msaSDK Module

.admin.frontend.components

Attributes

BASE_DIR [module-attribute]

```
BASE_DIR = os.path.dirname(os.path.abspath(__file__))
```

Classes

Action

```
Bases: MSAUINode

Attributes

actionType class-attribute

active class-attribute

active: bool = None

activeClassName class-attribute

activeClassName: str = None

activeLevel class-attribute

activeLevel class-attribute
```

```
args class-attribute
  args: Union[dict, str] = None
block class-attribute
  block: bool = None
Close class-attribute
  close: Union[bool, str] = None
componentld class-attribute
  componentId: str = None
confirmText class-attribute
  confirmText: MSAUITemplate = None
disabledTip class-attribute
  disabledTip: str = None
icon class-attribute
  icon: str = None
iconClassName class-attribute
  iconClassName: str = None
label class-attribute
  label: str = None
level class-attribute
  level: LevelEnum = None
```

```
onClick class-attribute
  onClick: str = None
reload class-attribute
   reload: str = None
required class-attribute
   required: List[str] = None
righticon class-attribute
   rightIcon: str = None
right lcon Class Name {\scriptsize \scriptsize \tt class-attribute}
   rightIconClassName: str = None
SCript class-attribute
  script: str = None
SiZe class-attribute
  size: str = None
tooltip class-attribute
  tooltip: str = None
tool tip Placement {\tiny \begin{array}{c} \\ \textbf{class-attribute} \\ \end{array}}
  tooltipPlacement: str = None
type class-attribute
  type: str = 'button'
```

ActionType

Classes

Ajax

```
Bases: Action
    Attributes
    action Type \tiny \texttt{class-attribute}
      actionType: str = 'ajax'
    api class-attribute
      api: MSA_UI_API = None
    feedback [class-attribute]
      feedback: Dialog = None
    messages class-attribute
      messages: dict = None
    redirect class-attribute
      redirect: MSAUITemplate = None
Copy
```

```
Bases: Action
Attributes
actionType Class-attribute
  actionType: str = 'copy'
content class-attribute
  content: MSAUITemplate
```

```
copyFormat class-attribute
      copyFormat: str = None
Dialog
    Bases: Action
    Attributes
    actionType Class-attribute
      actionType: str = 'dialog'
    dialog class-attribute
      dialog: Union[Dialog, Service, MSAUISchemaNode]
    next Condition {\tt \tiny class-attribute})
      nextCondition: bool = None
Drawer
    Bases: Action
    Attributes
    actionType class-attribute
      actionType: str = 'drawer'
    drawer class-attribute
      drawer: Union[Drawer, Service, MSAUISchemaNode]
Link
    Bases: Action
    Attributes
    actionType class-attribute
```

```
actionType: str = 'link'

link class-attribute

link: str

Url

Bases: Action

Attributes

actionType class-attribute

actionType: str = 'url'

blank class-attribute

blank: bool = None

url class-attribute

url: str
```

Alert

思索ses: MSAUINode
提示

Attributes

body class-attribute

body: MSAUISchemaNode = None

className class-attribute

className: str = None

closeButtonClassName class-attribute

```
closeButtonClassName: str = None
icon class-attribute
  icon: str = None
iconClassName class-attribute
  iconClassName: str = None
level class-attribute
  level: str = None
show Close Button {\tiny \texttt{class-attribute}}
  showCloseButton: bool = None
showlcon class-attribute
  showIcon: bool = None
type class-attribute
  type: str = 'alert'
```

AnchorNav

Bases: MSAUINode
锚点导航
Attributes
active class-attribute
active: str = None

```
className: str = None
direction class-attribute
  direction: str = None
link Class Name \scriptsize \scriptsize (class-attribute)
  linkClassName: str = None
links class-attribute
  links: list = None
section Class Name {\tiny \scriptsize \textbf{class-attribute}}
  sectionClassName: str = None
type class-attribute
  type: str = 'anchor-nav'
Classes
Link
    Bases: MSAUINode
    Attributes
    body class-attribute
       body: MSAUISchemaNode = None
    className [class-attribute]
       className: str = None
    href class-attribute
       href: str = None
```

```
label class-attribute
            label: str = None
         title class-attribute
            title: str = None
App
     Bases: Page
     多页应用
     Attributes
    \underline{\hspace{0.5cm}} \text{default\_template\_path}\underline{\hspace{0.5cm}}_{\text{\tiny class-attribute}}
       __default_template_path__: str = (
            f"{BASE_DIR}/templates/app.html"
     api class-attribute
       api: MSA_UI_API = None
     asideAfter class-attribute
       asideAfter: str = None
     aside Before {\tiny \tt class-attribute}
       asideBefore: str = None
     brandName class-attribute
       brandName: str = None
     className {\tiny \tt class-attribute}
       className: str = None
```

```
footer class-attribute
      footer: str = None
    header class-attribute
      header: str = None
    logo class-attribute
      logo: str = '/msastatic/img/msa_logo.png'
    pages class-attribute
      pages: List[PageSchema] = None
    type class-attribute
      type: str = 'app'
Audio
    Bases: MSAUINode
    音频
    Attributes
    autoPlay class-attribute
      autoPlay: bool = None
    className \tiny \texttt{class-attribute}
      className: str = None
    controls class-attribute
      controls: List[str] = None
```

```
inline class-attribute
      inline: bool = None
    loop class-attribute
      loop: bool = None
    rates class-attribute
      rates: List[float] = None
    SIC class-attribute
      src: str = None
    type class-attribute
      type: str = 'audio'
Avatar
    Bases: MSAUINode
    头像
    Attributes
    className class-attribute
      className: str = None
    fit class-attribute
      fit: str = None
    icon class-attribute
      icon: str = None
```

```
shape class-attribute
  shape: str = None
SiZe class-attribute
  size: int = None
SIC class-attribute
  src: str = None
style class-attribute
  style: dict = None
text class-attribute
  text: str = None
type class-attribute
  type: str = 'avatar'
```

Badge

Bases: MSAUINode

角标

Attributes

animation class-attribute

animation: bool = None

className class-attribute

className: str = None

```
level class-attribute
  level: str = None
mode class-attribute
  mode: str = 'dot'
offset class-attribute
  offset: int = None
overflowCount class-attribute
  overflowCount: int = None
position class-attribute
  position: str = None
SiZe class-attribute
  size: int = None
style class-attribute
  style: dict = None
text class-attribute
  text: Union[str, int] = None
visibleOn class-attribute
  visibleOn: MSAUIExpression = None
```

Button

Bases: FormItem

按钮 **Attributes** actionType class-attribute actionType: str = None block class-attribute block: bool = None $className \tiny \texttt{class-attribute}$ className: str = Nonedisabled class-attribute disabled: bool = None href class-attribute href: str = None level class-attribute level: LevelEnum = None loading class-attribute loading: bool = None loadingOn class-attribute loadingOn: str = None SIZE class-attribute size: str = None

```
tooltip: Union[str, dict] = None

tooltipPlacement class-attribute

tooltipPlacement: str = None

tooltipTrigger class-attribute

tooltipTrigger: str = None
```

ButtonGroup

```
Bases: MSAUINode
按钮组

Attributes

buttons class-attribute

buttons: List[Action]

className class-attribute

className: str = None

type class-attribute

type: str = 'button-group'

vertical class-attribute

vertical: bool = None
```

ButtonToolbar

Bases: MSAUINode

按钮工具栏

Attributes

```
buttons class-attribute
```

```
buttons: List[Action]
```

type class-attribute

```
type: str = 'button-toolbar'
```

CRUD

```
Bases: MSAUINode
```

增删改查

Attributes

affixHeader class-attribute

```
affixHeader: bool = None
```

 $always Show Pagination {\scriptsize \scriptsize \textbf{class-attribute}}$

```
alwaysShowPagination: bool = None
```

api class-attribute

```
api: MSA_UI_API = None
```

autoGenerateFilter class-attribute

```
autoGenerateFilter: bool = None
```

 $autoJumpToTopOnPagerChange \ {\tt class-attribute}$

```
autoJumpToTopOnPagerChange: bool = None
```

bulkActions class-attribute

```
bulkActions: List[Action] = None
```

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```
className class-attribute
  className: str = None
defaultChecked class-attribute
  defaultChecked: bool = None
defaultParams class-attribute
  defaultParams: dict = None
draggable class-attribute
  draggable: bool = None
filter class-attribute
  filter: Union[MSAUISchemaNode, Form] = None
filterDefaultVisible class-attribute
  filterDefaultVisible: bool = None
filterTogglable class-attribute
  filterTogglable: bool = None
footerToolbar class-attribute
  footerToolbar: list = None
headerToolbar class-attribute
  headerToolbar: list = None
hideQuickSaveBtn class-attribute
```

```
hideQuickSaveBtn: bool = None
initFetch class-attribute
  initFetch: bool = None
interval class-attribute
  interval: int = None
itemAction class-attribute
  itemAction: Action = None
itemDraggableOn class-attribute
  itemDraggableOn: bool = None
keepItemSelectionOnPageChange {\tiny \tt Class-attribute}
  keepItemSelectionOnPageChange: bool = None
labelTpl class-attribute
  labelTpl: str = None
loadDataOnce class-attribute
  loadDataOnce: bool = None
loadDataOnceFetchOnFilter class-attribute
  loadDataOnceFetchOnFilter: bool = None
messages class-attribute
  messages: Messages = None
mode class-attribute
```

