Modul:Message box

Vorlage:Lua

This is a meta-module that implements the message box templates Vorlage:Tl, Vorlage:Tl, Vorlage:Tl, Vorlage:Tl, Vorlage:Tl, Vorlage:Tl, and Vorlage:Tl. It is intended to be used from Lua modules, and should not be used directly from wiki pages. If you want to use this module's functionality from a wiki page, please use the individual message box templates instead.

Usage

To use this module from another Lua module, first you need to load it.

```
local messageBox = require('Module:Message box')
```

To create a message box, use the `main` function. It takes two parameters: the first is the box type (as a string), and the second is a table containing the message box parameters.

```
local box = messageBox.main( boxType, {
    param1 = param1,
    param2 = param2,
    -- More parameters...
})
```

There are seven available box types:

Box type	Template	Purpose
mbox	Vorlage:Tl	For message boxes to be used in multiple namespaces
ambox	Vorlage:Tl	For article message boxes
cmbox	Vorlage:Tl	For category message boxes
fmbox	Vorlage:Tl	For interface message boxes
imbox	Vorlage:Tl	For file namespace message boxes
tmbox	Vorlage:Tl	For talk page message boxes
ombox	Vorlage:Tl	For message boxes in other namespaces

See the template page of each box type for the available parameters.

Usage from #invoke

As well as the `main` function, this module has separate functions for each box type. They are accessed using the code `{{#invoke:Message box|mbox|...}}`, `{{#invoke:Message box|ambox|...}}`, etc. These will work when called from other modules, but they access code used to process arguments passed from #invoke, and so calling them will be less efficient than calling `main`.

Technical details

The module uses the same basic code for each of the templates listed above; the differences between each of them are configured using the data at Module:Message box/configuration. Here are the various configuration options and what they mean:

- `types` – a table containing data used by the type parameter of the message box. The table keys are the values that can be passed to the type parameter, and the table values are tables containing the class and the image used by that type.
- `default` – the type to use if no value was passed to the type parameter, or if an invalid value was specified.
- `showInvalidTypeError` – whether to show an error if the value passed to the type parameter was invalid.
- `allowBlankParams` – usually blank values are stripped from parameters passed to the module. However, whitespace is preserved for the parameters included in the allowBlankParams table.
- `allowSmall` – whether a small version of the message box can be produced with "small=yes".
- `smallParam` – a custom name for the small parameter. For example, if set to "left" you can produce a small message box using "small=left".
- `smallClass` – the class to use for small message boxes.
- `substCheck` – whether to perform a subst check or not.
- `classes` – an array of classes to use with the message box.
- `imageEmptyCell` – whether to use an empty Vorlage:Tag cell if there is no image set. This is used to preserve spacing for message boxes with a width of less than 100% of the screen.
- `imageEmptyCellStyle` – whether empty image cells should be styled.
- `imageCheckBlank` – whether "image=blank" results in no image being displayed.
- `imageSmallSize` – usually, images used in small message boxes are set to 30x30px. This sets a custom size.
- `imageCellDiv` – whether to enclose the image in a div enforcing a maximum image size.
- `useCollapsibleTextFields` – whether to use text fields that can be collapsed, i.e. "issue", "fix", "talk", etc. Currently only used in ambox.
- `imageRightNone` – whether imageright=none results in no image being displayed on the right-hand side of the message box.
- `sectionDefault` – the default name for the "section" parameter. Depends on `useCollapsibleTextFields`.
- `allowMainspaceCategories` – allow categorisation in the main namespace.
- `templateCategory` – the name of a category to be placed on the template page.

