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Modul:Unicode data/Doku

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Usage

This module provides functions that access information on Unicode code points. The information is retrieved from data modules generated from the Unicode Character Database, or derived by rules given in the Unicode Specification. It and its submodules were copied from English Wiktionary and then modified; see there for more information.

Functions

Vorlage:Code

Receives a code point (number) and returns its name or label; for example, Vorlage:Code returns Vorlage:Code.

For example, Vorlage:Tnull → <reserved-0061>

Vorlage:Code

Template-invokable functions that allow access to the functions starting with `lookup` and `is`. Replace the first underscore in the function name with a pipe. For most of the functions, add the code point in hexadecimal base as the next parameter, but for `is_Latin`, `is_rtl`, and `is_valid_pagename`, add text. HTML character references in the text are decoded by the module into code points.

For example, Vorlage:Tnull → **Lua-Fehler in Modul:Unicode_data, Zeile 293: attempt to index local 'data_module' (a boolean value)**.

Data modules

The data used by functions in this module is found in submodules. Some are generated by AWK scripts shown at User:Kephir/Unicode on English Wiktionary, others by Lua scripts on the `/make` subpages of the submodules.

- Module:Unicode data/aliases: the formal name aliases for characters (from NameAliases.txt)
- Module:Unicode data/blocks: the list of Unicode blocks (from Blocks.txt)
- Module:Unicode data/category: data mapping characters to their General Category (from DerivedGeneralCategory.txt)

- Module:Unicode data/control: data for identifying characters that belong to the General Categories of Separator and Other (from DerivedGeneralCategory.txt)
- Module:Unicode data/combining: data mapping characters to their Combining Classes (from DerivedCombiningClass.txt)
- Module:Unicode data/Hangul: data used to generate the names of Hangul syllables (from Jamo.txt)
- Module:Unicode data/scripts: data mapping characters to their Unicode script properties (from Scripts.txt).

The name data modules (Module:Unicode data/names/*xxx*) were compiled from UnicodeData.txt. Each one contains, at maximum, code points U+xxx000 to U+xxxFFF. **Lua-Fehler in mw.title.lua, Zeile 206: too many expensive function calls**

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Modul:Unicode data

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Usage

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Vorlage:Code

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The data used by functions in this module is found in submodules. Some are generated by AWK scripts shown at User:Kephir/Unicode on English Wiktionary, others by Lua scripts on the `/make` subpages of the submodules.

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- Module:Unicode data/scripts: data mapping characters to their Unicode script properties (from Scripts.txt).

The name data modules (Module:Unicode data/names/*xxx*) were compiled from UnicodeData.txt. Each one contains, at maximum, code points U+xxx000 to U+xxxFFF. **Lua-Fehler in mw.title.lua, Zeile 206: too many expensive function calls**

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```
local p = {}

local floor = math.floor

local function errorf(level, ...)
        if type(level) == "number" then
                return error(string.format(...), level + 1)
```

```
	else -- level is actually the format string.
		return error(string.format(level, ...), 2)
	end
end

local function binary_range_search(codepoint, ranges)
	local low, mid, high
	low, high = 1, ranges.length or require "Module:TableTools".length(ranges
	while low <= high do
		mid = floor((low + high) / 2)
		local range = ranges[mid]
		if codepoint < range[1] then
			high = mid - 1
		elseif codepoint <= range[2] then
			return range, mid
		else
			low = mid + 1
		end
	end
	return nil, mid
end
p.binary_range_search = binary_range_search

--[[
local function linear_range_search(codepoint, ranges)
	for i, range in ipairs(ranges) do
		if range[1] <= codepoint and codepoint <= range[2] then
			return range
		end
	end
end
--]]

-- Load a module by indexing "loader" with the name of the module minus the
-- "Module:Unicode data/" part. For instance, loader.blocks returns
-- [[Module:Unicode data/blocks]]. If a module cannot be loaded, false will be
-- returned.
local loader = setmetatable({}, {
	__index = function (self, key)
		local success, data = pcall(mw.loadData, "Module:Unicode data/"
		if not success then
			data = false
		end
		self[key] = data
		return data
	end
})

-- For the algorithm used to generate Hangul Syllable names,
-- see "Hangul Syllable Name Generation" in section 3.12 of the
-- Unicode Specification:
-- https://www.unicode.org/versions/Unicode11.0.0/ch03.pdf
local name_hooks = {
	{     0x00,     0x1F, "<control-%04X>" }, -- C0 control characters
	{     0x7F,     0x9F, "<control-%04X>" }, -- DEL and C1 control characte
	{   0x3400,   0x4DBF, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
	{   0x4E00,   0x9FFF, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph
	{   0xAC00,   0xD7A3, function (codepoint) -- Hangul Syllables
		local Hangul_data = loader.Hangul
		local syllable_index = codepoint - 0xAC00

		return ("HANGUL SYLLABLE %s%s%s"):format(
			Hangul_data.leads[floor(syllable_index / Hangul_data.fina
			Hangul_data.vowels[floor((syllable_index % Hangul_data.fi
```

```
                                / Hangul_data.trail_count)],
                        Hangul_data.trails[syllable_index % Hangul_data.trail_cou
                )
        end },
        -- High Surrogates, High Private Use Surrogates, Low Surrogates
        {   0xD800,   0xDFFF, "<surrogate-%04X>" },
        {   0xE000,   0xF8FF, "<private-use-%04X>" }, -- Private Use
        -- CJK Compatibility Ideographs
        {   0xF900,   0xFA6D, "CJK COMPATIBILITY IDEOGRAPH-%04X" },
        {   0xFA70,   0xFAD9, "CJK COMPATIBILITY IDEOGRAPH-%04X" },
        {  0x17000,  0x187F7, "TANGUT IDEOGRAPH-%04X" }, -- Tangut Ideograph
        {  0x18800,  0x18AFF, function (codepoint)
                return ("TANGUT COMPONENT-%03d"):format(codepoint - 0x187FF)
        end },
        {  0x18D00,  0x18D08, "TANGUT IDEOGRAPH-%04X" }, -- Tangut Ideograph Supp
        {  0x1B170,  0x1B2FB, "NUSHU CHARACTER-%04X" }, -- Nushu
        {  0x20000,  0x2A6DF, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
        {  0x2A700,  0x2B738, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
        {  0x2B740,  0x2B81D, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
        {  0x2B820,  0x2CEA1, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
        {  0x2CEB0,  0x2EBE0, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
        -- CJK Compatibility Ideographs Supplement (Supplementary Ideographic Pla
        {  0x2F800,  0x2FA1D, "CJK COMPATIBILITY IDEOGRAPH-%04X" },
        {  0xE0100,  0xE01EF, function (codepoint) -- Variation Selectors Supplem
                return ("VARIATION SELECTOR-%d"):format(codepoint - 0xE0100 + 17)
        end},
        {  0x30000,  0x3134A, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Ex
        {  0xF0000,  0xFFFFD, "<private-use-%04X>" }, -- Plane 15 Private Use
        { 0x100000, 0x10FFFD, "<private-use-%04X>" }  -- Plane 16 Private Use
}
name_hooks.length = #name_hooks

local name_range_cache

local function generate_name(data, codepoint)
        if type(data) == "string" then
                return data:format(codepoint)
        else
                return data(codepoint)
        end
end

--[[
-- Checks that the code point is a number and in range.
-- Does not check whether code point is an integer.
-- Not used
local function check_codepoint(funcName, argIdx, val)
        require 'libraryUtil'.checkType(funcName, argIdx, val, 'number')
        if codepoint < 0 or 0x10FFFF < codepoint then
                errorf("Codepoint %04X out of range", codepoint)
        end
end
--]]

-- https://www.unicode.org/versions/Unicode11.0.0/ch04.pdf, section 4.8
function p.lookup_name(codepoint)
        -- U+FDD0-U+FDEF and all code points ending in FFFE or FFFF are Unassigne
        -- (Cn) and specifically noncharacters:
        -- https://www.unicode.org/faq/private_use.html#nonchar4
        if 0xFDD0 <= codepoint and (codepoint <= 0xFDEF
                        or floor(codepoint % 0x10000) >= 0xFFFE) then
                return ("<noncharacter-%04X>"):format(codepoint)
        end
```

```
	if name_range_cache -- Check if previously used "name hook" applies to th
			and codepoint >= name_range_cache[1]
			and codepoint <= name_range_cache[2] then
		return generate_name(name_range_cache[3], codepoint)
	end

	local range = binary_range_search(codepoint, name_hooks)
	if range then
		name_range_cache = range
		return generate_name(range[3], codepoint)
	end

	local data = loader[('names/%03X'):format(codepoint / 0x1000)]

	if data and data[codepoint] then
		return data[codepoint]

	-- Unassigned (Cn) consists of noncharacters and reserved characters.
	-- The character has been established not to be a noncharacter,
	-- and if it were assigned, its name would already been retrieved,
	-- so it must be reserved.
	else
		return ("<reserved-%04X>"):format(codepoint)
	end
end

--[[
-- No image data modules on Wikipedia yet.
function p.lookup_image(codepoint)
	local data = loader[('images/%03X'):format(codepoint / 0x1000)]

	if data then
		return data[codepoint]
	end
end
--]]

local planes = {
	[ 0] = "Basic Multilingual Plane";
	[ 1] = "Supplementary Multilingual Plane";
	[ 2] = "Supplementary Ideographic Plane";
	[ 3] = "Tertiary Ideographic Plane";
	[14] = "Supplementary Special-purpose Plane";
	[15] = "Supplementary Private Use Area-A";
	[16] = "Supplementary Private Use Area-B";
}

-- Load [[Module:Unicode data/blocks]] if needed and assign it to this variable.
local blocks

local function block_iter(blocks, i)
	i = i + 1
	local data = blocks[i]
	if data then
		 -- Unpack doesn't work on tables loaded with mw.loadData.
		return i, data[1], data[2], data[3]
	end
end

-- An ipairs-type iterator generator for the list of blocks.
function p.enum_blocks()
	local blocks = loader.blocks
	return block_iter, blocks, 0
end
```

```
function p.lookup_plane(codepoint)
	local i = floor(codepoint / 0x10000)
	return planes[i] or ("Plane %u"):format(i)
end

function p.lookup_block(codepoint)
	local blocks = loader.blocks
	local range = binary_range_search(codepoint, blocks)
	if range then
		return range[3]
	else
		return "No Block"
	end
end

function p.get_block_info(name)
	for i, block in ipairs(loader.blocks) do
		if block[3] == name then
			return block
		end
	end
end

function p.is_valid_pagename(pagename)
	local has_nonws = false

	for cp in mw.ustring.gcodepoint(pagename) do
		if (cp == 0x0023) -- #
		or (cp == 0x005B) -- [
		or (cp == 0x005D) -- ]
		or (cp == 0x007B) -- {
		or (cp == 0x007C) -- |
		or (cp == 0x007D) -- }
		or (cp == 0x180E) -- MONGOLIAN VOWEL SEPARATOR
		or ((cp >= 0x2000) and (cp <= 0x200A)) -- spaces in General Punct
		or (cp == 0xFFFD) -- REPLACEMENT CHARACTER
		then
			return false
		end

		local printable, result = p.is_printable(cp)
		if not printable then
			return false
		end

		if result ~= "space-separator" then
			has_nonws = true
		end
	end

	return has_nonws
end

local function manual_unpack(what, from)
	if what[from + 1] == nil then
		return what[from]
	end

	local result = {}
	from = from or 1
	for i, item in ipairs(what) do
		if i >= from then
			table.insert(result, item)
```

```
                end
        end
        return unpack(result)
end

local function compare_ranges(range1, range2)
        return range1[1] < range2[1]
end

-- Creates a function to look up data in a module that contains "singles" (a
-- code point-to-data map) and "ranges" (an array containing arrays that contain
-- the low and high code points of a range and the data associated with that
-- range).
-- "loader" loads and returns the "singles" and "ranges" tables.
-- "match_func" is passed the code point and either the data or the "dots", and
-- generates the final result of the function.
-- The varargs ("dots") describes the default data to be returned if there wasn't
-- a match.
-- In case the function is used more than once, "cache" saves ranges that have
-- already been found to match, or a range whose data is the default if there
-- was no match.
local function memo_lookup(data_module_subpage, match_func, ...)
        local dots = { ... }
        local cache = {}
        local singles, ranges

        return function (codepoint)
                if not singles then
                        local data_module = loader[data_module_subpage]
                        singles, ranges = data_module.singles, data_module.ranges
                end

                if singles[codepoint] then
                        return match_func(codepoint, singles[codepoint])
                end

                local range = binary_range_search(codepoint, cache)
                if range then
                        return match_func(codepoint, manual_unpack(range, 3))
                end

                local range, index = binary_range_search(codepoint, ranges)
                if range then
                        table.insert(cache, range)
                        table.sort(cache, compare_ranges)
                        return match_func(codepoint, manual_unpack(range, 3))
                end

                if ranges[index] then
                        local dots_range
                        if codepoint > ranges[index][2] then
                                dots_range = {
                                        ranges[index][2] + 1,
                                        ranges[index + 1] and ranges[index + 1][1
                                        unpack(dots)
                                }
                        else -- codepoint < range[index][1]
                                dots_range = {
                                        ranges[index - 1] and ranges[index - 1][2
                                        ranges[index][1] - 1,
                                        unpack(dots)
                                }
                        end
                        table.sort(cache, compare_ranges)
```

```
                end

                return match_func(codepoint)
        end
end

-- Get a code point's combining class value in [[Module:Unicode data/combining]],
-- and return whether this value is not zero. Zero is assigned as the default
-- if the combining class value is not found in this data module.
-- That is, return true if character is combining, or false if it is not.
-- See https://www.unicode.org/reports/tr44/#Canonical_Combining_Class_Values for
-- more information.
p.is_combining = memo_lookup(
        "combining",
        function (codepoint, combining_class)
                return combining_class and combining_class ~= 0 or false
        end,
        0)

function p.add_dotted_circle(str)
        return (mw.ustring.gsub(str, ".",
                function(char)
                        if p.is_combining(mw.ustring.codepoint(char)) then
                                return '◌' .. char
                        end
                end))
end

local lookup_control = memo_lookup(
        "control",
        function (codepoint, ccc)
                return ccc or "assigned"
        end,
        "assigned")
p.lookup_control = lookup_control

function p.is_assigned(codepoint)
        return lookup_control(codepoint) ~= "unassigned"
end

function p.is_printable(codepoint)
        local result = lookup_control(codepoint)
        return (result == "assigned") or (result == "space-separator"), result
end

function p.is_whitespace(codepoint)
        local result = lookup_control(codepoint)
        return (result == "space-separator"), result
end

p.lookup_category = memo_lookup(
        "category",
        function (codepoint, category)
                return category
        end,
        "Cn")

local lookup_script = memo_lookup(
        "scripts",
        function (codepoint, script_code)
                return script_code or 'Zzzz'
        end,
        "Zzzz")
p.lookup_script = lookup_script
```

```
function p.get_best_script(str)
	-- Check type of argument, because mw.text.decode coerces numbers to stri
	require "libraryUtil".checkType("get_best_script", 1, str, "string")

	-- Convert HTML character references (including named character reference
	-- or character entities) to characters.
	str = mw.text.decode(str, true)

	local scripts = {}
	for codepoint in mw.ustring.gcodepoint(str) do
		local script = lookup_script(codepoint)

		-- Ignore "Inherited", "Undetermined", or "Uncoded" scripts.
		if not (script == "Zyyy" or script == "Zinh" or script == "Zzzz")
			scripts[script] = true
		end
	end

	-- If scripts does not contain two or more keys,
	-- return first and only key (script code) in table.
	if not next(scripts, next(scripts)) then
		return next(scripts)
	end -- else return majority script, or else "Zzzz"?
end

function p.is_Latin(str)
	require "libraryUtil".checkType("get_best_script", 1, str, "string")
	str = mw.text.decode(str, true)

	-- Search for the leading bytes that introduce the UTF-8 encoding of the
	-- code points U+0340-U+10FFFF. If they are not found and there is at lea
	-- one Latin-script character, the string counts as Latin, because the re
	-- of the characters can only be Zyyy, Zinh, and Zzzz.
	-- The only scripts found below U+0370 (the first code point of the Greek
	-- and Coptic block) are Latn, Zyyy, Zinh, and Zzzz.
	-- See the codepage in the [[UTF-8]] article.
	if not str:find "[\205-\244]" then
		for codepoint in mw.ustring.gcodepoint(str) do
			if lookup_script(codepoint) == "Latn" then
				return true
			end
		end
	end

	local Latn = false

	for codepoint in mw.ustring.gcodepoint(str) do
		local script = lookup_script(codepoint)

		if script == "Latn" then
			Latn = true
		elseif not (script == "Zyyy" or script == "Zinh"
				or script == "Zzzz") then
			return false
		end
	end

	return Latn
end

-- Checks that a string contains only characters belonging to right-to-left
-- scripts, or characters of ignorable scripts.
function p.is_rtl(str)
```

```
	require "libraryUtil".checkType("get_best_script", 1, str, "string")
	str = mw.text.decode(str, true)

	-- Search for the leading bytes that introduce the UTF-8 encoding of the
	-- code points U+0580-U+10FFFF. If they are not found, the string can onl
	-- have characters from a left-to-right script, because the first code po
	-- in a right-to-left script is U+0591, in the Hebrew block.
	if not str:find "[\214-\244]" then
		return false
	end

	local result = false
	local rtl = loader.scripts.rtl
	for codepoint in mw.ustring.gcodepoint(str) do
		local script = lookup_script(codepoint)

		if rtl[script] then
			result = true
		elseif not (script == "Zyyy" or script == "Zinh"
				or script == "Zzzz") then
			return false
		end
	end

	return result
end

local function get_codepoint(args, arg)
	local codepoint_string = args[arg]
		or errorf(2, "Parameter %s is required", tostring(arg))
	local codepoint = tonumber(codepoint_string, 16)
		or errorf(2, "Parameter %s is not a code point in hexadecimal bas
			tostring(arg))
	if not (0 <= codepoint and codepoint <= 0x10FFFF) then
		errorf(2, "code point in parameter %s out of range", tostring(arg
	end
	return codepoint
end

local function get_func(args, arg, prefix)
	local suffix = args[arg]
		or errorf(2, "Parameter %s is required", tostring(arg))
	suffix = mw.text.trim(suffix)
	local func_name = prefix .. suffix
	local func = p[func_name]
		or errorf(2, "There is no function '%s'", func_name)
	return func
end

-- This function allows any of the "lookup" functions to be invoked. The first
-- parameter is the word after "lookup_"; the second parameter is the code point
-- in hexadecimal base.
function p.lookup(frame)
	local func = get_func(frame.args, 1, "lookup_")
	local codepoint = get_codepoint(frame.args, 2)
	local result = func(codepoint)
	if func == p.lookup_name then
		-- Prevent code point labels such as <control-0000> from being
		-- interpreted as HTML tags.
		result = result:gsub("<", "&lt;")
	end
	return result
end
```

```
function p.is(frame)
	local func = get_func(frame.args, 1, "is_")

	-- is_Latin and is_valid_pagename take strings.
	if func == p.is_Latin or func == p.is_valid_pagename or func == p.is_rtl
		return (func(frame.args[2]))
	else -- The rest take code points.
		local codepoint = get_codepoint(frame.args, 2)
		return (func(codepoint)) -- Adjust to one result.
	end
end

return p
```

Modul:Unicode data/Hangul

Contains data used by Module:Unicode data to generate the names of characters in the Hangul Syllables Unicode block.

```
-- Data used to generate the names of characters in the Hangul Syllables block
-- (U+AC00 to U+D7A3).
local Hangul = {}

-- The following leads, vowels, and trails come from here:
-- http://www.unicode.org/Public/UNIDATA/Jamo.txt
Hangul.leads = {
        [0] = "G", "GG", "N", "D", "DD", "R", "M", "B", "BB", "S", "SS",
        "", "J", "JJ", "C", "K", "T", "P", "H"
}
-- not actually used:
Hangul.lead_count = #Hangul.leads + 1

Hangul.vowels = {
        [0] = "A", "AE", "YA", "YAE", "EO", "E", "YEO", "YE", "O", "WA",
        "WAE", "OE", "YO", "U", "WEO", "WE", "WI", "YU", "EU", "YI",
        "I"
}
Hangul.vowel_count = #Hangul.vowels + 1

Hangul.trails = {
        [0] = "", "G", "GG", "GS", "N", "NJ", "NH", "D", "L", "LG", "LM", "LB",
        "LS", "LT", "LP", "LH", "M", "B", "BS", "S", "SS", "NG", "J", "C", "K",
        "T", "P", "H"
}
Hangul.trail_count = #Hangul.trails + 1

--For the term "final", see [[Syllable#Chinese model]].
Hangul.final_count = Hangul.vowel_count * Hangul.trail_count

return Hangul
```

Modul:Unicode data/aliases

Contains data used by Module:Unicode data to determine formal name aliases for a Unicode character. Generated from NameAliases.txt in the Unicode Character Database using a script at wikt:User:Kephir/Unicode.

```
local correction, control, alternate, figment, abbreviation =
	"correction", "control", "alternate", "figment", "abbreviation"

return {
	[0x000000] = {
		{      control, "NULL" };
		{ abbreviation, "NUL" };
	};
	[0x000001] = {
		{      control, "START OF HEADING" };
		{ abbreviation, "SOH" };
	};
	[0x000002] = {
		{      control, "START OF TEXT" };
		{ abbreviation, "STX" };
	};
	[0x000003] = {
		{      control, "END OF TEXT" };
		{ abbreviation, "ETX" };
	};
	[0x000004] = {
		{      control, "END OF TRANSMISSION" };
		{ abbreviation, "EOT" };
	};
	[0x000005] = {
		{      control, "ENQUIRY" };
		{ abbreviation, "ENQ" };
	};
	[0x000006] = {
		{      control, "ACKNOWLEDGE" };
		{ abbreviation, "ACK" };
	};
	[0x000007] = {
		{      control, "ALERT" };
		{ abbreviation, "BEL" };
	};
	[0x000008] = {
		{      control, "BACKSPACE" };
		{ abbreviation, "BS" };
	};
	[0x000009] = {
		{      control, "CHARACTER TABULATION" };
		{      control, "HORIZONTAL TABULATION" };
		{ abbreviation, "HT" };
		{ abbreviation, "TAB" };
	};
	[0x00000a] = {
		{      control, "LINE FEED" };
		{      control, "NEW LINE" };
		{      control, "END OF LINE" };
		{ abbreviation, "LF" };
		{ abbreviation, "NL" };
		{ abbreviation, "EOL" };
```

```
	};
	[0x00000b] = {
		{      control, "LINE TABULATION" };
		{      control, "VERTICAL TABULATION" };
		{ abbreviation, "VT" };
	};
	[0x00000c] = {
		{      control, "FORM FEED" };
		{ abbreviation, "FF" };
	};
	[0x00000d] = {
		{      control, "CARRIAGE RETURN" };
		{ abbreviation, "CR" };
	};
	[0x00000e] = {
		{      control, "SHIFT OUT" };
		{      control, "LOCKING-SHIFT ONE" };
		{ abbreviation, "SO" };
	};
	[0x00000f] = {
		{      control, "SHIFT IN" };
		{      control, "LOCKING-SHIFT ZERO" };
		{ abbreviation, "SI" };
	};
	[0x000010] = {
		{      control, "DATA LINK ESCAPE" };
		{ abbreviation, "DLE" };
	};
	[0x000011] = {
		{      control, "DEVICE CONTROL ONE" };
		{ abbreviation, "DC1" };
	};
	[0x000012] = {
		{      control, "DEVICE CONTROL TWO" };
		{ abbreviation, "DC2" };
	};
	[0x000013] = {
		{      control, "DEVICE CONTROL THREE" };
		{ abbreviation, "DC3" };
	};
	[0x000014] = {
		{      control, "DEVICE CONTROL FOUR" };
		{ abbreviation, "DC4" };
	};
	[0x000015] = {
		{      control, "NEGATIVE ACKNOWLEDGE" };
		{ abbreviation, "NAK" };
	};
	[0x000016] = {
		{      control, "SYNCHRONOUS IDLE" };
		{ abbreviation, "SYN" };
	};
	[0x000017] = {
		{      control, "END OF TRANSMISSION BLOCK" };
		{ abbreviation, "ETB" };
	};
	[0x000018] = {
		{      control, "CANCEL" };
		{ abbreviation, "CAN" };
	};
	[0x000019] = {
		{      control, "END OF MEDIUM" };
		{ abbreviation, "EOM" };
	};
```

```
	[0x00001a] = {
		{	control, "SUBSTITUTE" };
		{ abbreviation, "SUB" };
	};
	[0x00001b] = {
		{	control, "ESCAPE" };
		{ abbreviation, "ESC" };
	};
	[0x00001c] = {
		{	control, "INFORMATION SEPARATOR FOUR" };
		{	control, "FILE SEPARATOR" };
		{ abbreviation, "FS" };
	};
	[0x00001d] = {
		{	control, "INFORMATION SEPARATOR THREE" };
		{	control, "GROUP SEPARATOR" };
		{ abbreviation, "GS" };
	};
	[0x00001e] = {
		{	control, "INFORMATION SEPARATOR TWO" };
		{	control, "RECORD SEPARATOR" };
		{ abbreviation, "RS" };
	};
	[0x00001f] = {
		{	control, "INFORMATION SEPARATOR ONE" };
		{	control, "UNIT SEPARATOR" };
		{ abbreviation, "US" };
	};
	[0x000020] = {
		{ abbreviation, "SP" };
	};
	[0x00007f] = {
		{	control, "DELETE" };
		{ abbreviation, "DEL" };
	};
	[0x000080] = {
		{	figment, "PADDING CHARACTER" };
		{ abbreviation, "PAD" };
	};
	[0x000081] = {
		{	figment, "HIGH OCTET PRESET" };
		{ abbreviation, "HOP" };
	};
	[0x000082] = {
		{	control, "BREAK PERMITTED HERE" };
		{ abbreviation, "BPH" };
	};
	[0x000083] = {
		{	control, "NO BREAK HERE" };
		{ abbreviation, "NBH" };
	};
	[0x000084] = {
		{	control, "INDEX" };
		{ abbreviation, "IND" };
	};
	[0x000085] = {
		{	control, "NEXT LINE" };
		{ abbreviation, "NEL" };
	};
	[0x000086] = {
		{	control, "START OF SELECTED AREA" };
		{ abbreviation, "SSA" };
	};
	[0x000087] = {
```