```
mode: str = None
orderField class-attribute
  orderField: str = None
pageField class-attribute
  pageField: str = None
perPage class-attribute
  perPage: int = None
perPageAvailable class-attribute
  perPageAvailable: List[int] = None
perPageField class-attribute
  perPageField: str = None
primaryField class-attribute
  primaryField: str = None
quickSaveApi class-attribute
  quickSaveApi: MSA_UI_API = None
quickSaveItemApi class-attribute
  quickSaveItemApi: MSA_UI_API = None
saveOrderApi class-attribute
  saveOrderApi: MSA_UI_API = None
silentPolling class-attribute
```

```
silentPolling: bool = None
SOURCE class-attribute
  source: str = None
stopAutoRefreshWhen [class-attribute]
  stopAutoRefreshWhen: str = None
stop Auto Refresh When Modalls Open {\tt class-attribute}
  stopAutoRefreshWhenModalIsOpen: bool = None
syncLocation class-attribute
  syncLocation: bool = None
syncResponse 2 Query \tiny \texttt{class-attribute}
  syncResponse2Query: bool = None
title class-attribute
  title: str = None
type class-attribute
  type: str = 'crud'
Classes
Messages
    Bases: MSAUINode
    Attributes
    fetchFailed class-attribute
      fetchFailed: str = None
```

```
quickSaveFailed class-attribute

quickSaveSuccess class-attribute

quickSaveSuccess: str = None

saveOrderFailed class-attribute

saveOrderFailed: str = None

saveOrderSuccess class-attribute

saveOrderSuccess class-attribute

saveOrderSuccess: str = None
```

Carousel

```
Bases: MSAUINode

较播图

Attributes

animation class-attribute

auto: str = None

auto: bool = True

className class-attribute

className: str = None

controls class-attribute

controls: List[str] = None
```

```
controlsTheme: str = None
duration class-attribute
  duration: str = None
height class-attribute
  height: str = None
interval class-attribute
  interval: str = None
item Schema {\tiny \tt class-attribute}
  itemSchema: dict = None
options class-attribute
  options: List[Item] = None
thumbMode {\tiny \tt class-attribute}
  thumbMode: str = None
type class-attribute
  type: str = 'carousel'
width class-attribute
  width: str = None
Classes
Item
    Bases: MSAUINode
```

```
Attributes
description [class-attribute]
  description: str = None
description Class Name \tiny \texttt{class-attribute}
  descriptionClassName: str = None
href class-attribute
  href: str = None
html [class-attribute]
  html: str = None
image class-attribute
  image: str = None
image Class Name \scriptsize \texttt{class-attribute}
  imageClassName: str = None
title class-attribute
  title: str = None
titleClassName class-attribute
  titleClassName: str = None
```

Chart

Bases: MSAUINode

图表: https://echarts.apache.org/zh/option.html#title

Attributes

api class-attribute

```
api: MSA_UI_API = None
body class-attribute
  body: MSAUISchemaNode = None
className class-attribute
  className: str = None
config class-attribute
  config: Union[dict, str] = None
height class-attribute
  height: str = None
initFetch class-attribute
  initFetch: bool = None
interval class-attribute
  interval: int = None
replace Chart Option {\tiny \texttt{class-attribute}}
  replaceChartOption: bool = None
SOURCE class-attribute
  source: dict = None
style class-attribute
  style: dict = None
trackExpression Class-attribute
```

```
trackExpression: str = None

type class-attribute

type: str = 'chart'

width class-attribute

width: str = None
```

ChartRadios

```
Bases: Radios

单选框

Attributes

chartValueField class-attribute

chartValueField: str = None

config class-attribute

config: dict = None

showTooltipOnHighlight class-attribute

type class-attribute

type: str = 'chart-radios'
```

Checkbox

Bases: FormItem

勾选框

Attributes

```
falseValue class-attribute
      falseValue: Any = None
    option class-attribute
      option: str = None
    trueValue class-attribute
      trueValue: Any = None
    type class-attribute
      type: str = 'checkbox'
Checkboxes
    Bases: FormItem
    复选框
    Attributes
    addApi class-attribute
      addApi: MSA_UI_API = None
    addControls class-attribute
      addControls: List[FormItem] = None
    checkAll class-attribute
      checkAll: bool = None
    columns Count {\tiny \tt class-attribute}
      columnsCount: int = None
```

```
creatable class-attribute
  creatable: bool = None
createBtnLabel class-attribute
  createBtnLabel: str = None
defaultCheckAll class-attribute
  defaultCheckAll: bool = None
deleteApi class-attribute
  deleteApi: MSA_UI_API = None
delimiter class-attribute
  delimiter: str = None
editApi class-attribute
  editApi: MSA_UI_API = None
editControls class-attribute
  editControls: List[FormItem] = None
editable class-attribute
  editable: bool = None
extractValue class-attribute
  extractValue: bool = None
inline class-attribute
  inline: bool = None
```

```
joinValues class-attribute
      joinValues: bool = None
    labelField class-attribute
      labelField: str = None
    options class-attribute
      options: MSAOptionsNode = None
    removable class-attribute
      removable: bool = None
    SOURCE class-attribute
      source: MSA_UI_API = None
    type class-attribute
      type: str = 'checkboxes'
    valueField class-attribute
      valueField: str = None
Code
    Bases: MSAUINode
```

Attributes

代码高亮

 $className {\tiny \scriptsize \textbf{class-attribute}}$

className: str = None

```
editorTheme class-attribute
  editorTheme: str = None
language class-attribute
  language: str = None
name class-attribute
  name: str = None
tabSize class-attribute
  tabSize: int = None
type class-attribute
  type: str = 'code'
value class-attribute
  value: str = None
wordWrap class-attribute
  wordWrap: str = None
```

ColumnImage

```
Bases: Image, TableColumn
图片列
```

ColumnImages

```
Bases: Images, TableColumn
图片集列
```

ColumnOperation

```
Bases: TableColumn
操作列

Attributes

buttons class-attribute

buttons: List[Union[Action, MSAUINode]] = None

label class-attribute

toggled class-attribute

toggled: bool = None

type class-attribute

type: str = 'operation'
```

Combo

```
Bases: FormItem
组合
Attributes
addButtonClassName class-attribute
addButtonClassName: str = None
addButtonText class-attribute
addButtonText: str = None
```

```
addable: bool = False
can Access Super Data {\tiny \tt class-attribute}
  canAccessSuperData: bool = False
conditions class-attribute
  conditions: dict = None
deleteApi class-attribute
  deleteApi: MSA_UI_API = None
deleteConfirmText class-attribute
  deleteConfirmText: str = None
delimiter class-attribute
  delimiter: str = None
draggable class-attribute
  draggable: bool = False
draggableTip class-attribute
  draggableTip: str = None
flat class-attribute
  flat: bool = False
form Class Name {\tt [class-attribute]}
  formClassName: str = None
items class-attribute
```

```
items: List[FormItem] = None
joinValues class-attribute
  joinValues: bool = True
maxLength_{\tiny{\texttt{class-attribute}}}
  maxLength: int = None
minLength_{\tiny{\texttt{class-attribute}}}
  minLength: int = None
multiLine \tiny \texttt{class-attribute}
  multiLine: bool = False
multiple class-attribute
  multiple: bool = False
noBorder class-attribute
  noBorder: bool = False
nullable class-attribute
  nullable: bool = False
placeholder class-attribute
  placeholder: str = None
removable class-attribute
   removable: bool = False
scaffold class-attribute
```

```
strictMode class-attribute

strictMode: bool = True

subFormMode class-attribute

subFormMode: str = None

syncFields class-attribute

syncFields: List[str] = []

type class-attribute

type: str = 'combo'

typeSwitchable class-attribute

typeSwitchable: bool = False
```

ConditionBuilder

```
Bases: FormItem
组合条件
Attributes

className class-attribute

className: str = None

fieldClassName class-attribute

fieldClassName: str = None
```

```
fields: List[Field] = None
SOURCE class-attribute
  source: str = None
type class-attribute
  type: str = 'condition-builder'
Classes
Date
    Bases: Field
    日期
   Attributes
    defaultValue [class-attribute]
      defaultValue: str = None
    format class-attribute
      format: str = None
    inputFormat [class-attribute]
      inputFormat: str = None
   type class-attribute
      type: str = 'date'
Datetime
    Bases: Date
    日期时间
    Attributes
```

```
timeFormat [class-attribute]
      timeFormat: str = None
    type [class-attribute]
      type: str = 'datetime'
Field
    Bases: MSAUINode
    Attributes
    defaultOp class-attribute
      defaultOp: str = None
    label class-attribute
      label: str = None
    operators class-attribute
      operators: List[str] = None
    placeholder class-attribute
      placeholder: str = None
    type class-attribute
      type: str = 'text'
Number
    Bases: Field
    数字
    Attributes
    maximum class-attribute
```

