msaSDK Module

```
.models.sdu
```

Module for the Semantic Document Understanding - Content

Attributes

```
__version__ (module-attribute)

__version__ = '0.1.1'
```

Classes

SDUAttachment

```
Bases: SQLModel

Attributes

binary class-attribute

binary: bool = False

charset class-attribute

charset: str = ''

content_type class-attribute

content_type: str = ''

disposition class-attribute
```

```
disposition: str = ''
encoding class-attribute
  encoding: str = ''
id class-attribute
  id: str = ''
metadata class-attribute
  metadata: Dict = {}
name class-attribute
  name: str = ''
path class-attribute
  path: str = ''
payload class-attribute
  payload: str = ''
Status class-attribute
  status: str = ''
text class-attribute
  text: SDUText = SDUText()
Classes
Config
    Attributes
```

```
orm_mode class-attribute

orm_mode = False
```

SDUBBox

```
Bases: SQLModel
Attributes
X0 class-attribute
  x0: float = -1
X1 class-attribute
  x1: float = -1
y0 class-attribute
  y0: float = -1
y1 class-attribute
  y1: float = -1
Classes
Config
    Attributes
    orm\_mode {\tiny \texttt{class-attribute}}
       orm_mode = False
```

SDUContent

Bases: SQLModel

Attributes

```
attachments: List[SDUAttachment] = []

layouts class-attribute

layouts: List[SDULayout] = []

Classes

Config

Attributes

orm_mode class-attribute

orm_mode = False
```

SDUData

```
Bases: SQLModel

Attributes

converter class-attribute

converter: List[str] = []

email class-attribute

email: SDUEmail = SDUEmail()

images class-attribute

images: List[SDUPageImage] = []

npages: int = 0

pages class-attribute
```

```
pages: List[SDUPage] = []
Stats class-attribute
  stats: SDUStatistic = SDUStatistic()
text class-attribute
  text: SDUText = SDUText()
Classes
Config
    Attributes
    orm_mode [class-attribute]
      orm_mode = False
Functions
addPagePreProcessing
  addPagePreProcessing(pagepre: SDUPage)
escaped
  escaped()
sanitized async
  sanitized()
```

SDUDimensions

Bases: SQLModel

Attributes

factor_X class-attribute

```
factor_x: float = 0.0
factor_y class-attribute
  factor_y: float = 0.0
height_{\tiny{\texttt{class-attribute}}}
  height: float = 0.0
id class-attribute
  id: int = -1
rotation class-attribute
  rotation: int = 0
width class-attribute
  width: float = 0.0
Classes
Config
    Attributes
    orm_mode [class-attribute]
       orm_mode = False
```

SDUElement

```
Attributes

end class-attribute

end: int = -1
```

```
id class-attribute

id: int

start class-attribute

start: int = -1

Classes

Config

Attributes

orm_mode class-attribute

orm_mode = False
```

SDUEmail

Bases: SQLModel

Parsed EMail Pydantic Model.

Attributes

msg_bcc class-attribute

```
msg_bcc: str = ''
```

msg_body class-attribute

```
msg_body: str = ''
```

msg_cc class-attribute

```
msg_cc: str = ''
```

msg_from class-attribute

```
msg_from: str = ''
```

```
msg_headers class-attribute
  msg_headers: Dict = {}
msg_id class-attribute
  msg_id: str = ''
msg_received class-attribute
  msg_received: List = []
msg_reply_to class-attribute
  msg_reply_to: str = ''
msg_sender_ip class-attribute
  msg_sender_ip: str = ''
msg_sent_date class-attribute
  msg_sent_date: str = ''
msg_subject class-attribute
  msg_subject: str = ''
msg_timezone class-attribute
  msg_timezone: str = ''
msg_to class-attribute
  msg_to: str = ''
msg_to_domains class-attribute
  msg_to_domains: str = ''
```

```
seg_body: str = ''

seg_sign class-attribute

seg_sign: str = ''

Classes

Config

Attributes

orm_mode class-attribute

orm_mode = False
```

SDUFonts

```
Bases: SQLMode1

Attributes

avg_fontsize class-attribute

avg_fontsize: int = 14

fonts class-attribute

fonts: List = []

fontsizes class-attribute

fontsizes: Dict = {}

id class-attribute

id: int = -1

small_fontsize class-attribute
```

```
classes
Config

Attributes

orm_mode class-attribute

orm_mode = False
```