- `templateCategoryRequireName` – whether the `name` parameter is required to display the template category.
- `templateErrorCategory` – the name of the error category to be used on the template page.
- `templateErrorParamsToCheck` – an array of parameter names to check. If any are absent, the `templateErrorCategory` is applied to the template page.

```
-- This is a meta-module for producing message box templates, including
-- {{mbox}}, {{ambox}}, {{imbox}}, {{tmbox}}, {{ombox}}, {{cmbox}} and {{fmbox}}.

-- Load necessary modules.
require('Module:No globals')
local getArgs
local yesno = require('Module:Yesno')

-- Get a language object for formatDate and ucfirst.
local lang = mw.language.getContentLanguage()

-- Define constants
local CONFIG_MODULE = 'Module:Message box/configuration'
local DEMOSPACES = {talk = 'tmbox', image = 'imbox', file = 'imbox', category =

--------------------------------------------------------------------------------
-- Helper functions
--------------------------------------------------------------------------------

local function getTitleObject(...)
        -- Get the title object, passing the function through pcall
        -- in case we are over the expensive function count limit.
        local success, title = pcall(mw.title.new, ...)
        if success then
                return title
        end
end

local function union(t1, t2)
        -- Returns the union of two arrays.
        local vals = {}
        for i, v in ipairs(t1) do
                vals[v] = true
        end
        for i, v in ipairs(t2) do
                vals[v] = true
        end
        local ret = {}
        for k in pairs(vals) do
                table.insert(ret, k)
        end
        table.sort(ret)
        return ret
end

local function getArgNums(args, prefix)
        local nums = {}
        for k, v in pairs(args) do
                local num = mw.ustring.match(tostring(k), '^' .. prefix .. '([1-9
                if num then
                        table.insert(nums, tonumber(num))
                end
        end
        table.sort(nums)
```

```
        return nums
end

--------------------------------------------------------------------------------
-- Box class definition
--------------------------------------------------------------------------------

local MessageBox = {}
MessageBox.__index = MessageBox

function MessageBox.new(boxType, args, cfg)
        args = args or {}
        local obj = {}

        -- Set the title object and the namespace.
        obj.title = getTitleObject(args.page) or mw.title.getCurrentTitle()

        -- Set the config for our box type.
        obj.cfg = cfg[boxType]
        if not obj.cfg then
                local ns = obj.title.namespace
                -- boxType is "mbox" or invalid input
                if args.demospace and args.demospace ~= '' then
                        -- implement demospace parameter of mbox
                        local demospace = string.lower(args.demospace)
                        if DEMOSPACES[demospace] then
                                -- use template from DEMOSPACES
                                obj.cfg = cfg[DEMOSPACES[demospace]]
                        elseif string.find( demospace, 'talk' ) then
                                -- demo as a talk page
                                obj.cfg = cfg.tmbox
                        else
                                -- default to ombox
                                obj.cfg = cfg.ombox
                        end
                elseif ns == 0 then
                        obj.cfg = cfg.ambox -- main namespace
                elseif ns == 6 then
                        obj.cfg = cfg.imbox -- file namespace
                elseif ns == 14 then
                        obj.cfg = cfg.cmbox -- category namespace
                else
                        local nsTable = mw.site.namespaces[ns]
                        if nsTable and nsTable.isTalk then
                                obj.cfg = cfg.tmbox -- any talk namespace
                        else
                                obj.cfg = cfg.ombox -- other namespaces or invali
                        end
                end
        end

        -- Set the arguments, and remove all blank arguments except for the ones
        -- listed in cfg.allowBlankParams.
        do
                local newArgs = {}
                for k, v in pairs(args) do
                        if v ~= '' then
                                newArgs[k] = v
                        end
                end
                for i, param in ipairs(obj.cfg.allowBlankParams or {}) do
                        newArgs[param] = args[param]
                end
                obj.args = newArgs
```

```
        end

        -- Define internal data structure.
        obj.categories = {}
        obj.classes = {}
