Modul:TNT

This module allows templates and modules to be easily translated as part of the multilingual templates and modules project. Instead of storing English text in a module or a template, TNT module allows modules to be designed language-neutral, and store multilingual text in the tabular data pages on Commons. This way your module or template will use those translated strings (messages), or if the message has not yet been translated, will fallback to English. When someone updates the translation table, your page will automatically update (might take some time, or you can purge it), but no change in the template or module is needed on any of the wikis. This process is very similar to MediaWiki's localisation, and supports all standard localization conventions such as {{PLURAL|...}} and other parameters.

This module can be used from templates using #invoke, and from other modules. For a simple example, see Data:I18n/Template:Graphs.tab - a table with two messages, each message having a single parameter. By convention, all translation tables should have '''Data:I18n/...''' prefix to separate them from other types of data.

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Using from Templates

Description	Wiki Markup

In a template, this command translates **source_table** message using Commons' Data:I18n/Template:Graphs.tab translation table.	`{{#invoke:TNT | msg`
	`| I18n/Template:Graphs.tab`
	`| source_table`
	`}}`

If your message contains parameters, you can specify them after the message ID.	`{{#invoke:TNT | msg`
	`| I18n/Template:My Template.tab`
	`| message-with-two-params`
	`| param1`
	`| param2`
	`}}`

Translating Template Parameters

Template parameters are usually stored as a JSON **templatedata** block inside the template's /doc subpage. This makes it convenient to translate, but when a new parameter is added to a global template, all /doc pages need to be updated in every language. TNT helps with this by automatically generating the templatedata block from a table stored on Commons. Placing this line into every /doc sub-page will use Data:Templatedata/Graph:Lines.tab table to generate all the needed templatedata information in every language. Even if the local community has not translated the full template documentation, they will be able to see all template parameters, centrally updated.

```
{{#invoke:TNT | doc | Graph:Lines }}
```

Using from Modules

Just like templates, modules should also use this module for localization:

```
local TNT = require('Module:TNT')

-- format <messageId> string with two parameters using a translation table.
local text = TNT.format('I18n/My_module_messages', 'messageId', 'param1', 'param2

-- Same, but translate to a specific language.
local text = TNT.formatInLanguage('fr', 'I18n/My_module_messages', 'messageId',
```

Using TNTTools

Module:TNTTools has:

- Question functions: with boolean or numerical indexed return. To be called from other modules or from templates. With:
  - Case sensitive option.
  - Possibility of more than one translated text value (where each value is separated by "|").
- To put aside write, adding "I18n/" as a prefix and ".tab" extension as a suffix for the table names.
- Several examples.

```
--
-- INTRO:   (!!! DO NOT RENAME THIS PAGE !!!)
--    This module allows any template or module to be copy/pasted between
--    wikis without any translation changes. All translation text is stored
--    in the global  Data:*.tab  pages on Commons, and used everywhere.
--
-- SEE:   https://www.mediawiki.org/wiki/Multilingual_Templates_and_Modules
--
-- ATTENTION:
--    Please do NOT rename this module - it has to be identical on all wikis.
--    This code is maintained at https://www.mediawiki.org/wiki/Module:TNT
```

```
--    Please do not modify it anywhere else, as it may get copied and override yo
--    Suggestions can be made at https://www.mediawiki.org/wiki/Module_talk:TNT
--
-- DESCRIPTION:
--    The "msg" function uses a Commons dataset to translate a message
--    with a given key (e.g. source-table), plus optional arguments
--    to the wiki markup in the current content language.
--    Use lang=xx to set language.  Example:
--
--    {{#invoke:TNT | msg
--     | I18n/Template:Graphs.tab  <!-- https://commons.wikimedia.org/wiki/Data:I
--     | source-table              <!-- uses a translation message with id = "sou
--     | param1 }}                 <!-- optional parameter -->
--
--
--    The "doc" function will generate the <templatedata> parameter documentation
--    This way all template parameters can be stored and localized in a single Co
--    NOTE: "doc" assumes that all documentation is located in Data:Templatedata/
--
--    {{#invoke:TNT | doc | Graph:Lines }}
--        uses https://commons.wikimedia.org/wiki/Data:Templatedata/Graph:Lines.t
--        if the current page is Template:Graph:Lines/doc
--

local p = {}
local i18nDataset = 'I18n/Module:TNT.tab'

-- Forward declaration of the local functions
local sanitizeDataset, loadData, link, formatMessage

function p.msg(frame)
        local dataset, id
        local params = {}
        local lang = nil
        for k, v in pairs(frame.args) do
                if k == 1 then
                        dataset = mw.text.trim(v)
                elseif k == 2 then
                        id = mw.text.trim(v)
                elseif type(k) == 'number' then
                        table.insert(params, mw.text.trim(v))
                elseif k == 'lang' and v ~= '_' then
                        lang = mw.text.trim(v)
                end
        end
        return formatMessage(dataset, id, params, lang)
end

-- Identical to p.msg() above, but used from other lua modules
-- Parameters:  name of dataset, message key, optional arguments
-- Example with 2 params:  format('I18n/Module:TNT', 'error_bad_msgkey', 'my-key'
function p.format(dataset, key, ...)
        local checkType = require('libraryUtil').checkType
        checkType('format', 1, dataset, 'string')
        checkType('format', 2, key, 'string')
        return formatMessage(dataset, key, {...})
end


-- Identical to p.msg() above, but used from other lua modules with the language
-- Parameters:  language code, name of dataset, message key, optional arguments
-- Example with 2 params:  formatInLanguage('es', I18n/Module:TNT', 'error_bad_ms
function p.formatInLanguage(lang, dataset, key, ...)
        local checkType = require('libraryUtil').checkType
```

```
	checkType('formatInLanguage', 1, lang, 'string')
	checkType('formatInLanguage', 2, dataset, 'string')
	checkType('formatInLanguage', 3, key, 'string')
	return formatMessage(dataset, key, {...}, lang)
end

-- Obsolete function that adds a 'c:' prefix to the first param.
-- "Sandbox/Sample.tab" -> 'c:Data:Sandbox/Sample.tab'
function p.link(frame)
	return link(frame.args[1])
end

function p.doc(frame)
	local dataset = 'Templatedata/' .. sanitizeDataset(frame.args[1])
	return frame:extensionTag('templatedata', p.getTemplateData(dataset)) ..
		formatMessage(i18nDataset, 'edit_doc', {link(dataset)})
end

function p.getTemplateData(dataset)
	-- TODO: add '_' parameter once lua starts reindexing properly for "all"
	local data = loadData(dataset)
	local names = {}
	for _, field in pairs(data.schema.fields) do
		table.insert(names, field.name)
	end

	local params = {}
	local paramOrder = {}
	for _, row in pairs(data.data) do
		local newVal = {}
		local name = nil
		for pos, val in pairs(row) do
			local columnName = names[pos]
			if columnName == 'name' then
				name = val
			else
				newVal[columnName] = val
			end
		end
		if name then
			params[name] = newVal
			table.insert(paramOrder, name)
		end
	end

	-- Work around json encoding treating {"1":{...}} as an [{...}]
	params['zzz123']=''

	local json = mw.text.jsonEncode({
		params=params,
		paramOrder=paramOrder,
		description=data.description
	})

	json = string.gsub(json,'"zzz123":"",?', "")

	return json
end

-- Local functions

sanitizeDataset = function(dataset)
	if not dataset then
		return nil
```

```
	end
	dataset = mw.text.trim(dataset)
	if dataset == '' then
		return nil
	elseif string.sub(dataset,-4) ~= '.tab' then
		return dataset .. '.tab'
	else
		return dataset
	end
end

loadData = function(dataset, lang)
	dataset = sanitizeDataset(dataset)
	if not dataset then
		error(formatMessage(i18nDataset, 'error_no_dataset', {}))
	end

	-- Give helpful error to thirdparties who try and copy this module.
	if not mw.ext or not mw.ext.data or not mw.ext.data.get then
		error('Missing JsonConfig extension; Cannot load https://commons.
	end

	local data = mw.ext.data.get(dataset, lang)

	if data == false then
		if dataset == i18nDataset then
			-- Prevent cyclical calls
			error('Missing Commons dataset ' .. i18nDataset)
		else
			error(formatMessage(i18nDataset, 'error_bad_dataset', {li
		end
	end
	return data
end

-- Given a dataset name, convert it to a title with the 'commons:data:' prefix
link = function(dataset)
	return 'c:Data:' .. mw.text.trim(dataset or '')
end

formatMessage = function(dataset, key, params, lang)
	for _, row in pairs(loadData(dataset, lang).data) do
		local id, msg = unpack(row)
		if id == key then
			local result = mw.message.newRawMessage(msg, unpack(param
			return result:plain()
		end
	end
	if dataset == i18nDataset then
		-- Prevent cyclical calls
		error('Invalid message key "' .. key .. '"')
	else
		error(formatMessage(i18nDataset, 'error_bad_msgkey', {key, link(d
	end
end

return p
```