```
                {      control, "END OF SELECTED AREA" };
                { abbreviation, "ESA" };
        };
        [0x000088] = {
                {      control, "CHARACTER TABULATION SET" };
                {      control, "HORIZONTAL TABULATION SET" };
                { abbreviation, "HTS" };
        };
        [0x000089] = {
                {      control, "CHARACTER TABULATION WITH JUSTIFICATION" };
                {      control, "HORIZONTAL TABULATION WITH JUSTIFICATION" };
                { abbreviation, "HTJ" };
        };
        [0x00008a] = {
                {      control, "LINE TABULATION SET" };
                {      control, "VERTICAL TABULATION SET" };
                { abbreviation, "VTS" };
        };
        [0x00008b] = {
                {      control, "PARTIAL LINE FORWARD" };
                {      control, "PARTIAL LINE DOWN" };
                { abbreviation, "PLD" };
        };
        [0x00008c] = {
                {      control, "PARTIAL LINE BACKWARD" };
                {      control, "PARTIAL LINE UP" };
                { abbreviation, "PLU" };
        };
        [0x00008d] = {
                {      control, "REVERSE LINE FEED" };
                {      control, "REVERSE INDEX" };
                { abbreviation, "RI" };
        };
        [0x00008e] = {
                {      control, "SINGLE SHIFT TWO" };
                {      control, "SINGLE-SHIFT-2" };
                { abbreviation, "SS2" };
        };
        [0x00008f] = {
                {      control, "SINGLE SHIFT THREE" };
                {      control, "SINGLE-SHIFT-3" };
                { abbreviation, "SS3" };
        };
        [0x000090] = {
                {      control, "DEVICE CONTROL STRING" };
                { abbreviation, "DCS" };
        };
        [0x000091] = {
                {      control, "PRIVATE USE ONE" };
                {      control, "PRIVATE USE-1" };
                { abbreviation, "PU1" };
        };
        [0x000092] = {
                {      control, "PRIVATE USE TWO" };
                {      control, "PRIVATE USE-2" };
                { abbreviation, "PU2" };
        };
        [0x000093] = {
                {      control, "SET TRANSMIT STATE" };
                { abbreviation, "STS" };
        };
        [0x000094] = {
                {      control, "CANCEL CHARACTER" };
                { abbreviation, "CCH" };
```

```
	};
	[0x000095] = {
		{      control, "MESSAGE WAITING" };
		{ abbreviation, "MW" };
	};
	[0x000096] = {
		{      control, "START OF GUARDED AREA" };
		{      control, "START OF PROTECTED AREA" };
		{ abbreviation, "SPA" };
	};
	[0x000097] = {
		{      control, "END OF GUARDED AREA" };
		{      control, "END OF PROTECTED AREA" };
		{ abbreviation, "EPA" };
	};
	[0x000098] = {
		{      control, "START OF STRING" };
		{ abbreviation, "SOS" };
	};
	[0x000099] = {
		{      figment, "SINGLE GRAPHIC CHARACTER INTRODUCER" };
		{ abbreviation, "SGC" };
	};
	[0x00009a] = {
		{      control, "SINGLE CHARACTER INTRODUCER" };
		{ abbreviation, "SCI" };
	};
	[0x00009b] = {
		{      control, "CONTROL SEQUENCE INTRODUCER" };
		{ abbreviation, "CSI" };
	};
	[0x00009c] = {
		{      control, "STRING TERMINATOR" };
		{ abbreviation, "ST" };
	};
	[0x00009d] = {
		{      control, "OPERATING SYSTEM COMMAND" };
		{ abbreviation, "OSC" };
	};
	[0x00009e] = {
		{      control, "PRIVACY MESSAGE" };
		{ abbreviation, "PM" };
	};
	[0x00009f] = {
		{      control, "APPLICATION PROGRAM COMMAND" };
		{ abbreviation, "APC" };
	};
	[0x0000a0] = {
		{ abbreviation, "NBSP" };
	};
	[0x0000ad] = {
		{ abbreviation, "SHY" };
	};
	[0x0001a2] = {
		{   correction, "LATIN CAPITAL LETTER GHA" };
	};
	[0x0001a3] = {
		{   correction, "LATIN SMALL LETTER GHA" };
	};
	[0x00034f] = {
		{ abbreviation, "CGJ" };
	};
	[0x00061c] = {
		{ abbreviation, "ALM" };
```

```
	};
	[0x000709] = {
		{   correction, "SYRIAC SUBLINEAR COLON SKEWED LEFT" };
	};
	[0x000cde] = {
		{   correction, "KANNADA LETTER LLLA" };
	};
	[0x000e9d] = {
		{   correction, "LAO LETTER FO FON" };
	};
	[0x000e9f] = {
		{   correction, "LAO LETTER FO FAY" };
	};
	[0x000ea3] = {
		{   correction, "LAO LETTER RO" };
	};
	[0x000ea5] = {
		{   correction, "LAO LETTER LO" };
	};
	[0x000fd0] = {
		{   correction, "TIBETAN MARK BKA- SHOG GI MGO RGYAN" };
	};
	[0x0011ec] = {
		{   correction, "HANGUL JONGSEONG YESIEUNG-KIYEOK" };
	};
	[0x0011ed] = {
		{   correction, "HANGUL JONGSEONG YESIEUNG-SSANGKIYEOK" };
	};
	[0x0011ee] = {
		{   correction, "HANGUL JONGSEONG SSANGYESIEUNG" };
	};
	[0x0011ef] = {
		{   correction, "HANGUL JONGSEONG YESIEUNG-KHIEUKH" };
	};
	[0x00180b] = {
		{ abbreviation, "FVS1" };
	};
	[0x00180c] = {
		{ abbreviation, "FVS2" };
	};
	[0x00180d] = {
		{ abbreviation, "FVS3" };
	};
	[0x00180e] = {
		{ abbreviation, "MVS" };
	};
	[0x00180f] = {
		{ abbreviation, "FVS4" };
	};
	[0x00200b] = {
		{ abbreviation, "ZWSP" };
	};
	[0x00200c] = {
		{ abbreviation, "ZWNJ" };
	};
	[0x00200d] = {
		{ abbreviation, "ZWJ" };
	};
	[0x00200e] = {
		{ abbreviation, "LRM" };
	};
	[0x00200f] = {
		{ abbreviation, "RLM" };
	};
```

```
	[0x00202a] = {
		{ abbreviation, "LRE" };
	};
	[0x00202b] = {
		{ abbreviation, "RLE" };
	};
	[0x00202c] = {
		{ abbreviation, "PDF" };
	};
	[0x00202d] = {
		{ abbreviation, "LRO" };
	};
	[0x00202e] = {
		{ abbreviation, "RLO" };
	};
	[0x00202f] = {
		{ abbreviation, "NNBSP" };
	};
	[0x00205f] = {
		{ abbreviation, "MMSP" };
	};
	[0x002060] = {
		{ abbreviation, "WJ" };
	};
	[0x002066] = {
		{ abbreviation, "LRI" };
	};
	[0x002067] = {
		{ abbreviation, "RLI" };
	};
	[0x002068] = {
		{ abbreviation, "FSI" };
	};
	[0x002069] = {
		{ abbreviation, "PDI" };
	};
	[0x002118] = {
		{   correction, "WEIERSTRASS ELLIPTIC FUNCTION" };
	};
	[0x002448] = {
		{   correction, "MICR ON US SYMBOL" };
	};
	[0x002449] = {
		{   correction, "MICR DASH SYMBOL" };
	};
	[0x002b7a] = {
		{   correction, "LEFTWARDS TRIANGLE-HEADED ARROW WITH DOUBLE VERT
	};
	[0x002b7c] = {
		{   correction, "RIGHTWARDS TRIANGLE-HEADED ARROW WITH DOUBLE VE
	};
	[0x00a015] = {
		{   correction, "YI SYLLABLE ITERATION MARK" };
	};
	[0x00aa6e] = {
		{   correction, "MYANMAR LETTER KHAMTI LLA" };
	};
	[0x00fe00] = {
		{ abbreviation, "VS1" };
	};
	[0x00fe01] = {
		{ abbreviation, "VS2" };
	};
	[0x00fe02] = {
```

```
                { abbreviation, "VS3" };
        };
        [0x00fe03] = {
                { abbreviation, "VS4" };
        };
        [0x00fe04] = {
                { abbreviation, "VS5" };
        };
        [0x00fe05] = {
                { abbreviation, "VS6" };
        };
        [0x00fe06] = {
                { abbreviation, "VS7" };
        };
        [0x00fe07] = {
                { abbreviation, "VS8" };
        };
        [0x00fe08] = {
                { abbreviation, "VS9" };
        };
        [0x00fe09] = {
                { abbreviation, "VS10" };
        };
        [0x00fe0a] = {
                { abbreviation, "VS11" };
        };
        [0x00fe0b] = {
                { abbreviation, "VS12" };
        };
        [0x00fe0c] = {
                { abbreviation, "VS13" };
        };
        [0x00fe0d] = {
                { abbreviation, "VS14" };
        };
        [0x00fe0e] = {
                { abbreviation, "VS15" };
        };
        [0x00fe0f] = {
                { abbreviation, "VS16" };
        };
        [0x00fe18] = {
                {   correction, "PRESENTATION FORM FOR VERTICAL RIGHT WHITE LENTI
        };
        [0x00feff] = {
                {    alternate, "BYTE ORDER MARK" };
                { abbreviation, "BOM" };
                { abbreviation, "ZWNBSP" };
        };
        [0x0122d4] = {
                {   correction, "CUNEIFORM SIGN NU11 TENU" };
        };
        [0x0122d5] = {
                {   correction, "CUNEIFORM SIGN NU11 OVER NU11 BUR OVER BUR" };
        };
        [0x016e56] = {
                {   correction, "MEDEFAIDRIN CAPITAL LETTER H" };
        };
        [0x016e57] = {
                {   correction, "MEDEFAIDRIN CAPITAL LETTER NG" };
        };
        [0x016e76] = {
                {   correction, "MEDEFAIDRIN SMALL LETTER H" };
        };
```

```
	[0x016e77] = {
		{   correction, "MEDEFAIDRIN SMALL LETTER NG" };
	};
	[0x01b001] = {
		{   correction, "HENTAIGANA LETTER E-1" };
	};
	[0x01d0c5] = {
		{   correction, "BYZANTINE MUSICAL SYMBOL FTHORA SKLIRON CHROMA V
	};
	[0x0e0100] = {
		{ abbreviation, "VS17" };
	};
	[0x0e0101] = {
		{ abbreviation, "VS18" };
	};
	[0x0e0102] = {
		{ abbreviation, "VS19" };
	};
	[0x0e0103] = {
		{ abbreviation, "VS20" };
	};
	[0x0e0104] = {
		{ abbreviation, "VS21" };
	};
	[0x0e0105] = {
		{ abbreviation, "VS22" };
	};
	[0x0e0106] = {
		{ abbreviation, "VS23" };
	};
	[0x0e0107] = {
		{ abbreviation, "VS24" };
	};
	[0x0e0108] = {
		{ abbreviation, "VS25" };
	};
	[0x0e0109] = {
		{ abbreviation, "VS26" };
	};
	[0x0e010a] = {
		{ abbreviation, "VS27" };
	};
	[0x0e010b] = {
		{ abbreviation, "VS28" };
	};
	[0x0e010c] = {
		{ abbreviation, "VS29" };
	};
	[0x0e010d] = {
		{ abbreviation, "VS30" };
	};
	[0x0e010e] = {
		{ abbreviation, "VS31" };
	};
	[0x0e010f] = {
		{ abbreviation, "VS32" };
	};
	[0x0e0110] = {
		{ abbreviation, "VS33" };
	};
	[0x0e0111] = {
		{ abbreviation, "VS34" };
	};
	[0x0e0112] = {
```

```
                { abbreviation, "VS35" };
        };
        [0x0e0113] = {
                { abbreviation, "VS36" };
        };
        [0x0e0114] = {
                { abbreviation, "VS37" };
        };
        [0x0e0115] = {
                { abbreviation, "VS38" };
        };
        [0x0e0116] = {
                { abbreviation, "VS39" };
        };
        [0x0e0117] = {
                { abbreviation, "VS40" };
        };
        [0x0e0118] = {
                { abbreviation, "VS41" };
        };
        [0x0e0119] = {
                { abbreviation, "VS42" };
        };
        [0x0e011a] = {
                { abbreviation, "VS43" };
        };
        [0x0e011b] = {
                { abbreviation, "VS44" };
        };
        [0x0e011c] = {
                { abbreviation, "VS45" };
        };
        [0x0e011d] = {
                { abbreviation, "VS46" };
        };
        [0x0e011e] = {
                { abbreviation, "VS47" };
        };
        [0x0e011f] = {
                { abbreviation, "VS48" };
        };
        [0x0e0120] = {
                { abbreviation, "VS49" };
        };
        [0x0e0121] = {
                { abbreviation, "VS50" };
        };
        [0x0e0122] = {
                { abbreviation, "VS51" };
        };
        [0x0e0123] = {
                { abbreviation, "VS52" };
        };
        [0x0e0124] = {
                { abbreviation, "VS53" };
        };
        [0x0e0125] = {
                { abbreviation, "VS54" };
        };
        [0x0e0126] = {
                { abbreviation, "VS55" };
        };
        [0x0e0127] = {
                { abbreviation, "VS56" };
```

```
	};
	[0x0e0128] = {
		{ abbreviation, "VS57" };
	};
	[0x0e0129] = {
		{ abbreviation, "VS58" };
	};
	[0x0e012a] = {
		{ abbreviation, "VS59" };
	};
	[0x0e012b] = {
		{ abbreviation, "VS60" };
	};
	[0x0e012c] = {
		{ abbreviation, "VS61" };
	};
	[0x0e012d] = {
		{ abbreviation, "VS62" };
	};
	[0x0e012e] = {
		{ abbreviation, "VS63" };
	};
	[0x0e012f] = {
		{ abbreviation, "VS64" };
	};
	[0x0e0130] = {
		{ abbreviation, "VS65" };
	};
	[0x0e0131] = {
		{ abbreviation, "VS66" };
	};
	[0x0e0132] = {
		{ abbreviation, "VS67" };
	};
	[0x0e0133] = {
		{ abbreviation, "VS68" };
	};
	[0x0e0134] = {
		{ abbreviation, "VS69" };
	};
	[0x0e0135] = {
		{ abbreviation, "VS70" };
	};
	[0x0e0136] = {
		{ abbreviation, "VS71" };
	};
	[0x0e0137] = {
		{ abbreviation, "VS72" };
	};
	[0x0e0138] = {
		{ abbreviation, "VS73" };
	};
	[0x0e0139] = {
		{ abbreviation, "VS74" };
	};
	[0x0e013a] = {
		{ abbreviation, "VS75" };
	};
	[0x0e013b] = {
		{ abbreviation, "VS76" };
	};
	[0x0e013c] = {
		{ abbreviation, "VS77" };
	};
```

```
	[0x0e013d] = {
		{ abbreviation, "VS78" };
	};
	[0x0e013e] = {
		{ abbreviation, "VS79" };
	};
	[0x0e013f] = {
		{ abbreviation, "VS80" };
	};
	[0x0e0140] = {
		{ abbreviation, "VS81" };
	};
	[0x0e0141] = {
		{ abbreviation, "VS82" };
	};
	[0x0e0142] = {
		{ abbreviation, "VS83" };
	};
	[0x0e0143] = {
		{ abbreviation, "VS84" };
	};
	[0x0e0144] = {
		{ abbreviation, "VS85" };
	};
	[0x0e0145] = {
		{ abbreviation, "VS86" };
	};
	[0x0e0146] = {
		{ abbreviation, "VS87" };
	};
	[0x0e0147] = {
		{ abbreviation, "VS88" };
	};
	[0x0e0148] = {
		{ abbreviation, "VS89" };
	};
	[0x0e0149] = {
		{ abbreviation, "VS90" };
	};
	[0x0e014a] = {
		{ abbreviation, "VS91" };
	};
	[0x0e014b] = {
		{ abbreviation, "VS92" };
	};
	[0x0e014c] = {
		{ abbreviation, "VS93" };
	};
	[0x0e014d] = {
		{ abbreviation, "VS94" };
	};
	[0x0e014e] = {
		{ abbreviation, "VS95" };
	};
	[0x0e014f] = {
		{ abbreviation, "VS96" };
	};
	[0x0e0150] = {
		{ abbreviation, "VS97" };
	};
	[0x0e0151] = {
		{ abbreviation, "VS98" };
	};
	[0x0e0152] = {
```

```
                { abbreviation, "VS99" };
        };
        [0x0e0153] = {
                { abbreviation, "VS100" };
        };
        [0x0e0154] = {
                { abbreviation, "VS101" };
        };
        [0x0e0155] = {
                { abbreviation, "VS102" };
        };
        [0x0e0156] = {
                { abbreviation, "VS103" };
        };
        [0x0e0157] = {
                { abbreviation, "VS104" };
        };
        [0x0e0158] = {
                { abbreviation, "VS105" };
        };
        [0x0e0159] = {
                { abbreviation, "VS106" };
        };
        [0x0e015a] = {
                { abbreviation, "VS107" };
        };
        [0x0e015b] = {
                { abbreviation, "VS108" };
        };
        [0x0e015c] = {
                { abbreviation, "VS109" };
        };
        [0x0e015d] = {
                { abbreviation, "VS110" };
        };
        [0x0e015e] = {
                { abbreviation, "VS111" };
        };
        [0x0e015f] = {
                { abbreviation, "VS112" };
        };
        [0x0e0160] = {
                { abbreviation, "VS113" };
        };
        [0x0e0161] = {
                { abbreviation, "VS114" };
        };
        [0x0e0162] = {
                { abbreviation, "VS115" };
        };
        [0x0e0163] = {
                { abbreviation, "VS116" };
        };
        [0x0e0164] = {
                { abbreviation, "VS117" };
        };
        [0x0e0165] = {
                { abbreviation, "VS118" };
        };
        [0x0e0166] = {
                { abbreviation, "VS119" };
        };
        [0x0e0167] = {
                { abbreviation, "VS120" };
```

```
	};
	[0x0e0168] = {
		{ abbreviation, "VS121" };
	};
	[0x0e0169] = {
		{ abbreviation, "VS122" };
	};
	[0x0e016a] = {
		{ abbreviation, "VS123" };
	};
	[0x0e016b] = {
		{ abbreviation, "VS124" };
	};
	[0x0e016c] = {
		{ abbreviation, "VS125" };
	};
	[0x0e016d] = {
		{ abbreviation, "VS126" };
	};
	[0x0e016e] = {
		{ abbreviation, "VS127" };
	};
	[0x0e016f] = {
		{ abbreviation, "VS128" };
	};
	[0x0e0170] = {
		{ abbreviation, "VS129" };
	};
	[0x0e0171] = {
		{ abbreviation, "VS130" };
	};
	[0x0e0172] = {
		{ abbreviation, "VS131" };
	};
	[0x0e0173] = {
		{ abbreviation, "VS132" };
	};
	[0x0e0174] = {
		{ abbreviation, "VS133" };
	};
	[0x0e0175] = {
		{ abbreviation, "VS134" };
	};
	[0x0e0176] = {
		{ abbreviation, "VS135" };
	};
	[0x0e0177] = {
		{ abbreviation, "VS136" };
	};
	[0x0e0178] = {
		{ abbreviation, "VS137" };
	};
	[0x0e0179] = {
		{ abbreviation, "VS138" };
	};
	[0x0e017a] = {
		{ abbreviation, "VS139" };
	};
	[0x0e017b] = {
		{ abbreviation, "VS140" };
	};
	[0x0e017c] = {
		{ abbreviation, "VS141" };
	};
```

```
	[0x0e017d] = {
		{ abbreviation, "VS142" };
	};
	[0x0e017e] = {
		{ abbreviation, "VS143" };
	};
	[0x0e017f] = {
		{ abbreviation, "VS144" };
	};
	[0x0e0180] = {
		{ abbreviation, "VS145" };
	};
	[0x0e0181] = {
		{ abbreviation, "VS146" };
	};
	[0x0e0182] = {
		{ abbreviation, "VS147" };
	};
	[0x0e0183] = {
		{ abbreviation, "VS148" };
	};
	[0x0e0184] = {
		{ abbreviation, "VS149" };
	};
	[0x0e0185] = {
		{ abbreviation, "VS150" };
	};
	[0x0e0186] = {
		{ abbreviation, "VS151" };
	};
	[0x0e0187] = {
		{ abbreviation, "VS152" };
	};
	[0x0e0188] = {
		{ abbreviation, "VS153" };
	};
	[0x0e0189] = {
		{ abbreviation, "VS154" };
	};
	[0x0e018a] = {
		{ abbreviation, "VS155" };
	};
	[0x0e018b] = {
		{ abbreviation, "VS156" };
	};
	[0x0e018c] = {
		{ abbreviation, "VS157" };
	};
	[0x0e018d] = {
		{ abbreviation, "VS158" };
	};
	[0x0e018e] = {
		{ abbreviation, "VS159" };
	};
	[0x0e018f] = {
		{ abbreviation, "VS160" };
	};
	[0x0e0190] = {
		{ abbreviation, "VS161" };
	};
	[0x0e0191] = {
		{ abbreviation, "VS162" };
	};
	[0x0e0192] = {
```

```
		{ abbreviation, "VS163" };
	};
	[0x0e0193] = {
		{ abbreviation, "VS164" };
	};
	[0x0e0194] = {
		{ abbreviation, "VS165" };
	};
	[0x0e0195] = {
		{ abbreviation, "VS166" };
	};
	[0x0e0196] = {
		{ abbreviation, "VS167" };
	};
	[0x0e0197] = {
		{ abbreviation, "VS168" };
	};
	[0x0e0198] = {
		{ abbreviation, "VS169" };
	};
	[0x0e0199] = {
		{ abbreviation, "VS170" };
	};
	[0x0e019a] = {
		{ abbreviation, "VS171" };
	};
	[0x0e019b] = {
		{ abbreviation, "VS172" };
	};
	[0x0e019c] = {
		{ abbreviation, "VS173" };
	};
	[0x0e019d] = {
		{ abbreviation, "VS174" };
	};
	[0x0e019e] = {
		{ abbreviation, "VS175" };
	};
	[0x0e019f] = {
		{ abbreviation, "VS176" };
	};
	[0x0e01a0] = {
		{ abbreviation, "VS177" };
	};
	[0x0e01a1] = {
		{ abbreviation, "VS178" };
	};
	[0x0e01a2] = {
		{ abbreviation, "VS179" };
	};
	[0x0e01a3] = {
		{ abbreviation, "VS180" };
	};
	[0x0e01a4] = {
		{ abbreviation, "VS181" };
	};
	[0x0e01a5] = {
		{ abbreviation, "VS182" };
	};
	[0x0e01a6] = {
		{ abbreviation, "VS183" };
	};
	[0x0e01a7] = {
		{ abbreviation, "VS184" };
```

```
	};
	[0x0e01a8] = {
		{ abbreviation, "VS185" };
	};
	[0x0e01a9] = {
		{ abbreviation, "VS186" };
	};
	[0x0e01aa] = {
		{ abbreviation, "VS187" };
	};
	[0x0e01ab] = {
		{ abbreviation, "VS188" };
	};
	[0x0e01ac] = {
		{ abbreviation, "VS189" };
	};
	[0x0e01ad] = {
		{ abbreviation, "VS190" };
	};
	[0x0e01ae] = {
		{ abbreviation, "VS191" };
	};
	[0x0e01af] = {
		{ abbreviation, "VS192" };
	};
	[0x0e01b0] = {
		{ abbreviation, "VS193" };
	};
	[0x0e01b1] = {
		{ abbreviation, "VS194" };
	};
	[0x0e01b2] = {
		{ abbreviation, "VS195" };
	};
	[0x0e01b3] = {
		{ abbreviation, "VS196" };
	};
	[0x0e01b4] = {
		{ abbreviation, "VS197" };
	};
	[0x0e01b5] = {
		{ abbreviation, "VS198" };
	};
	[0x0e01b6] = {
		{ abbreviation, "VS199" };
	};
	[0x0e01b7] = {
		{ abbreviation, "VS200" };
	};
	[0x0e01b8] = {
		{ abbreviation, "VS201" };
	};
	[0x0e01b9] = {
		{ abbreviation, "VS202" };
	};
	[0x0e01ba] = {
		{ abbreviation, "VS203" };
	};
	[0x0e01bb] = {
		{ abbreviation, "VS204" };
	};
	[0x0e01bc] = {
		{ abbreviation, "VS205" };
	};
```