SDULanguage

proportion class-attribute

```
Bases: SQLModel
Detected Language Pydantic Model.
Attributes
bytes class-attribute
  bytes: int = -1
code class-attribute
  code: str = 'unknown'
confidence class-attribute
  confidence: float = -1
details class-attribute
  details: Optional[Tuple] = tuple()
lang class-attribute
  lang: str = 'unknown'
```

```
reliable class-attribute

reliable: bool = False

winner class-attribute

winner: Optional[str] = None

Classes

Config

Attributes

orm_mode class-attribute

orm_mode = False
```

SDULayout

```
Bases: SQLModel

Attributes

bjson class-attribute

bjson: Dict = {}

blocks class-attribute

blocks: List[tuple] = []

body class-attribute

body: SDUBBox = SDUBBox()

columns class-attribute

columns: List[SDUBBox] = []
```

```
dimensions class-attribute
  dimensions: SDUDimensions = SDUDimensions()
drawings class-attribute
  drawings: List = []
fonts class-attribute
  fonts: SDUFonts = SDUFonts()
footer [class-attribute]
  footer: SDUBBox = SDUBBox()
header class-attribute
  header: SDUBBox = SDUBBox()
id class-attribute
  id: int = -1
images class-attribute
  images: List = []
layouts class-attribute
  layouts: List = []
margin_left class-attribute
  margin_left: SDUBBox = SDUBBox()
margin_right class-attribute
  margin_right: SDUBBox = SDUBBox()
```

```
rows: List[SDUBBox] = []

texttrace class-attribute

texttrace: List = []

Classes

Config

Attributes

orm_mode class-attribute

orm_mode = False
```

SDULearnset

```
Bases: SQLModel

Attributes

emb class-attribute

emb: Dict = {}

nlp: Dict = {}

nlu: Dict = {}

text class-attribute

text: Dict = {}

vec_sent class-attribute
```

```
vec_sent: Dict = {}
Vec_words class-attribute
  vec_words: Dict = {}
Version class-attribute
  version: str = ''
Classes
Config
    Attributes
    orm_mode [class-attribute]
      orm_mode = False
Functions
reset
  reset()
set_version
  set_version(version: str)
```

SDUPDFElement

Bases: SQLModel

Attributes

bold class-attribute

```
bold: bool = False
```

COlor class-attribute

```
color: int = 0
flags class-attribute
  flags: int = 0
font class-attribute
  font: str = ''
fontsize class-attribute
  fontsize: float = 0.0
italic class-attribute
  italic: bool = False
line_id class-attribute
  line_id: int = -1
span_id class-attribute
  span_id: int = -1
```

SDUPage

Attributes

has_en class-attribute

has_en: bool = False

input class-attribute

input: str = ''

```
npar class-attribute
  npar: int = 0
page class-attribute
  page: int = -1
text class-attribute
  text: SDUText = SDUText()
Classes
Config
    Attributes
    orm_mode [class-attribute]
      orm_mode = False
Functions
getAllSentencesTextList
  getAllSentencesTextList()
getAllSentencesTextListLF
  getAllSentencesTextListLF()
get All Sentences Text List No Table And Lists \\
  getAllSentencesTextListNoTableAndLists()
getAllSentencesTextList_en
  getAllSentencesTextList_en()
getTextDefault
```

```
getTextDefault()
getTextForDisplay
  getTextForDisplay()
getTextForNLP
  getTextForNLP()
getTextLF
  getTextLF(space_before_lf: bool = False)
getTextLF_Paragraph
  getTextLF_Paragraph(space_before_lf: bool = False)
getTextNoLF
  getTextNoLF()
getTextNoLF_EN
  getTextNoLF_EN()
getTextNoLF_Paragraph
  getTextNoLF_Paragraph()
hasText
  hasText()
setInput
  setInput(inputText: str)
```

SDUPageImage

```
Bases: SQLModel
Page Image Pydantic Model.
Storing the information about the Image representation of a Page.
Attributes
dpi class-attribute
  dpi: float = 0.0
filepath_name class-attribute
  filepath_name: str = ''
format class-attribute
  format: str = ''
height class-attribute
  height: float = 0.0
id class-attribute
  id: int = -1
layout class-attribute
  layout: List = []
mode class-attribute
  mode: str = ''
width class-attribute
  width: float = 0.0
Classes
```

