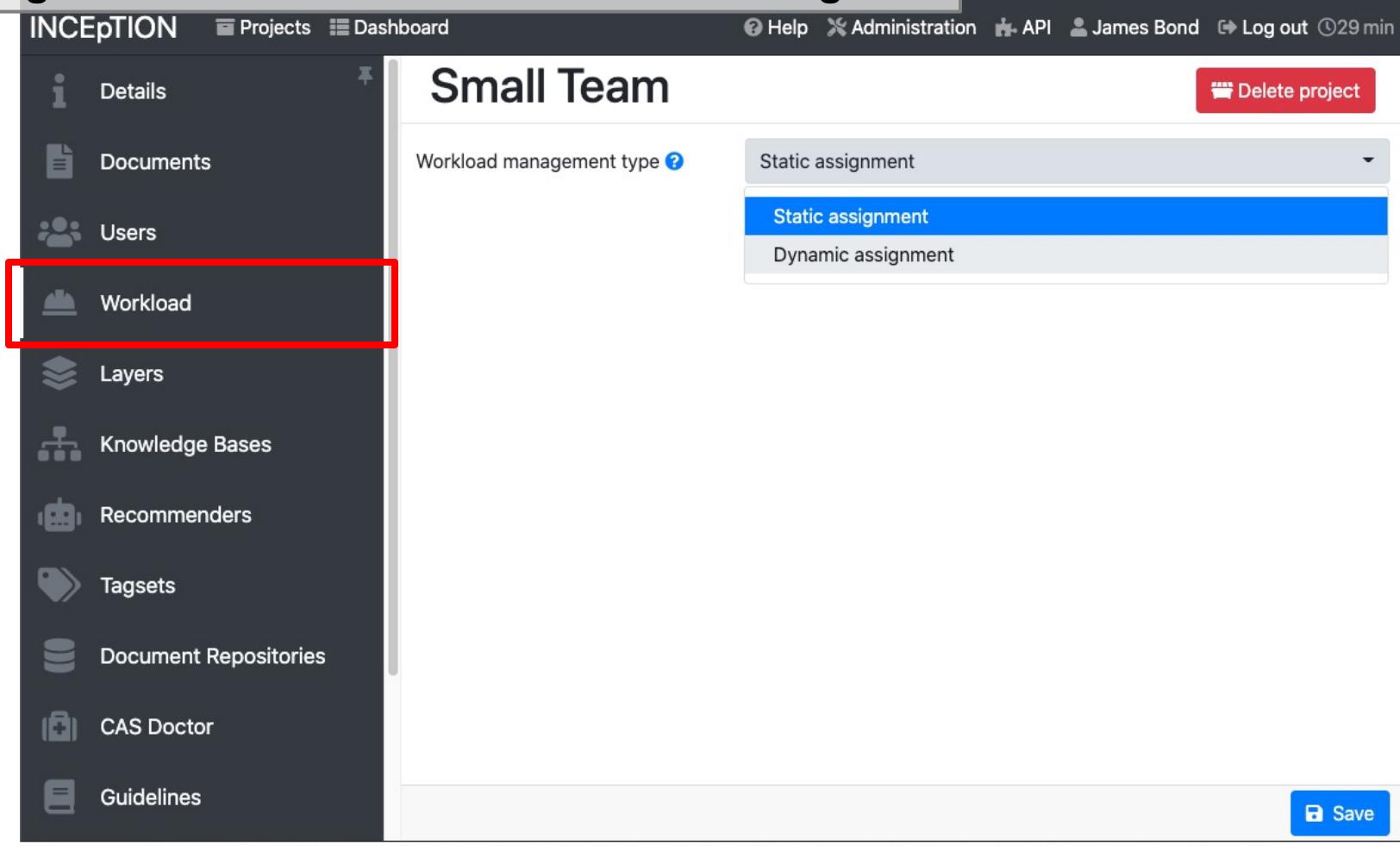
Dynamic assignment

- Large, changing team
- Every document should be annotated by a certain number of annotators

Workload management configuration



To get here: click “Dashboard” then “Settings”



The screenshot shows the INCEpTION web interface. At the top, there is a navigation bar with links for "Projects", "Dashboard", "Help", "Administration", "API", "James Bond", "Log out", and a timer indicating "29 min". On the left, a sidebar lists various project components: Details, Documents, Users, Workload (which is highlighted with a red box), Layers, Knowledge Bases, Recommenders, Tagsets, Document Repositories, CAS Doctor, and Guidelines. The main content area is titled "Small Team" and displays a dropdown menu for "Workload management type" with options "Static assignment" (selected) and "Dynamic assignment". A red box highlights the "Workload" item in the sidebar. In the bottom right corner of the main area, there is a blue "Save" button.