```
	[0x0e01bd] = {
		{ abbreviation, "VS206" };
	};
	[0x0e01be] = {
		{ abbreviation, "VS207" };
	};
	[0x0e01bf] = {
		{ abbreviation, "VS208" };
	};
	[0x0e01c0] = {
		{ abbreviation, "VS209" };
	};
	[0x0e01c1] = {
		{ abbreviation, "VS210" };
	};
	[0x0e01c2] = {
		{ abbreviation, "VS211" };
	};
	[0x0e01c3] = {
		{ abbreviation, "VS212" };
	};
	[0x0e01c4] = {
		{ abbreviation, "VS213" };
	};
	[0x0e01c5] = {
		{ abbreviation, "VS214" };
	};
	[0x0e01c6] = {
		{ abbreviation, "VS215" };
	};
	[0x0e01c7] = {
		{ abbreviation, "VS216" };
	};
	[0x0e01c8] = {
		{ abbreviation, "VS217" };
	};
	[0x0e01c9] = {
		{ abbreviation, "VS218" };
	};
	[0x0e01ca] = {
		{ abbreviation, "VS219" };
	};
	[0x0e01cb] = {
		{ abbreviation, "VS220" };
	};
	[0x0e01cc] = {
		{ abbreviation, "VS221" };
	};
	[0x0e01cd] = {
		{ abbreviation, "VS222" };
	};
	[0x0e01ce] = {
		{ abbreviation, "VS223" };
	};
	[0x0e01cf] = {
		{ abbreviation, "VS224" };
	};
	[0x0e01d0] = {
		{ abbreviation, "VS225" };
	};
	[0x0e01d1] = {
		{ abbreviation, "VS226" };
	};
	[0x0e01d2] = {
```

```
                { abbreviation, "VS227" };
        };
        [0x0e01d3] = {
                { abbreviation, "VS228" };
        };
        [0x0e01d4] = {
                { abbreviation, "VS229" };
        };
        [0x0e01d5] = {
                { abbreviation, "VS230" };
        };
        [0x0e01d6] = {
                { abbreviation, "VS231" };
        };
        [0x0e01d7] = {
                { abbreviation, "VS232" };
        };
        [0x0e01d8] = {
                { abbreviation, "VS233" };
        };
        [0x0e01d9] = {
                { abbreviation, "VS234" };
        };
        [0x0e01da] = {
                { abbreviation, "VS235" };
        };
        [0x0e01db] = {
                { abbreviation, "VS236" };
        };
        [0x0e01dc] = {
                { abbreviation, "VS237" };
        };
        [0x0e01dd] = {
                { abbreviation, "VS238" };
        };
        [0x0e01de] = {
                { abbreviation, "VS239" };
        };
        [0x0e01df] = {
                { abbreviation, "VS240" };
        };
        [0x0e01e0] = {
                { abbreviation, "VS241" };
        };
        [0x0e01e1] = {
                { abbreviation, "VS242" };
        };
        [0x0e01e2] = {
                { abbreviation, "VS243" };
        };
        [0x0e01e3] = {
                { abbreviation, "VS244" };
        };
        [0x0e01e4] = {
                { abbreviation, "VS245" };
        };
        [0x0e01e5] = {
                { abbreviation, "VS246" };
        };
        [0x0e01e6] = {
                { abbreviation, "VS247" };
        };
        [0x0e01e7] = {
                { abbreviation, "VS248" };
```

```
		};
		[0x0e01e8] = {
			{ abbreviation, "VS249" };
		};
		[0x0e01e9] = {
			{ abbreviation, "VS250" };
		};
		[0x0e01ea] = {
			{ abbreviation, "VS251" };
		};
		[0x0e01eb] = {
			{ abbreviation, "VS252" };
		};
		[0x0e01ec] = {
			{ abbreviation, "VS253" };
		};
		[0x0e01ed] = {
			{ abbreviation, "VS254" };
		};
		[0x0e01ee] = {
			{ abbreviation, "VS255" };
		};
		[0x0e01ef] = {
			{ abbreviation, "VS256" };
		};
}
```

Modul:Unicode data/blocks

Insert non-formatted text here Contains data on Unicode blocks for Module:Unicode data derived from Blocks.txt in the Unicode Character Database.

```
-- Compiled from http://www.unicode.org/Public/UNIDATA/Blocks.txt.
local blocks = {
        { 0x000000, 0x00007F, "Basic Latin"                                    },
        { 0x000080, 0x0000FF, "Latin-1 Supplement"                             },
        { 0x000100, 0x00017F, "Latin Extended-A"                               },
        { 0x000180, 0x00024F, "Latin Extended-B"                               },
        { 0x000250, 0x0002AF, "IPA Extensions"                                 },
        { 0x0002B0, 0x0002FF, "Spacing Modifier Letters"                       },
        { 0x000300, 0x00036F, "Combining Diacritical Marks"                    },
        { 0x000370, 0x0003FF, "Greek and Coptic"                               },
        { 0x000400, 0x0004FF, "Cyrillic"                                       },
        { 0x000500, 0x00052F, "Cyrillic Supplement"                            },
        { 0x000530, 0x00058F, "Armenian"                                       },
        { 0x000590, 0x0005FF, "Hebrew"                                         },
        { 0x000600, 0x0006FF, "Arabic"                                         },
        { 0x000700, 0x00074F, "Syriac"                                         },
        { 0x000750, 0x00077F, "Arabic Supplement"                              },
        { 0x000780, 0x0007BF, "Thaana"                                         },
        { 0x0007C0, 0x0007FF, "NKo"                                            },
        { 0x000800, 0x00083F, "Samaritan"                                      },
        { 0x000840, 0x00085F, "Mandaic"                                        },
        { 0x000860, 0x00086F, "Syriac Supplement"                              },
        { 0x000870, 0x00089F, "Arabic Extended-B"                              },
        { 0x0008A0, 0x0008FF, "Arabic Extended-A"                              },
        { 0x000900, 0x00097F, "Devanagari"                                     },
        { 0x000980, 0x0009FF, "Bengali"                                        },
        { 0x000A00, 0x000A7F, "Gurmukhi"                                       },
        { 0x000A80, 0x000AFF, "Gujarati"                                       },
        { 0x000B00, 0x000B7F, "Oriya"                                          },
        { 0x000B80, 0x000BFF, "Tamil"                                          },
        { 0x000C00, 0x000C7F, "Telugu"                                         },
        { 0x000C80, 0x000CFF, "Kannada"                                        },
        { 0x000D00, 0x000D7F, "Malayalam"                                      },
        { 0x000D80, 0x000DFF, "Sinhala"                                        },
        { 0x000E00, 0x000E7F, "Thai"                                           },
        { 0x000E80, 0x000EFF, "Lao"                                            },
        { 0x000F00, 0x000FFF, "Tibetan"                                        },
        { 0x001000, 0x00109F, "Myanmar"                                        },
        { 0x0010A0, 0x0010FF, "Georgian"                                       },
        { 0x001100, 0x0011FF, "Hangul Jamo"                                    },
        { 0x001200, 0x00137F, "Ethiopic"                                       },
        { 0x001380, 0x00139F, "Ethiopic Supplement"                            },
        { 0x0013A0, 0x0013FF, "Cherokee"                                       },
        { 0x001400, 0x00167F, "Unified Canadian Aboriginal Syllabics"          },
        { 0x001680, 0x00169F, "Ogham"                                          },
        { 0x0016A0, 0x0016FF, "Runic"                                          },
        { 0x001700, 0x00171F, "Tagalog"                                        },
        { 0x001720, 0x00173F, "Hanunoo"                                        },
        { 0x001740, 0x00175F, "Buhid"                                          },
        { 0x001760, 0x00177F, "Tagbanwa"                                       },
        { 0x001780, 0x0017FF, "Khmer"                                          },
        { 0x001800, 0x0018AF, "Mongolian"                                      },
        { 0x0018B0, 0x0018FF, "Unified Canadian Aboriginal Syllabics Extended" },
        { 0x001900, 0x00194F, "Limbu"                                          },
```

```
        { 0x001950, 0x00197F, "Tai Le"                                    }
        { 0x001980, 0x0019DF, "New Tai Lue"                               }
        { 0x0019E0, 0x0019FF, "Khmer Symbols"                             }
        { 0x001A00, 0x001A1F, "Buginese"                                  }
        { 0x001A20, 0x001AAF, "Tai Tham"                                  }
        { 0x001AB0, 0x001AFF, "Combining Diacritical Marks Extended"      }
        { 0x001B00, 0x001B7F, "Balinese"                                  }
        { 0x001B80, 0x001BBF, "Sundanese"                                 }
        { 0x001BC0, 0x001BFF, "Batak"                                     }
        { 0x001C00, 0x001C4F, "Lepcha"                                    }
        { 0x001C50, 0x001C7F, "Ol Chiki"                                  }
        { 0x001C80, 0x001C8F, "Cyrillic Extended-C"                       }
        { 0x001C90, 0x001CBF, "Georgian Extended"                         }
        { 0x001CC0, 0x001CCF, "Sundanese Supplement"                      }
        { 0x001CD0, 0x001CFF, "Vedic Extensions"                          }
        { 0x001D00, 0x001D7F, "Phonetic Extensions"                       }
        { 0x001D80, 0x001DBF, "Phonetic Extensions Supplement"            }
        { 0x001DC0, 0x001DFF, "Combining Diacritical Marks Supplement"    }
        { 0x001E00, 0x001EFF, "Latin Extended Additional"                 }
        { 0x001F00, 0x001FFF, "Greek Extended"                            }
        { 0x002000, 0x00206F, "General Punctuation"                       }
        { 0x002070, 0x00209F, "Superscripts and Subscripts"               }
        { 0x0020A0, 0x0020CF, "Currency Symbols"                          }
        { 0x0020D0, 0x0020FF, "Combining Diacritical Marks for Symbols"   }
        { 0x002100, 0x00214F, "Letterlike Symbols"                        }
        { 0x002150, 0x00218F, "Number Forms"                              }
        { 0x002190, 0x0021FF, "Arrows"                                    }
        { 0x002200, 0x0022FF, "Mathematical Operators"                    }
        { 0x002300, 0x0023FF, "Miscellaneous Technical"                   }
        { 0x002400, 0x00243F, "Control Pictures"                          }
        { 0x002440, 0x00245F, "Optical Character Recognition"             }
        { 0x002460, 0x0024FF, "Enclosed Alphanumerics"                    }
        { 0x002500, 0x00257F, "Box Drawing"                               }
        { 0x002580, 0x00259F, "Block Elements"                            }
        { 0x0025A0, 0x0025FF, "Geometric Shapes"                          }
        { 0x002600, 0x0026FF, "Miscellaneous Symbols"                     }
        { 0x002700, 0x0027BF, "Dingbats"                                  }
        { 0x0027C0, 0x0027EF, "Miscellaneous Mathematical Symbols-A"      }
        { 0x0027F0, 0x0027FF, "Supplemental Arrows-A"                     }
        { 0x002800, 0x0028FF, "Braille Patterns"                          }
        { 0x002900, 0x00297F, "Supplemental Arrows-B"                     }
        { 0x002980, 0x0029FF, "Miscellaneous Mathematical Symbols-B"      }
        { 0x002A00, 0x002AFF, "Supplemental Mathematical Operators"       }
        { 0x002B00, 0x002BFF, "Miscellaneous Symbols and Arrows"          }
        { 0x002C00, 0x002C5F, "Glagolitic"                                }
        { 0x002C60, 0x002C7F, "Latin Extended-C"                          }
        { 0x002C80, 0x002CFF, "Coptic"                                    }
        { 0x002D00, 0x002D2F, "Georgian Supplement"                       }
        { 0x002D30, 0x002D7F, "Tifinagh"                                  }
        { 0x002D80, 0x002DDF, "Ethiopic Extended"                         }
        { 0x002DE0, 0x002DFF, "Cyrillic Extended-A"                       }
        { 0x002E00, 0x002E7F, "Supplemental Punctuation"                  }
        { 0x002E80, 0x002EFF, "CJK Radicals Supplement"                   }
        { 0x002F00, 0x002FDF, "Kangxi Radicals"                           }
        { 0x002FF0, 0x002FFF, "Ideographic Description Characters"        }
        { 0x003000, 0x00303F, "CJK Symbols and Punctuation"               }
        { 0x003040, 0x00309F, "Hiragana"                                  }
        { 0x0030A0, 0x0030FF, "Katakana"                                  }
        { 0x003100, 0x00312F, "Bopomofo"                                  }
        { 0x003130, 0x00318F, "Hangul Compatibility Jamo"                 }
        { 0x003190, 0x00319F, "Kanbun"                                    }
        { 0x0031A0, 0x0031BF, "Bopomofo Extended"                         }
        { 0x0031C0, 0x0031EF, "CJK Strokes"                               }
        { 0x0031F0, 0x0031FF, "Katakana Phonetic Extensions"              }
```

```
        { 0x003200, 0x0032FF, "Enclosed CJK Letters and Months"                 }
        { 0x003300, 0x0033FF, "CJK Compatibility"                               }
        { 0x003400, 0x004DBF, "CJK Unified Ideographs Extension A"              }
        { 0x004DC0, 0x004DFF, "Yijing Hexagram Symbols"                         }
        { 0x004E00, 0x009FFF, "CJK Unified Ideographs"                          }
        { 0x00A000, 0x00A48F, "Yi Syllables"                                    }
        { 0x00A490, 0x00A4CF, "Yi Radicals"                                     }
        { 0x00A4D0, 0x00A4FF, "Lisu"                                            }
        { 0x00A500, 0x00A63F, "Vai"                                             }
        { 0x00A640, 0x00A69F, "Cyrillic Extended-B"                             }
        { 0x00A6A0, 0x00A6FF, "Bamum"                                           }
        { 0x00A700, 0x00A71F, "Modifier Tone Letters"                           }
        { 0x00A720, 0x00A7FF, "Latin Extended-D"                                }
        { 0x00A800, 0x00A82F, "Syloti Nagri"                                    }
        { 0x00A830, 0x00A83F, "Common Indic Number Forms"                       }
        { 0x00A840, 0x00A87F, "Phags-pa"                                        }
        { 0x00A880, 0x00A8DF, "Saurashtra"                                      }
        { 0x00A8E0, 0x00A8FF, "Devanagari Extended"                             }
        { 0x00A900, 0x00A92F, "Kayah Li"                                        }
        { 0x00A930, 0x00A95F, "Rejang"                                          }
        { 0x00A960, 0x00A97F, "Hangul Jamo Extended-A"                          }
        { 0x00A980, 0x00A9DF, "Javanese"                                        }
        { 0x00A9E0, 0x00A9FF, "Myanmar Extended-B"                              }
        { 0x00AA00, 0x00AA5F, "Cham"                                            }
        { 0x00AA60, 0x00AA7F, "Myanmar Extended-A"                              }
        { 0x00AA80, 0x00AADF, "Tai Viet"                                        }
        { 0x00AAE0, 0x00AAFF, "Meetei Mayek Extensions"                         }
        { 0x00AB00, 0x00AB2F, "Ethiopic Extended-A"                             }
        { 0x00AB30, 0x00AB6F, "Latin Extended-E"                                }
        { 0x00AB70, 0x00ABBF, "Cherokee Supplement"                             }
        { 0x00ABC0, 0x00ABFF, "Meetei Mayek"                                    }
        { 0x00AC00, 0x00D7AF, "Hangul Syllables"                                }
        { 0x00D7B0, 0x00D7FF, "Hangul Jamo Extended-B"                          }
        { 0x00D800, 0x00DB7F, "High Surrogates"                                 }
        { 0x00DB80, 0x00DBFF, "High Private Use Surrogates"                     }
        { 0x00DC00, 0x00DFFF, "Low Surrogates"                                  }
        { 0x00E000, 0x00F8FF, "Private Use Area"                                }
        { 0x00F900, 0x00FAFF, "CJK Compatibility Ideographs"                    }
        { 0x00FB00, 0x00FB4F, "Alphabetic Presentation Forms"                   }
        { 0x00FB50, 0x00FDFF, "Arabic Presentation Forms-A"                     }
        { 0x00FE00, 0x00FE0F, "Variation Selectors"                             }
        { 0x00FE10, 0x00FE1F, "Vertical Forms"                                  }
        { 0x00FE20, 0x00FE2F, "Combining Half Marks"                            }
        { 0x00FE30, 0x00FE4F, "CJK Compatibility Forms"                         }
        { 0x00FE50, 0x00FE6F, "Small Form Variants"                             }
        { 0x00FE70, 0x00FEFF, "Arabic Presentation Forms-B"                     }
        { 0x00FF00, 0x00FFEF, "Halfwidth and Fullwidth Forms"                   }
        { 0x00FFF0, 0x00FFFF, "Specials"                                        }
        { 0x010000, 0x01007F, "Linear B Syllabary"                              }
        { 0x010080, 0x0100FF, "Linear B Ideograms"                              }
        { 0x010100, 0x01013F, "Aegean Numbers"                                  }
        { 0x010140, 0x01018F, "Ancient Greek Numbers"                           }
        { 0x010190, 0x0101CF, "Ancient Symbols"                                 }
        { 0x0101D0, 0x0101FF, "Phaistos Disc"                                   }
        { 0x010280, 0x01029F, "Lycian"                                          }
        { 0x0102A0, 0x0102DF, "Carian"                                          }
        { 0x0102E0, 0x0102FF, "Coptic Epact Numbers"                            }
        { 0x010300, 0x01032F, "Old Italic"                                      }
        { 0x010330, 0x01034F, "Gothic"                                          }
        { 0x010350, 0x01037F, "Old Permic"                                      }
        { 0x010380, 0x01039F, "Ugaritic"                                        }
        { 0x0103A0, 0x0103DF, "Old Persian"                                     }
        { 0x010400, 0x01044F, "Deseret"                                         }
        { 0x010450, 0x01047F, "Shavian"                                         }
```

```
        { 0x010480, 0x0104AF, "Osmanya"                                          },
        { 0x0104B0, 0x0104FF, "Osage"                                            },
        { 0x010500, 0x01052F, "Elbasan"                                          },
        { 0x010530, 0x01056F, "Caucasian Albanian"                               },
        { 0x010570, 0x0105BF, "Vithkuqi"                                         },
        { 0x010600, 0x01077F, "Linear A"                                         },
        { 0x010780, 0x0107BF, "Latin Extended-F"                                 },
        { 0x010800, 0x01083F, "Cypriot Syllabary"                                },
        { 0x010840, 0x01085F, "Imperial Aramaic"                                 },
        { 0x010860, 0x01087F, "Palmyrene"                                        },
        { 0x010880, 0x0108AF, "Nabataean"                                        },
        { 0x0108E0, 0x0108FF, "Hatran"                                           },
        { 0x010900, 0x01091F, "Phoenician"                                       },
        { 0x010920, 0x01093F, "Lydian"                                           },
        { 0x010980, 0x01099F, "Meroitic Hieroglyphs"                             },
        { 0x0109A0, 0x0109FF, "Meroitic Cursive"                                 },
        { 0x010A00, 0x010A5F, "Kharoshthi"                                       },
        { 0x010A60, 0x010A7F, "Old South Arabian"                                },
        { 0x010A80, 0x010A9F, "Old North Arabian"                                },
        { 0x010AC0, 0x010AFF, "Manichaean"                                       },
        { 0x010B00, 0x010B3F, "Avestan"                                          },
        { 0x010B40, 0x010B5F, "Inscriptional Parthian"                           },
        { 0x010B60, 0x010B7F, "Inscriptional Pahlavi"                            },
        { 0x010B80, 0x010BAF, "Psalter Pahlavi"                                  },
        { 0x010C00, 0x010C4F, "Old Turkic"                                       },
        { 0x010C80, 0x010CFF, "Old Hungarian"                                    },
        { 0x010D00, 0x010D3F, "Hanifi Rohingya"                                  },
        { 0x010E60, 0x010E7F, "Rumi Numeral Symbols"                             },
        { 0x010E80, 0x010EBF, "Yezidi"                                           },
        { 0x010F00, 0x010F2F, "Old Sogdian"                                      },
        { 0x010F30, 0x010F6F, "Sogdian"                                          },
        { 0x010F70, 0x010FAF, "Old Uyghur"                                       },
        { 0x010FB0, 0x010FDF, "Chorasmian"                                       },
        { 0x010FE0, 0x010FFF, "Elymaic"                                          },
        { 0x011000, 0x01107F, "Brahmi"                                           },
        { 0x011080, 0x0110CF, "Kaithi"                                           },
        { 0x0110D0, 0x0110FF, "Sora Sompeng"                                     },
        { 0x011100, 0x01114F, "Chakma"                                           },
        { 0x011150, 0x01117F, "Mahajani"                                         },
        { 0x011180, 0x0111DF, "Sharada"                                          },
        { 0x0111E0, 0x0111FF, "Sinhala Archaic Numbers"                          },
        { 0x011200, 0x01124F, "Khojki"                                           },
        { 0x011280, 0x0112AF, "Multani"                                          },
        { 0x0112B0, 0x0112FF, "Khudawadi"                                        },
        { 0x011300, 0x01137F, "Grantha"                                          },
        { 0x011400, 0x01147F, "Newa"                                             },
        { 0x011480, 0x0114DF, "Tirhuta"                                          },
        { 0x011580, 0x0115FF, "Siddham"                                          },
        { 0x011600, 0x01165F, "Modi"                                             },
        { 0x011660, 0x01167F, "Mongolian Supplement"                             },
        { 0x011680, 0x0116CF, "Takri"                                            },
        { 0x011700, 0x01174F, "Ahom"                                             },
        { 0x011800, 0x01184F, "Dogra"                                            },
        { 0x0118A0, 0x0118FF, "Warang Citi"                                      },
        { 0x011900, 0x01195F, "Dives Akuru"                                      },
        { 0x0119A0, 0x0119FF, "Nandinagari"                                      },
        { 0x011A00, 0x011A4F, "Zanabazar Square"                                 },
        { 0x011A50, 0x011AAF, "Soyombo"                                          },
        { 0x011AB0, 0x011ABF, "Unified Canadian Aboriginal Syllabics Extended-A"},
        { 0x011AC0, 0x011AFF, "Pau Cin Hau"                                      },
        { 0x011C00, 0x011C6F, "Bhaiksuki"                                        },
        { 0x011C70, 0x011CBF, "Marchen"                                          },
        { 0x011D00, 0x011D5F, "Masaram Gondi"                                    },
        { 0x011D60, 0x011DAF, "Gunjala Gondi"                                    },
```

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        { 0x011EE0, 0x011EFF, "Makasar"                                    }
        { 0x011FB0, 0x011FBF, "Lisu Supplement"                            }
        { 0x011FC0, 0x011FFF, "Tamil Supplement"                           }
        { 0x012000, 0x0123FF, "Cuneiform"                                  }
        { 0x012400, 0x01247F, "Cuneiform Numbers and Punctuation"          }
        { 0x012480, 0x01254F, "Early Dynastic Cuneiform"                   }
        { 0x012F90, 0x012FFF, "Cypro-Minoan"                               }
        { 0x013000, 0x01342F, "Egyptian Hieroglyphs"                       }
        { 0x013430, 0x01343F, "Egyptian Hieroglyph Format Controls"        }
        { 0x014400, 0x01467F, "Anatolian Hieroglyphs"                      }
        { 0x016800, 0x016A3F, "Bamum Supplement"                           }
        { 0x016A40, 0x016A6F, "Mro"                                        }
        { 0x016A70, 0x016ACF, "Tangsa"                                     }
        { 0x016AD0, 0x016AFF, "Bassa Vah"                                  }
        { 0x016B00, 0x016B8F, "Pahawh Hmong"                               }
        { 0x016E40, 0x016E9F, "Medefaidrin"                                }
        { 0x016F00, 0x016F9F, "Miao"                                       }
        { 0x016FE0, 0x016FFF, "Ideographic Symbols and Punctuation"        }
        { 0x017000, 0x0187FF, "Tangut"                                     }
        { 0x018800, 0x018AFF, "Tangut Components"                          }
        { 0x018B00, 0x018CFF, "Khitan Small Script"                        }
        { 0x018D00, 0x018D7F, "Tangut Supplement"                          }
        { 0x01AFF0, 0x01AFFF, "Kana Extended-B"                            }
        { 0x01B000, 0x01B0FF, "Kana Supplement"                            }
        { 0x01B100, 0x01B12F, "Kana Extended-A"                            }
        { 0x01B130, 0x01B16F, "Small Kana Extension"                       }
        { 0x01B170, 0x01B2FF, "Nushu"                                      }
        { 0x01BC00, 0x01BC9F, "Duployan"                                   }
        { 0x01BCA0, 0x01BCAF, "Shorthand Format Controls"                  }
        { 0x01CF00, 0x01CFCF, "Znamenny Musical Notation"                  }
        { 0x01D000, 0x01D0FF, "Byzantine Musical Symbols"                  }
        { 0x01D100, 0x01D1FF, "Musical Symbols"                            }
        { 0x01D200, 0x01D24F, "Ancient Greek Musical Notation"             }
        { 0x01D2E0, 0x01D2FF, "Mayan Numerals"                             }
        { 0x01D300, 0x01D35F, "Tai Xuan Jing Symbols"                      }
        { 0x01D360, 0x01D37F, "Counting Rod Numerals"                      }
        { 0x01D400, 0x01D7FF, "Mathematical Alphanumeric Symbols"          }
        { 0x01D800, 0x01DAAF, "Sutton SignWriting"                         }
        { 0x01DF00, 0x01DFFF, "Latin Extended-G"                           }
        { 0x01E000, 0x01E02F, "Glagolitic Supplement"                      }
        { 0x01E100, 0x01E14F, "Nyiakeng Puachue Hmong"                     }
        { 0x01E290, 0x01E2BF, "Toto"                                       }
        { 0x01E2C0, 0x01E2FF, "Wancho"                                     }
        { 0x01E7E0, 0x01E7FF, "Ethiopic Extended-B"                        }
        { 0x01E800, 0x01E8DF, "Mende Kikakui"                              }
        { 0x01E900, 0x01E95F, "Adlam"                                      }
        { 0x01EC70, 0x01ECBF, "Indic Siyaq Numbers"                        }
        { 0x01ED00, 0x01ED4F, "Ottoman Siyaq Numbers"                      }
        { 0x01EE00, 0x01EEFF, "Arabic Mathematical Alphabetic Symbols"     }
        { 0x01F000, 0x01F02F, "Mahjong Tiles"                              }
        { 0x01F030, 0x01F09F, "Domino Tiles"                               }
        { 0x01F0A0, 0x01F0FF, "Playing Cards"                              }
        { 0x01F100, 0x01F1FF, "Enclosed Alphanumeric Supplement"           }
        { 0x01F200, 0x01F2FF, "Enclosed Ideographic Supplement"            }
        { 0x01F300, 0x01F5FF, "Miscellaneous Symbols and Pictographs"      }
        { 0x01F600, 0x01F64F, "Emoticons"                                  }
        { 0x01F650, 0x01F67F, "Ornamental Dingbats"                        }
        { 0x01F680, 0x01F6FF, "Transport and Map Symbols"                  }
        { 0x01F700, 0x01F77F, "Alchemical Symbols"                         }
        { 0x01F780, 0x01F7FF, "Geometric Shapes Extended"                  }
        { 0x01F800, 0x01F8FF, "Supplemental Arrows-C"                      }
        { 0x01F900, 0x01F9FF, "Supplemental Symbols and Pictographs"       }
        { 0x01FA00, 0x01FA6F, "Chess Symbols"                              }
        { 0x01FA70, 0x01FAFF, "Symbols and Pictographs Extended-A"         }
```

```
        { 0x01FB00, 0x01FBFF, "Symbols for Legacy Computing"                 },
        { 0x020000, 0x02A6DF, "CJK Unified Ideographs Extension B"           },
        { 0x02A700, 0x02B73F, "CJK Unified Ideographs Extension C"           },
        { 0x02B740, 0x02B81F, "CJK Unified Ideographs Extension D"           },
        { 0x02B820, 0x02CEAF, "CJK Unified Ideographs Extension E"           },
        { 0x02CEB0, 0x02EBEF, "CJK Unified Ideographs Extension F"           },
        { 0x02F800, 0x02FA1F, "CJK Compatibility Ideographs Supplement"      },
        { 0x030000, 0x03134F, "CJK Unified Ideographs Extension G"           },
        { 0x0E0000, 0x0E007F, "Tags"                                         },
        { 0x0E0100, 0x0E01EF, "Variation Selectors Supplement"               },
        { 0x0F0000, 0x0FFFFF, "Supplementary Private Use Area-A"             },
        { 0x100000, 0x10FFFF, "Supplementary Private Use Area-B"             },
}
blocks.length = #blocks

return blocks
```