        -- For lazy loading of [[Module:Category handler]].
        obj.hasCategories = false

        return setmetatable(obj, MessageBox)
end

function MessageBox:addCat(ns, cat, sort)
        if not cat then
                return nil
        end
        if sort then
                cat = string.format('[[Category:%s|%s]]', cat, sort)
        else
                cat = string.format('[[Category:%s]]', cat)
        end
        self.hasCategories = true
        self.categories[ns] = self.categories[ns] or {}
        table.insert(self.categories[ns], cat)
end

function MessageBox:addClass(class)
        if not class then
                return nil
        end
        table.insert(self.classes, class)
end

function MessageBox:setParameters()
        local args = self.args
        local cfg = self.cfg

        -- Get type data.
        self.type = args.type
        local typeData = cfg.types[self.type]
        self.invalidTypeError = cfg.showInvalidTypeError
                and self.type
                and not typeData
        typeData = typeData or cfg.types[cfg.default]
        self.typeClass = typeData.class
        self.typeImage = typeData.image

        -- Find if the box has been wrongly substituted.
        self.isSubstituted = cfg.substCheck and args.subst == 'SUBST'

        -- Find whether we are using a small message box.
        self.isSmall = cfg.allowSmall and (
                cfg.smallParam and args.small == cfg.smallParam
                or not cfg.smallParam and yesno(args.small)
        )

        -- Add attributes, classes and styles.
        self.id = args.id
        self.name = args.name
        if self.name then
                self:addClass('box-' .. string.gsub(self.name,' ','_'))
        end
        if yesno(args.plainlinks) ~= false then
                self:addClass('plainlinks')
        end
```

```
	for _, class in ipairs(cfg.classes or {}) do
		self:addClass(class)
	end
	if self.isSmall then
		self:addClass(cfg.smallClass or 'mbox-small')
	end
	self:addClass(self.typeClass)
	self:addClass(args.class)
	self.style = args.style
	self.attrs = args.attrs

	-- Set text style.
	self.textstyle = args.textstyle

	-- Find if we are on the template page or not. This functionality is only
	-- used if useCollapsibleTextFields is set, or if both cfg.templateCatego
	-- and cfg.templateCategoryRequireName are set.
	self.useCollapsibleTextFields = cfg.useCollapsibleTextFields
	if self.useCollapsibleTextFields
		or cfg.templateCategory
		and cfg.templateCategoryRequireName
	then
		if self.name then
			local templateName = mw.ustring.match(
				self.name,
				'^[tT][eE][mM][pP][lL][aA][tT][eE][%s_]*:[%s_]*(
			) or self.name
			templateName = 'Template:' .. templateName
			self.templateTitle = getTitleObject(templateName)
		end
		self.isTemplatePage = self.templateTitle
			and mw.title.equals(self.title, self.templateTitle)
	end

	-- Process data for collapsible text fields. At the moment these are only
	-- used in {{ambox}}.
	if self.useCollapsibleTextFields then
		-- Get the self.issue value.
		if self.isSmall and args.smalltext then
			self.issue = args.smalltext
		else
			local sect
			if args.sect == '' then
				sect = 'This ' .. (cfg.sectionDefault or 'page')
			elseif type(args.sect) == 'string' then
				sect = 'This ' .. args.sect
			end
			local issue = args.issue
			issue = type(issue) == 'string' and issue ~= '' and issue
			local text = args.text
			text = type(text) == 'string' and text or nil
			local issues = {}
			table.insert(issues, sect)
			table.insert(issues, issue)
			table.insert(issues, text)
			self.issue = table.concat(issues, ' ')
		end

		-- Get the self.talk value.
		local talk = args.talk
		-- Show talk links on the template page or template subpages if t
		-- parameter is blank.
		if talk == ''
			and self.templateTitle
```

```
                        and (
                                mw.title.equals(self.templateTitle, self.title)
                                or self.title:isSubpageOf(self.templateTitle)
                        )
                then
                        talk = '#'
                elseif talk == '' then
                        talk = nil
                end
                if talk then
                        -- If the talk value is a talk page, make a link to that
                        -- assume that it's a section heading, and make a link to
                        -- page of the current page with that section heading.
                        local talkTitle = getTitleObject(talk)
                        local talkArgIsTalkPage = true
                        if not talkTitle or not talkTitle.isTalkPage then
                                talkArgIsTalkPage = false
                                talkTitle = getTitleObject(
                                        self.title.text,
                                        mw.site.namespaces[self.title.namespace]