```
maximum: float = None
    minimum [class-attribute]
      minimum: float = None
    step class-attribute
      step: float = None
    type class-attribute
      type: str = 'number'
Select
    Bases: Field
    下拉选择
    Attributes
    autoComplete {\tt [class-attribute]}
      autoComplete: MSA_UI_API = None
    options class-attribute
      options: MSAOptionsNode = None
    searchable class-attribute
      searchable: bool = None
    SOURCE class-attribute
      source: MSA_UI_API = None
    type class-attribute
      type: str = 'select'
```

Text

```
Bases: Field
文本

Time

Bases: Date

时间

Attributes

type class-attribute

type: str = 'datetime'
```

Custom

```
Bases: MSAUINode
自定义组件
Attributes
className \tiny \texttt{class-attribute}
  className: str = None
html class-attribute
  html: str = None
id class-attribute
  id: str = None
inline class-attribute
  inline: bool = False
name class-attribute
  name: str = None
```

```
onMount class-attribute
       onMount: str = None
    onUnmount class-attribute
       onUnmount: str = None
    on Update {\tiny \scriptsize \textbf{class-attribute}}
       onUpdate: str = None
    type class-attribute
       type: str = 'custom'
Dialog
    Bases: MSAUINode
    对话框
    Attributes
    actions class-attribute
       actions: List[Action] = None
    body class-attribute
       body: MSAUISchemaNode = None
    body Class Name {\tiny \scriptsize \textbf{class-attribute}}
       bodyClassName: str = None
    closeOnEsc_{\tt class-attribute}
       closeOnEsc: bool = None
```

```
data class-attribute
  data: dict = None
disabled class-attribute
  disabled: bool = None
show Close Button_{\tiny{\texttt{class-attribute}}}
  showCloseButton: bool = None
showErrorMsg class-attribute
  showErrorMsg: bool = None
SiZe class-attribute
  size: Union[str, SizeEnum] = None
title class-attribute
  title: MSAUISchemaNode = None
type class-attribute
  type: str = 'dialog'
```

Divider

Attributes

className class-attribute

className: str = None

```
lineStyle: str = None
type class-attribute
  type: str = 'divider'
```

```
Drawer
    Bases: MSAUINode
    抽屉
    Attributes
    actions class-attribute
      actions: List[Action] = None
    body {\tiny \texttt{class-attribute}}
      body: MSAUISchemaNode = None
    bodyClassName class-attribute
      bodyClassName: str = None
    closeOnEsc class-attribute
      closeOnEsc: bool = None
    closeOnOutside class-attribute
      closeOnOutside: bool = None
    data class-attribute
      data: dict = None
    overlay class-attribute
```

```
overlay: bool = None
    position class-attribute
      position: str = None
    resizable class-attribute
      resizable: bool = None
    SiZe class-attribute
      size: Union[str, SizeEnum] = None
    title class-attribute
      title: MSAUISchemaNode = None
    type class-attribute
      type: str = 'drawer'
Editor
    Bases: FormItem
```

options class-attribute

代码编辑器 **Attributes** allowFullscreen class-attribute allowFullscreen: bool = None language class-attribute language: str = None

```
options: dict = None

SiZe class-attribute

size: str = None

type class-attribute

type: str = 'editor'
```

Flex

```
Bases: MSAUINode
Attributes
alignItems class-attribute
  alignItems: str = None
className {\tiny \texttt{class-attribute}}
  className: str = None
items [class-attribute]
  items: List[MSAUISchemaNode] = None
justify class-attribute
  justify: str = None
style class-attribute
  style: dict = None
type class-attribute
  type: str = 'flex'
```

Form

```
Bases: MSAUINode
表单
Attributes
actions class-attribute
  actions: List[Action] = None
actions Class Name \tiny \texttt{class-attribute}
  actionsClassName: str = None
api class-attribute
  api: MSA_UI_API = None
asyncApi class-attribute
  asyncApi: MSA_UI_API = None
autoFocus class-attribute
  autoFocus: bool = None
body class-attribute
  body: List[Union[FormItem, MSAUISchemaNode]] = None
canAccessSuperData \tiny \texttt{class-attribute}
  canAccessSuperData: bool = None
checkInterval class-attribute
  checkInterval: int = None
className \tiny \texttt{class-attribute}
```

```
className: str = None
clearPersistDataAfterSubmit class-attribute
  clearPersistDataAfterSubmit: bool = None
columnCount class-attribute
  columnCount: int = None
debug class-attribute
  debug: bool = None
finishedField class-attribute
  finishedField: Optional[str] = None
horizontal class-attribute
  horizontal: Horizontal = None
initApi class-attribute
  initApi: MSA_UI_API = None
initAsyncApi class-attribute
  initAsyncApi: MSA_UI_API = None
initCheckInterval class-attribute
  initCheckInterval: int = None
initFetch class-attribute
  initFetch: bool = None
init Fetch On_{\tiny{\texttt{class-attribute}}}
```

```
initFetchOn: str = None
initFinishedField class-attribute
  initFinishedField: Optional[str] = None
interval class-attribute
  interval: int = None
messages class-attribute
  messages: Messages = None
mode class-attribute
  mode: DisplayModeEnum = None
name class-attribute
  name: str = None
panelClassName class-attribute
  panelClassName: str = None
persistData class-attribute
  persistData: str = None
preventEnterSubmit class-attribute
  preventEnterSubmit: bool = None
primary Field_{\scriptsize \tt class-attribute}
  primaryField: str = None
promptPageLeave \tiny \scriptsize \texttt{class-attribute}
```

```
promptPageLeave: bool = None
redirect class-attribute
  redirect: str = None
reload class-attribute
  reload: str = None
resetAfterSubmit class-attribute
  resetAfterSubmit: bool = None
rules class-attribute
  rules: list = None
silentPolling class-attribute
  silentPolling: bool = False
stopAutoRefreshWhen class-attribute
  stopAutoRefreshWhen: str = None
submitOnChange class-attribute
  submitOnChange: bool = None
submitOnInit class-attribute
  submitOnInit: bool = None
submitText class-attribute
  submitText: Optional[str] = None
target class-attribute
```

```
target: str = None
title class-attribute
  title: Optional[str] = None
trimValues class-attribute
  trimValues: bool = None
type class-attribute
  type: str = 'form'
wrap With Panel_{\scriptsize \tt class-attribute}
  wrapWithPanel: bool = None
Classes
Messages
    Bases: MSAUINode
    Attributes
    fetchFailed class-attribute
       fetchFailed: str = None
    fetch Success \scriptsize \texttt{class-attribute}
       fetchSuccess: str = None
    saveFailed class-attribute
       saveFailed: str = None
    saveSuccess class-attribute
       saveSuccess: str = None
```

FormItem

```
Bases: MSAUINode
表单项通用
Attributes
className class-attribute
  className: str = None
copyable class-attribute
  copyable: Union[bool, dict] = None
description (class-attribute)
  description: MSAUITemplate = None
disabled class-attribute
  disabled: bool = None
disabledOn class-attribute
  disabledOn: MSAUIExpression = None
inline class-attribute
  inline: bool = None
inputClassName class-attribute
  inputClassName: str = None
label class-attribute
  label: MSAUITemplate = None
labelClassName class-attribute
```

```
labelClassName: str = None
labelRemark class-attribute
  labelRemark: Remark = None
name class-attribute
  name: str = None
placeholder class-attribute
  placeholder: str = None
required class-attribute
  required: bool = None
required On_{\tiny{\texttt{class-attribute}}}
  requiredOn: MSAUIExpression = None
submitOnChange \ {\tt class-attribute} \\
  submitOnChange: bool = None
type class-attribute
  type: str = 'input-text'
validateApi class-attribute
  validateApi: MSAUIExpression = None
validations class-attribute
  validations: Union[Validation, MSAUIExpression] = None
value class-attribute
```

```
value: Union[int, str] = None
visible class-attribute
  visible: MSAUIExpression = None
visibleOn class-attribute
  visibleOn: MSAUIExpression = None
```

Grid

```
Bases: MSAUINode
Attributes
align class-attribute
  align: str = None
className {\tiny \texttt{class-attribute}}
  className: str = None
columns class-attribute
  columns: List[MSAUISchemaNode] = None
gap class-attribute
  gap: str = None
type class-attribute
  type: str = 'grid'
valign class-attribute
  valign: str = None
```

Classes

Column

```
Bases: MSAUINode
Attributes
ClassName \tiny \texttt{class-attribute}
  ClassName: str = None
body [class-attribute]
  body: List[MSAUISchemaNode] = None
g class-attribute
  lg: int = None
\mathsf{md}_{\mathsf{class-attribute}}
  md: int = None
sm class-attribute
  sm: int = None
valign class-attribute
  valign: str = None
XS class-attribute
  xs: int = None
```

Group

Bases: InputGroup

表单项组

Attributes