Static assignment

To get here: click “Dashboard” then “Monitoring”

INCEption Projects Dashboard Help Administration API

Small Team

Status in parentheses assigned by annotator. Effective state assigned by curator/manager.

Document Status ?

State Document ▾

	Curator	James Bond	jangle	jingle	Richard
file4990.txt	<input type="radio"/>	<input checked="" type="radio"/> (↻)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4992.txt	<input type="radio"/>	<input type="radio"/> (↻)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4993.txt	<input type="radio"/>	<input type="radio"/> (↻)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4994.txt	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4995.txt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4996.txt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4997.txt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4998.txt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file4999.txt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
file5000.txt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Document states

- Not started yet
- Annotation in progress
- Annotation finished

Curation states

- Not started yet
- In progress
- Finished

Annotation states

- Not started yet
- In progress
- Finished

Change state for entire rows/columns.

Left-click to change state.
Right-click for additional options.

Dynamic assignment



To get here: click “Dashboard” then “Monitoring”

The screenshot shows the INCEpTION monitoring interface. At the top, there is a navigation bar with links for 'Projects', 'Dashboard', 'Help', 'Administration', 'API', 'James Bond', 'Log out', and a timer indicating '29 min'. Below the navigation bar, the main area is titled 'TinyPro' and displays a list of documents. A tooltip box with a purple border and rounded corners contains the text: 'Annotators required to mark document as finished before it is considered to be finished.' It points to a setting in the 'Settings' dialog box where 'Annotators per document' is set to 6. Another tooltip box with a purple border and rounded corners contains the text: 'What to do when an annotator starts annotating and never marks a document as finished.' It points to a checkbox labeled 'Handle abandoned documents' which is currently unchecked. The 'Settings' dialog box also includes a 'Workflow policy' dropdown set to 'Default workflow' and a 'Save' button.

Annotators required to mark document as finished before it is considered to be finished.

Settings

Annotators per document

6

Workflow policy

Handle abandoned documents

Save

Updated

Showing 1 to 20 of 41576

State	Document
○	(10071) 1989 EZ2.txt
○	(12355) 1993 QU3.txt
○	(16836) 1997 WG36.txt
○	(20012) Ranke.txt
○	1,3-Diklorbenzol.txt
○	100 Greatest Marvel of All Time.txt
○	1059 Mussorgskia.txt
○	11207 Black.txt
○	12G busz (Miskolc).txt
○	1372.txt
○	1200_in_review.txt

What to do when an annotator starts annotating and never marks a document as finished.

Curation



TECHNISCHE
UNIVERSITÄT
DARMSTADT

To get here: click “Dashboard” then “Curation”

INCEpTION Projects Dashboard ? Help ✎ Administration API James Bond Log out 29 min

Sentences	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34

CURATION_USER: demo-anno-chunk/train.tsv 10-10 / 50 sentences [doc 1 / 1]

10 PP NP NP VP ADJP PP NP At the same time , he remains fairly pessimistic about the outlook

PP NP PP for imports , given continued high consumer and capital goods inflows .

10 PP NP NP VP ADJP PP At the same time , he remains fairly pessimistic about

NP PP NP PP the outlook for imports . given

VP continued high consumer and capital goods inflows .

anno2

10 PP NP NP VP ADJP PP At the same time , he remains fairly pessimistic about

NP PP NP PP the outlook for imports , given

NP continued high consumer and capital goods inflows .

Annotation

Agreement

There is no disagreement between annotators. There is nothing to curate.

Curated

For every position any annotator has annotated, there is a corresponding annotation at the same position in the curator's document.

Stacked annotations

A single annotator has made multiple annotations of the same layer at a given position.

Incomplete annotation

A position has been annotated by some annotators but not by all.

Disagreement

Multiple annotators have annotated a position, but different labels were assigned.

If there was no agreement, the annotations are not merged automatically and left for the curator to address.