                                )
                        end
                        if talkTitle and talkTitle.exists then
                local talkText
                if self.isSmall then
                    local talkLink = talkArgIsTalkPage and talk or (talkTitle.pre
                    talkText = string.format('([[%s|talk]])', talkLink)
                else
                    talkText = 'Relevant discussion may be found on'
                    if talkArgIsTalkPage then
                        talkText = string.format(
                            '%s [[%s|%s]].',
                            talkText,
                            talk,
                            talkTitle.prefixedText
                        )
                    else
                        talkText = string.format(
                            '%s the [[%s#%s|talk page]].',
                            talkText,
                            talkTitle.prefixedText,
                            talk
                        )
                    end
                end
                                self.talk = talkText
                        end
                end

                -- Get other values.
                self.fix = args.fix ~= '' and args.fix or nil
                local date
                if args.date and args.date ~= '' then
                        date = args.date
                elseif args.date == '' and self.isTemplatePage then
                        date = lang:formatDate('F Y')
                end
                if date then
                        self.date = string.format(" <span class='date-container'>
                end
                self.info = args.info
                if yesno(args.removalnotice) then
                        self.removalNotice = cfg.removalNotice
                end
```

```
        end

        -- Set the non-collapsible text field. At the moment this is used by all
        -- types other than ambox, and also by ambox when small=yes.
        if self.isSmall then
                self.text = args.smalltext or args.text
        else
                self.text = args.text
        end

        -- Set the below row.
        self.below = cfg.below and args.below

        -- General image settings.
        self.imageCellDiv = not self.isSmall and cfg.imageCellDiv
        self.imageEmptyCell = cfg.imageEmptyCell
        if cfg.imageEmptyCellStyle then
                self.imageEmptyCellStyle = 'border:none;padding:0;width:1px'
        end

        -- Left image settings.
        local imageLeft = self.isSmall and args.smallimage or args.image
        if cfg.imageCheckBlank and imageLeft ~= 'blank' and imageLeft ~= 'none'
                or not cfg.imageCheckBlank and imageLeft ~= 'none'
        then
                self.imageLeft = imageLeft
                if not imageLeft then
                        local imageSize = self.isSmall
                                and (cfg.imageSmallSize or '30x30px')
                                or '40x40px'
                        self.imageLeft = string.format('[[File:%s|%s|link=|alt=]]
                                or 'Imbox notice.png', imageSize)
                end
        end

        -- Right image settings.
        local imageRight = self.isSmall and args.smallimageright or args.imageri
        if not (cfg.imageRightNone and imageRight == 'none') then
                self.imageRight = imageRight
        end
end

function MessageBox:setMainspaceCategories()
        local args = self.args
        local cfg = self.cfg

        if not cfg.allowMainspaceCategories then
                return nil
        end

        local nums = {}
        for _, prefix in ipairs{'cat', 'category', 'all'} do
                args[prefix .. '1'] = args[prefix]
                nums = union(nums, getArgNums(args, prefix))
        end

        -- The following is roughly equivalent to the old {{Ambox/category}}.
        local date = args.date
        date = type(date) == 'string' and date
        local preposition = 'from'
        for _, num in ipairs(nums) do
                local mainCat = args['cat' .. tostring(num)]
                        or args['category' .. tostring(num)]
                local allCat = args['all' .. tostring(num)]
```

```
                mainCat = type(mainCat) == 'string' and mainCat
                allCat = type(allCat) == 'string' and allCat
                if mainCat and date and date ~= '' then
                        local catTitle = string.format('%s %s %s', mainCat, prepo
                        self:addCat(0, catTitle)
                        catTitle = getTitleObject('Category:' .. catTitle)
                        if not catTitle or not catTitle.exists then
                                self:addCat(0, 'Articles with invalid date parame
                        end