```
direction class-attribute

direction: str = None

gap class-attribute

gap: str = None

mode class-attribute

type class-attribute

type: str = 'group'
```

Hidden

```
Bases: FormItem
隐藏字段

Attributes

type class-attribute

type: str = 'hidden'
```

Horizontal

```
Attributes

left class-attribute

left: int = None

offset class-attribute
```

```
right class-attribute

right: int = None
```

Html

```
Html Node

Attributes

html class-attribute

html: str

type class-attribute

type: str = 'html'
```

Icon

```
Bases: MSAUINode
图标
Attributes

className class-attribute

className: str = None

icon class-attribute

itype class-attribute

type: str = 'icon'
```

Iframe

```
Bases: MSAUINode
Iframe
Attributes
className class-attribute
  className: str = None
frameBorder class-attribute
  frameBorder: list = None
height class-attribute
  height: Union[int, str] = None
SIC class-attribute
  src: str = None
style class-attribute
  style: dict = None
type class-attribute
  type: str = 'iframe'
width_{\tiny{\texttt{class-attribute}}}
  width: Union[int, str] = None
```

Image

Bases: MSAUINode

图片

Attributes

```
className class-attribute
  className: str = None
defaultImage_{\tiny{\texttt{class-attribute}}}
  defaultImage: str = None
enlargeAble class-attribute
  enlargeAble: bool = None
enlargeCaption class-attribute
  enlargeCaption: str = None
enlargeTitle class-attribute
  enlargeTitle: str = None
height class-attribute
  height: int = None
href class-attribute
  href: MSAUITemplate = None
imageCaption [class-attribute]
  imageCaption: str = None
image Class Name {\scriptsize \texttt{class-attribute}}
  imageClassName: str = None
imageMode class-attribute
  imageMode: str = None
```

```
originalSrc class-attribute
  originalSrc: str = None
placeholder class-attribute
  placeholder: str = None
SIC class-attribute
  src: str = None
thumbClassName class-attribute
  thumbClassName: str = None
thumbMode {\scriptsize \texttt{class-attribute}}
  thumbMode: str = None
thumbRatio class-attribute
  thumbRatio: str = None
title class-attribute
  title: str = None
type class-attribute
  type: str = 'image'
width class-attribute
  width: int = None
```

Images

Bases: MSAUINode

图片集

```
Attributes
className {\tiny \texttt{class-attribute}}
  className: str = None
defaultImage class-attribute
  defaultImage: str = None
delimiter class-attribute
  delimiter: str = None
enlargeAble class-attribute
  enlargeAble: bool = None
original Src_{\tt class-attribute}
  originalSrc: str = None
SOURCE class-attribute
  source: str = None
SIC class-attribute
  src: str = None
thumbMode {\scriptsize \texttt{class-attribute}}
  thumbMode: str = None
thumbRatio class-attribute
  thumbRatio: str = None
```

```
type class-attribute

type: str = 'images'

value class-attribute

value: Union[str, List[str], List[dict]] = None
```

InputArray

```
Bases: FormItem
数组输入框
Attributes
addButtonText class-attribute
  addButtonText: str = None
addable class-attribute
  addable: bool = None
draggable class-attribute
  draggable: bool = False
draggable Tip_{\scriptsize \tt class-attribute}
  draggableTip: str = None
items class-attribute
  items: FormItem = None
maxLength class-attribute
  maxLength: int = None
```

type: str = 'location-city'

```
minLength_{\tiny{\texttt{class-attribute}}}
      minLength: int = None
    removable class-attribute
       removable: bool = None
    type class-attribute
       type: str = 'input-array'
InputCity
    Bases: FormItem
    城市选择器
    Attributes
    allowCity class-attribute
      allowCity: bool = None
    allowDistrict class-attribute
      allowDistrict: bool = None
    extractValue class-attribute
      extractValue: bool = None
    searchable class-attribute
      searchable: bool = None
    type class-attribute
```

InputColor

```
Bases: FormItem
颜色选择器
Attributes
allowCustomColor class-attribute
  allowCustomColor: bool = None
clearable class-attribute
  clearable: bool = None
format class-attribute
  format: str = None
presetColors class-attribute
  presetColors: List[str] = None
resetValue class-attribute
  resetValue: str = None
type class-attribute
  type: str = 'input-color'
```

InputDate

Bases: FormItem
日期
Attributes
Clearable Class-attribute

```
clearable: bool = None
closeOnSelect class-attribute
  closeOnSelect: bool = None
embed class-attribute
  embed: bool = None
format class-attribute
  format: str = None
inputFormat class-attribute
  inputFormat: str = None
largeMode class-attribute
  largeMode: bool = None
maxDate class-attribute
  maxDate: str = None
minDate class-attribute
  minDate: str = None
placeholder class-attribute
  placeholder: str = None
scheduleAction class-attribute
  scheduleAction: MSAUISchemaNode = None
scheduleClassNames class-attribute
```

```
scheduleClassNames: List[str] = None
schedules class-attribute
  schedules: Union[list, str] = None
shortcuts class-attribute
  shortcuts: str = None
timeConstraints class-attribute
  timeConstraints: dict = None
type class-attribute
  type: str = 'input-date'
Utc class-attribute
  utc: bool = None
Value class-attribute
  value: str = None
```

InputDateRange

Bases: InputDatetimeRange
日期范围

Attributes

maxDuration class-attribute

minDuration class-attribute

```
minDuration: str = None

type class-attribute

type: str = 'input-date-range'
```

InputDatetime

```
Bases: FormItem
日期
Attributes
clearable class-attribute
  clearable: bool = None
embed class-attribute
  embed: bool = None
format class-attribute
  format: str = None
inputFormat class-attribute
  inputFormat: str = None
maxDate class-attribute
  maxDate: str = None
minDate class-attribute
  minDate: str = None
placeholder class-attribute
```

```
placeholder: str = None

shortcuts class-attribute

shortcuts: str = None

timeConstraints class-attribute

timeConstraints: dict = None

type class-attribute

type: str = 'input-datetime'

utc class-attribute

value class-attribute

value class-attribute
```

InputDatetimeRange

```
Bases: InputTimeRange
日期时间范围
Attributes

maxDate class-attribute

maxDate: str = None

minDate class-attribute

minDate class-attribute
```

```
ranges: Union[str, List[str]] = None

type class-attribute

type: str = 'input-datetime-range'

utc class-attribute

utc: bool = None
```

InputExcel

```
Bases: FormItem
解析 Excel
Attributes
all Sheets {\scriptsize \tt class-attribute}
  allSheets: bool = None
includeEmpty class-attribute
  includeEmpty: bool = None
parseMode class-attribute
  parseMode: str = None
plainText_{\tiny{\texttt{class-attribute}}}
  plainText: bool = None
type class-attribute
  type: str = 'input-excel'
```

InputFile

```
Bases: FormItem
文件上传
Attributes
accept class-attribute
  accept: str = None
asBase64 class-attribute
  asBase64: bool = None
asBlob class-attribute
  asBlob: bool = None
autoFill class-attribute
  autoFill: Dict[str, str] = None
autoUpload class-attribute
  autoUpload: bool = None
btnLabel class-attribute
  btnLabel: str = None
chunkApi class-attribute
  chunkApi: MSA_UI_API = None
chunkSize class-attribute
  chunkSize: int = None
delimiter class-attribute
  delimiter: str = None
```

```
downloadUrl class-attribute
  downloadUrl: Union[str, bool] = None
extractValue class-attribute
  extractValue: bool = None
fileField class-attribute
  fileField: str = None
finishChunkApi {\tiny \texttt{class-attribute}}
  finishChunkApi: MSA_UI_API = None
hideUploadButton Class-attribute
  hideUploadButton: bool = None
joinValues class-attribute
  joinValues: bool = None
maxLength_{\tiny{\texttt{class-attribute}}}
  maxLength: int = None
maxSize class-attribute
  maxSize: int = None
multiple class-attribute
  multiple: bool = None
nameField class-attribute
```

```
nameField: str = None
receiver class-attribute
  receiver: MSA_UI_API = None
startChunkApi class-attribute
  startChunkApi: MSA_UI_API = None
stateTextMap class-attribute
  stateTextMap: dict = None
type class-attribute
  type: str = 'input-file'
urlField class-attribute
  urlField: str = None
use Chunk_{\tiny{\texttt{class-attribute}}}
  useChunk: bool = None
valueField class-attribute
  valueField: str = None
```

InputGroup

Bases: FormItem

输入框组合

Attributes

body class-attribute

```
body: List[FormItem] = None

className class-attribute

type class-attribute

type: str = 'input-group'
```

InputImage

```
Bases: FormItem
图片上传
Attributes
accept class-attribute
  accept: str = None
autoFill class-attribute
  autoFill: Dict[str, str] = None
autoUpload class-attribute
  autoUpload: bool = None
Crop class-attribute
  crop: Union[bool, CropInfo] = None
cropFormat class-attribute
  cropFormat: str = None
cropQuality class-attribute
```

```
cropQuality: int = None
delimiter class-attribute
  delimiter: str = None
extractValue class-attribute
  extractValue: bool = None
fileField class-attribute
  fileField: str = None
fixedSize class-attribute
  fixedSize: bool = None
fixed Size Class Name {\tt \tiny class-attribute}
  fixedSizeClassName: str = None
framelmage class-attribute
  frameImage: str = None
hide Upload Button_{\tiny{\texttt{class-attribute}}}
  hideUploadButton: bool = None
joinValues class-attribute
  joinValues: bool = None
limit class-attribute
  limit: Limit = None
maxLength class-attribute
```