Technische Universität Darmstadt -- Computer Science Department -- INCEpTION -- 0.20.0-SNAPSHOT

Alternative curation (experimental)



To get here: click “Dashboard” then “Annotation”

INCEpTION Projects Dashboard ? Help X Administration API James Bond Log out 29 min

The screenshot shows the INCEpTION annotation interface. On the left, there's a sidebar titled "Curation" with a red box around the "Users" section. Inside, two users are listed with checkboxes: "Anno Guy 1" and "anno2". A blue callout box points to this area with the text: "Experimental curation mode available from the annotation page." In the main panel, a sentence from "James Bond: demo-anno-chunk/train.tsv" is displayed. Sentence 10 contains a named entity "continued high consumer and capital goods inflows" highlighted in blue. A tooltip for this entity provides its ID and a note: "Note: Users with this annotation: anno2". Sentence 11 follows, containing another highlighted phrase. A blue callout box points to this area with the text: "Curatable annotations are shown similarly to annotation suggestions." The top right of the main panel shows "10-11 / 50 sentences [doc 1 / 1]" and an "Annotation" tab.

Agreement



TECHNISCHE
UNIVERSITÄT
DARMSTADT

INCEPTION Projects Dashboard

Help Administration API James Bond Log out 29 min

demo-anno-de

Settings [?](#)

Feature	POS : PosValue	<input checked="" type="checkbox"/> Limit to finished documents
Measure	Krippendorff's Alpha (unitizing / character of:	<input type="checkbox"/> Exclude incomplete
Agreement	Choose One	Calculate...
	Cohen's Kappa (coding)	
	Fleiss' Kappa (coding)	
	Krippendorff's Alpha (unitizing / character offsets)	Legend
	Krippendorff's Kappa (coding / nominal)	

	anno2	Richard
James Bond	-	no labels from admin
Anno Guy 1	-	0,97
anno2	-	0,99
Richard	-	-



Technische Universität Darmstadt -- Computer Science Department -- INCEPTION -- 0.20.0-SNAPSHOT (2021-07-05 20:59:52, build 5380ae93)



Details about agreement



INCEPTION Projects Dashboard

demo-anno-chunk

Settings	
Feature	Named Entity : value
Measure	Fleiss' Kappa (coding)

Hover over the annotation counts to get details.

Anno Guy 1
anno2

Anno Guy 1
anno2

627/632
0,99

anno1/anno2

Details about annotations excluded from agreement calculation

- Incomplete (missing): 5
- Incomplete (not labeled): 0
- Plurality: 0

CSV

Debug report

Export format
CSV
Export all

Feature	Position	anno1	anno2
value	0-10 [Confidence]	NP	NP
value	11-13 [in]	PP	PP
value	14-23 [the pound]	NP	NP
value	24-50 [is widely expected to take]	VP	VP
value	51-69 [another sharp dive]	NP	NP
value	70-72 [if]	SBAR	SBAR
value	73-86 [trade figures]	VP	NP
value	87-90 [for]	PP	PP
value	91-100 [September]	NP	NP
value	103-106 [due]	ADJP	ADJP
value	107-110 [for]	PP	PP
value	111-118 [release]	NP	NP

anno1
anno2

anno1
anno2

anno1
anno2

Positions annotated:

- anno1: 627/627
- anno2: 627/627

Distinct labels: 12

Click on a agreement number to export a report

Technische Universität Darmstadt -- Computer Science Department -- INCEPTION -- 0.20.0-SNAPSHOT (2021-07-05 20:59:52, build 5380ae93)

INCEPTION 20.x | <https://inception-project.github.io>

73

What we did NOT talk about today



- Search within external document repositories / selective import
- Search within projects (regular and semantic)
- Image sidebar
- Link features (for frame-like annotations, events, predcat-argument)
- Constraints rules
- Conditional features
- Keyboard shortcuts
- Coloring rules
- Guidelines
- Recommender evaluation simulation
- External recommenders
- Guest annotators and invite links
- Remote API
- External authentication
- Event logging
- Versioning
- Alternative annotation editor modes (HTML, PDF, etc.)
- ...

What to look at next?



TECHNISCHE
UNIVERSITÄT
DARMSTADT

- Try the „Entity linking (Wikidata)“ quick-project template
<https://github.com/inception-project/inception-external-recommender>
- External Recommenders
<https://inception-project.github.io/use-cases/>
- Real world use-cases
<https://inception-project.github.io/use-cases/>
- Example projects
<https://inception-project.github.io/example-projects/>
- Python example code (data conversion)
<https://inception-project.github.io/example-projects/python/>



If you liked the presentation, please star us on GitHub
<https://github.com/inception-project/inception>



Thank
you!

Also, join our mailing list or chat channel
<https://gitter.im/inception-project/Lobby>
<https://groups.google.com/d/forum/inception-users>

Questions or
commets?