                elseif mainCat and (not date or date == '') then
                        self:addCat(0, mainCat)
                end
                if allCat then
                        self:addCat(0, allCat)
                end
        end
end

function MessageBox:setTemplateCategories()
        local args = self.args
        local cfg = self.cfg

        -- Add template categories.
        if cfg.templateCategory then
                if cfg.templateCategoryRequireName then
                        if self.isTemplatePage then
                                self:addCat(10, cfg.templateCategory)
                        end
                elseif not self.title.isSubpage then
                        self:addCat(10, cfg.templateCategory)
                end
        end

        -- Add template error categories.
        if cfg.templateErrorCategory then
                local templateErrorCategory = cfg.templateErrorCategory
                local templateCat, templateSort
                if not self.name and not self.title.isSubpage then
                        templateCat = templateErrorCategory
                elseif self.isTemplatePage then
                        local paramsToCheck = cfg.templateErrorParamsToCheck or {
                        local count = 0
                        for i, param in ipairs(paramsToCheck) do
                                if not args[param] then
                                        count = count + 1
                                end
                        end
                        if count > 0 then
                                templateCat = templateErrorCategory
                                templateSort = tostring(count)
                        end
                        if self.categoryNums and #self.categoryNums > 0 then
                                templateCat = templateErrorCategory
                                templateSort = 'C'
                        end
                end
                self:addCat(10, templateCat, templateSort)
        end
end

function MessageBox:setAllNamespaceCategories()
        -- Set categories for all namespaces.
        if self.invalidTypeError then
                local allSort = (self.title.namespace == 0 and 'Main:' or '') ..
```

```
                self:addCat('all', 'Wikipedia message box parameter needs fixing
        end
        if self.isSubstituted then
                self:addCat('all', 'Pages with incorrectly substituted templates
        end
end

function MessageBox:setCategories()
        if self.title.namespace == 0 then
                self:setMainspaceCategories()
        elseif self.title.namespace == 10 then
                self:setTemplateCategories()
        end
        self:setAllNamespaceCategories()
end

function MessageBox:renderCategories()
        if not self.hasCategories then
                -- No categories added, no need to pass them to Category handler
                -- if it was invoked, it would return the empty string.
                -- So we shortcut and return the empty string.
                return ""
        end
        -- Convert category tables to strings and pass them through
        -- [[Module:Category handler]].
        return require('Module:Category handler')._main{
                main = table.concat(self.categories[0] or {}),
                template = table.concat(self.categories[10] or {}),
                all = table.concat(self.categories.all or {}),
                nocat = self.args.nocat,
                page = self.args.page
        }
end

function MessageBox:export()
        local root = mw.html.create()

        -- Add the subst check error.
        if self.isSubstituted and self.name then
                root:tag('b')
                        :addClass('error')
                        :wikitext(string.format(
                                'Template <code>%s[[Template:%s|%s]]%s</code> has
                                mw.text.nowiki('{{'), self.name, self.name, mw.te
                        ))
        end

        -- Create the box table.
        local boxTable = root:tag('table')
        boxTable:attr('id', self.id or nil)
        for i, class in ipairs(self.classes or {}) do
                boxTable:addClass(class or nil)
        end
        boxTable
                :cssText(self.style or nil)
                :attr('role', 'presentation')

        if self.attrs then
                boxTable:attr(self.attrs)
        end

        -- Add the left-hand image.
        local row = boxTable:tag('tr')
        if self.imageLeft then
```

```
                local imageLeftCell = row:tag('td'):addClass('mbox-image')
                if self.imageCellDiv then
                        -- If we are using a div, redefine imageLeftCell so that
                        -- is inside it. Divs use style="width: 52px;", which lim