```
maxLength: int = None
maxSize_{\tt class-attribute}
  maxSize: int = None
multiple class-attribute
  multiple: bool = None
receiver class-attribute
  receiver: MSA_UI_API = None
type class-attribute
  type: str = 'input-image'
Classes
CropInfo
    Bases: MSABaseUIModel
    Attributes
    aspectRatio [class-attribute]
       aspectRatio: float = None
    rotatable [class-attribute]
       rotatable: bool = None
    scalable class-attribute
       scalable: bool = None
    viewMode {\scriptsize \texttt{class-attribute}}
       viewMode: int = None
```

Limit

```
Bases: MSABaseUIModel
Attributes
aspectRatio (class-attribute)
  aspectRatio: float = None
height class-attribute
  height: int = None
maxHeight {\tt class-attribute}
  maxHeight: int = None
maxWidth [class-attribute]
  maxWidth: int = None
minHeight class-attribute
  minHeight: int = None
minWidth [class-attribute]
  minWidth: int = None
width class-attribute
  width: int = None
```

InputMonth

Bases: FormItem
月份
Attributes

clearable class-attribute

```
clearable: bool = None

format class-attribute

format: str = None

inputFormat class-attribute

inputFormat: str = None

placeholder class-attribute

placeholder: str = None

type class-attribute

type: str = 'input-month'

value class-attribute

value: str = None
```

InputMonthRange

Bases: InputDateRange

月份范围

Attributes

type class-attribute

type: str = 'input-month-range'

InputNumber

Bases: FormItem

数字输入框

Attributes

```
kilobitSeparator class-attribute
  kilobitSeparator: bool = None
max class-attribute
  max: Union[int, MSAUITemplate] = None
min class-attribute
  min: Union[int, MSAUITemplate] = None
precision class-attribute
  precision: int = None
prefix class-attribute
  prefix: str = None
show Steps {\tt class-attribute}
  showSteps: bool = None
step class-attribute
  step: int = None
Suffix class-attribute
  suffix: str = None
type class-attribute
  type: str = 'input-number'
```

InputPassword

Bases: InputText

密码输框

Attributes

```
type class-attribute
```

```
type: str = 'input-password'
```

InputRichText

```
Bases: FormItem
富文本编辑器
Attributes
buttons class-attribute
  buttons: List[str] = None
options class-attribute
  options: dict = None
receiver class-attribute
  receiver: MSA_UI_API = None
saveAsUbb class-attribute
  saveAsUbb: bool = None
SiZe class-attribute
  size: str = None
type class-attribute
  type: str = 'input-rich-text'
vendor class-attribute
```

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```
vendor: str = None

videoReceiver class-attribute

videoReceiver: MSA_UI_API = None
```

InputTable

```
Bases: FormItem
表格
Attributes
addApi class-attribute
  addApi: MSA_UI_API = None
addBtnlcon_{\tiny{\texttt{class-attribute}}}
  addBtnIcon: str = None
addBtnLabel class-attribute
  addBtnLabel: str = None
addable class-attribute
  addable: bool = None
can Access Super Data {\tt \tiny class-attribute} {\tt \tiny class-attribute}
  canAccessSuperData: bool = None
cancelBtnlcon class-attribute
  cancelBtnIcon: str = None
cancelBtnLabel class-attribute
```

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```
cancelBtnLabel: str = None
columns class-attribute
  columns: list = None
confirmBtnlcon_{\tiny{\texttt{class-attribute}}}
  confirmBtnIcon: str = None
confirmBtnLabel class-attribute
  confirmBtnLabel: str = None
copyBtnlcon class-attribute
  copyBtnIcon: str = None
copyBtnLabel class-attribute
  copyBtnLabel: str = None
deleteApi class-attribute
  deleteApi: MSA_UI_API = None
deleteBtnlcon (class-attribute)
  deleteBtnIcon: str = None
deleteBtnLabel class-attribute
  deleteBtnLabel: str = None
editBtnlcon_{\tiny{\texttt{class-attribute}}}
  editBtnIcon: str = None
editBtnLabel class-attribute
```

```
editBtnLabel: str = None
editable class-attribute
  editable: bool = None
needConfirm_{\tiny{\texttt{class-attribute}}}
  needConfirm: bool = None
perPage class-attribute
  perPage: int = None
removable class-attribute
  removable: bool = None
showAddBtn_{\tiny{\texttt{class-attribute}}}
  showAddBtn: bool = None
showIndex class-attribute
  showIndex: bool = None
strictMode class-attribute
  strictMode: bool = None
type class-attribute
  type: str = 'input-table'
updateApi class-attribute
  updateApi: MSA_UI_API = None
```

InputText

```
Bases: FormItem
输入框
Attributes
addOn class-attribute
  addOn: MSAUISchemaNode = None
autoComplete class-attribute
  autoComplete: Union[str, MSA_UI_API] = None
clearable class-attribute
  clearable: bool = None
creatable class-attribute
  creatable: bool = None
delimiter class-attribute
  delimiter: str = None
extractValue class-attribute
  extractValue: bool = None
joinValues class-attribute
  joinValues: bool = None
labelField class-attribute
  labelField: str = None
maxLength class-attribute
```

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```
maxLength: int = None
minLength_{\tiny{\texttt{class-attribute}}}
  minLength: int = None
multiple class-attribute
  multiple: bool = None
options class-attribute
  options: Union[List[str], List[dict]] = None
prefix class-attribute
  prefix: str = None
resetValue class-attribute
  resetValue: str = None
showCounter class-attribute
  showCounter: bool = None
SOURCE class-attribute
  source: Union[str, MSA_UI_API] = None
Suffix class-attribute
  suffix: str = None
trimContents class-attribute
  trimContents: bool = None
type class-attribute
```

```
type: str = 'input-text'
valueField class-attribute
  valueField: str = None
```

InputTime

```
Bases: FormItem
时间
Attributes
clearable class-attribute
  clearable: bool = None
format class-attribute
  format: str = None
inputFormat class-attribute
  inputFormat: str = None
placeholder class-attribute
  placeholder: str = None
time Constraints_{\tiny{\texttt{class-attribute}}}
  timeConstraints: dict = None
timeFormat class-attribute
  timeFormat: str = None
type class-attribute
```

```
type: str = 'input-time'

value class-attribute

value: str = None
```

InputTimeRange

```
Bases: FormItem
时间范围
Attributes
clearable class-attribute
  clearable: bool = None
embed_{\tiny{\texttt{class-attribute}}}
  embed: bool = None
format class-attribute
  format: str = None
inputFormat class-attribute
  inputFormat: str = None
placeholder class-attribute
  placeholder: str = None
timeFormat class-attribute
  timeFormat: str = None
type class-attribute
```

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```
type: str = 'input-time-range'
```

InputTree

```
Bases: FormItem
树形选择框
Attributes
addApi class-attribute
  addApi: MSA_UI_API = None
add Controls {\tiny \tt class-attribute}
  addControls: List[FormItem] = None
autoComplete class-attribute
  autoComplete: MSA_UI_API = None
cascade class-attribute
  cascade: bool = None
creatable class-attribute
  creatable: bool = None
deferApi class-attribute
  deferApi: MSA_UI_API = None
deleteApi class-attribute
  deleteApi: MSA_UI_API = None
delimiter class-attribute
```

```
delimiter: str = None
editApi class-attribute
  editApi: MSA_UI_API = None
editControls class-attribute
  editControls: List[FormItem] = None
editable class-attribute
  editable: bool = None
enableNodePath class-attribute
  enableNodePath: bool = None
extractValue class-attribute
  extractValue: bool = None
hideRoot [class-attribute]
  hideRoot: bool = None
iconField class-attribute
  iconField: str = None
initiallyOpen class-attribute
  initiallyOpen: bool = None
joinValues class-attribute
  joinValues: bool = None
labelField class-attribute
```

```
labelField: str = None
maxLength_{\tiny{\texttt{class-attribute}}}
  maxLength: int = None
minLength_{\tiny{\texttt{class-attribute}}}
  minLength: int = None
multiple class-attribute
  multiple: bool = None
onlyChildren class-attribute
  onlyChildren: bool = None
options class-attribute
  options: MSAOptionsNode = None
pathSeparator class-attribute
  pathSeparator: str = None
removable class-attribute
  removable: bool = None
rootCreatable class-attribute
  rootCreatable: bool = None
rootCreateTip class-attribute
  rootCreateTip: str = None
rootLabel class-attribute
```

```
rootLabel: bool = None
searchable class-attribute
  searchable: bool = None
selectFirst class-attribute
  selectFirst: bool = None
showlcon class-attribute
  showIcon: bool = None
showRadio class-attribute
  showRadio: bool = None
SOURCE class-attribute
  source: MSA_UI_API = None
tree Container Class Name {\tt class-attribute}
  treeContainerClassName: str = None
type class-attribute
  type: str = 'input-tree'
unfoldedLevel_{\tiny{\textbf{class-attribute}}}
  unfoldedLevel: int = None
valueField class-attribute
  valueField: str = None
withChildren class-attribute
```