Config

```
Attributes

orm_mode class-attribute

orm_mode = False
```

SDUParagraph

```
Bases: SQLModel
Attributes
clean class-attribute
  clean: str = ''
elements class-attribute
  elements: List[SDUPDFElement] = []
id class-attribute
  id: int = -1
lang class-attribute
  lang: SDULanguage = SDULanguage()
nsen class-attribute
  nsen: int = 0
Section class-attribute
  section: str = 'body'
semantic_type class-attribute
  semantic_type: str = 'text'
```

```
Sentences class-attribute
  sentences: List[SDUSentence] = []
sentences_en class-attribute
  sentences_en: List[SDUSentence] = []
size_type class-attribute
  size_type: str = 'body'
SORT class-attribute
  sort: int = -1
Classes
Config
    Attributes
    orm\_mode {\tiny \texttt{class-attribute}}
      orm_mode = False
Functions
getText
  getText() -> str
getTextLF
  getTextLF() -> str
getTextNoLF
  getTextNoLF() -> str
```

hasText

```
hasText() -> bool
```

SDUSentence

Bases: SQLModel **Attributes** id class-attribute id: int = -1text class-attribute text: str = '' tokens class-attribute tokens: List[str] = [] UPOS class-attribute upos: List[str] = [] XPOS class-attribute xpos: List[str] = [] **Classes** Config **Attributes** orm_mode [class-attribute] orm_mode = False

SDUStatistic

```
Bases: SQLModel
Text Statistics Pydantic Model.
Attributes
avg\_character\_per\_word class-attribute
  avg_character_per_word: float = 0
avg_letter_per_word class-attribute
  avg_letter_per_word: float = 0
avg_sentence_length class-attribute
  avg_sentence_length: float = 0
avg_sentence_per_word class-attribute
  avg_sentence_per_word: float = 0
avg_syllables_per_word class-attribute
  avg_syllables_per_word: float = 0
coleman class-attribute
  coleman: float = 0
crawford class-attribute
  crawford: float = 0
difficult_words class-attribute
  difficult_words: int = 0
fog class-attribute
```

```
fog: float = 0
grade class-attribute
  grade: float = 0
gulpease\_index \tiny \texttt{class-attribute}
  gulpease_index: float = 0
lexicon_count class-attribute
  lexicon_count: int = 0
long\_word\_count_{\tiny{\texttt{class-attribute}}}
  long_word_count: int = 0
OSMan class-attribute
  osman: float = 0
paragraph_count class-attribute
  paragraph_count: int = 0
reading_ease class-attribute
  reading_ease: str = ''
reading_ease_score class-attribute
  reading_ease_score: float = 0
reading_index class-attribute
  reading_index: float = 0
reading_score class-attribute
```

```
reading_score: float = 0
reading_time_s class-attribute
  reading_time_s: float = 0
sentence_count class-attribute
  sentence_count: int = 0
SMOG class-attribute
  smog: float = 0
standard Class-attribute
  standard: str = ''
write_formula class-attribute
  write_formula: float = 0
Classes
Config
    Attributes
    orm_mode [class-attribute]
      orm_mode = False
```

SDUText

```
Attributes

clean class-attribute

clean: str = ''
```

```
html_content class-attribute
  html_content: str = ''
lang class-attribute
  lang: SDULanguage = SDULanguage()
paragraphs class-attribute
  paragraphs: List[SDUParagraph] = []
raw class-attribute
  raw: str = ''
structured_content class-attribute
  structured_content: Dict = {}
Classes
Config
    Attributes
    orm_mode class-attribute
      orm_mode = False
```

SDUVersion

```
Attributes

creation_date class-attribute

creation_date: str = ''

version class-attribute
```

```
version: str = ''

Classes

Config

Attributes

orm_mode class-attribute

orm_mode = False
```

Functions

getCRLF

```
getCRLF() -> str

get's the OS Environment Variable for CR_LF. Default: \n
```

getCRParagraph

```
getCRParagraph() -> str

get's the OS Environment Variable for CR_PARAGRAPH. Default: \n\n
```

getSentenceSeperator

```
getSentenceSeperator() -> str

get's the OS Environment Variable for SENTENCE_SEPARATOR. Default: (Space/Blank)
```

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