Modul:Unicode data/category

Unicode General Category data generated by Module:Unicode data/category/make from DerivedGeneralCategory.txt and PropertyValueAliases.txt in the Unicode Character Database. The category Cn (Unassigned) is omitted because it is the default for characters not assigned to another category.

```
return {
	singles = {
		[0x00020] = "Zs",
		[0x00024] = "Sc",
		[0x00028] = "Ps",
		[0x00029] = "Pe",
		[0x0002A] = "Po",
		[0x0002B] = "Sm",
		[0x0002C] = "Po",
		[0x0002D] = "Pd",
		[0x0005B] = "Ps",
		[0x0005C] = "Po",
		[0x0005D] = "Pe",
		[0x0005E] = "Sk",
		[0x0005F] = "Pc",
		[0x00060] = "Sk",
		[0x0007B] = "Ps",
		[0x0007C] = "Sm",
		[0x0007D] = "Pe",
		[0x0007E] = "Sm",
		[0x000A0] = "Zs",
		[0x000A1] = "Po",
		[0x000A6] = "So",
		[0x000A7] = "Po",
		[0x000A8] = "Sk",
		[0x000A9] = "So",
		[0x000AA] = "Lo",
		[0x000AB] = "Pi",
		[0x000AC] = "Sm",
		[0x000AD] = "Cf",
		[0x000AE] = "So",
		[0x000AF] = "Sk",
		[0x000B0] = "So",
		[0x000B1] = "Sm",
		[0x000B4] = "Sk",
		[0x000B5] = "Ll",
		[0x000B8] = "Sk",
		[0x000B9] = "No",
		[0x000BA] = "Lo",
		[0x000BB] = "Pf",
		[0x000BF] = "Po",
		[0x000D7] = "Sm",
		[0x000F7] = "Sm",
		[0x00100] = "Lu",
		[0x00101] = "Ll",
		[0x00102] = "Lu",
		[0x00103] = "Ll",
		[0x00104] = "Lu",
		[0x00105] = "Ll",
		[0x00106] = "Lu",
		[0x00107] = "Ll",
```

```
                [0x00108] = "Lu",
                [0x00109] = "Ll",
                [0x0010A] = "Lu",
                [0x0010B] = "Ll",
                [0x0010C] = "Lu",
                [0x0010D] = "Ll",
                [0x0010E] = "Lu",
                [0x0010F] = "Ll",
                [0x00110] = "Lu",
                [0x00111] = "Ll",
                [0x00112] = "Lu",
                [0x00113] = "Ll",
                [0x00114] = "Lu",
                [0x00115] = "Ll",
                [0x00116] = "Lu",
                [0x00117] = "Ll",
                [0x00118] = "Lu",
                [0x00119] = "Ll",
                [0x0011A] = "Lu",
                [0x0011B] = "Ll",
                [0x0011C] = "Lu",
                [0x0011D] = "Ll",
                [0x0011E] = "Lu",
                [0x0011F] = "Ll",
                [0x00120] = "Lu",
                [0x00121] = "Ll",
                [0x00122] = "Lu",
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                [0x00124] = "Lu",
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                [0x00129] = "Ll",
                [0x0012A] = "Lu",
                [0x0012B] = "Ll",
                [0x0012C] = "Lu",
                [0x0012D] = "Ll",
                [0x0012E] = "Lu",
                [0x0012F] = "Ll",
                [0x00130] = "Lu",
                [0x00131] = "Ll",
                [0x00132] = "Lu",
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                [0x0013C] = "Ll",
                [0x0013D] = "Lu",
                [0x0013E] = "Ll",
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                [0x00142] = "Ll",
                [0x00143] = "Lu",
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                [0x00146] = "Ll",
                [0x00147] = "Lu",
                [0x0014A] = "Lu",
                [0x0014B] = "Ll",
```

```
                [0x0014C] = "Lu",
                [0x0014D] = "Ll",
                [0x0014E] = "Lu",
                [0x0014F] = "Ll",
                [0x00150] = "Lu",
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                [0x00153] = "Ll",
                [0x00154] = "Lu",
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                [0x0015D] = "Ll",
                [0x0015E] = "Lu",
                [0x0015F] = "Ll",
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                [0x00162] = "Lu",
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                [0x00169] = "Ll",
                [0x0016A] = "Lu",
                [0x0016B] = "Ll",
                [0x0016C] = "Lu",
                [0x0016D] = "Ll",
                [0x0016E] = "Lu",
                [0x0016F] = "Ll",
                [0x00170] = "Lu",
                [0x00171] = "Ll",
                [0x00172] = "Lu",
                [0x00173] = "Ll",
                [0x00174] = "Lu",
                [0x00175] = "Ll",
                [0x00176] = "Lu",
                [0x00177] = "Ll",
                [0x0017A] = "Ll",
                [0x0017B] = "Lu",
                [0x0017C] = "Ll",
                [0x0017D] = "Lu",
                [0x00183] = "Ll",
                [0x00184] = "Lu",
                [0x00185] = "Ll",
                [0x00188] = "Ll",
                [0x00192] = "Ll",
                [0x00195] = "Ll",
                [0x0019E] = "Ll",
                [0x001A1] = "Ll",
                [0x001A2] = "Lu",
                [0x001A3] = "Ll",
                [0x001A4] = "Lu",
                [0x001A5] = "Ll",
                [0x001A8] = "Ll",
                [0x001A9] = "Lu",
                [0x001AC] = "Lu",
                [0x001AD] = "Ll",
```

```
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                [0x02E56] = "Pe",
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                [0x02E58] = "Pe",
                [0x02E59] = "Ps",
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                [0x02E5D] = "Pd",
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                [0x03006] = "Lo",
                [0x03007] = "Nl",
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                [0x0300B] = "Pe",
                [0x0300C] = "Ps",
                [0x0300D] = "Pe",
                [0x0300E] = "Ps",
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                [0x0301A] = "Ps",
                [0x0301B] = "Pe",
                [0x0301C] = "Pd",
                [0x0301D] = "Ps",
                [0x03020] = "So",
                [0x03030] = "Pd",
                [0x0303B] = "Lm",
                [0x0303C] = "Lo",
                [0x0303D] = "Po",
                [0x0309F] = "Lo",
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                [0x0A60C] = "Lm",
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                [0x0A65A] = "Lu",
                [0x0A65B] = "Ll",
                [0x0A65C] = "Lu",
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                [0x0A663] = "Ll",
                [0x0A664] = "Lu",
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                [0x0A668] = "Lu",
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                [0x0A66B] = "Ll",
                [0x0A66C] = "Lu",
                [0x0A66D] = "Ll",
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                [0x0A66F] = "Mn",
                [0x0A673] = "Po",
                [0x0A67E] = "Po",
                [0x0A67F] = "Lm",
                [0x0A680] = "Lu",
                [0x0A681] = "Ll",
                [0x0A682] = "Lu",
                [0x0A683] = "Ll",
                [0x0A684] = "Lu",
                [0x0A685] = "Ll",
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                [0x0A68B] = "Ll",
                [0x0A68C] = "Lu",
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                [0x0A68E] = "Lu",
                [0x0A68F] = "Ll",
                [0x0A690] = "Lu",
                [0x0A691] = "Ll",
```

```
                [0x0A692] = "Lu",
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                [0x0A699] = "Ll",
                [0x0A69A] = "Lu",
                [0x0A69B] = "Ll",
                [0x0A722] = "Lu",
                [0x0A723] = "Ll",
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                [0x0A725] = "Ll",
                [0x0A726] = "Lu",
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                [0x0A729] = "Ll",
                [0x0A72A] = "Lu",
                [0x0A72B] = "Ll",
                [0x0A72C] = "Lu",
                [0x0A72D] = "Ll",
                [0x0A72E] = "Lu",
                [0x0A732] = "Lu",
                [0x0A733] = "Ll",
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                [0x0A736] = "Lu",
                [0x0A737] = "Ll",
                [0x0A738] = "Lu",
                [0x0A739] = "Ll",
                [0x0A73A] = "Lu",
                [0x0A73B] = "Ll",
                [0x0A73C] = "Lu",
                [0x0A73D] = "Ll",
                [0x0A73E] = "Lu",
                [0x0A73F] = "Ll",
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                [0x0A741] = "Ll",
                [0x0A742] = "Lu",
                [0x0A743] = "Ll",
                [0x0A744] = "Lu",
                [0x0A745] = "Ll",
                [0x0A746] = "Lu",
                [0x0A747] = "Ll",
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                [0x0A749] = "Ll",
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                [0x0A74B] = "Ll",
                [0x0A74C] = "Lu",
                [0x0A74D] = "Ll",
                [0x0A74E] = "Lu",
                [0x0A74F] = "Ll",
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                [0x0A752] = "Lu",
                [0x0A753] = "Ll",
                [0x0A754] = "Lu",
                [0x0A755] = "Ll",
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                [0x0A757] = "Ll",
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                [0x0A759] = "Ll",
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```

```
                [0x0A75B] = "Ll",
                [0x0A75C] = "Lu",
                [0x0A75D] = "Ll",
                [0x0A75E] = "Lu",
                [0x0A75F] = "Ll",
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                [0x0A761] = "Ll",
                [0x0A762] = "Lu",
                [0x0A763] = "Ll",
                [0x0A764] = "Lu",
                [0x0A765] = "Ll",
                [0x0A766] = "Lu",
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                [0x0A768] = "Lu",
                [0x0A769] = "Ll",
                [0x0A76A] = "Lu",
                [0x0A76B] = "Ll",
                [0x0A76C] = "Lu",
                [0x0A76D] = "Ll",
                [0x0A76E] = "Lu",
                [0x0A76F] = "Ll",
                [0x0A770] = "Lm",
                [0x0A779] = "Lu",
                [0x0A77A] = "Ll",
                [0x0A77B] = "Lu",
                [0x0A77C] = "Ll",
                [0x0A77F] = "Ll",
                [0x0A780] = "Lu",
                [0x0A781] = "Ll",
                [0x0A782] = "Lu",
                [0x0A783] = "Ll",
                [0x0A784] = "Lu",
                [0x0A785] = "Ll",
                [0x0A786] = "Lu",
                [0x0A787] = "Ll",
                [0x0A788] = "Lm",
                [0x0A78B] = "Lu",
                [0x0A78C] = "Ll",
                [0x0A78D] = "Lu",
                [0x0A78E] = "Ll",
                [0x0A78F] = "Lo",
                [0x0A790] = "Lu",
                [0x0A791] = "Ll",
                [0x0A792] = "Lu",
                [0x0A796] = "Lu",
                [0x0A797] = "Ll",
                [0x0A798] = "Lu",
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                [0x0A79B] = "Ll",
                [0x0A79C] = "Lu",
                [0x0A79D] = "Ll",
                [0x0A79E] = "Lu",
                [0x0A79F] = "Ll",
                [0x0A7A0] = "Lu",
                [0x0A7A1] = "Ll",
                [0x0A7A2] = "Lu",
                [0x0A7A3] = "Ll",
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                [0x0A7A5] = "Ll",
                [0x0A7A6] = "Lu",
                [0x0A7A7] = "Ll",
                [0x0A7A8] = "Lu",
                [0x0A7A9] = "Ll",
```

```
                [0x0A7AF] = "Ll",
                [0x0A7B5] = "Ll",
                [0x0A7B6] = "Lu",
                [0x0A7B7] = "Ll",
                [0x0A7B8] = "Lu",
                [0x0A7B9] = "Ll",
                [0x0A7BA] = "Lu",
                [0x0A7BB] = "Ll",
                [0x0A7BC] = "Lu",
                [0x0A7BD] = "Ll",
                [0x0A7BE] = "Lu",
                [0x0A7BF] = "Ll",
                [0x0A7C0] = "Lu",
                [0x0A7C1] = "Ll",
                [0x0A7C2] = "Lu",
                [0x0A7C3] = "Ll",
                [0x0A7C8] = "Ll",
                [0x0A7C9] = "Lu",
                [0x0A7CA] = "Ll",
                [0x0A7D0] = "Lu",
                [0x0A7D1] = "Ll",
                [0x0A7D3] = "Ll",
                [0x0A7D5] = "Ll",
                [0x0A7D6] = "Lu",
                [0x0A7D7] = "Ll",
                [0x0A7D8] = "Lu",
                [0x0A7D9] = "Ll",
                [0x0A7F5] = "Lu",
                [0x0A7F6] = "Ll",
                [0x0A7F7] = "Lo",
                [0x0A7FA] = "Ll",
                [0x0A802] = "Mn",
                [0x0A806] = "Mn",
                [0x0A80B] = "Mn",
                [0x0A827] = "Mc",
                [0x0A82C] = "Mn",
                [0x0A838] = "Sc",
                [0x0A839] = "So",
                [0x0A8FB] = "Lo",
                [0x0A8FC] = "Po",
                [0x0A8FF] = "Mn",
                [0x0A95F] = "Po",
                [0x0A983] = "Mc",
                [0x0A9B3] = "Mn",
                [0x0A9CF] = "Lm",
                [0x0A9E5] = "Mn",
                [0x0A9E6] = "Lm",
                [0x0AA43] = "Mn",
                [0x0AA4C] = "Mn",
                [0x0AA4D] = "Mc",
                [0x0AA70] = "Lm",
                [0x0AA7A] = "Lo",
                [0x0AA7B] = "Mc",
                [0x0AA7C] = "Mn",
                [0x0AA7D] = "Mc",
                [0x0AAB0] = "Mn",
                [0x0AAB1] = "Lo",
                [0x0AAC0] = "Lo",
                [0x0AAC1] = "Mn",
                [0x0AAC2] = "Lo",
                [0x0AADD] = "Lm",
                [0x0AAEB] = "Mc",
                [0x0AAF2] = "Lo",
                [0x0AAF5] = "Mc",
```

```
                [0x0AAF6] = "Mn",
                [0x0AB5B] = "Sk",
                [0x0AB69] = "Lm",
                [0x0ABE5] = "Mn",
                [0x0ABE8] = "Mn",
                [0x0ABEB] = "Po",
                [0x0ABEC] = "Mc",
                [0x0ABED] = "Mn",
                [0x0FB1D] = "Lo",
                [0x0FB1E] = "Mn",
                [0x0FB29] = "Sm",
                [0x0FB3E] = "Lo",
                [0x0FD3E] = "Pe",
                [0x0FD3F] = "Ps",
                [0x0FDCF] = "So",
                [0x0FDFC] = "Sc",
                [0x0FE17] = "Ps",
                [0x0FE18] = "Pe",
                [0x0FE19] = "Po",
                [0x0FE30] = "Po",
                [0x0FE35] = "Ps",
                [0x0FE36] = "Pe",
                [0x0FE37] = "Ps",
                [0x0FE38] = "Pe",
                [0x0FE39] = "Ps",
                [0x0FE3A] = "Pe",
                [0x0FE3B] = "Ps",
                [0x0FE3C] = "Pe",
                [0x0FE3D] = "Ps",
                [0x0FE3E] = "Pe",
                [0x0FE3F] = "Ps",
                [0x0FE40] = "Pe",
                [0x0FE41] = "Ps",
                [0x0FE42] = "Pe",
                [0x0FE43] = "Ps",
                [0x0FE44] = "Pe",
                [0x0FE47] = "Ps",
                [0x0FE48] = "Pe",
                [0x0FE58] = "Pd",
                [0x0FE59] = "Ps",
                [0x0FE5A] = "Pe",
                [0x0FE5B] = "Ps",
                [0x0FE5C] = "Pe",
                [0x0FE5D] = "Ps",
                [0x0FE5E] = "Pe",
                [0x0FE62] = "Sm",
                [0x0FE63] = "Pd",
                [0x0FE68] = "Po",
                [0x0FE69] = "Sc",
                [0x0FEFF] = "Cf",
                [0x0FF04] = "Sc",
                [0x0FF08] = "Ps",
                [0x0FF09] = "Pe",
                [0x0FF0A] = "Po",
                [0x0FF0B] = "Sm",
                [0x0FF0C] = "Po",
                [0x0FF0D] = "Pd",
                [0x0FF3B] = "Ps",
                [0x0FF3C] = "Po",
                [0x0FF3D] = "Pe",
                [0x0FF3E] = "Sk",
                [0x0FF3F] = "Pc",
                [0x0FF40] = "Sk",
                [0x0FF5B] = "Ps",
```

```
                [0x0FF5C] = "Sm",
                [0x0FF5D] = "Pe",
                [0x0FF5E] = "Sm",
                [0x0FF5F] = "Ps",
                [0x0FF60] = "Pe",
                [0x0FF61] = "Po",
                [0x0FF62] = "Ps",
                [0x0FF63] = "Pe",
                [0x0FF70] = "Lm",
                [0x0FFE2] = "Sm",
                [0x0FFE3] = "Sk",
                [0x0FFE4] = "So",
                [0x0FFE8] = "So",
                [0x101A0] = "So",
                [0x101FD] = "Mn",
                [0x102E0] = "Mn",
                [0x10341] = "Nl",
                [0x1034A] = "Nl",
                [0x1039F] = "Po",
                [0x103D0] = "Po",
                [0x1056F] = "Po",
                [0x10808] = "Lo",
                [0x1083C] = "Lo",
                [0x10857] = "Po",
                [0x1091F] = "Po",
                [0x1093F] = "Po",
                [0x10A00] = "Lo",
                [0x10A3F] = "Mn",
                [0x10A7F] = "Po",
                [0x10AC8] = "So",
                [0x10EAD] = "Pd",
                [0x10F27] = "Lo",
                [0x11000] = "Mc",
                [0x11001] = "Mn",
                [0x11002] = "Mc",
                [0x11070] = "Mn",
                [0x11075] = "Lo",
                [0x11082] = "Mc",
                [0x110BD] = "Cf",
                [0x110C2] = "Mn",
                [0x110CD] = "Cf",
                [0x1112C] = "Mc",
                [0x11144] = "Lo",
                [0x11147] = "Lo",
                [0x11173] = "Mn",
                [0x11176] = "Lo",
                [0x11182] = "Mc",
                [0x111CD] = "Po",
                [0x111CE] = "Mc",
                [0x111CF] = "Mn",
                [0x111DA] = "Lo",
                [0x111DB] = "Po",
                [0x111DC] = "Lo",
                [0x11234] = "Mn",
                [0x11235] = "Mc",
                [0x1123E] = "Mn",
                [0x11288] = "Lo",
                [0x112A9] = "Po",
                [0x112DF] = "Mn",
                [0x1133D] = "Lo",
                [0x11340] = "Mn",
                [0x11350] = "Lo",
                [0x11357] = "Mc",
                [0x11445] = "Mc",
```

```
                [0x11446] = "Mn",
                [0x1145D] = "Po",
                [0x1145E] = "Mn",
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                [0x114BA] = "Mn",
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                [0x114C6] = "Po",
                [0x114C7] = "Lo",
                [0x115BE] = "Mc",
                [0x1163D] = "Mn",
                [0x1163E] = "Mc",
                [0x11644] = "Lo",
                [0x116AB] = "Mn",
                [0x116AC] = "Mc",
                [0x116AD] = "Mn",
                [0x116B6] = "Mc",
                [0x116B7] = "Mn",
                [0x116B8] = "Lo",
                [0x116B9] = "Po",
                [0x11726] = "Mc",
                [0x1173F] = "So",
                [0x11838] = "Mc",
                [0x1183B] = "Po",
                [0x11909] = "Lo",
                [0x1193D] = "Mc",
                [0x1193E] = "Mn",
                [0x1193F] = "Lo",
                [0x11940] = "Mc",
                [0x11941] = "Lo",
                [0x11942] = "Mc",
                [0x11943] = "Mn",
                [0x119E0] = "Mn",
                [0x119E1] = "Lo",
                [0x119E2] = "Po",
                [0x119E3] = "Lo",
                [0x119E4] = "Mc",
                [0x11A00] = "Lo",
                [0x11A39] = "Mc",
                [0x11A3A] = "Lo",
                [0x11A47] = "Mn",
                [0x11A50] = "Lo",
                [0x11A97] = "Mc",
                [0x11A9D] = "Lo",
                [0x11C2F] = "Mc",
                [0x11C3E] = "Mc",
                [0x11C3F] = "Mn",
                [0x11C40] = "Lo",
                [0x11CA9] = "Mc",
                [0x11CB1] = "Mc",
                [0x11CB4] = "Mc",
                [0x11D3A] = "Mn",
                [0x11D46] = "Lo",
                [0x11D47] = "Mn",
                [0x11D95] = "Mn",
                [0x11D96] = "Mc",
                [0x11D97] = "Mn",
                [0x11D98] = "Lo",
                [0x11FB0] = "Lo",
                [0x11FFF] = "Po",
                [0x16AF5] = "Po",
                [0x16B44] = "Po",
                [0x16B45] = "So",
                [0x16F4F] = "Mn",
                [0x16F50] = "Lo",
```

```
                [0x16FE2] = "Po",
                [0x16FE3] = "Lm",
                [0x16FE4] = "Mn",
                [0x1BC9C] = "So",
                [0x1BC9F] = "Po",
                [0x1D245] = "So",
                [0x1D49C] = "Lu",
                [0x1D4A2] = "Lu",
                [0x1D4BB] = "Ll",
                [0x1D546] = "Lu",
                [0x1D6C1] = "Sm",
                [0x1D6DB] = "Sm",
                [0x1D6FB] = "Sm",
                [0x1D715] = "Sm",
                [0x1D735] = "Sm",
                [0x1D74F] = "Sm",
                [0x1D76F] = "Sm",
                [0x1D789] = "Sm",
                [0x1D7A9] = "Sm",
                [0x1D7C3] = "Sm",
                [0x1D7CA] = "Lu",
                [0x1D7CB] = "Ll",
                [0x1DA75] = "Mn",
                [0x1DA84] = "Mn",
                [0x1DF0A] = "Lo",
                [0x1E14E] = "Lo",
                [0x1E14F] = "So",
                [0x1E2AE] = "Mn",
                [0x1E2FF] = "Sc",
                [0x1E94B] = "Lm",
                [0x1ECAC] = "So",
                [0x1ECB0] = "Sc",
                [0x1ED2E] = "So",
                [0x1EE24] = "Lo",
                [0x1EE27] = "Lo",
                [0x1EE39] = "Lo",
                [0x1EE3B] = "Lo",
                [0x1EE42] = "Lo",
                [0x1EE47] = "Lo",
                [0x1EE49] = "Lo",
                [0x1EE4B] = "Lo",
                [0x1EE54] = "Lo",
                [0x1EE57] = "Lo",
                [0x1EE59] = "Lo",
                [0x1EE5B] = "Lo",
                [0x1EE5D] = "Lo",
                [0x1EE5F] = "Lo",
                [0x1EE64] = "Lo",
                [0x1EE7E] = "Lo",
                [0x1F7F0] = "So",
                [0xE0001] = "Cf",
        },
        ranges = {
                { 0x000000, 0x00001F, "Cc" },
                { 0x000021, 0x000023, "Po" },
                { 0x000025, 0x000027, "Po" },
                { 0x00002E, 0x00002F, "Po" },
                { 0x000030, 0x000039, "Nd" },
                { 0x00003A, 0x00003B, "Po" },
                { 0x00003C, 0x00003E, "Sm" },
                { 0x00003F, 0x000040, "Po" },
                { 0x000041, 0x00005A, "Lu" },
                { 0x000061, 0x00007A, "Ll" },
                { 0x00007F, 0x00009F, "Cc" },
```