```
withChildren: bool = None
```

Json

```
Bases: MSAUINode
JSON 展示组件
Attributes
className class-attribute
  className: str = None
display Data Types_{\scriptsize{\texttt{class-attribute}}}
  displayDataTypes: bool = None
jsonTheme class-attribute
  jsonTheme: str = None
levelExpand class-attribute
  levelExpand: int = None
mutable class-attribute
  mutable: bool = None
placeholder class-attribute
  placeholder: str = None
SOURCE class-attribute
  source: str = None
type class-attribute
```

```
type: str = 'json'
value class-attribute
  value: Union[dict, str] = None
```

```
Link
    Bases: MSAUINode
    链接
    Attributes
    blank class-attribute
      blank: bool = None
    body class-attribute
      body: str = None
    disabled class-attribute
      disabled: bool = None
    href class-attribute
      href: str = None
    htmlTarget class-attribute
      htmlTarget: str = None
    icon class-attribute
      icon: str = None
    rightIcon class-attribute
```

```
rightIcon: str = None

title class-attribute

title: str = None

type class-attribute

type: str = 'link'
```

LocationPicker

```
Bases: FormItem
地理位置
Attributes
ak class-attribute
  ak: str = Ellipsis
clearable class-attribute
  clearable: bool = None
coordinatesType class-attribute
  coordinatesType: str = None
placeholder class-attribute
  placeholder: str = None
type class-attribute
  type: str = 'location-picker'
vendor class-attribute
```

```
vendor: str = 'baidu'
```

Log

```
Bases: MSAUINode
实时日志
Attributes
autoScroll class-attribute
  autoScroll: bool = None
className class-attribute
  className: str = None
encoding class-attribute
  encoding: str = None
height class-attribute
  height: int = None
placeholder class-attribute
  placeholder: str = None
SOURCE class-attribute
  source: MSA_UI_API = None
type class-attribute
  type: str = 'log'
```

Mapping

```
Bases: MSAUINode
映射
Attributes
className class-attribute
  className: str = None
map class-attribute
  map: dict = None
placeholder class-attribute
  placeholder: str = None
SOURCE class-attribute
  source: MSA_UI_API = None
type class-attribute
  type: str = 'mapping'
```

Markdown

Bases: MSAUINode

Markdown渲染

Attributes

className class-attribute

className: str = None

name class-attribute

```
options class-attribute
      options: dict = None
    SIC class-attribute
      src: MSA_UI_API = None
    type class-attribute
      type: str = 'markdown'
    value class-attribute
      value: Union[int, str] = None
Nav
    Bases: MSAUINode
    导航
    Attributes
    className \tiny \texttt{class-attribute}
      className: str = None
    deferApi class-attribute
      deferApi: MSA_UI_API = None
    dragOnSameLevel_{\tiny \tt class-attribute}
      dragOnSameLevel: bool = None
    draggable class-attribute
      draggable: bool = None
```

```
itemActions class-attribute
  itemActions: MSAUISchemaNode = None
itemBadge class-attribute
  itemBadge: Badge = None
links class-attribute
  links: list = None
saveOrderApi class-attribute
  saveOrderApi: MSA_UI_API = None
SOURCE class-attribute
  source: MSA_UI_API = None
stacked [class-attribute]
  stacked: bool = True
type class-attribute
  type: str = 'nav'
Classes
Link
    Bases: MSAUINode
    Attributes
    active class-attribute
      active: bool = None
    activeOn [class-attribute]
```

```
activeOn: MSAUIExpression = None
children class-attribute
  children: List[Link] = None
defer class-attribute
  defer: bool = None
deferApi class-attribute
  deferApi: MSA_UI_API = None
icon class-attribute
  icon: str = None
label class-attribute
  label: str = None
target class-attribute
  target: str = None
to class-attribute
  to: MSAUITemplate = None
unfolded class-attribute
  unfolded: bool = None
```

NestedSelect

Bases: Select

级联选择器

Attributes

cascade class-attribute

```
cascade: bool = None
hideNodePathLabel class-attribute
  hideNodePathLabel: bool = None
noResults Text_{\scriptsize{\tt class-attribute}}
  noResultsText: str = None
onlyChildren class-attribute
  onlyChildren: bool = None
onlyLeaf class-attribute
  onlyLeaf: bool = None
searchPromptText class-attribute
  searchPromptText: str = None
type class-attribute
  type: str = 'nested-select'
withChildren class-attribute
  withChildren: bool = None
```

Page

Bases: MSAUINode

页面

Attributes

__default_template_path___ class-attribute

```
__default_template_path__: str = (
      f"{BASE_DIR}/templates/page.html"
aside class-attribute
  aside: MSAUISchemaNode = None
asideClassName class-attribute
  asideClassName: str = None
asideMaxWidth [class-attribute]
  asideMaxWidth: int = None
asideMinWidth class-attribute
  asideMinWidth: int = None
asideResizor class-attribute
  asideResizor: bool = None
body class-attribute
  body: MSAUISchemaNode = None
body ClassName {\tiny \tt class-attribute}
  bodyClassName: str = None
className class-attribute
  className: str = None
CSSVars class-attribute
  cssVars: dict = None
```

```
headerClassName class-attribute
  headerClassName: str = None
initApi class-attribute
  initApi: MSA_UI_API = None
initFetch class-attribute
  initFetch: bool = None
initFetchOn class-attribute
  initFetchOn: MSAUIExpression = None
interval class-attribute
  interval: int = None
regions class-attribute
  regions: List[str] = None
remark class-attribute
  remark: Remark = None
silentPolling class-attribute
  silentPolling: bool = None
stopAutoRefreshWhen class-attribute
  stopAutoRefreshWhen: MSAUIExpression = None
subTitle class-attribute
  subTitle: MSAUISchemaNode = None
```

```
title class-attribute

title: MSAUISchemaNode = None

toolbar class-attribute

toolbarClassName class-attribute

toolbarClassName: str = None

type class-attribute

type: str = 'page'

Functions

msa_ui_html

msa_ui_html

msa_ui_html(
    template_path: str = """,
    locale: str = "zh_CN",
        site_title: str = "Admin",
```

PageSchema

Bases: MSAUINode

site_icon: str = "",

Attributes

children class-attribute

```
children: List[PageSchema] = None
```

className class-attribute

```
className: str = None
```

icon class-attribute

```
icon: str = 'fa fa-flash'
isDefaultPage class-attribute
  isDefaultPage: Union[str, bool] = None
label class-attribute
  label: str = None
link class-attribute
  link: str = None
redirect class-attribute
  redirect: str = None
rewrite class-attribute
  rewrite: str = None
schemaApi class-attribute
  schemaApi: MSA_UI_API = None
schema_class-attribute
  schema_: Union[Page, Iframe] = Field(None, alias='schema')
SOR class-attribute
  sort: int = None
Url class-attribute
  url: str = None
visible class-attribute
```

```
visible: str = None
Functions
as_tabs_item
 as_tabs_item(
     tabs_extra: Dict[str, Any] = None,
     item_extra: Dict[str, Any] = None,
```

Panel

```
Bases: MSAUINode
Attributes
actions class-attribute
  actions: List[Action] = None
actionsClassName class-attribute
  actionsClassName: str = None
affixFooter class-attribute
  affixFooter: bool = None
body class-attribute
  body: MSAUISchemaNode = None
bodyClassName class-attribute
  bodyClassName: str = None
className class-attribute
  className: str = None
```

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```
footer class-attribute
       footer: MSAUISchemaNode = None
    footer Class Name {\tiny \textcolor{red}{\textbf{class-attribute}}}
       footerClassName: str = None
    header class-attribute
       header: MSAUISchemaNode = None
    header Class Name {\scriptsize \tt class-attribute}
       headerClassName: str = None
    title class-attribute
       title: MSAUISchemaNode = None
    type class-attribute
       type: str = 'panel'
Picker
    Bases: FormItem
    列表选择器
```

Attributes autoFill class-attribute autoFill: dict = None delimiter class-attribute

delimiter: bool = None

```
embed class-attribute
  embed: bool = None
extractValue class-attribute
  extractValue: bool = None
joinValues class-attribute
  joinValues: bool = None
labelField class-attribute
  labelField: str = None
modalMode class-attribute
  modalMode: Literal[dialog, drawer] = None
multiple class-attribute
  multiple: bool = None
options class-attribute
  options: MSAOptionsNode = None
pickerSchema class-attribute
  pickerSchema: Union[CRUD, MSAUISchemaNode] = None
SIZE class-attribute
  size: Union[str, SizeEnum] = None
SOURCE class-attribute
  source: MSA_UI_API = None
```

```
type class-attribute

type: str = 'picker'

valueField class-attribute

valueField: str = None
```

Portlet

```
Bases: Tabs
Attributes
content Class Name {\tiny \texttt{class-attribute}}
  contentClassName: str = None
description class-attribute
  description: MSAUITemplate = None
divider class-attribute
  divider: bool = None
hideHeader class-attribute
  hideHeader: bool = None
style class-attribute
  style: Union[str, dict] = None
tabs class-attribute
  tabs: List[Item] = None
type class-attribute
```

```
type: str = 'portlet'

Classes

Item

Bases: Tabs.Item

Attributes

toolbar class-attribute

toolbar: MSAUISchemaNode = None
```