                        -- image width to 52px. If any images in a div are wider
                        -- they may overlap with the text or cause other display
                        imageLeftCell = imageLeftCell:tag('div'):css('width', '52
                end
                imageLeftCell:wikitext(self.imageLeft or nil)
        elseif self.imageEmptyCell then
                -- Some message boxes define an empty cell if no image is specifi
                -- some don't. The old template code in templates where empty cel
                -- specified gives the following hint: "No image. Cell with some
                -- or padding necessary for text cell to have 100% width."
                row:tag('td')
                        :addClass('mbox-empty-cell')
                        :cssText(self.imageEmptyCellStyle or nil)
        end

        -- Add the text.
        local textCell = row:tag('td'):addClass('mbox-text')
        if self.useCollapsibleTextFields then
                -- The message box uses advanced text parameters that allow thing
                -- collapsible. At the moment, only ambox uses this.
                textCell:cssText(self.textstyle or nil)
                local textCellDiv = textCell:tag('div')
                textCellDiv
                        :addClass('mbox-text-span')
                        :wikitext(self.issue or nil)
                if (self.talk or self.fix) then
                        textCellDiv:tag('span')
                                :addClass('hide-when-compact')
                                :wikitext(self.talk and (' ' .. self.talk) or nil
                                :wikitext(self.fix and (' ' .. self.fix) or nil)
                end
                textCellDiv:wikitext(self.date and (' ' .. self.date) or nil)
                if self.info and not self.isSmall then
                        textCellDiv
                                :tag('span')
                                :addClass('hide-when-compact')
                                :wikitext(self.info and (' ' .. self.info) or nil
                end
                if self.removalNotice then
                        textCellDiv:tag('span')
                                :addClass('hide-when-compact')
                                :tag('i')
                                        :wikitext(string.format(" (%s)", self.rem
                end
        else
                -- Default text formatting - anything goes.
                textCell
                        :cssText(self.textstyle or nil)
                        :wikitext(self.text or nil)
        end

        -- Add the right-hand image.
        if self.imageRight then
                local imageRightCell = row:tag('td'):addClass('mbox-imageright')
                if self.imageCellDiv then
                        -- If we are using a div, redefine imageRightCell so that
                        -- is inside it.
                        imageRightCell = imageRightCell:tag('div'):css('width',
                end
                imageRightCell
```

```
                        :wikitext(self.imageRight or nil)
        end

        -- Add the below row.
        if self.below then
                boxTable:tag('tr')
                        :tag('td')
                                :attr('colspan', self.imageRight and '3' or '2')
                                :addClass('mbox-text')
                                :cssText(self.textstyle or nil)
                                :wikitext(self.below or nil)
        end

        -- Add error message for invalid type parameters.
        if self.invalidTypeError then
                root:tag('div')
                        :css('text-align', 'center')
                        :wikitext(string.format(
                                'This message box is using an invalid "type=%s" p
                                self.type or ''
                        ))
        end

        -- Add categories.
        root:wikitext(self:renderCategories() or nil)

        return tostring(root)
end

--------------------------------------------------------------------------------
-- Exports
--------------------------------------------------------------------------------

local p, mt = {}, {}

function p._exportClasses()
        -- For testing.
        return {
                MessageBox = MessageBox
        }
end

function p.main(boxType, args, cfgTables)
        local box = MessageBox.new(boxType, args, cfgTables or mw.loadData(CONFI
        box:setParameters()
        box:setCategories()
        return box:export()
end

function mt.__index(t, k)
        return function (frame)
                if not getArgs then
                        getArgs = require('Module:Arguments').getArgs
                end
                return t.main(k, getArgs(frame, {trim = false, removeBlanks = fal
        end
end

return setmetatable(p, mt)
```