```
                { 0x0000A2, 0x0000A5, "Sc" },
                { 0x0000B2, 0x0000B3, "No" },
                { 0x0000B6, 0x0000B7, "Po" },
                { 0x0000BC, 0x0000BE, "No" },
                { 0x0000C0, 0x0000D6, "Lu" },
                { 0x0000D8, 0x0000DE, "Lu" },
                { 0x0000DF, 0x0000F6, "Ll" },
                { 0x0000F8, 0x0000FF, "Ll" },
                { 0x000137, 0x000138, "Ll" },
                { 0x000148, 0x000149, "Ll" },
                { 0x000178, 0x000179, "Lu" },
                { 0x00017E, 0x000180, "Ll" },
                { 0x000181, 0x000182, "Lu" },
                { 0x000186, 0x000187, "Lu" },
                { 0x000189, 0x00018B, "Lu" },
                { 0x00018C, 0x00018D, "Ll" },
                { 0x00018E, 0x000191, "Lu" },
                { 0x000193, 0x000194, "Lu" },
                { 0x000196, 0x000198, "Lu" },
                { 0x000199, 0x00019B, "Ll" },
                { 0x00019C, 0x00019D, "Lu" },
                { 0x00019F, 0x0001A0, "Lu" },
                { 0x0001A6, 0x0001A7, "Lu" },
                { 0x0001AA, 0x0001AB, "Ll" },
                { 0x0001AE, 0x0001AF, "Lu" },
                { 0x0001B1, 0x0001B3, "Lu" },
                { 0x0001B7, 0x0001B8, "Lu" },
                { 0x0001B9, 0x0001BA, "Ll" },
                { 0x0001BD, 0x0001BF, "Ll" },
                { 0x0001C0, 0x0001C3, "Lo" },
                { 0x0001DC, 0x0001DD, "Ll" },
                { 0x0001EF, 0x0001F0, "Ll" },
                { 0x0001F6, 0x0001F8, "Lu" },
                { 0x000233, 0x000239, "Ll" },
                { 0x00023A, 0x00023B, "Lu" },
                { 0x00023D, 0x00023E, "Lu" },
                { 0x00023F, 0x000240, "Ll" },
                { 0x000243, 0x000246, "Lu" },
                { 0x00024F, 0x000293, "Ll" },
                { 0x000295, 0x0002AF, "Ll" },
                { 0x0002B0, 0x0002C1, "Lm" },
                { 0x0002C2, 0x0002C5, "Sk" },
                { 0x0002C6, 0x0002D1, "Lm" },
                { 0x0002D2, 0x0002DF, "Sk" },
                { 0x0002E0, 0x0002E4, "Lm" },
                { 0x0002E5, 0x0002EB, "Sk" },
                { 0x0002EF, 0x0002FF, "Sk" },
                { 0x000300, 0x00036F, "Mn" },
                { 0x00037B, 0x00037D, "Ll" },
                { 0x000384, 0x000385, "Sk" },
                { 0x000388, 0x00038A, "Lu" },
                { 0x00038E, 0x00038F, "Lu" },
                { 0x000391, 0x0003A1, "Lu" },
                { 0x0003A3, 0x0003AB, "Lu" },
                { 0x0003AC, 0x0003CE, "Ll" },
                { 0x0003D0, 0x0003D1, "Ll" },
                { 0x0003D2, 0x0003D4, "Lu" },
                { 0x0003D5, 0x0003D7, "Ll" },
                { 0x0003EF, 0x0003F3, "Ll" },
                { 0x0003F9, 0x0003FA, "Lu" },
                { 0x0003FB, 0x0003FC, "Ll" },
                { 0x0003FD, 0x00042F, "Lu" },
                { 0x000430, 0x00045F, "Ll" },
                { 0x000483, 0x000487, "Mn" },
```

```
                { 0x000488, 0x000489, "Me" },
                { 0x0004C0, 0x0004C1, "Lu" },
                { 0x0004CE, 0x0004CF, "Ll" },
                { 0x000531, 0x000556, "Lu" },
                { 0x00055A, 0x00055F, "Po" },
                { 0x000560, 0x000588, "Ll" },
                { 0x00058D, 0x00058E, "So" },
                { 0x000591, 0x0005BD, "Mn" },
                { 0x0005C1, 0x0005C2, "Mn" },
                { 0x0005C4, 0x0005C5, "Mn" },
                { 0x0005D0, 0x0005EA, "Lo" },
                { 0x0005EF, 0x0005F2, "Lo" },
                { 0x0005F3, 0x0005F4, "Po" },
                { 0x000600, 0x000605, "Cf" },
                { 0x000606, 0x000608, "Sm" },
                { 0x000609, 0x00060A, "Po" },
                { 0x00060C, 0x00060D, "Po" },
                { 0x00060E, 0x00060F, "So" },
                { 0x000610, 0x00061A, "Mn" },
                { 0x00061D, 0x00061F, "Po" },
                { 0x000620, 0x00063F, "Lo" },
                { 0x000641, 0x00064A, "Lo" },
                { 0x00064B, 0x00065F, "Mn" },
                { 0x000660, 0x000669, "Nd" },
                { 0x00066A, 0x00066D, "Po" },
                { 0x00066E, 0x00066F, "Lo" },
                { 0x000671, 0x0006D3, "Lo" },
                { 0x0006D6, 0x0006DC, "Mn" },
                { 0x0006DF, 0x0006E4, "Mn" },
                { 0x0006E5, 0x0006E6, "Lm" },
                { 0x0006E7, 0x0006E8, "Mn" },
                { 0x0006EA, 0x0006ED, "Mn" },
                { 0x0006EE, 0x0006EF, "Lo" },
                { 0x0006F0, 0x0006F9, "Nd" },
                { 0x0006FA, 0x0006FC, "Lo" },
                { 0x0006FD, 0x0006FE, "So" },
                { 0x000700, 0x00070D, "Po" },
                { 0x000712, 0x00072F, "Lo" },
                { 0x000730, 0x00074A, "Mn" },
                { 0x00074D, 0x0007A5, "Lo" },
                { 0x0007A6, 0x0007B0, "Mn" },
                { 0x0007C0, 0x0007C9, "Nd" },
                { 0x0007CA, 0x0007EA, "Lo" },
                { 0x0007EB, 0x0007F3, "Mn" },
                { 0x0007F4, 0x0007F5, "Lm" },
                { 0x0007F7, 0x0007F9, "Po" },
                { 0x0007FE, 0x0007FF, "Sc" },
                { 0x000800, 0x000815, "Lo" },
                { 0x000816, 0x000819, "Mn" },
                { 0x00081B, 0x000823, "Mn" },
                { 0x000825, 0x000827, "Mn" },
                { 0x000829, 0x00082D, "Mn" },
                { 0x000830, 0x00083E, "Po" },
                { 0x000840, 0x000858, "Lo" },
                { 0x000859, 0x00085B, "Mn" },
                { 0x000860, 0x00086A, "Lo" },
                { 0x000870, 0x000887, "Lo" },
                { 0x000889, 0x00088E, "Lo" },
                { 0x000890, 0x000891, "Cf" },
                { 0x000898, 0x00089F, "Mn" },
                { 0x0008A0, 0x0008C8, "Lo" },
                { 0x0008CA, 0x0008E1, "Mn" },
                { 0x0008E3, 0x000902, "Mn" },
                { 0x000904, 0x000939, "Lo" },
```

```
                { 0x00093E, 0x000940, "Mc" },
                { 0x000941, 0x000948, "Mn" },
                { 0x000949, 0x00094C, "Mc" },
                { 0x00094E, 0x00094F, "Mc" },
                { 0x000951, 0x000957, "Mn" },
                { 0x000958, 0x000961, "Lo" },
                { 0x000962, 0x000963, "Mn" },
                { 0x000964, 0x000965, "Po" },
                { 0x000966, 0x00096F, "Nd" },
                { 0x000972, 0x000980, "Lo" },
                { 0x000982, 0x000983, "Mc" },
                { 0x000985, 0x00098C, "Lo" },
                { 0x00098F, 0x000990, "Lo" },
                { 0x000993, 0x0009A8, "Lo" },
                { 0x0009AA, 0x0009B0, "Lo" },
                { 0x0009B6, 0x0009B9, "Lo" },
                { 0x0009BE, 0x0009C0, "Mc" },
                { 0x0009C1, 0x0009C4, "Mn" },
                { 0x0009C7, 0x0009C8, "Mc" },
                { 0x0009CB, 0x0009CC, "Mc" },
                { 0x0009DC, 0x0009DD, "Lo" },
                { 0x0009DF, 0x0009E1, "Lo" },
                { 0x0009E2, 0x0009E3, "Mn" },
                { 0x0009E6, 0x0009EF, "Nd" },
                { 0x0009F0, 0x0009F1, "Lo" },
                { 0x0009F2, 0x0009F3, "Sc" },
                { 0x0009F4, 0x0009F9, "No" },
                { 0x000A01, 0x000A02, "Mn" },
                { 0x000A05, 0x000A0A, "Lo" },
                { 0x000A0F, 0x000A10, "Lo" },
                { 0x000A13, 0x000A28, "Lo" },
                { 0x000A2A, 0x000A30, "Lo" },
                { 0x000A32, 0x000A33, "Lo" },
                { 0x000A35, 0x000A36, "Lo" },
                { 0x000A38, 0x000A39, "Lo" },
                { 0x000A3E, 0x000A40, "Mc" },
                { 0x000A41, 0x000A42, "Mn" },
                { 0x000A47, 0x000A48, "Mn" },
                { 0x000A4B, 0x000A4D, "Mn" },
                { 0x000A59, 0x000A5C, "Lo" },
                { 0x000A66, 0x000A6F, "Nd" },
                { 0x000A70, 0x000A71, "Mn" },
                { 0x000A72, 0x000A74, "Lo" },
                { 0x000A81, 0x000A82, "Mn" },
                { 0x000A85, 0x000A8D, "Lo" },
                { 0x000A8F, 0x000A91, "Lo" },
                { 0x000A93, 0x000AA8, "Lo" },
                { 0x000AAA, 0x000AB0, "Lo" },
                { 0x000AB2, 0x000AB3, "Lo" },
                { 0x000AB5, 0x000AB9, "Lo" },
                { 0x000ABE, 0x000AC0, "Mc" },
                { 0x000AC1, 0x000AC5, "Mn" },
                { 0x000AC7, 0x000AC8, "Mn" },
                { 0x000ACB, 0x000ACC, "Mc" },
                { 0x000AE0, 0x000AE1, "Lo" },
                { 0x000AE2, 0x000AE3, "Mn" },
                { 0x000AE6, 0x000AEF, "Nd" },
                { 0x000AFA, 0x000AFF, "Mn" },
                { 0x000B02, 0x000B03, "Mc" },
                { 0x000B05, 0x000B0C, "Lo" },
                { 0x000B0F, 0x000B10, "Lo" },
                { 0x000B13, 0x000B28, "Lo" },
                { 0x000B2A, 0x000B30, "Lo" },
                { 0x000B32, 0x000B33, "Lo" },
```

```
                { 0x000B35, 0x000B39, "Lo" },
                { 0x000B41, 0x000B44, "Mn" },
                { 0x000B47, 0x000B48, "Mc" },
                { 0x000B4B, 0x000B4C, "Mc" },
                { 0x000B55, 0x000B56, "Mn" },
                { 0x000B5C, 0x000B5D, "Lo" },
                { 0x000B5F, 0x000B61, "Lo" },
                { 0x000B62, 0x000B63, "Mn" },
                { 0x000B66, 0x000B6F, "Nd" },
                { 0x000B72, 0x000B77, "No" },
                { 0x000B85, 0x000B8A, "Lo" },
                { 0x000B8E, 0x000B90, "Lo" },
                { 0x000B92, 0x000B95, "Lo" },
                { 0x000B99, 0x000B9A, "Lo" },
                { 0x000B9E, 0x000B9F, "Lo" },
                { 0x000BA3, 0x000BA4, "Lo" },
                { 0x000BA8, 0x000BAA, "Lo" },
                { 0x000BAE, 0x000BB9, "Lo" },
                { 0x000BBE, 0x000BBF, "Mc" },
                { 0x000BC1, 0x000BC2, "Mc" },
                { 0x000BC6, 0x000BC8, "Mc" },
                { 0x000BCA, 0x000BCC, "Mc" },
                { 0x000BE6, 0x000BEF, "Nd" },
                { 0x000BF0, 0x000BF2, "No" },
                { 0x000BF3, 0x000BF8, "So" },
                { 0x000C01, 0x000C03, "Mc" },
                { 0x000C05, 0x000C0C, "Lo" },
                { 0x000C0E, 0x000C10, "Lo" },
                { 0x000C12, 0x000C28, "Lo" },
                { 0x000C2A, 0x000C39, "Lo" },
                { 0x000C3E, 0x000C40, "Mn" },
                { 0x000C41, 0x000C44, "Mc" },
                { 0x000C46, 0x000C48, "Mn" },
                { 0x000C4A, 0x000C4D, "Mn" },
                { 0x000C55, 0x000C56, "Mn" },
                { 0x000C58, 0x000C5A, "Lo" },
                { 0x000C60, 0x000C61, "Lo" },
                { 0x000C62, 0x000C63, "Mn" },
                { 0x000C66, 0x000C6F, "Nd" },
                { 0x000C78, 0x000C7E, "No" },
                { 0x000C82, 0x000C83, "Mc" },
                { 0x000C85, 0x000C8C, "Lo" },
                { 0x000C8E, 0x000C90, "Lo" },
                { 0x000C92, 0x000CA8, "Lo" },
                { 0x000CAA, 0x000CB3, "Lo" },
                { 0x000CB5, 0x000CB9, "Lo" },
                { 0x000CC0, 0x000CC4, "Mc" },
                { 0x000CC7, 0x000CC8, "Mc" },
                { 0x000CCA, 0x000CCB, "Mc" },
                { 0x000CCC, 0x000CCD, "Mn" },
                { 0x000CD5, 0x000CD6, "Mc" },
                { 0x000CDD, 0x000CDE, "Lo" },
                { 0x000CE0, 0x000CE1, "Lo" },
                { 0x000CE2, 0x000CE3, "Mn" },
                { 0x000CE6, 0x000CEF, "Nd" },
                { 0x000CF1, 0x000CF2, "Lo" },
                { 0x000D00, 0x000D01, "Mn" },
                { 0x000D02, 0x000D03, "Mc" },
                { 0x000D04, 0x000D0C, "Lo" },
                { 0x000D0E, 0x000D10, "Lo" },
                { 0x000D12, 0x000D3A, "Lo" },
                { 0x000D3B, 0x000D3C, "Mn" },
                { 0x000D3E, 0x000D40, "Mc" },
                { 0x000D41, 0x000D44, "Mn" },
```

```
                { 0x000D46, 0x000D48, "Mc" },
                { 0x000D4A, 0x000D4C, "Mc" },
                { 0x000D54, 0x000D56, "Lo" },
                { 0x000D58, 0x000D5E, "No" },
                { 0x000D5F, 0x000D61, "Lo" },
                { 0x000D62, 0x000D63, "Mn" },
                { 0x000D66, 0x000D6F, "Nd" },
                { 0x000D70, 0x000D78, "No" },
                { 0x000D7A, 0x000D7F, "Lo" },
                { 0x000D82, 0x000D83, "Mc" },
                { 0x000D85, 0x000D96, "Lo" },
                { 0x000D9A, 0x000DB1, "Lo" },
                { 0x000DB3, 0x000DBB, "Lo" },
                { 0x000DC0, 0x000DC6, "Lo" },
                { 0x000DCF, 0x000DD1, "Mc" },
                { 0x000DD2, 0x000DD4, "Mn" },
                { 0x000DD8, 0x000DDF, "Mc" },
                { 0x000DE6, 0x000DEF, "Nd" },
                { 0x000DF2, 0x000DF3, "Mc" },
                { 0x000E01, 0x000E30, "Lo" },
                { 0x000E32, 0x000E33, "Lo" },
                { 0x000E34, 0x000E3A, "Mn" },
                { 0x000E40, 0x000E45, "Lo" },
                { 0x000E47, 0x000E4E, "Mn" },
                { 0x000E50, 0x000E59, "Nd" },
                { 0x000E5A, 0x000E5B, "Po" },
                { 0x000E81, 0x000E82, "Lo" },
                { 0x000E86, 0x000E8A, "Lo" },
                { 0x000E8C, 0x000EA3, "Lo" },
                { 0x000EA7, 0x000EB0, "Lo" },
                { 0x000EB2, 0x000EB3, "Lo" },
                { 0x000EB4, 0x000EBC, "Mn" },
                { 0x000EC0, 0x000EC4, "Lo" },
                { 0x000EC8, 0x000ECD, "Mn" },
                { 0x000ED0, 0x000ED9, "Nd" },
                { 0x000EDC, 0x000EDF, "Lo" },
                { 0x000F01, 0x000F03, "So" },
                { 0x000F04, 0x000F12, "Po" },
                { 0x000F15, 0x000F17, "So" },
                { 0x000F18, 0x000F19, "Mn" },
                { 0x000F1A, 0x000F1F, "So" },
                { 0x000F20, 0x000F29, "Nd" },
                { 0x000F2A, 0x000F33, "No" },
                { 0x000F3E, 0x000F3F, "Mc" },
                { 0x000F40, 0x000F47, "Lo" },
                { 0x000F49, 0x000F6C, "Lo" },
                { 0x000F71, 0x000F7E, "Mn" },
                { 0x000F80, 0x000F84, "Mn" },
                { 0x000F86, 0x000F87, "Mn" },
                { 0x000F88, 0x000F8C, "Lo" },
                { 0x000F8D, 0x000F97, "Mn" },
                { 0x000F99, 0x000FBC, "Mn" },
                { 0x000FBE, 0x000FC5, "So" },
                { 0x000FC7, 0x000FCC, "So" },
                { 0x000FCE, 0x000FCF, "So" },
                { 0x000FD0, 0x000FD4, "Po" },
                { 0x000FD5, 0x000FD8, "So" },
                { 0x000FD9, 0x000FDA, "Po" },
                { 0x001000, 0x00102A, "Lo" },
                { 0x00102B, 0x00102C, "Mc" },
                { 0x00102D, 0x001030, "Mn" },
                { 0x001032, 0x001037, "Mn" },
                { 0x001039, 0x00103A, "Mn" },
                { 0x00103B, 0x00103C, "Mc" },
```

```
                { 0x00103D, 0x00103E, "Mn" },
                { 0x001040, 0x001049, "Nd" },
                { 0x00104A, 0x00104F, "Po" },
                { 0x001050, 0x001055, "Lo" },
                { 0x001056, 0x001057, "Mc" },
                { 0x001058, 0x001059, "Mn" },
                { 0x00105A, 0x00105D, "Lo" },
                { 0x00105E, 0x001060, "Mn" },
                { 0x001062, 0x001064, "Mc" },
                { 0x001065, 0x001066, "Lo" },
                { 0x001067, 0x00106D, "Mc" },
                { 0x00106E, 0x001070, "Lo" },
                { 0x001071, 0x001074, "Mn" },
                { 0x001075, 0x001081, "Lo" },
                { 0x001083, 0x001084, "Mc" },
                { 0x001085, 0x001086, "Mn" },
                { 0x001087, 0x00108C, "Mc" },
                { 0x001090, 0x001099, "Nd" },
                { 0x00109A, 0x00109C, "Mc" },
                { 0x00109E, 0x00109F, "So" },
                { 0x0010A0, 0x0010C5, "Lu" },
                { 0x0010D0, 0x0010FA, "Ll" },
                { 0x0010FD, 0x0010FF, "Ll" },
                { 0x001100, 0x001248, "Lo" },
                { 0x00124A, 0x00124D, "Lo" },
                { 0x001250, 0x001256, "Lo" },
                { 0x00125A, 0x00125D, "Lo" },
                { 0x001260, 0x001288, "Lo" },
                { 0x00128A, 0x00128D, "Lo" },
                { 0x001290, 0x0012B0, "Lo" },
                { 0x0012B2, 0x0012B5, "Lo" },
                { 0x0012B8, 0x0012BE, "Lo" },
                { 0x0012C2, 0x0012C5, "Lo" },
                { 0x0012C8, 0x0012D6, "Lo" },
                { 0x0012D8, 0x001310, "Lo" },
                { 0x001312, 0x001315, "Lo" },
                { 0x001318, 0x00135A, "Lo" },
                { 0x00135D, 0x00135F, "Mn" },
                { 0x001360, 0x001368, "Po" },
                { 0x001369, 0x00137C, "No" },
                { 0x001380, 0x00138F, "Lo" },
                { 0x001390, 0x001399, "So" },
                { 0x0013A0, 0x0013F5, "Lu" },
                { 0x0013F8, 0x0013FD, "Ll" },
                { 0x001401, 0x00166C, "Lo" },
                { 0x00166F, 0x00167F, "Lo" },
                { 0x001681, 0x00169A, "Lo" },
                { 0x0016A0, 0x0016EA, "Lo" },
                { 0x0016EB, 0x0016ED, "Po" },
                { 0x0016EE, 0x0016F0, "Nl" },
                { 0x0016F1, 0x0016F8, "Lo" },
                { 0x001700, 0x001711, "Lo" },
                { 0x001712, 0x001714, "Mn" },
                { 0x00171F, 0x001731, "Lo" },
                { 0x001732, 0x001733, "Mn" },
                { 0x001735, 0x001736, "Po" },
                { 0x001740, 0x001751, "Lo" },
                { 0x001752, 0x001753, "Mn" },
                { 0x001760, 0x00176C, "Lo" },
                { 0x00176E, 0x001770, "Lo" },
                { 0x001772, 0x001773, "Mn" },
                { 0x001780, 0x0017B3, "Lo" },
                { 0x0017B4, 0x0017B5, "Mn" },
                { 0x0017B7, 0x0017BD, "Mn" },
```

```
                { 0x0017BE, 0x0017C5, "Mc" },
                { 0x0017C7, 0x0017C8, "Mc" },
                { 0x0017C9, 0x0017D3, "Mn" },
                { 0x0017D4, 0x0017D6, "Po" },
                { 0x0017D8, 0x0017DA, "Po" },
                { 0x0017E0, 0x0017E9, "Nd" },
                { 0x0017F0, 0x0017F9, "No" },
                { 0x001800, 0x001805, "Po" },
                { 0x001807, 0x00180A, "Po" },
                { 0x00180B, 0x00180D, "Mn" },
                { 0x001810, 0x001819, "Nd" },
                { 0x001820, 0x001842, "Lo" },
                { 0x001844, 0x001878, "Lo" },
                { 0x001880, 0x001884, "Lo" },
                { 0x001885, 0x001886, "Mn" },
                { 0x001887, 0x0018A8, "Lo" },
                { 0x0018B0, 0x0018F5, "Lo" },
                { 0x001900, 0x00191E, "Lo" },
                { 0x001920, 0x001922, "Mn" },
                { 0x001923, 0x001926, "Mc" },
                { 0x001927, 0x001928, "Mn" },
                { 0x001929, 0x00192B, "Mc" },
                { 0x001930, 0x001931, "Mc" },
                { 0x001933, 0x001938, "Mc" },
                { 0x001939, 0x00193B, "Mn" },
                { 0x001944, 0x001945, "Po" },
                { 0x001946, 0x00194F, "Nd" },
                { 0x001950, 0x00196D, "Lo" },
                { 0x001970, 0x001974, "Lo" },
                { 0x001980, 0x0019AB, "Lo" },
                { 0x0019B0, 0x0019C9, "Lo" },
                { 0x0019D0, 0x0019D9, "Nd" },
                { 0x0019DE, 0x0019FF, "So" },
                { 0x001A00, 0x001A16, "Lo" },
                { 0x001A17, 0x001A18, "Mn" },
                { 0x001A19, 0x001A1A, "Mc" },
                { 0x001A1E, 0x001A1F, "Po" },
                { 0x001A20, 0x001A54, "Lo" },
                { 0x001A58, 0x001A5E, "Mn" },
                { 0x001A63, 0x001A64, "Mc" },
                { 0x001A65, 0x001A6C, "Mn" },
                { 0x001A6D, 0x001A72, "Mc" },
                { 0x001A73, 0x001A7C, "Mn" },
                { 0x001A80, 0x001A89, "Nd" },
                { 0x001A90, 0x001A99, "Nd" },
                { 0x001AA0, 0x001AA6, "Po" },
                { 0x001AA8, 0x001AAD, "Po" },
                { 0x001AB0, 0x001ABD, "Mn" },
                { 0x001ABF, 0x001ACE, "Mn" },
                { 0x001B00, 0x001B03, "Mn" },
                { 0x001B05, 0x001B33, "Lo" },
                { 0x001B36, 0x001B3A, "Mn" },
                { 0x001B3D, 0x001B41, "Mc" },
                { 0x001B43, 0x001B44, "Mc" },
                { 0x001B45, 0x001B4C, "Lo" },
                { 0x001B50, 0x001B59, "Nd" },
                { 0x001B5A, 0x001B60, "Po" },
                { 0x001B61, 0x001B6A, "So" },
                { 0x001B6B, 0x001B73, "Mn" },
                { 0x001B74, 0x001B7C, "So" },
                { 0x001B7D, 0x001B7E, "Po" },
                { 0x001B80, 0x001B81, "Mn" },
                { 0x001B83, 0x001BA0, "Lo" },
                { 0x001BA2, 0x001BA5, "Mn" },
```