Property

```
Bases: MSAUINode
属性表
Attributes
className \tiny \texttt{class-attribute}
  className: str = None
column class-attribute
  column: int = None
contentStyle class-attribute
  contentStyle: dict = None
items class-attribute
  items: List[Item] = None
labelStyle class-attribute
  labelStyle: dict = None
```

```
mode class-attribute
  mode: str = None
separator class-attribute
  separator: str = None
SOURCE class-attribute
  source: MSAUITemplate = None
style class-attribute
  style: dict = None
title class-attribute
  title: str = None
type class-attribute
  type: str = 'property'
Classes
Item
    Bases: MSAUINode
    Attributes
    content class-attribute
       content: MSAUITemplate = None
    hidden On \tiny \texttt{class-attribute}
       hiddenOn: MSAUIExpression = None
    label class-attribute
```

```
label: MSAUITemplate = None

span class-attribute

span: int = None

visibleOn class-attribute

visibleOn: MSAUIExpression = None
```

QRCode

```
Bases: MSAUINode
二维码
Attributes
backgroundColor class-attribute
  backgroundColor: str = None
className {\tiny \tt class-attribute}
  className: str = None
codeSize class-attribute
  codeSize: int = None
for eground Color_{\tt class-attribute}
  foregroundColor: str = None
level class-attribute
  level: str = None
qrcodeClassName class-attribute
  qrcodeClassName: str = None
```

```
type class-attribute

type: str = 'qr-code'

value class-attribute

value: MSAUITemplate
```

Radios

```
Bases: FormItem
单选框
Attributes
autoFill class-attribute
  autoFill: dict = None
columnsCount class-attribute
  columnsCount: int = None
inline class-attribute
  inline: bool = None
labelField class-attribute
  labelField: bool = None
options class-attribute
  options: List[Union[dict, str]] = None
selectFirst class-attribute
  selectFirst: bool = None
```

trigger class-attribute

trigger: str = None

```
SOURCE class-attribute
      source: MSA_UI_API = None
    type class-attribute
      type: str = 'radios'
    valueField class-attribute
       valueField: bool = None
Remark
    Bases: MSAUINode
    标记
    Attributes
    className {\tiny \scriptsize \textbf{class-attribute}}
      className: str = None
    content class-attribute
      content: str = None
    icon class-attribute
       icon: str = None
    placement class-attribute
       placement: str = None
```

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```
type class-attribute

type: str = 'remark'
```

Select

```
Bases: FormItem
下拉框
Attributes
addApi_{\tiny{\texttt{class-attribute}}}
  addApi: MSA_UI_API = None
addControls class-attribute
  addControls: List[FormItem] = None
autoComplete class-attribute
  autoComplete: MSA_UI_API = None
autoFill class-attribute
  autoFill: dict = None
checkAll class-attribute
  checkAll: bool = None
check All By Search {\tt \tiny class-attribute}
  checkAllBySearch: bool = None
checkAllLabel class-attribute
  checkAllLabel: str = None
```

```
clearable class-attribute
  clearable: bool = None
columns class-attribute
  columns: List[dict] = None
creatable class-attribute
  creatable: bool = None
createBtnLabel class-attribute
  createBtnLabel: str = None
defaultCheckAll class-attribute
  defaultCheckAll: bool = None
deleteApi class-attribute
  deleteApi: MSA_UI_API = None
delimiter class-attribute
  delimiter: Union[bool, str] = None
editApi class-attribute
  editApi: MSA_UI_API = None
editControls \tiny \texttt{class-attribute}
  editControls: List[FormItem] = None
editable class-attribute
  editable: bool = None
```

```
extractValue class-attribute
  extractValue: bool = None
hideSelected class-attribute
  hideSelected: bool = None
join Values {\tiny \texttt{class-attribute}}
  joinValues: bool = None
labelField class-attribute
  labelField: str = None
leftMode class-attribute
  leftMode: str = None
leftOptions class-attribute
  leftOptions: List[dict] = None
menuTpl_{\tiny{\texttt{class-attribute}}}
  menuTpl: str = None
mobileClassName class-attribute
  mobileClassName: str = None
multiple class-attribute
  multiple: bool = None
options class-attribute
  options: MSAOptionsNode = None
```

```
removable class-attribute
  removable: bool = None
rightMode class-attribute
  rightMode: str = None
searchResultMode class-attribute
  searchResultMode: str = None
searchable class-attribute
  searchable: bool = None
selectMode class-attribute
  selectMode: str = None
SOURCE class-attribute
  source: MSA_UI_API = None
type class-attribute
  type: str = 'select'
valueField class-attribute
  valueField: str = None
```

Service

Bases: MSAUINode

功能型容器

Attributes

```
api class-attribute
  api: MSA_UI_API = None
body class-attribute
  body: MSAUISchemaNode = None
className class-attribute
  className: str = None
data class-attribute
  data: dict = None
dataProvider class-attribute
  dataProvider: str = None
initFetch class-attribute
  initFetch: bool = None
init Fetch Schema {\scriptsize \tt class-attribute}
  initFetchSchema: bool = None
interval class-attribute
  interval: int = None
messages class-attribute
  messages: dict = None
name class-attribute
  name: str = None
```

```
schemaApi class-attribute

schemaApi: MSA_UI_API = None

silentPolling class-attribute

silentPolling: bool = None

stopAutoRefreshWhen class-attribute

stopAutoRefreshWhen: MSAUIExpression = None

type class-attribute

type: str = 'service'

WS class-attribute

ws: str = None
```

Spinner

```
Bases: MSAUINode
加载中

Attributes

type class-attribute

type: str = 'spinner'
```

Static

Bases: FormItem 静态展示/标签 Attributes

```
type: str = 'static'
Classes
Datetime
    Bases: FormItem
    显示日期
   Attributes
   type class-attribute
      type: str = 'static-datetime'
   value class-attribute
      value: Union[int, str]
Json
    Bases: FormItem
   Attributes
   type class-attribute
      type: str = 'static-json'
   value class-attribute
      value: Union[dict, str]
```

Status

Hases: MSAUINode
状态
Attributes

className class-attribute

```
className: str = None

labelMap class-attribute

labelMap: dict = None

map class-attribute

map: dict = None

placeholder class-attribute

placeholder: str = None

type class-attribute
```

Switch

```
Bases: FormItem

开关

Attributes

falseValue class-attribute

falseValue: Any = None

OffText class-attribute

ofText: str = None

onText class-attribute

onText: str = None
```

```
option: str = None

trueValue class-attribute

trueValue: Any = None

type class-attribute

type: str = 'switch'
```

Table

```
Bases: MSAUINode
表格
Attributes
affix Header_{\hbox{\scriptsize class-attribute}}
  affixHeader: bool = None
affixRow class-attribute
  affixRow: list = None
autoFillHeight class-attribute
  autoFillHeight: bool = None
checkOnItemClick_{\tiny{\texttt{class-attribute}}}
  checkOnItemClick: bool = None
className class-attribute
  className: str = None
columns class-attribute
```

```
columns: List[Union[TableColumn, MSAUISchemaNode]] = None
columnsTogglable class-attribute
  columnsTogglable: Union[str, bool] = None
combineNum class-attribute
  combineNum: int = None
footable class-attribute
  footable: Union[bool, dict] = None
footerClassName class-attribute
  footerClassName: str = None
header Class Name \tiny \texttt{class-attribute}
  headerClassName: str = None
itemActions class-attribute
  itemActions: List[Action] = None
itemBadge class-attribute
  itemBadge: Badge = None
itemCheckableOn class-attribute
  itemCheckableOn: MSAUIExpression = None
itemDraggableOn class-attribute
  itemDraggableOn: MSAUIExpression = None
placeholder class-attribute
```

```
placeholder: str = None
prefixRow class-attribute
  prefixRow: list = None
row Class Name \scriptsize \scriptsize (class-attribute)
  rowClassName: str = None
rowClassNameExpr class-attribute
  rowClassNameExpr: MSAUITemplate = None
SOURCE class-attribute
  source: str = None
table Class Name \tiny \scriptsize \texttt{class-attribute}
  tableClassName: str = None
title class-attribute
  title: str = None
toolbarClassName class-attribute
  toolbarClassName: str = None
type class-attribute
  type: str = 'table'
```

TableCRUD

Bases: CRUD, Table

表格CRUD

TableColumn

```
Bases: MSAUINode
列配置
Attributes
breakpoint class-attribute
  breakpoint: str = None
copyable class-attribute
  copyable: Union[bool, dict] = None
fixed class-attribute
  fixed: str = None
label class-attribute
  label: MSAUITemplate = None
name class-attribute
  name: str = None
popover class-attribute
  popOver: Union[bool, dict] = None
quickEdit class-attribute
  quickEdit: Union[bool, dict] = None
remark class-attribute
  remark: Remark = None
searchable class-attribute
```

