ATT&CK™ Navigator Layer File Format Definition

This document describes version 2.1 of the MITRE ATT&CK Navigator Layer file format. The ATT&CK Navigator stores layers as JSON, therefore this document defines the JSON properties in a layer file.

Property Table

Name	Type	Required?	Default Value (if not present)	Description
`version`	String	Yes	n/a	Must be "2.1"
`name`	String	Yes	n/a	The name of the layer
`description`	String	No	""	A free-form text field that describes the contents or intent of the layer
`domain`	String	Yes	n/a	Technology domain that this layer represents. Valid values are: `mitre-enterprise` `mitre-mobile`
`filters`	Filter object	No		See Filter object definition below
`sorting`	Number	No	0	Specifies the ordering of the techniques within each tactic category as follows: 0: sort ascending alphabetically by technique name 1: sort descending alphabetically by technique name

Name	Type	Required?	Default Value (if not present)	Description
				2: sort ascending by technique score 3: sort descending by technique score
viewMode	Number	No	0	Specifies the view mode for the layer as follows: 0: display the full table with tactic and technique names 1: display compact table with abbreviated tactic and technique names 2: display mini table with no text with the exception of tooltips
hideDisabled	Boolean	No	false	Specifies whether techniques that have been disabled are still displayed (greyed-out) or omitted from the view as follows: true: omit techniques marked as disabled from the view false: include disabled techniques in the view but display as greyed-out
techniques	Array of Technique objects	No		See definition of Technique object below.

Name	Type	Required?	Default Value (if not present)	Description
gradient	Object	No	Red to Green, minValue=0, maxValue=100	
legendItems	Array of LegendItem objects	No		See definition of LegendItem object below
showTacticRowBackground	Boolean	No	false	If true, the tactic row background color will be the value of the tacticRowBackground field
tacticRowBackground	String	No	"#dddddd"	The tactic row background color
metadata	Array of Metadata objects	No		User defined metadata for this layer. See definition of Metadata object below

Filter Object Properties

Name	Type	Required?	Default Value (if not present)	Description
stages	Array of string	No	["act"]	Specifies the logical stages of the attack lifecycle to display. Valid choices are: prepare, act Array must contain at least one of these values.
platforms	Array of string	No	All platforms defined within domain	Specifies the platforms within the technology domain – only those techniques tagged with these platforms are to be displayed. Valid values are as follows: domain=mitre-enterprise:

Name	Type	Required?	Default Value (if not present)	Description

				`windows, linux, mac`
				
				`domain=mitre-mobile:`
				android, ios

Technique Object Properties

Name	Type	Required?	Default Value (if not present)	Description
`techniqueID`	String	Yes	n/a	Unique identifier of the ATT&CK technique, e.g. `T####`
`tactic`	String	No	n/a	Unique identifier of the ATT&CK technique's tactic, e.g. "lateral-movement". If the field is not present, the annotations for the technique will appear under every tactic the technique belongs to
`comment`	String	No	""	Free-text field
`enabled`	Boolean	No	`true`	Specifies if the technique is considered enabled or disabled in this layer
`score`	Number	No	(unscored)	Optional numeric score assigned to this technique in this layer. If omitted, the technique is consider to be "unscored" meaning that it will not be assigned a color from the gradient by the Navigator.
`color`	String	No	""	Explicit color value assigned to this technique in this layer. Note that explicitly defined color overrides any color implied by the score – the Navigator will display the technique using the explicitly defined color.

Name	Type	Required?	Default Value (if not present)	Description
metadata	Array of Metadata objects	No		User defined metadata for this technique. See definition of Metadata object below

Gradient Object Properties

Name	Type	Required?	Default Value (if not present)	Description
colors	Array of string	Yes	n/a	Specifies the hexadecimal RGB color values that constitute the color spectrum in use. The array must contain at least two (2) values, corresponding to the minValue and maxValue scores.
minValue	Number	Yes	n/a	The lower bound score of the gradient.
maxValue	Number	Yes	n/a	The upper bound score of the gradient. Note: maxValue must be > minValue

LegendItem Object Properties

Name	Type	Required?	Default Value (if not present)	Description
label	String	Yes	n/a	The name of the legend item
color	String	Yes	n/a	The color of the legend item

Metadata Object Properties

Name	Type	Required?	Default Value (if not present)	Description
name	String	Yes	n/a	The name of the metadata
value	String	Yes	n/a	The value of the metadata

Example

The following example illustrates the layer file format:

```json
{
    "name": "example layer",
    "version": "2.1",
    "domain": "mitre-enterprise",
    "description": "hello, world",
    "filters": {
        "stages": [
            "act"
        ],
        "platforms": [
            "windows",
            "mac"
        ]
    },
    "sorting": 2,
    "viewMode": 0,
    "hideDisabled": false,
    "techniques": [
        {
            "techniqueID": "T1155",
            "tactic": "execution",
            "color": "#fd8d3c",
            "comment": "This is a comment for technique T1155 only under the Execution
tactic."
        },
        {
            "techniqueID": "T1017",
            "tactic": "lateral-movement",
            "score": 75
        },
        {
            "techniqueID": "T1010",
            "tactic": "discovery",
            "enabled": false
        },
        {
            "techniqueID": "T1189",
            "tactic": "initial-access",
            "metadata": [
                {
                    "name": "T1189 metadata1",
                    "value": "T1189 metadata1 value"
                },
                {
                    "name": "T1189 metadata2",
                    "value": "T1189 metadata2 value"
                }
            ]
        },     ],
    "gradient": {
        "colors": [
            "#ff6666",
            "#ffe766",
            "#8ec843"
        ],
        "minValue": 0,
        "maxValue": 100
    },
```

```
    "legendItems": [
        {
            "label": "Legend Item Label",
            "color": "#FF00FF"
        }
    ],
    "showTacticRowBackground": true,
    "tacticRowBackground": "#dddddd",
    "selectTechniquesAcrossTactics": false,
     "metadata": [
        {
            "name": "layer metadata 1",
            "value": "layer metadata 1 value"
        },
        {
            "name": "layer metadata 2",
            "value": "layer metadata 2 value"
        }
    ]
}
```