```
                { 0x001BA6, 0x001BA7, "Mc" },
                { 0x001BA8, 0x001BA9, "Mn" },
                { 0x001BAB, 0x001BAD, "Mn" },
                { 0x001BAE, 0x001BAF, "Lo" },
                { 0x001BB0, 0x001BB9, "Nd" },
                { 0x001BBA, 0x001BE5, "Lo" },
                { 0x001BE8, 0x001BE9, "Mn" },
                { 0x001BEA, 0x001BEC, "Mc" },
                { 0x001BEF, 0x001BF1, "Mn" },
                { 0x001BF2, 0x001BF3, "Mc" },
                { 0x001BFC, 0x001BFF, "Po" },
                { 0x001C00, 0x001C23, "Lo" },
                { 0x001C24, 0x001C2B, "Mc" },
                { 0x001C2C, 0x001C33, "Mn" },
                { 0x001C34, 0x001C35, "Mc" },
                { 0x001C36, 0x001C37, "Mn" },
                { 0x001C3B, 0x001C3F, "Po" },
                { 0x001C40, 0x001C49, "Nd" },
                { 0x001C4D, 0x001C4F, "Lo" },
                { 0x001C50, 0x001C59, "Nd" },
                { 0x001C5A, 0x001C77, "Lo" },
                { 0x001C78, 0x001C7D, "Lm" },
                { 0x001C7E, 0x001C7F, "Po" },
                { 0x001C80, 0x001C88, "Ll" },
                { 0x001C90, 0x001CBA, "Lu" },
                { 0x001CBD, 0x001CBF, "Lu" },
                { 0x001CC0, 0x001CC7, "Po" },
                { 0x001CD0, 0x001CD2, "Mn" },
                { 0x001CD4, 0x001CE0, "Mn" },
                { 0x001CE2, 0x001CE8, "Mn" },
                { 0x001CE9, 0x001CEC, "Lo" },
                { 0x001CEE, 0x001CF3, "Lo" },
                { 0x001CF5, 0x001CF6, "Lo" },
                { 0x001CF8, 0x001CF9, "Mn" },
                { 0x001D00, 0x001D2B, "Ll" },
                { 0x001D2C, 0x001D6A, "Lm" },
                { 0x001D6B, 0x001D77, "Ll" },
                { 0x001D79, 0x001D9A, "Ll" },
                { 0x001D9B, 0x001DBF, "Lm" },
                { 0x001DC0, 0x001DFF, "Mn" },
                { 0x001E95, 0x001E9D, "Ll" },
                { 0x001EFF, 0x001F07, "Ll" },
                { 0x001F08, 0x001F0F, "Lu" },
                { 0x001F10, 0x001F15, "Ll" },
                { 0x001F18, 0x001F1D, "Lu" },
                { 0x001F20, 0x001F27, "Ll" },
                { 0x001F28, 0x001F2F, "Lu" },
                { 0x001F30, 0x001F37, "Ll" },
                { 0x001F38, 0x001F3F, "Lu" },
                { 0x001F40, 0x001F45, "Ll" },
                { 0x001F48, 0x001F4D, "Lu" },
                { 0x001F50, 0x001F57, "Ll" },
                { 0x001F60, 0x001F67, "Ll" },
                { 0x001F68, 0x001F6F, "Lu" },
                { 0x001F70, 0x001F7D, "Ll" },
                { 0x001F80, 0x001F87, "Ll" },
                { 0x001F88, 0x001F8F, "Lt" },
                { 0x001F90, 0x001F97, "Ll" },
                { 0x001F98, 0x001F9F, "Lt" },
                { 0x001FA0, 0x001FA7, "Ll" },
                { 0x001FA8, 0x001FAF, "Lt" },
                { 0x001FB0, 0x001FB4, "Ll" },
                { 0x001FB6, 0x001FB7, "Ll" },
                { 0x001FB8, 0x001FBB, "Lu" },
```

```
                { 0x001FBF, 0x001FC1, "Sk" },
                { 0x001FC2, 0x001FC4, "Ll" },
                { 0x001FC6, 0x001FC7, "Ll" },
                { 0x001FC8, 0x001FCB, "Lu" },
                { 0x001FCD, 0x001FCF, "Sk" },
                { 0x001FD0, 0x001FD3, "Ll" },
                { 0x001FD6, 0x001FD7, "Ll" },
                { 0x001FD8, 0x001FDB, "Lu" },
                { 0x001FDD, 0x001FDF, "Sk" },
                { 0x001FE0, 0x001FE7, "Ll" },
                { 0x001FE8, 0x001FEC, "Lu" },
                { 0x001FED, 0x001FEF, "Sk" },
                { 0x001FF2, 0x001FF4, "Ll" },
                { 0x001FF6, 0x001FF7, "Ll" },
                { 0x001FF8, 0x001FFB, "Lu" },
                { 0x001FFD, 0x001FFE, "Sk" },
                { 0x002000, 0x00200A, "Zs" },
                { 0x00200B, 0x00200F, "Cf" },
                { 0x002010, 0x002015, "Pd" },
                { 0x002016, 0x002017, "Po" },
                { 0x00201B, 0x00201C, "Pi" },
                { 0x002020, 0x002027, "Po" },
                { 0x00202A, 0x00202E, "Cf" },
                { 0x002030, 0x002038, "Po" },
                { 0x00203B, 0x00203E, "Po" },
                { 0x00203F, 0x002040, "Pc" },
                { 0x002041, 0x002043, "Po" },
                { 0x002047, 0x002051, "Po" },
                { 0x002055, 0x00205E, "Po" },
                { 0x002060, 0x002064, "Cf" },
                { 0x002066, 0x00206F, "Cf" },
                { 0x002074, 0x002079, "No" },
                { 0x00207A, 0x00207C, "Sm" },
                { 0x002080, 0x002089, "No" },
                { 0x00208A, 0x00208C, "Sm" },
                { 0x002090, 0x00209C, "Lm" },
                { 0x0020A0, 0x0020C0, "Sc" },
                { 0x0020D0, 0x0020DC, "Mn" },
                { 0x0020DD, 0x0020E0, "Me" },
                { 0x0020E2, 0x0020E4, "Me" },
                { 0x0020E5, 0x0020F0, "Mn" },
                { 0x002100, 0x002101, "So" },
                { 0x002103, 0x002106, "So" },
                { 0x002108, 0x002109, "So" },
                { 0x00210B, 0x00210D, "Lu" },
                { 0x00210E, 0x00210F, "Ll" },
                { 0x002110, 0x002112, "Lu" },
                { 0x002116, 0x002117, "So" },
                { 0x002119, 0x00211D, "Lu" },
                { 0x00211E, 0x002123, "So" },
                { 0x00212A, 0x00212D, "Lu" },
                { 0x002130, 0x002133, "Lu" },
                { 0x002135, 0x002138, "Lo" },
                { 0x00213A, 0x00213B, "So" },
                { 0x00213C, 0x00213D, "Ll" },
                { 0x00213E, 0x00213F, "Lu" },
                { 0x002140, 0x002144, "Sm" },
                { 0x002146, 0x002149, "Ll" },
                { 0x00214C, 0x00214D, "So" },
                { 0x002150, 0x00215F, "No" },
                { 0x002160, 0x002182, "Nl" },
                { 0x002185, 0x002188, "Nl" },
                { 0x00218A, 0x00218B, "So" },
                { 0x002190, 0x002194, "Sm" },
```

```
                { 0x002195, 0x002199, "So" },
                { 0x00219A, 0x00219B, "Sm" },
                { 0x00219C, 0x00219F, "So" },
                { 0x0021A1, 0x0021A2, "So" },
                { 0x0021A4, 0x0021A5, "So" },
                { 0x0021A7, 0x0021AD, "So" },
                { 0x0021AF, 0x0021CD, "So" },
                { 0x0021CE, 0x0021CF, "Sm" },
                { 0x0021D0, 0x0021D1, "So" },
                { 0x0021D5, 0x0021F3, "So" },
                { 0x0021F4, 0x0022FF, "Sm" },
                { 0x002300, 0x002307, "So" },
                { 0x00230C, 0x00231F, "So" },
                { 0x002320, 0x002321, "Sm" },
                { 0x002322, 0x002328, "So" },
                { 0x00232B, 0x00237B, "So" },
                { 0x00237D, 0x00239A, "So" },
                { 0x00239B, 0x0023B3, "Sm" },
                { 0x0023B4, 0x0023DB, "So" },
                { 0x0023DC, 0x0023E1, "Sm" },
                { 0x0023E2, 0x002426, "So" },
                { 0x002440, 0x00244A, "So" },
                { 0x002460, 0x00249B, "No" },
                { 0x00249C, 0x0024E9, "So" },
                { 0x0024EA, 0x0024FF, "No" },
                { 0x002500, 0x0025B6, "So" },
                { 0x0025B8, 0x0025C0, "So" },
                { 0x0025C2, 0x0025F7, "So" },
                { 0x0025F8, 0x0025FF, "Sm" },
                { 0x002600, 0x00266E, "So" },
                { 0x002670, 0x002767, "So" },
                { 0x002776, 0x002793, "No" },
                { 0x002794, 0x0027BF, "So" },
                { 0x0027C0, 0x0027C4, "Sm" },
                { 0x0027C7, 0x0027E5, "Sm" },
                { 0x0027F0, 0x0027FF, "Sm" },
                { 0x002800, 0x0028FF, "So" },
                { 0x002900, 0x002982, "Sm" },
                { 0x002999, 0x0029D7, "Sm" },
                { 0x0029DC, 0x0029FB, "Sm" },
                { 0x0029FE, 0x002AFF, "Sm" },
                { 0x002B00, 0x002B2F, "So" },
                { 0x002B30, 0x002B44, "Sm" },
                { 0x002B45, 0x002B46, "So" },
                { 0x002B47, 0x002B4C, "Sm" },
                { 0x002B4D, 0x002B73, "So" },
                { 0x002B76, 0x002B95, "So" },
                { 0x002B97, 0x002BFF, "So" },
                { 0x002C00, 0x002C2F, "Lu" },
                { 0x002C30, 0x002C5F, "Ll" },
                { 0x002C62, 0x002C64, "Lu" },
                { 0x002C65, 0x002C66, "Ll" },
                { 0x002C6D, 0x002C70, "Lu" },
                { 0x002C73, 0x002C74, "Ll" },
                { 0x002C76, 0x002C7B, "Ll" },
                { 0x002C7C, 0x002C7D, "Lm" },
                { 0x002C7E, 0x002C80, "Lu" },
                { 0x002CE3, 0x002CE4, "Ll" },
                { 0x002CE5, 0x002CEA, "So" },
                { 0x002CEF, 0x002CF1, "Mn" },
                { 0x002CF9, 0x002CFC, "Po" },
                { 0x002CFE, 0x002CFF, "Po" },
                { 0x002D00, 0x002D25, "Ll" },
                { 0x002D30, 0x002D67, "Lo" },
```