```
searchable: Union[bool, MSAUISchemaNode] = None

sortable class-attribute

tpl class-attribute

tpl: MSAUITemplate = None

type class-attribute

type: str = None

width class-attribute

width: Union[str, int] = None
```

Tabs

```
Attributes

addBtnText class-attribute

addBtnText: str = None

addable class-attribute

addable: bool = None

className class-attribute

className: str = None

closable class-attribute
```

```
draggable class-attribute
  draggable: bool = None
editable class-attribute
  editable: bool = None
mode class-attribute
  mode: str = None
mountOnEnter class-attribute
  mountOnEnter: bool = None
scrollable class-attribute
  scrollable: bool = None
showTip class-attribute
  showTip: bool = None
show Tip Class Name {\scriptsize \tt class-attribute}
  showTipClassName: str = None
sidePosition class-attribute
  sidePosition: str = None
SOURCE class-attribute
  source: str = None
tabs class-attribute
  tabs: List[Item] = None
```

```
tabsClassName class-attribute
  tabsClassName: str = None
tabsMode class-attribute
  tabsMode: TabsModeEnum = None
toolbar class-attribute
  toolbar: MSAUISchemaNode = None
toolbarClassName class-attribute
  toolbarClassName: str = None
type class-attribute
  type: str = 'tabs'
unmountOnExit {\tiny \tt class-attribute}
  unmountOnExit: bool = None
Classes
Item
    Bases: MSAUINode
    Attributes
    className (class-attribute)
      className: str = None
    closable class-attribute
      closable: bool = None
    disabled class-attribute
```

```
disabled: bool = None
hash class-attribute
  hash: str = None
icon class-attribute
  icon: Union[str, Icon] = None
iconPosition [class-attribute]
  iconPosition: str = None
reload class-attribute
  reload: bool = None
tab class-attribute
  tab: MSAUISchemaNode = None
title [class-attribute]
  title: str = None
unmountOnExit {\tt [class-attribute]}
  unmountOnExit: bool = None
```

TabsTransfer

Bases: Transfer

组合穿梭器

Attributes

type class-attribute

```
type: str = 'tabs-transfer'
```

TabsTransferPicker

```
Bases: Transfer 组合穿梭选择器
```

Attributes

type class-attribute

items class-attribute

```
type: str = 'tabs-transfer-picker'
```

Tasks

```
Bases: MSAUINode
任务操作集合
Attributes
btnClassName class-attribute
  btnClassName: str = None
btnText_{\tiny{\texttt{class-attribute}}}
  btnText: str = None
checkApi class-attribute
  checkApi: MSA_UI_API = None
className class-attribute
  className: str = None
interval class-attribute
  interval: int = None
```

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```
items: List[Item] = None
operationLabel class-attribute
  operationLabel: str = None
reSubmitApi class-attribute
  reSubmitApi: MSA_UI_API = None
remarkLabel class-attribute
  remarkLabel: str = None
retryBtnClassName {\tt \tiny class-attribute}
  retryBtnClassName: str = None
retryBtnText class-attribute
  retryBtnText: str = None
statusLabel class-attribute
  statusLabel: str = None
statusLabelMap class-attribute
  statusLabelMap: List[str] = None
statusTextMap class-attribute
  statusTextMap: List[str] = None
submitApi class-attribute
  submitApi: MSA_UI_API = None
table Class Name {\tiny \texttt{class-attribute}}
```

```
tableClassName: str = None
taskNameLabel class-attribute
  taskNameLabel: str = None
type class-attribute
  type: str = 'tasks'
Classes
Item
    Bases: MSAUINode
    Attributes
    key class-attribute
      key: str = None
    label class-attribute
      label: str = None
    remark \tiny{\texttt{class-attribute}}
      remark: str = None
    status class-attribute
      status: str = None
```

Textarea

Bases: FormItem

多行文本输入框

Attributes

maxLength class-attribute

```
maxLength: int = None
maxRows class-attribute
  maxRows: int = None
minLength_{\tiny{\texttt{class-attribute}}}
  minLength: int = None
minRows [class-attribute]
  minRows: int = None
readOnly class-attribute
  readOnly: bool = None
show Counter {\tiny \texttt{class-attribute}}
  showCounter: bool = True
trimContents Class-attribute
  trimContents: bool = None
type class-attribute
  type: str = 'textarea'
```

Transfer

Bases: FormItem 穿梭器
Attributes

columns class-attribute

```
columns: List[dict] = None
delimiter class-attribute
  delimiter: str = None
extractValue class-attribute
  extractValue: bool = None
joinValues class-attribute
  joinValues: bool = None
leftMode {\tiny \tt class-attribute}
  leftMode: str = None
leftOptions class-attribute
  leftOptions: List[dict] = None
menuTpl_{\tiny{\texttt{class-attribute}}}
  menuTpl: MSAUISchemaNode = None
options class-attribute
  options: MSAOptionsNode = None
resultTitle class-attribute
  resultTitle: str = None
right Mode {\scriptsize \texttt{class-attribute}}
   rightMode: str = None
searchApi class-attribute
```

```
searchApi: MSA_UI_API = None
searchResultMode class-attribute
  searchResultMode: str = None
searchable class-attribute
  searchable: bool = None
selectMode class-attribute
  selectMode: str = None
selectTitle class-attribute
  selectTitle: str = None
sortable class-attribute
  sortable: bool = None
SOURCE class-attribute
  source: MSA_UI_API = None
Statistics class-attribute
  statistics: bool = None
type class-attribute
  type: Literal[
     transfer,
      transfer - picker,
      tabs - transfer,
      tabs - transfer - picker,
  ] = "transfer"
valueTpl class-attribute
```

```
valueTpl: MSAUISchemaNode = None
```

TransferPicker

```
Bases: Transfer

穿梭选择器

Attributes

type class-attribute

type: str = 'transfer-picker'
```

TreeSelect

```
Bases: InputTree

树形选择器

Attributes

hideNodePathLabel class-attribute

type class-attribute

type: str = 'tree-select'
```

Validation

```
Attributes

equals class-attribute

equals: str = None

equalsField class-attribute
```

```
equalsField: str = None
isAlpha class-attribute
  isAlpha: bool = None
is Alphanumeric {\tiny \tt {\tt class-attribute}}
  isAlphanumeric: bool = None
isEmail class-attribute
  isEmail: bool = None
isFloat class-attribute
  isFloat: bool = None
isId class-attribute
  isId: bool = None
isInt class-attribute
  isInt: bool = None
isJson class-attribute
  isJson: bool = None
isLength class-attribute
  isLength: int = None
isNumeric class-attribute
  isNumeric: bool = None
is Phone Number {\tiny \texttt{class-attribute}}
```

```
isPhoneNumber: bool = None
isTelNumber class-attribute
  isTelNumber: bool = None
isUrl class-attribute
  isUrl: bool = None
isUrlPath class-attribute
  isUrlPath: bool = None
isZipcode class-attribute
  isZipcode: bool = None
matchRegexp class-attribute
  matchRegexp: str = None
maxLength_{\tiny{\texttt{class-attribute}}}
  maxLength: int = None
maximum (class-attribute)
  maximum: int = None
minLength_{\tiny{\texttt{class-attribute}}}
  minLength: int = None
minimum class-attribute
  minimum: int = None
```

Video

```
Bases: MSAUINode
视频
Attributes
autoPlay class-attribute
  autoPlay: bool = None
className \tiny \texttt{class-attribute}
  className: str = None
isLive class-attribute
  isLive: bool = None
muted_{\tiny{\texttt{class-attribute}}}
  muted: bool = None
poster class-attribute
  poster: str = None
rates class-attribute
  rates: List[float] = None
SIC class-attribute
  src: str = None
type class-attribute
  type: str = 'video'
videoType_{\scriptsize{\texttt{class-attribute}}}
```

```
videoType: str = None
```

Wizard

```
Bases: MSAUINode
向导
Attributes
actionClassName class-attribute
  actionClassName: str = None
actionFinishLabel class-attribute
  actionFinishLabel: str = None
actionNextLabel class-attribute
  actionNextLabel: str = None
actionNextSaveLabel class-attribute
  actionNextSaveLabel: str = None
actionPrevLabel class-attribute
  actionPrevLabel: str = None
api class-attribute
  api: MSA_UI_API = None
className class-attribute
  className: str = None
initApi class-attribute
```

```
initApi: MSA_UI_API = None
initFetch class-attribute
  initFetch: MSA_UI_API = None
init Fetch On_{\tiny{\texttt{class-attribute}}}
  initFetchOn: MSAUIExpression = None
mode class-attribute
  mode: str = None
redirect class-attribute
  redirect: MSAUITemplate = None
reload class-attribute
  reload: str = None
startStep class-attribute
  startStep: int = None
steps class-attribute
  steps: List[Step] = None
target class-attribute
  target: str = None
type class-attribute
  type: str = 'wizard'
Classes
```

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Step Bases: MSAUINode **Attributes** api class-attribute api: MSA_UI_API = None body class-attribute body: List[FormItem] = None horizontal class-attribute horizontal: Horizontal = None $initApi \tiny \texttt{class-attribute}$ initApi: MSA_UI_API = None initFetch [class-attribute] initFetch: bool = None initFetchOn [class-attribute] initFetchOn: MSAUIExpression = None mode class-attribute mode: str = Nonetitle class-attribute

Functions

title: str = None

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