

```

Parent = "/Parent" # dictionary, required for children
Kids = "/Kids" # array, sometimes required
T = "/T" # text string, optional
TU = "/TU" # text string, optional
TM = "/TM" # text string, optional
Ff = "/Ff" # integer, optional
V = "/V" # text string, optional
DV = "/DV" # text string, optional
AA = "/AA" # dictionary, optional

```

```

@classmethod
def attributes(cls) -> Tuple[str, ...]:
    return (
        cls.TM,
        cls.T,
        cls.FT,
        cls.Parent,
        cls.TU,
        cls.Ff,
        cls.V,
        cls.DV,
        cls.Kids,
        cls.AA,
    )

```

```

@classmethod
def attributes_dict(cls) -> Dict[str, str]:
    return {
        cls.FT: "Field Type",
        cls.Parent: "Parent",
        cls.T: "Field Name",
        cls.TU: "Alternate Field Name",
        cls.TM: "Mapping Name",
        cls.Ff: "Field Flags",
        cls.V: "Value",
        cls.DV: "Default Value",
    }

```

```

class CheckboxRadioButtonAttributes:
    """TABLE 8.76 Field flags common to all field types"""

```

```

    Opt = "/Opt" # Options, Optional

```

```

@classmethod
def attributes(cls) -> Tuple[str, ...]:
    return (cls.Opt,)

```

```

@classmethod
def attributes_dict(cls) -> Dict[str, str]:

```

```

    return {
        cls.Opt: "Options",
    }

```

```

class FieldFlag(IntFlag):
    """TABLE 8.70 Field flags common to all field types"""

    READ_ONLY = 1
    REQUIRED = 2
    NO_EXPORT = 4

```

```

class DocumentInformationAttributes:
    """TABLE 10.2 Entries in the document information dictionary."""

    TITLE = "/Title" # text string, optional
    AUTHOR = "/Author" # text string, optional
    SUBJECT = "/Subject" # text string, optional
    KEYWORDS = "/Keywords" # text string, optional
    CREATOR = "/Creator" # text string, optional
    PRODUCER = "/Producer" # text string, optional
    CREATION_DATE = "/CreationDate" # date, optional
    MOD_DATE = "/ModDate" # date, optional
    TRAPPED = "/Trapped" # name, optional

```

```

class PageLayouts:
    """Page 84, PDF 1.4 reference."""

    SINGLE_PAGE = "/SinglePage"
    ONE_COLUMN = "/OneColumn"
    TWO_COLUMN_LEFT = "/TwoColumnLeft"
    TWO_COLUMN_RIGHT = "/TwoColumnRight"

```

```

class GraphicsStateParameters:
    """Table 4.8 of the 1.7 reference."""

    TYPE = "/Type" # name, optional
    LW = "/LW" # number, optional
    # TODO: Many more!
    FONT = "/Font" # array, optional
    S_MASK = "/SMask" # dictionary or name, optional

```

```

class CatalogDictionary:
    """Table 3.25 in the 1.7 reference."""

    TYPE = "/Type" # name, required; must be /Catalog

```

```

VERSION = "/Version" # name
PAGES = "/Pages" # dictionary, required
PAGE_LABELS = "/PageLabels" # number tree, optional
NAMES = "/Names" # dictionary, optional
DESTS = "/Dests" # dictionary, optional
VIEWER_PREFERENCES = "/ViewerPreferences" # dictionary, optional
PAGE_LAYOUT = "/PageLayout" # name, optional
PAGE_MODE = "/PageMode" # name, optional
OUTLINES = "/Outlines" # dictionary, optional
THREADS = "/Threads" # array, optional
OPEN_ACTION = "/OpenAction" # array or dictionary or name, optional
AA = "/AA" # dictionary, optional
URI = "/URI" # dictionary, optional
ACRO_FORM = "/AcroForm" # dictionary, optional
METADATA = "/Metadata" # stream, optional
STRUCT_TREE_ROOT = "/StructTreeRoot" # dictionary, optional
MARK_INFO = "/MarkInfo" # dictionary, optional
LANG = "/Lang" # text string, optional
SPIDER_INFO = "/SpiderInfo" # dictionary, optional
OUTPUT_INTENTS = "/OutputIntents" # array, optional
PIECE_INFO = "/PieceInfo" # dictionary, optional
OC_PROPERTIES = "/OCProperties" # dictionary, optional
PERMS = "/Perms" # dictionary, optional
LEGAL = "/Legal" # dictionary, optional
REQUIREMENTS = "/Requirements" # array, optional
COLLECTION = "/Collection" # dictionary, optional
NEEDS_RENDERING = "/NeedsRendering" # boolean, optional

```

```

class OutlineFontFlag(IntFlag):

```

```

    """

```

```

    A class used as an enumerable flag for formatting an outline font
    """

```

```

    italic = 1

```

```

    bold = 2

```

```

PDF_KEYS = (
    AnnotationDictionaryAttributes,
    CatalogAttributes,
    CatalogDictionary,
    CcittFaxDecodeParameters,
    CheckboxRadioButtonAttributes,
    ColorSpaces,
    Core,
    DocumentInformationAttributes,
    EncryptionDictAttributes,
    FieldDictionaryAttributes,
    FilterTypeAbbreviations,

```

```
FilterTypes,  
GoToActionArguments,  
GraphicsStateParameters,  
ImageAttributes,  
FileSpecificationDictionaryEntries,  
LzwFilterParameters,  
PageAttributes,  
PageLayouts,  
PagesAttributes,  
Ressources,  
StreamAttributes,  
TrailerKeys,  
TypArguments,  
TypFitArguments,  
)
```