```
                { 0x002D80, 0x002D96, "Lo" },
                { 0x002DA0, 0x002DA6, "Lo" },
                { 0x002DA8, 0x002DAE, "Lo" },
                { 0x002DB0, 0x002DB6, "Lo" },
                { 0x002DB8, 0x002DBE, "Lo" },
                { 0x002DC0, 0x002DC6, "Lo" },
                { 0x002DC8, 0x002DCE, "Lo" },
                { 0x002DD0, 0x002DD6, "Lo" },
                { 0x002DD8, 0x002DDE, "Lo" },
                { 0x002DE0, 0x002DFF, "Mn" },
                { 0x002E00, 0x002E01, "Po" },
                { 0x002E06, 0x002E08, "Po" },
                { 0x002E0E, 0x002E16, "Po" },
                { 0x002E18, 0x002E19, "Po" },
                { 0x002E1E, 0x002E1F, "Po" },
                { 0x002E2A, 0x002E2E, "Po" },
                { 0x002E30, 0x002E39, "Po" },
                { 0x002E3A, 0x002E3B, "Pd" },
                { 0x002E3C, 0x002E3F, "Po" },
                { 0x002E43, 0x002E4F, "Po" },
                { 0x002E50, 0x002E51, "So" },
                { 0x002E52, 0x002E54, "Po" },
                { 0x002E80, 0x002E99, "So" },
                { 0x002E9B, 0x002EF3, "So" },
                { 0x002F00, 0x002FD5, "So" },
                { 0x002FF0, 0x002FFB, "So" },
                { 0x003001, 0x003003, "Po" },
                { 0x003012, 0x003013, "So" },
                { 0x00301E, 0x00301F, "Pe" },
                { 0x003021, 0x003029, "Nl" },
                { 0x00302A, 0x00302D, "Mn" },
                { 0x00302E, 0x00302F, "Mc" },
                { 0x003031, 0x003035, "Lm" },
                { 0x003036, 0x003037, "So" },
                { 0x003038, 0x00303A, "Nl" },
                { 0x00303E, 0x00303F, "So" },
                { 0x003041, 0x003096, "Lo" },
                { 0x003099, 0x00309A, "Mn" },
                { 0x00309B, 0x00309C, "Sk" },
                { 0x00309D, 0x00309E, "Lm" },
                { 0x0030A1, 0x0030FA, "Lo" },
                { 0x0030FC, 0x0030FE, "Lm" },
                { 0x003105, 0x00312F, "Lo" },
                { 0x003131, 0x00318E, "Lo" },
                { 0x003190, 0x003191, "So" },
                { 0x003192, 0x003195, "No" },
                { 0x003196, 0x00319F, "So" },
                { 0x0031A0, 0x0031BF, "Lo" },
                { 0x0031C0, 0x0031E3, "So" },
                { 0x0031F0, 0x0031FF, "Lo" },
                { 0x003200, 0x00321E, "So" },
                { 0x003220, 0x003229, "No" },
                { 0x00322A, 0x003247, "So" },
                { 0x003248, 0x00324F, "No" },
                { 0x003251, 0x00325F, "No" },
                { 0x003260, 0x00327F, "So" },
                { 0x003280, 0x003289, "No" },
                { 0x00328A, 0x0032B0, "So" },
                { 0x0032B1, 0x0032BF, "No" },
                { 0x0032C0, 0x0033FF, "So" },
                { 0x003400, 0x004DBF, "Lo" },
                { 0x004DC0, 0x004DFF, "So" },
                { 0x004E00, 0x00A014, "Lo" },
                { 0x00A016, 0x00A48C, "Lo" },
```

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                { 0x00A490, 0x00A4C6, "So" },
                { 0x00A4D0, 0x00A4F7, "Lo" },
                { 0x00A4F8, 0x00A4FD, "Lm" },
                { 0x00A4FE, 0x00A4FF, "Po" },
                { 0x00A500, 0x00A60B, "Lo" },
                { 0x00A60D, 0x00A60F, "Po" },
                { 0x00A610, 0x00A61F, "Lo" },
                { 0x00A620, 0x00A629, "Nd" },
                { 0x00A62A, 0x00A62B, "Lo" },
                { 0x00A670, 0x00A672, "Me" },
                { 0x00A674, 0x00A67D, "Mn" },
                { 0x00A69C, 0x00A69D, "Lm" },
                { 0x00A69E, 0x00A69F, "Mn" },
                { 0x00A6A0, 0x00A6E5, "Lo" },
                { 0x00A6E6, 0x00A6EF, "Nl" },
                { 0x00A6F0, 0x00A6F1, "Mn" },
                { 0x00A6F2, 0x00A6F7, "Po" },
                { 0x00A700, 0x00A716, "Sk" },
                { 0x00A717, 0x00A71F, "Lm" },
                { 0x00A720, 0x00A721, "Sk" },
                { 0x00A72F, 0x00A731, "Ll" },
                { 0x00A771, 0x00A778, "Ll" },
                { 0x00A77D, 0x00A77E, "Lu" },
                { 0x00A789, 0x00A78A, "Sk" },
                { 0x00A793, 0x00A795, "Ll" },
                { 0x00A7AA, 0x00A7AE, "Lu" },
                { 0x00A7B0, 0x00A7B4, "Lu" },
                { 0x00A7C4, 0x00A7C7, "Lu" },
                { 0x00A7F2, 0x00A7F4, "Lm" },
                { 0x00A7F8, 0x00A7F9, "Lm" },
                { 0x00A7FB, 0x00A801, "Lo" },
                { 0x00A803, 0x00A805, "Lo" },
                { 0x00A807, 0x00A80A, "Lo" },
                { 0x00A80C, 0x00A822, "Lo" },
                { 0x00A823, 0x00A824, "Mc" },
                { 0x00A825, 0x00A826, "Mn" },
                { 0x00A828, 0x00A82B, "So" },
                { 0x00A830, 0x00A835, "No" },
                { 0x00A836, 0x00A837, "So" },
                { 0x00A840, 0x00A873, "Lo" },
                { 0x00A874, 0x00A877, "Po" },
                { 0x00A880, 0x00A881, "Mc" },
                { 0x00A882, 0x00A8B3, "Lo" },
                { 0x00A8B4, 0x00A8C3, "Mc" },
                { 0x00A8C4, 0x00A8C5, "Mn" },
                { 0x00A8CE, 0x00A8CF, "Po" },
                { 0x00A8D0, 0x00A8D9, "Nd" },
                { 0x00A8E0, 0x00A8F1, "Mn" },
                { 0x00A8F2, 0x00A8F7, "Lo" },
                { 0x00A8F8, 0x00A8FA, "Po" },
                { 0x00A8FD, 0x00A8FE, "Lo" },
                { 0x00A900, 0x00A909, "Nd" },
                { 0x00A90A, 0x00A925, "Lo" },
                { 0x00A926, 0x00A92D, "Mn" },
                { 0x00A92E, 0x00A92F, "Po" },
                { 0x00A930, 0x00A946, "Lo" },
                { 0x00A947, 0x00A951, "Mn" },
                { 0x00A952, 0x00A953, "Mc" },
                { 0x00A960, 0x00A97C, "Lo" },
                { 0x00A980, 0x00A982, "Mn" },
                { 0x00A984, 0x00A9B2, "Lo" },
                { 0x00A9B4, 0x00A9B5, "Mc" },
                { 0x00A9B6, 0x00A9B9, "Mn" },
                { 0x00A9BA, 0x00A9BB, "Mc" },
```

```
                { 0x00A9BC, 0x00A9BD, "Mn" },
                { 0x00A9BE, 0x00A9C0, "Mc" },
                { 0x00A9C1, 0x00A9CD, "Po" },
                { 0x00A9D0, 0x00A9D9, "Nd" },
                { 0x00A9DE, 0x00A9DF, "Po" },
                { 0x00A9E0, 0x00A9E4, "Lo" },
                { 0x00A9E7, 0x00A9EF, "Lo" },
                { 0x00A9F0, 0x00A9F9, "Nd" },
                { 0x00A9FA, 0x00A9FE, "Lo" },
                { 0x00AA00, 0x00AA28, "Lo" },
                { 0x00AA29, 0x00AA2E, "Mn" },
                { 0x00AA2F, 0x00AA30, "Mc" },
                { 0x00AA31, 0x00AA32, "Mn" },
                { 0x00AA33, 0x00AA34, "Mc" },
                { 0x00AA35, 0x00AA36, "Mn" },
                { 0x00AA40, 0x00AA42, "Lo" },
                { 0x00AA44, 0x00AA4B, "Lo" },
                { 0x00AA50, 0x00AA59, "Nd" },
                { 0x00AA5C, 0x00AA5F, "Po" },
                { 0x00AA60, 0x00AA6F, "Lo" },
                { 0x00AA71, 0x00AA76, "Lo" },
                { 0x00AA77, 0x00AA79, "So" },
                { 0x00AA7E, 0x00AAAF, "Lo" },
                { 0x00AAB2, 0x00AAB4, "Mn" },
                { 0x00AAB5, 0x00AAB6, "Lo" },
                { 0x00AAB7, 0x00AAB8, "Mn" },
                { 0x00AAB9, 0x00AABD, "Lo" },
                { 0x00AABE, 0x00AABF, "Mn" },
                { 0x00AADB, 0x00AADC, "Lo" },
                { 0x00AADE, 0x00AADF, "Po" },
                { 0x00AAE0, 0x00AAEA, "Lo" },
                { 0x00AAEC, 0x00AAED, "Mn" },
                { 0x00AAEE, 0x00AAEF, "Mc" },
                { 0x00AAF0, 0x00AAF1, "Po" },
                { 0x00AAF3, 0x00AAF4, "Lm" },
                { 0x00AB01, 0x00AB06, "Lo" },
                { 0x00AB09, 0x00AB0E, "Lo" },
                { 0x00AB11, 0x00AB16, "Lo" },
                { 0x00AB20, 0x00AB26, "Lo" },
                { 0x00AB28, 0x00AB2E, "Lo" },
                { 0x00AB30, 0x00AB5A, "Ll" },
                { 0x00AB5C, 0x00AB5F, "Lm" },
                { 0x00AB60, 0x00AB68, "Ll" },
                { 0x00AB6A, 0x00AB6B, "Sk" },
                { 0x00AB70, 0x00ABBF, "Ll" },
                { 0x00ABC0, 0x00ABE2, "Lo" },
                { 0x00ABE3, 0x00ABE4, "Mc" },
                { 0x00ABE6, 0x00ABE7, "Mc" },
                { 0x00ABE9, 0x00ABEA, "Mc" },
                { 0x00ABF0, 0x00ABF9, "Nd" },
                { 0x00AC00, 0x00D7A3, "Lo" },
                { 0x00D7B0, 0x00D7C6, "Lo" },
                { 0x00D7CB, 0x00D7FB, "Lo" },
                { 0x00D800, 0x00DFFF, "Cs" },
                { 0x00E000, 0x00F8FF, "Co" },
                { 0x00F900, 0x00FA6D, "Lo" },
                { 0x00FA70, 0x00FAD9, "Lo" },
                { 0x00FB00, 0x00FB06, "Ll" },
                { 0x00FB13, 0x00FB17, "Ll" },
                { 0x00FB1F, 0x00FB28, "Lo" },
                { 0x00FB2A, 0x00FB36, "Lo" },
                { 0x00FB38, 0x00FB3C, "Lo" },
                { 0x00FB40, 0x00FB41, "Lo" },
                { 0x00FB43, 0x00FB44, "Lo" },
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                { 0x00FB46, 0x00FBB1, "Lo" },
                { 0x00FBB2, 0x00FBC2, "Sk" },
                { 0x00FBD3, 0x00FD3D, "Lo" },
                { 0x00FD40, 0x00FD4F, "So" },
                { 0x00FD50, 0x00FD8F, "Lo" },
                { 0x00FD92, 0x00FDC7, "Lo" },
                { 0x00FDF0, 0x00FDFB, "Lo" },
                { 0x00FDFD, 0x00FDFF, "So" },
                { 0x00FE00, 0x00FE0F, "Mn" },
                { 0x00FE10, 0x00FE16, "Po" },
                { 0x00FE20, 0x00FE2F, "Mn" },
                { 0x00FE31, 0x00FE32, "Pd" },
                { 0x00FE33, 0x00FE34, "Pc" },
                { 0x00FE45, 0x00FE46, "Po" },
                { 0x00FE49, 0x00FE4C, "Po" },
                { 0x00FE4D, 0x00FE4F, "Pc" },
                { 0x00FE50, 0x00FE52, "Po" },
                { 0x00FE54, 0x00FE57, "Po" },
                { 0x00FE5F, 0x00FE61, "Po" },
                { 0x00FE64, 0x00FE66, "Sm" },
                { 0x00FE6A, 0x00FE6B, "Po" },
                { 0x00FE70, 0x00FE74, "Lo" },
                { 0x00FE76, 0x00FEFC, "Lo" },
                { 0x00FF01, 0x00FF03, "Po" },
                { 0x00FF05, 0x00FF07, "Po" },
                { 0x00FF0E, 0x00FF0F, "Po" },
                { 0x00FF10, 0x00FF19, "Nd" },
                { 0x00FF1A, 0x00FF1B, "Po" },
                { 0x00FF1C, 0x00FF1E, "Sm" },
                { 0x00FF1F, 0x00FF20, "Po" },
                { 0x00FF21, 0x00FF3A, "Lu" },
                { 0x00FF41, 0x00FF5A, "Ll" },
                { 0x00FF64, 0x00FF65, "Po" },
                { 0x00FF66, 0x00FF6F, "Lo" },
                { 0x00FF71, 0x00FF9D, "Lo" },
                { 0x00FF9E, 0x00FF9F, "Lm" },
                { 0x00FFA0, 0x00FFBE, "Lo" },
                { 0x00FFC2, 0x00FFC7, "Lo" },
                { 0x00FFCA, 0x00FFCF, "Lo" },
                { 0x00FFD2, 0x00FFD7, "Lo" },
                { 0x00FFDA, 0x00FFDC, "Lo" },
                { 0x00FFE0, 0x00FFE1, "Sc" },
                { 0x00FFE5, 0x00FFE6, "Sc" },
                { 0x00FFE9, 0x00FFEC, "Sm" },
                { 0x00FFED, 0x00FFEE, "So" },
                { 0x00FFF9, 0x00FFFB, "Cf" },
                { 0x00FFFC, 0x00FFFD, "So" },
                { 0x010000, 0x01000B, "Lo" },
                { 0x01000D, 0x010026, "Lo" },
                { 0x010028, 0x01003A, "Lo" },
                { 0x01003C, 0x01003D, "Lo" },
                { 0x01003F, 0x01004D, "Lo" },
                { 0x010050, 0x01005D, "Lo" },
                { 0x010080, 0x0100FA, "Lo" },
                { 0x010100, 0x010102, "Po" },
                { 0x010107, 0x010133, "No" },
                { 0x010137, 0x01013F, "So" },
                { 0x010140, 0x010174, "Nl" },
                { 0x010175, 0x010178, "No" },
                { 0x010179, 0x010189, "So" },
                { 0x01018A, 0x01018B, "No" },
                { 0x01018C, 0x01018E, "So" },
                { 0x010190, 0x01019C, "So" },
                { 0x0101D0, 0x0101FC, "So" },
```

```
                { 0x010280, 0x01029C, "Lo" },
                { 0x0102A0, 0x0102D0, "Lo" },
                { 0x0102E1, 0x0102FB, "No" },
                { 0x010300, 0x01031F, "Lo" },
                { 0x010320, 0x010323, "No" },
                { 0x01032D, 0x010340, "Lo" },
                { 0x010342, 0x010349, "Lo" },
                { 0x010350, 0x010375, "Lo" },
                { 0x010376, 0x01037A, "Mn" },
                { 0x010380, 0x01039D, "Lo" },
                { 0x0103A0, 0x0103C3, "Lo" },
                { 0x0103C8, 0x0103CF, "Lo" },
                { 0x0103D1, 0x0103D5, "Nl" },
                { 0x010400, 0x010427, "Lu" },
                { 0x010428, 0x01044F, "Ll" },
                { 0x010450, 0x01049D, "Lo" },
                { 0x0104A0, 0x0104A9, "Nd" },
                { 0x0104B0, 0x0104D3, "Lu" },
                { 0x0104D8, 0x0104FB, "Ll" },
                { 0x010500, 0x010527, "Lo" },
                { 0x010530, 0x010563, "Lo" },
                { 0x010570, 0x01057A, "Lu" },
                { 0x01057C, 0x01058A, "Lu" },
                { 0x01058C, 0x010592, "Lu" },
                { 0x010594, 0x010595, "Lu" },
                { 0x010597, 0x0105A1, "Ll" },
                { 0x0105A3, 0x0105B1, "Ll" },
                { 0x0105B3, 0x0105B9, "Ll" },
                { 0x0105BB, 0x0105BC, "Ll" },
                { 0x010600, 0x010736, "Lo" },
                { 0x010740, 0x010755, "Lo" },
                { 0x010760, 0x010767, "Lo" },
                { 0x010780, 0x010785, "Lm" },
                { 0x010787, 0x0107B0, "Lm" },
                { 0x0107B2, 0x0107BA, "Lm" },
                { 0x010800, 0x010805, "Lo" },
                { 0x01080A, 0x010835, "Lo" },
                { 0x010837, 0x010838, "Lo" },
                { 0x01083F, 0x010855, "Lo" },
                { 0x010858, 0x01085F, "No" },
                { 0x010860, 0x010876, "Lo" },
                { 0x010877, 0x010878, "So" },
                { 0x010879, 0x01087F, "No" },
                { 0x010880, 0x01089E, "Lo" },
                { 0x0108A7, 0x0108AF, "No" },
                { 0x0108E0, 0x0108F2, "Lo" },
                { 0x0108F4, 0x0108F5, "Lo" },
                { 0x0108FB, 0x0108FF, "No" },
                { 0x010900, 0x010915, "Lo" },
                { 0x010916, 0x01091B, "No" },
                { 0x010920, 0x010939, "Lo" },
                { 0x010980, 0x0109B7, "Lo" },
                { 0x0109BC, 0x0109BD, "No" },
                { 0x0109BE, 0x0109BF, "Lo" },
                { 0x0109C0, 0x0109CF, "No" },
                { 0x0109D2, 0x0109FF, "No" },
                { 0x010A01, 0x010A03, "Mn" },
                { 0x010A05, 0x010A06, "Mn" },
                { 0x010A0C, 0x010A0F, "Mn" },
                { 0x010A10, 0x010A13, "Lo" },
                { 0x010A15, 0x010A17, "Lo" },
                { 0x010A19, 0x010A35, "Lo" },
                { 0x010A38, 0x010A3A, "Mn" },
                { 0x010A40, 0x010A48, "No" },
```

```
                { 0x010A50, 0x010A58, "Po" },
                { 0x010A60, 0x010A7C, "Lo" },
                { 0x010A7D, 0x010A7E, "No" },
                { 0x010A80, 0x010A9C, "Lo" },
                { 0x010A9D, 0x010A9F, "No" },
                { 0x010AC0, 0x010AC7, "Lo" },
                { 0x010AC9, 0x010AE4, "Lo" },
                { 0x010AE5, 0x010AE6, "Mn" },
                { 0x010AEB, 0x010AEF, "No" },
                { 0x010AF0, 0x010AF6, "Po" },
                { 0x010B00, 0x010B35, "Lo" },
                { 0x010B39, 0x010B3F, "Po" },
                { 0x010B40, 0x010B55, "Lo" },
                { 0x010B58, 0x010B5F, "No" },
                { 0x010B60, 0x010B72, "Lo" },
                { 0x010B78, 0x010B7F, "No" },
                { 0x010B80, 0x010B91, "Lo" },
                { 0x010B99, 0x010B9C, "Po" },
                { 0x010BA9, 0x010BAF, "No" },
                { 0x010C00, 0x010C48, "Lo" },
                { 0x010C80, 0x010CB2, "Lu" },
                { 0x010CC0, 0x010CF2, "Ll" },
                { 0x010CFA, 0x010CFF, "No" },
                { 0x010D00, 0x010D23, "Lo" },
                { 0x010D24, 0x010D27, "Mn" },
                { 0x010D30, 0x010D39, "Nd" },
                { 0x010E60, 0x010E7E, "No" },
                { 0x010E80, 0x010EA9, "Lo" },
                { 0x010EAB, 0x010EAC, "Mn" },
                { 0x010EB0, 0x010EB1, "Lo" },
                { 0x010F00, 0x010F1C, "Lo" },
                { 0x010F1D, 0x010F26, "No" },
                { 0x010F30, 0x010F45, "Lo" },
                { 0x010F46, 0x010F50, "Mn" },
                { 0x010F51, 0x010F54, "No" },
                { 0x010F55, 0x010F59, "Po" },
                { 0x010F70, 0x010F81, "Lo" },
                { 0x010F82, 0x010F85, "Mn" },
                { 0x010F86, 0x010F89, "Po" },
                { 0x010FB0, 0x010FC4, "Lo" },
                { 0x010FC5, 0x010FCB, "No" },
                { 0x010FE0, 0x010FF6, "Lo" },
                { 0x011003, 0x011037, "Lo" },
                { 0x011038, 0x011046, "Mn" },
                { 0x011047, 0x01104D, "Po" },
                { 0x011052, 0x011065, "No" },
                { 0x011066, 0x01106F, "Nd" },
                { 0x011071, 0x011072, "Lo" },
                { 0x011073, 0x011074, "Mn" },
                { 0x01107F, 0x011081, "Mn" },
                { 0x011083, 0x0110AF, "Lo" },
                { 0x0110B0, 0x0110B2, "Mc" },
                { 0x0110B3, 0x0110B6, "Mn" },
                { 0x0110B7, 0x0110B8, "Mc" },
                { 0x0110B9, 0x0110BA, "Mn" },
                { 0x0110BB, 0x0110BC, "Po" },
                { 0x0110BE, 0x0110C1, "Po" },
                { 0x0110D0, 0x0110E8, "Lo" },
                { 0x0110F0, 0x0110F9, "Nd" },
                { 0x011100, 0x011102, "Mn" },
                { 0x011103, 0x011126, "Lo" },
                { 0x011127, 0x01112B, "Mn" },
                { 0x01112D, 0x011134, "Mn" },
                { 0x011136, 0x01113F, "Nd" },
```

```
                { 0x011140, 0x011143, "Po" },
                { 0x011145, 0x011146, "Mc" },
                { 0x011150, 0x011172, "Lo" },
                { 0x011174, 0x011175, "Po" },
                { 0x011180, 0x011181, "Mn" },
                { 0x011183, 0x0111B2, "Lo" },
                { 0x0111B3, 0x0111B5, "Mc" },
                { 0x0111B6, 0x0111BE, "Mn" },
                { 0x0111BF, 0x0111C0, "Mc" },
                { 0x0111C1, 0x0111C4, "Lo" },
                { 0x0111C5, 0x0111C8, "Po" },
                { 0x0111C9, 0x0111CC, "Mn" },
                { 0x0111D0, 0x0111D9, "Nd" },
                { 0x0111DD, 0x0111DF, "Po" },
                { 0x0111E1, 0x0111F4, "No" },
                { 0x011200, 0x011211, "Lo" },
                { 0x011213, 0x01122B, "Lo" },
                { 0x01122C, 0x01122E, "Mc" },
                { 0x01122F, 0x011231, "Mn" },
                { 0x011232, 0x011233, "Mc" },
                { 0x011236, 0x011237, "Mn" },
                { 0x011238, 0x01123D, "Po" },
                { 0x011280, 0x011286, "Lo" },
                { 0x01128A, 0x01128D, "Lo" },
                { 0x01128F, 0x01129D, "Lo" },
                { 0x01129F, 0x0112A8, "Lo" },
                { 0x0112B0, 0x0112DE, "Lo" },
                { 0x0112E0, 0x0112E2, "Mc" },
                { 0x0112E3, 0x0112EA, "Mn" },
                { 0x0112F0, 0x0112F9, "Nd" },
                { 0x011300, 0x011301, "Mn" },
                { 0x011302, 0x011303, "Mc" },
                { 0x011305, 0x01130C, "Lo" },
                { 0x01130F, 0x011310, "Lo" },
                { 0x011313, 0x011328, "Lo" },
                { 0x01132A, 0x011330, "Lo" },
                { 0x011332, 0x011333, "Lo" },
                { 0x011335, 0x011339, "Lo" },
                { 0x01133B, 0x01133C, "Mn" },
                { 0x01133E, 0x01133F, "Mc" },
                { 0x011341, 0x011344, "Mc" },
                { 0x011347, 0x011348, "Mc" },
                { 0x01134B, 0x01134D, "Mc" },
                { 0x01135D, 0x011361, "Lo" },
                { 0x011362, 0x011363, "Mc" },
                { 0x011366, 0x01136C, "Mn" },
                { 0x011370, 0x011374, "Mn" },
                { 0x011400, 0x011434, "Lo" },
                { 0x011435, 0x011437, "Mc" },
                { 0x011438, 0x01143F, "Mn" },
                { 0x011440, 0x011441, "Mc" },
                { 0x011442, 0x011444, "Mn" },
                { 0x011447, 0x01144A, "Lo" },
                { 0x01144B, 0x01144F, "Po" },
                { 0x011450, 0x011459, "Nd" },
                { 0x01145A, 0x01145B, "Po" },
                { 0x01145F, 0x011461, "Lo" },
                { 0x011480, 0x0114AF, "Lo" },
                { 0x0114B0, 0x0114B2, "Mc" },
                { 0x0114B3, 0x0114B8, "Mn" },
                { 0x0114BB, 0x0114BE, "Mc" },
                { 0x0114BF, 0x0114C0, "Mn" },
                { 0x0114C2, 0x0114C3, "Mn" },
                { 0x0114C4, 0x0114C5, "Lo" },
```

```
                { 0x0114D0, 0x0114D9, "Nd" },
                { 0x011580, 0x0115AE, "Lo" },
                { 0x0115AF, 0x0115B1, "Mc" },
                { 0x0115B2, 0x0115B5, "Mn" },
                { 0x0115B8, 0x0115BB, "Mc" },
                { 0x0115BC, 0x0115BD, "Mn" },
                { 0x0115BF, 0x0115C0, "Mn" },
                { 0x0115C1, 0x0115D7, "Po" },
                { 0x0115D8, 0x0115DB, "Lo" },
                { 0x0115DC, 0x0115DD, "Mn" },
                { 0x011600, 0x01162F, "Lo" },
                { 0x011630, 0x011632, "Mc" },
                { 0x011633, 0x01163A, "Mn" },
                { 0x01163B, 0x01163C, "Mc" },
                { 0x01163F, 0x011640, "Mn" },
                { 0x011641, 0x011643, "Po" },
                { 0x011650, 0x011659, "Nd" },
                { 0x011660, 0x01166C, "Po" },
                { 0x011680, 0x0116AA, "Lo" },
                { 0x0116AE, 0x0116AF, "Mc" },
                { 0x0116B0, 0x0116B5, "Mn" },
                { 0x0116C0, 0x0116C9, "Nd" },
                { 0x011700, 0x01171A, "Lo" },
                { 0x01171D, 0x01171F, "Mn" },
                { 0x011720, 0x011721, "Mc" },
                { 0x011722, 0x011725, "Mn" },
                { 0x011727, 0x01172B, "Mn" },
                { 0x011730, 0x011739, "Nd" },
                { 0x01173A, 0x01173B, "No" },
                { 0x01173C, 0x01173E, "Po" },
                { 0x011740, 0x011746, "Lo" },
                { 0x011800, 0x01182B, "Lo" },
                { 0x01182C, 0x01182E, "Mc" },
                { 0x01182F, 0x011837, "Mn" },
                { 0x011839, 0x01183A, "Mn" },
                { 0x0118A0, 0x0118BF, "Lu" },
                { 0x0118C0, 0x0118DF, "Ll" },
                { 0x0118E0, 0x0118E9, "Nd" },
                { 0x0118EA, 0x0118F2, "No" },
                { 0x0118FF, 0x011906, "Lo" },
                { 0x01190C, 0x011913, "Lo" },
                { 0x011915, 0x011916, "Lo" },
                { 0x011918, 0x01192F, "Lo" },
                { 0x011930, 0x011935, "Mc" },
                { 0x011937, 0x011938, "Mc" },
                { 0x01193B, 0x01193C, "Mn" },
                { 0x011944, 0x011946, "Po" },
                { 0x011950, 0x011959, "Nd" },
                { 0x0119A0, 0x0119A7, "Lo" },
                { 0x0119AA, 0x0119D0, "Lo" },
                { 0x0119D1, 0x0119D3, "Mc" },
                { 0x0119D4, 0x0119D7, "Mn" },
                { 0x0119DA, 0x0119DB, "Mn" },
                { 0x0119DC, 0x0119DF, "Mc" },
                { 0x011A01, 0x011A0A, "Mn" },
                { 0x011A0B, 0x011A32, "Lo" },
                { 0x011A33, 0x011A38, "Mn" },
                { 0x011A3B, 0x011A3E, "Mn" },
                { 0x011A3F, 0x011A46, "Po" },
                { 0x011A51, 0x011A56, "Mn" },
                { 0x011A57, 0x011A58, "Mc" },
                { 0x011A59, 0x011A5B, "Mn" },
                { 0x011A5C, 0x011A89, "Lo" },
                { 0x011A8A, 0x011A96, "Mn" },
```

```
                { 0x011A98, 0x011A99, "Mn" },
                { 0x011A9A, 0x011A9C, "Po" },
                { 0x011A9E, 0x011AA2, "Po" },
                { 0x011AB0, 0x011AF8, "Lo" },
                { 0x011C00, 0x011C08, "Lo" },
                { 0x011C0A, 0x011C2E, "Lo" },
                { 0x011C30, 0x011C36, "Mn" },
                { 0x011C38, 0x011C3D, "Mn" },
                { 0x011C41, 0x011C45, "Po" },
                { 0x011C50, 0x011C59, "Nd" },
                { 0x011C5A, 0x011C6C, "No" },
                { 0x011C70, 0x011C71, "Po" },
                { 0x011C72, 0x011C8F, "Lo" },
                { 0x011C92, 0x011CA7, "Mn" },
                { 0x011CAA, 0x011CB0, "Mn" },
                { 0x011CB2, 0x011CB3, "Mn" },
                { 0x011CB5, 0x011CB6, "Mn" },
                { 0x011D00, 0x011D06, "Lo" },
                { 0x011D08, 0x011D09, "Lo" },
                { 0x011D0B, 0x011D30, "Lo" },
                { 0x011D31, 0x011D36, "Mn" },
                { 0x011D3C, 0x011D3D, "Mn" },
                { 0x011D3F, 0x011D45, "Mn" },
                { 0x011D50, 0x011D59, "Nd" },
                { 0x011D60, 0x011D65, "Lo" },
                { 0x011D67, 0x011D68, "Lo" },
                { 0x011D6A, 0x011D89, "Lo" },
                { 0x011D8A, 0x011D8E, "Mc" },
                { 0x011D90, 0x011D91, "Mn" },
                { 0x011D93, 0x011D94, "Mc" },
                { 0x011DA0, 0x011DA9, "Nd" },
                { 0x011EE0, 0x011EF2, "Lo" },
                { 0x011EF3, 0x011EF4, "Mn" },
                { 0x011EF5, 0x011EF6, "Mc" },
                { 0x011EF7, 0x011EF8, "Po" },
                { 0x011FC0, 0x011FD4, "No" },
                { 0x011FD5, 0x011FDC, "So" },
                { 0x011FDD, 0x011FE0, "Sc" },
                { 0x011FE1, 0x011FF1, "So" },
                { 0x012000, 0x012399, "Lo" },
                { 0x012400, 0x01246E, "Nl" },
                { 0x012470, 0x012474, "Po" },
                { 0x012480, 0x012543, "Lo" },
                { 0x012F90, 0x012FF0, "Lo" },
                { 0x012FF1, 0x012FF2, "Po" },
                { 0x013000, 0x01342E, "Lo" },
                { 0x013430, 0x013438, "Cf" },
                { 0x014400, 0x014646, "Lo" },
                { 0x016800, 0x016A38, "Lo" },
                { 0x016A40, 0x016A5E, "Lo" },
                { 0x016A60, 0x016A69, "Nd" },
                { 0x016A6E, 0x016A6F, "Po" },
                { 0x016A70, 0x016ABE, "Lo" },
                { 0x016AC0, 0x016AC9, "Nd" },
                { 0x016AD0, 0x016AED, "Lo" },
                { 0x016AF0, 0x016AF4, "Mn" },
                { 0x016B00, 0x016B2F, "Lo" },
                { 0x016B30, 0x016B36, "Mn" },
                { 0x016B37, 0x016B3B, "Po" },
                { 0x016B3C, 0x016B3F, "So" },
                { 0x016B40, 0x016B43, "Lm" },
                { 0x016B50, 0x016B59, "Nd" },
                { 0x016B5B, 0x016B61, "No" },
                { 0x016B63, 0x016B77, "Lo" },
```

```
                { 0x016B7D, 0x016B8F, "Lo" },
                { 0x016E40, 0x016E5F, "Lu" },
                { 0x016E60, 0x016E7F, "Ll" },
                { 0x016E80, 0x016E96, "No" },
                { 0x016E97, 0x016E9A, "Po" },
                { 0x016F00, 0x016F4A, "Lo" },
                { 0x016F51, 0x016F87, "Mc" },
                { 0x016F8F, 0x016F92, "Mn" },
                { 0x016F93, 0x016F9F, "Lm" },
                { 0x016FE0, 0x016FE1, "Lm" },
                { 0x016FF0, 0x016FF1, "Mc" },
                { 0x017000, 0x0187F7, "Lo" },
                { 0x018800, 0x018CD5, "Lo" },
                { 0x018D00, 0x018D08, "Lo" },
                { 0x01AFF0, 0x01AFF3, "Lm" },
                { 0x01AFF5, 0x01AFFB, "Lm" },
                { 0x01AFFD, 0x01AFFE, "Lm" },
                { 0x01B000, 0x01B122, "Lo" },
                { 0x01B150, 0x01B152, "Lo" },
                { 0x01B164, 0x01B167, "Lo" },
                { 0x01B170, 0x01B2FB, "Lo" },
                { 0x01BC00, 0x01BC6A, "Lo" },
                { 0x01BC70, 0x01BC7C, "Lo" },
                { 0x01BC80, 0x01BC88, "Lo" },
                { 0x01BC90, 0x01BC99, "Lo" },
                { 0x01BC9D, 0x01BC9E, "Mn" },
                { 0x01BCA0, 0x01BCA3, "Cf" },
                { 0x01CF00, 0x01CF2D, "Mn" },
                { 0x01CF30, 0x01CF46, "Mn" },
                { 0x01CF50, 0x01CFC3, "So" },
                { 0x01D000, 0x01D0F5, "So" },
                { 0x01D100, 0x01D126, "So" },
                { 0x01D129, 0x01D164, "So" },
                { 0x01D165, 0x01D166, "Mc" },
                { 0x01D167, 0x01D169, "Mn" },
                { 0x01D16A, 0x01D16C, "So" },
                { 0x01D16D, 0x01D172, "Mc" },
                { 0x01D173, 0x01D17A, "Cf" },
                { 0x01D17B, 0x01D182, "Mn" },
                { 0x01D183, 0x01D184, "So" },
                { 0x01D185, 0x01D18B, "Mn" },
                { 0x01D18C, 0x01D1A9, "So" },
                { 0x01D1AA, 0x01D1AD, "Mn" },
                { 0x01D1AE, 0x01D1EA, "So" },
                { 0x01D200, 0x01D241, "So" },
                { 0x01D242, 0x01D244, "Mn" },
                { 0x01D2E0, 0x01D2F3, "No" },
                { 0x01D300, 0x01D356, "So" },
                { 0x01D360, 0x01D378, "No" },
                { 0x01D400, 0x01D419, "Lu" },
                { 0x01D41A, 0x01D433, "Ll" },
                { 0x01D434, 0x01D44D, "Lu" },
                { 0x01D44E, 0x01D454, "Ll" },
                { 0x01D456, 0x01D467, "Ll" },
                { 0x01D468, 0x01D481, "Lu" },
                { 0x01D482, 0x01D49B, "Ll" },
                { 0x01D49E, 0x01D49F, "Lu" },
                { 0x01D4A5, 0x01D4A6, "Lu" },
                { 0x01D4A9, 0x01D4AC, "Lu" },
                { 0x01D4AE, 0x01D4B5, "Lu" },
                { 0x01D4B6, 0x01D4B9, "Ll" },
                { 0x01D4BD, 0x01D4C3, "Ll" },
                { 0x01D4C5, 0x01D4CF, "Ll" },
                { 0x01D4D0, 0x01D4E9, "Lu" },
```

```
                { 0x01D4EA, 0x01D503, "Ll" },
                { 0x01D504, 0x01D505, "Lu" },
                { 0x01D507, 0x01D50A, "Lu" },
                { 0x01D50D, 0x01D514, "Lu" },
                { 0x01D516, 0x01D51C, "Lu" },
                { 0x01D51E, 0x01D537, "Ll" },
                { 0x01D538, 0x01D539, "Lu" },
                { 0x01D53B, 0x01D53E, "Lu" },
                { 0x01D540, 0x01D544, "Lu" },
                { 0x01D54A, 0x01D550, "Lu" },
                { 0x01D552, 0x01D56B, "Ll" },
                { 0x01D56C, 0x01D585, "Lu" },
                { 0x01D586, 0x01D59F, "Ll" },
                { 0x01D5A0, 0x01D5B9, "Lu" },
                { 0x01D5BA, 0x01D5D3, "Ll" },
                { 0x01D5D4, 0x01D5ED, "Lu" },
                { 0x01D5EE, 0x01D607, "Ll" },
                { 0x01D608, 0x01D621, "Lu" },
                { 0x01D622, 0x01D63B, "Ll" },
                { 0x01D63C, 0x01D655, "Lu" },
                { 0x01D656, 0x01D66F, "Ll" },
                { 0x01D670, 0x01D689, "Lu" },
                { 0x01D68A, 0x01D6A5, "Ll" },
                { 0x01D6A8, 0x01D6C0, "Lu" },
                { 0x01D6C2, 0x01D6DA, "Ll" },
                { 0x01D6DC, 0x01D6E1, "Ll" },
                { 0x01D6E2, 0x01D6FA, "Lu" },
                { 0x01D6FC, 0x01D714, "Ll" },
                { 0x01D716, 0x01D71B, "Ll" },
                { 0x01D71C, 0x01D734, "Lu" },
                { 0x01D736, 0x01D74E, "Ll" },
                { 0x01D750, 0x01D755, "Ll" },
                { 0x01D756, 0x01D76E, "Lu" },
                { 0x01D770, 0x01D788, "Ll" },
                { 0x01D78A, 0x01D78F, "Ll" },
                { 0x01D790, 0x01D7A8, "Lu" },
                { 0x01D7AA, 0x01D7C2, "Ll" },
                { 0x01D7C4, 0x01D7C9, "Ll" },
                { 0x01D7CE, 0x01D7FF, "Nd" },
                { 0x01D800, 0x01D9FF, "So" },
                { 0x01DA00, 0x01DA36, "Mn" },
                { 0x01DA37, 0x01DA3A, "So" },
                { 0x01DA3B, 0x01DA6C, "Mn" },
                { 0x01DA6D, 0x01DA74, "So" },
                { 0x01DA76, 0x01DA83, "So" },
                { 0x01DA85, 0x01DA86, "So" },
                { 0x01DA87, 0x01DA8B, "Po" },
                { 0x01DA9B, 0x01DA9F, "Mn" },
                { 0x01DAA1, 0x01DAAF, "Mn" },
                { 0x01DF00, 0x01DF09, "Ll" },
                { 0x01DF0B, 0x01DF1E, "Ll" },
                { 0x01E000, 0x01E006, "Mn" },
                { 0x01E008, 0x01E018, "Mn" },
                { 0x01E01B, 0x01E021, "Mn" },
                { 0x01E023, 0x01E024, "Mn" },
                { 0x01E026, 0x01E02A, "Mn" },
                { 0x01E100, 0x01E12C, "Lo" },
                { 0x01E130, 0x01E136, "Mn" },
                { 0x01E137, 0x01E13D, "Lm" },
                { 0x01E140, 0x01E149, "Nd" },
                { 0x01E290, 0x01E2AD, "Lo" },
                { 0x01E2C0, 0x01E2EB, "Lo" },
                { 0x01E2EC, 0x01E2EF, "Mn" },
                { 0x01E2F0, 0x01E2F9, "Nd" },
```

```
                { 0x01E7E0, 0x01E7E6, "Lo" },
                { 0x01E7E8, 0x01E7EB, "Lo" },
                { 0x01E7ED, 0x01E7EE, "Lo" },
                { 0x01E7F0, 0x01E7FE, "Lo" },
                { 0x01E800, 0x01E8C4, "Lo" },
                { 0x01E8C7, 0x01E8CF, "No" },
                { 0x01E8D0, 0x01E8D6, "Mn" },
                { 0x01E900, 0x01E921, "Lu" },
                { 0x01E922, 0x01E943, "Ll" },
                { 0x01E944, 0x01E94A, "Mn" },
                { 0x01E950, 0x01E959, "Nd" },
                { 0x01E95E, 0x01E95F, "Po" },
                { 0x01EC71, 0x01ECAB, "No" },
                { 0x01ECAD, 0x01ECAF, "No" },
                { 0x01ECB1, 0x01ECB4, "No" },
                { 0x01ED01, 0x01ED2D, "No" },
                { 0x01ED2F, 0x01ED3D, "No" },
                { 0x01EE00, 0x01EE03, "Lo" },
                { 0x01EE05, 0x01EE1F, "Lo" },
                { 0x01EE21, 0x01EE22, "Lo" },
                { 0x01EE29, 0x01EE32, "Lo" },
                { 0x01EE34, 0x01EE37, "Lo" },
                { 0x01EE4D, 0x01EE4F, "Lo" },
                { 0x01EE51, 0x01EE52, "Lo" },
                { 0x01EE61, 0x01EE62, "Lo" },
                { 0x01EE67, 0x01EE6A, "Lo" },
                { 0x01EE6C, 0x01EE72, "Lo" },
                { 0x01EE74, 0x01EE77, "Lo" },
                { 0x01EE79, 0x01EE7C, "Lo" },
                { 0x01EE80, 0x01EE89, "Lo" },
                { 0x01EE8B, 0x01EE9B, "Lo" },
                { 0x01EEA1, 0x01EEA3, "Lo" },
                { 0x01EEA5, 0x01EEA9, "Lo" },
                { 0x01EEAB, 0x01EEBB, "Lo" },
                { 0x01EEF0, 0x01EEF1, "Sm" },
                { 0x01F000, 0x01F02B, "So" },
                { 0x01F030, 0x01F093, "So" },
                { 0x01F0A0, 0x01F0AE, "So" },
                { 0x01F0B1, 0x01F0BF, "So" },
                { 0x01F0C1, 0x01F0CF, "So" },
                { 0x01F0D1, 0x01F0F5, "So" },
                { 0x01F100, 0x01F10C, "No" },
                { 0x01F10D, 0x01F1AD, "So" },
                { 0x01F1E6, 0x01F202, "So" },
                { 0x01F210, 0x01F23B, "So" },
                { 0x01F240, 0x01F248, "So" },
                { 0x01F250, 0x01F251, "So" },
                { 0x01F260, 0x01F265, "So" },
                { 0x01F300, 0x01F3FA, "So" },
                { 0x01F3FB, 0x01F3FF, "Sk" },
                { 0x01F400, 0x01F6D7, "So" },
                { 0x01F6DD, 0x01F6EC, "So" },
                { 0x01F6F0, 0x01F6FC, "So" },
                { 0x01F700, 0x01F773, "So" },
                { 0x01F780, 0x01F7D8, "So" },
                { 0x01F7E0, 0x01F7EB, "So" },
                { 0x01F800, 0x01F80B, "So" },
                { 0x01F810, 0x01F847, "So" },
                { 0x01F850, 0x01F859, "So" },
                { 0x01F860, 0x01F887, "So" },
                { 0x01F890, 0x01F8AD, "So" },
                { 0x01F8B0, 0x01F8B1, "So" },
                { 0x01F900, 0x01FA53, "So" },
                { 0x01FA60, 0x01FA6D, "So" },
```

```
                { 0x01FA70, 0x01FA74, "So" },
                { 0x01FA78, 0x01FA7C, "So" },
                { 0x01FA80, 0x01FA86, "So" },
                { 0x01FA90, 0x01FAAC, "So" },
                { 0x01FAB0, 0x01FABA, "So" },
                { 0x01FAC0, 0x01FAC5, "So" },
                { 0x01FAD0, 0x01FAD9, "So" },
                { 0x01FAE0, 0x01FAE7, "So" },
                { 0x01FAF0, 0x01FAF6, "So" },
                { 0x01FB00, 0x01FB92, "So" },
                { 0x01FB94, 0x01FBCA, "So" },
                { 0x01FBF0, 0x01FBF9, "Nd" },
                { 0x020000, 0x02A6DF, "Lo" },
                { 0x02A700, 0x02B738, "Lo" },
                { 0x02B740, 0x02B81D, "Lo" },
                { 0x02B820, 0x02CEA1, "Lo" },
                { 0x02CEB0, 0x02EBE0, "Lo" },
                { 0x02F800, 0x02FA1D, "Lo" },
                { 0x030000, 0x03134A, "Lo" },
                { 0x0E0020, 0x0E007F, "Cf" },
                { 0x0E0100, 0x0E01EF, "Mn" },
                { 0x0F0000, 0x0FFFFD, "Co" },
                { 0x100000, 0x10FFFD, "Co" },
        },
        long_names = {
                C  = "Other",
                Cc = "Control",
                Cf = "Format",
                Cn = "Unassigned",
                Co = "Private_Use",
                Cs = "Surrogate",
                L  = "Letter",
                LC = "Cased_Letter",
                Ll = "Lowercase_Letter",
                Lm = "Modifier_Letter",
                Lo = "Other_Letter",
                Lt = "Titlecase_Letter",
                Lu = "Uppercase_Letter",
                M  = "Mark",
                Mc = "Spacing_Mark",
                Me = "Enclosing_Mark",
                Mn = "Nonspacing_Mark",
                N  = "Number",
                Nd = "Decimal_Number",
                Nl = "Letter_Number",
                No = "Other_Number",
                P  = "Punctuation",
                Pc = "Connector_Punctuation",
                Pd = "Dash_Punctuation",
                Pe = "Close_Punctuation",
                Pf = "Final_Punctuation",
                Pi = "Initial_Punctuation",
                Po = "Other_Punctuation",
                Ps = "Open_Punctuation",
                S  = "Symbol",
                Sc = "Currency_Symbol",
                Sk = "Modifier_Symbol",
                Sm = "Math_Symbol",
                So = "Other_Symbol",
                Z  = "Separator",
                Zl = "Line_Separator",
                Zp = "Paragraph_Separator",
                Zs = "Space_Separator",
        },
```

```
}
```

Modul:Unicode data/combining

Contains data used by Module:Unicode data to determine whether a character is combining or not. Can also be used to return the character's combining class. Generated from DerivedCombiningClass.txt using a script.

```
local data = {
        singles = {
                [0x000315] = 232,
                [0x00031A] = 232,
                [0x00031B] = 216,
                [0x000345] = 240,
                [0x000346] = 230,
                [0x000357] = 230,
                [0x000358] = 232,
                [0x00035B] = 230,
                [0x00035C] = 233,
                [0x00035F] = 233,
                [0x000362] = 233,
                [0x000591] = 220,
                [0x000596] = 220,
                [0x00059A] = 222,
                [0x00059B] = 220,
                [0x0005AA] = 220,
                [0x0005AD] = 222,
                [0x0005AE] = 228,
                [0x0005AF] = 230,
                [0x0005B0] =  10,
                [0x0005B1] =  11,
                [0x0005B2] =  12,
                [0x0005B3] =  13,
                [0x0005B4] =  14,
                [0x0005B5] =  15,
                [0x0005B6] =  16,
                [0x0005B7] =  17,
                [0x0005B8] =  18,
                [0x0005BB] =  20,
                [0x0005BC] =  21,
                [0x0005BD] =  22,
                [0x0005BF] =  23,
                [0x0005C1] =  24,
                [0x0005C2] =  25,
                [0x0005C4] = 230,
                [0x0005C5] = 220,
                [0x0005C7] =  18,
                [0x000618] =  30,
                [0x000619] =  31,
                [0x00061A] =  32,
                [0x00064B] =  27,
                [0x00064C] =  28,
                [0x00064D] =  29,
                [0x00064E] =  30,
                [0x00064F] =  31,
                [0x000650] =  32,
                [0x000651] =  33,
                [0x000652] =  34,
                [0x00065C] = 220,
                [0x00065F] = 220,
                [0x000670] =  35,
```

```
                [0x0006E3] = 220,
                [0x0006E4] = 230,
                [0x0006EA] = 220,
                [0x0006ED] = 220,
                [0x000711] =  36,
                [0x000730] = 230,
                [0x000731] = 220,
                [0x000734] = 220,
                [0x00073A] = 230,
                [0x00073D] = 230,
                [0x00073E] = 220,
                [0x000742] = 220,
                [0x000743] = 230,
                [0x000744] = 220,
                [0x000745] = 230,
                [0x000746] = 220,
                [0x000747] = 230,
                [0x000748] = 220,
                [0x0007F2] = 220,
                [0x0007F3] = 230,
                [0x0007FD] = 220,
                [0x000898] = 230,
                [0x0008E3] = 220,
                [0x0008E6] = 220,
                [0x0008E9] = 220,
                [0x0008F0] =  27,
                [0x0008F1] =  28,
                [0x0008F2] =  29,
                [0x0008F6] = 220,
                [0x00093C] =   7,
                [0x00094D] =   9,
                [0x000951] = 230,
                [0x000952] = 220,
                [0x0009BC] =   7,
                [0x0009CD] =   9,
                [0x0009FE] = 230,
                [0x000A3C] =   7,
                [0x000A4D] =   9,
                [0x000ABC] =   7,
                [0x000ACD] =   9,
                [0x000B3C] =   7,
                [0x000B4D] =   9,
                [0x000BCD] =   9,
                [0x000C3C] =   7,
                [0x000C4D] =   9,
                [0x000C55] =  84,
                [0x000C56] =  91,
                [0x000CBC] =   7,
                [0x000CCD] =   9,
                [0x000D4D] =   9,
                [0x000DCA] =   9,
                [0x000E3A] =   9,
                [0x000EBA] =   9,
                [0x000F35] = 220,
                [0x000F37] = 220,
                [0x000F39] = 216,
                [0x000F71] = 129,
                [0x000F72] = 130,
                [0x000F74] = 132,
                [0x000F80] = 130,
                [0x000F84] =   9,
                [0x000FC6] = 220,
                [0x001037] =   7,
                [0x00108D] = 220,
```

```
                [0x001714] =   9,
                [0x001715] =   9,
                [0x001734] =   9,
                [0x0017D2] =   9,
                [0x0017DD] = 230,
                [0x0018A9] = 228,
                [0x001939] = 222,
                [0x00193A] = 230,
                [0x00193B] = 220,
                [0x001A17] = 230,
                [0x001A18] = 220,
                [0x001A60] =   9,
                [0x001A7F] = 220,
                [0x001ABD] = 220,
                [0x001ACA] = 220,
                [0x001B34] =   7,
                [0x001B44] =   9,
                [0x001B6B] = 230,
                [0x001B6C] = 220,
                [0x001BAA] =   9,
                [0x001BAB] =   9,
                [0x001BE6] =   7,
                [0x001C37] =   7,
                [0x001CD4] =   1,
                [0x001CE0] = 230,
                [0x001CED] = 220,
                [0x001CF4] = 230,
                [0x001DC2] = 220,
                [0x001DCA] = 220,
                [0x001DCD] = 234,
                [0x001DCE] = 214,
                [0x001DCF] = 220,
                [0x001DD0] = 202,
                [0x001DF6] = 232,
                [0x001DF9] = 220,
                [0x001DFA] = 218,
                [0x001DFB] = 230,
                [0x001DFC] = 233,
                [0x001DFD] = 220,
                [0x001DFE] = 230,
                [0x001DFF] = 220,
                [0x0020E1] = 230,
                [0x0020E7] = 230,
                [0x0020E8] = 220,
                [0x0020E9] = 230,
                [0x0020F0] = 230,
                [0x002D7F] =   9,
                [0x00302A] = 218,
                [0x00302B] = 228,
                [0x00302C] = 232,
                [0x00302D] = 222,
                [0x00A66F] = 230,
                [0x00A806] =   9,
                [0x00A82C] =   9,
                [0x00A8C4] =   9,
                [0x00A953] =   9,
                [0x00A9B3] =   7,
                [0x00A9C0] =   9,
                [0x00AAB0] = 230,
                [0x00AAB4] = 220,
                [0x00AAC1] = 230,
                [0x00AAF6] =   9,
                [0x00ABED] =   9,
                [0x00FB1E] =  26,
```

```
		[0x0101FD] = 220,
		[0x0102E0] = 220,
		[0x010A0D] = 220,
		[0x010A0F] = 230,
		[0x010A38] = 230,
		[0x010A39] =   1,
		[0x010A3A] = 220,
		[0x010A3F] =   9,
		[0x010AE5] = 230,
		[0x010AE6] = 220,
		[0x010F4B] = 220,
		[0x010F4C] = 230,
		[0x010F82] = 230,
		[0x010F83] = 220,
		[0x010F84] = 230,
		[0x010F85] = 220,
		[0x011046] =   9,
		[0x011070] =   9,
		[0x01107F] =   9,
		[0x0110B9] =   9,
		[0x0110BA] =   7,
		[0x011173] =   7,
		[0x0111C0] =   9,
		[0x0111CA] =   7,
		[0x011235] =   9,
		[0x011236] =   7,
		[0x0112E9] =   7,
		[0x0112EA] =   9,
		[0x01134D] =   9,
		[0x011442] =   9,
		[0x011446] =   7,
		[0x01145E] = 230,
		[0x0114C2] =   9,
		[0x0114C3] =   7,
		[0x0115BF] =   9,
		[0x0115C0] =   7,
		[0x01163F] =   9,
		[0x0116B6] =   9,
		[0x0116B7] =   7,
		[0x01172B] =   9,
		[0x011839] =   9,
		[0x01183A] =   7,
		[0x01193D] =   9,
		[0x01193E] =   9,
		[0x011943] =   7,
		[0x0119E0] =   9,
		[0x011A34] =   9,
		[0x011A47] =   9,
		[0x011A99] =   9,
		[0x011C3F] =   9,
		[0x011D42] =   7,
		[0x011D97] =   9,
		[0x01BC9E] =   1,
		[0x01D16D] = 226,
		[0x01E2AE] = 230,
		[0x01E94A] =   7,
	};
	ranges = {
		{ 0x000300, 0x000314, 230 },
		{ 0x000316, 0x000319, 220 },
		{ 0x00031C, 0x000320, 220 },
		{ 0x000321, 0x000322, 202 },
		{ 0x000323, 0x000326, 220 },
		{ 0x000327, 0x000328, 202 },
```

```
                { 0x000329, 0x000333, 220 },
                { 0x000334, 0x000338,   1 },
                { 0x000339, 0x00033C, 220 },
                { 0x00033D, 0x000344, 230 },
                { 0x000347, 0x000349, 220 },
                { 0x00034A, 0x00034C, 230 },
                { 0x00034D, 0x00034E, 220 },
                { 0x000350, 0x000352, 230 },
                { 0x000353, 0x000356, 220 },
                { 0x000359, 0x00035A, 220 },
                { 0x00035D, 0x00035E, 234 },
                { 0x000360, 0x000361, 234 },
                { 0x000363, 0x00036F, 230 },
                { 0x000483, 0x000487, 230 },
                { 0x000592, 0x000595, 230 },
                { 0x000597, 0x000599, 230 },
                { 0x00059C, 0x0005A1, 230 },
                { 0x0005A2, 0x0005A7, 220 },
                { 0x0005A8, 0x0005A9, 230 },
                { 0x0005AB, 0x0005AC, 230 },
                { 0x0005B9, 0x0005BA,  19 },
                { 0x000610, 0x000617, 230 },
                { 0x000653, 0x000654, 230 },
                { 0x000655, 0x000656, 220 },
                { 0x000657, 0x00065B, 230 },
                { 0x00065D, 0x00065E, 230 },
                { 0x0006D6, 0x0006DC, 230 },
                { 0x0006DF, 0x0006E2, 230 },
                { 0x0006E7, 0x0006E8, 230 },
                { 0x0006EB, 0x0006EC, 230 },
                { 0x000732, 0x000733, 230 },
                { 0x000735, 0x000736, 230 },
                { 0x000737, 0x000739, 220 },
                { 0x00073B, 0x00073C, 220 },
                { 0x00073F, 0x000741, 230 },
                { 0x000749, 0x00074A, 230 },
                { 0x0007EB, 0x0007F1, 230 },
                { 0x000816, 0x000819, 230 },
                { 0x00081B, 0x000823, 230 },
                { 0x000825, 0x000827, 230 },
                { 0x000829, 0x00082D, 230 },
                { 0x000859, 0x00085B, 220 },
                { 0x000899, 0x00089B, 220 },
                { 0x00089C, 0x00089F, 230 },
                { 0x0008CA, 0x0008CE, 230 },
                { 0x0008CF, 0x0008D3, 220 },
                { 0x0008D4, 0x0008E1, 230 },
                { 0x0008E4, 0x0008E5, 230 },
                { 0x0008E7, 0x0008E8, 230 },
                { 0x0008EA, 0x0008EC, 230 },
                { 0x0008ED, 0x0008EF, 220 },
                { 0x0008F3, 0x0008F5, 230 },
                { 0x0008F7, 0x0008F8, 230 },
                { 0x0008F9, 0x0008FA, 220 },
                { 0x0008FB, 0x0008FF, 230 },
                { 0x000953, 0x000954, 230 },
                { 0x000D3B, 0x000D3C,   9 },
                { 0x000E38, 0x000E39, 103 },
                { 0x000E48, 0x000E4B, 107 },
                { 0x000EB8, 0x000EB9, 118 },
                { 0x000EC8, 0x000ECB, 122 },
                { 0x000F18, 0x000F19, 220 },
                { 0x000F7A, 0x000F7D, 130 },
                { 0x000F82, 0x000F83, 230 },
```

```
                { 0x000F86, 0x000F87, 230 },
                { 0x001039, 0x00103A,   9 },
                { 0x00135D, 0x00135F, 230 },
                { 0x001A75, 0x001A7C, 230 },
                { 0x001AB0, 0x001AB4, 230 },
                { 0x001AB5, 0x001ABA, 220 },
                { 0x001ABB, 0x001ABC, 230 },
                { 0x001ABF, 0x001AC0, 220 },
                { 0x001AC1, 0x001AC2, 230 },
                { 0x001AC3, 0x001AC4, 220 },
                { 0x001AC5, 0x001AC9, 230 },
                { 0x001ACB, 0x001ACE, 230 },
                { 0x001B6D, 0x001B73, 230 },
                { 0x001BF2, 0x001BF3,   9 },
                { 0x001CD0, 0x001CD2, 230 },
                { 0x001CD5, 0x001CD9, 220 },
                { 0x001CDA, 0x001CDB, 230 },
                { 0x001CDC, 0x001CDF, 220 },
                { 0x001CE2, 0x001CE8,   1 },
                { 0x001CF8, 0x001CF9, 230 },
                { 0x001DC0, 0x001DC1, 230 },
                { 0x001DC3, 0x001DC9, 230 },
                { 0x001DCB, 0x001DCC, 230 },
                { 0x001DD1, 0x001DF5, 230 },
                { 0x001DF7, 0x001DF8, 228 },
                { 0x0020D0, 0x0020D1, 230 },
                { 0x0020D2, 0x0020D3,   1 },
                { 0x0020D4, 0x0020D7, 230 },
                { 0x0020D8, 0x0020DA,   1 },
                { 0x0020DB, 0x0020DC, 230 },
                { 0x0020E5, 0x0020E6,   1 },
                { 0x0020EA, 0x0020EB,   1 },
                { 0x0020EC, 0x0020EF, 220 },
                { 0x002CEF, 0x002CF1, 230 },
                { 0x002DE0, 0x002DFF, 230 },
                { 0x00302E, 0x00302F, 224 },
                { 0x003099, 0x00309A,   8 },
                { 0x00A674, 0x00A67D, 230 },
                { 0x00A69E, 0x00A69F, 230 },
                { 0x00A6F0, 0x00A6F1, 230 },
                { 0x00A8E0, 0x00A8F1, 230 },
                { 0x00A92B, 0x00A92D, 220 },
                { 0x00AAB2, 0x00AAB3, 230 },
                { 0x00AAB7, 0x00AAB8, 230 },
                { 0x00AABE, 0x00AABF, 230 },
                { 0x00FE20, 0x00FE26, 230 },
                { 0x00FE27, 0x00FE2D, 220 },
                { 0x00FE2E, 0x00FE2F, 230 },
                { 0x010376, 0x01037A, 230 },
                { 0x010D24, 0x010D27, 230 },
                { 0x010EAB, 0x010EAC, 230 },
                { 0x010F46, 0x010F47, 220 },
                { 0x010F48, 0x010F4A, 230 },
                { 0x010F4D, 0x010F50, 220 },
                { 0x011100, 0x011102, 230 },
                { 0x011133, 0x011134,   9 },
                { 0x01133B, 0x01133C,   7 },
                { 0x011366, 0x01136C, 230 },
                { 0x011370, 0x011374, 230 },
                { 0x011D44, 0x011D45,   9 },
                { 0x016AF0, 0x016AF4,   1 },
                { 0x016B30, 0x016B36, 230 },
                { 0x016FF0, 0x016FF1,   6 },
                { 0x01D165, 0x01D166, 216 },
```

```
                { 0x01D167, 0x01D169,   1 },
                { 0x01D16E, 0x01D172, 216 },
                { 0x01D17B, 0x01D182, 220 },
                { 0x01D185, 0x01D189, 230 },
                { 0x01D18A, 0x01D18B, 220 },
                { 0x01D1AA, 0x01D1AD, 230 },
                { 0x01D242, 0x01D244, 230 },
                { 0x01E000, 0x01E006, 230 },
                { 0x01E008, 0x01E018, 230 },
                { 0x01E01B, 0x01E021, 230 },
                { 0x01E023, 0x01E024, 230 },
                { 0x01E026, 0x01E02A, 230 },
                { 0x01E130, 0x01E136, 230 },
                { 0x01E2EC, 0x01E2EF, 230 },
                { 0x01E8D0, 0x01E8D6, 220 },
                { 0x01E944, 0x01E949, 230 },
        };
}

-- Needed for binary search.
data.ranges.length = #data.ranges

return data
```

Modul:Unicode data/control

Die Dokumentation für dieses Modul kann unter Modul:Unicode data/control/Doku erstellt werden

```
local Cc, Cf, Cs, Co, Cn =
        "control", "format", "surrogate", "private-use", "unassigned"
local Zs, Zl, Zp =
        "space-separator", "line-separator", "paragraph-separator"

local data = {
        singles = {
                [0x000020] = Zs,
                [0x0000A0] = Zs,
                [0x0000AD] = Cf,
                [0x00038B] = Cn,
                [0x00038D] = Cn,
                [0x0003A2] = Cn,
                [0x000530] = Cn,
                [0x000590] = Cn,
                [0x00061C] = Cf,
                [0x0006DD] = Cf,
                [0x00070E] = Cn,
                [0x00070F] = Cf,
                [0x00083F] = Cn,
                [0x00085F] = Cn,
                [0x00088F] = Cn,
                [0x0008E2] = Cf,
                [0x000984] = Cn,
                [0x0009A9] = Cn,
                [0x0009B1] = Cn,
                [0x0009DE] = Cn,
                [0x000A04] = Cn,
                [0x000A29] = Cn,
                [0x000A31] = Cn,
                [0x000A34] = Cn,
                [0x000A37] = Cn,
                [0x000A3D] = Cn,
                [0x000A5D] = Cn,
                [0x000A84] = Cn,
                [0x000A8E] = Cn,
                [0x000A92] = Cn,
                [0x000AA9] = Cn,
                [0x000AB1] = Cn,
                [0x000AB4] = Cn,
                [0x000AC6] = Cn,
                [0x000ACA] = Cn,
                [0x000B00] = Cn,
                [0x000B04] = Cn,
                [0x000B29] = Cn,
                [0x000B31] = Cn,
                [0x000B34] = Cn,
                [0x000B5E] = Cn,
                [0x000B84] = Cn,
                [0x000B91] = Cn,
                [0x000B9B] = Cn,
                [0x000B9D] = Cn,
                [0x000BC9] = Cn,
                [0x000C0D] = Cn,
                [0x000C11] = Cn,
                [0x000C29] = Cn,
```

```
                [0x000C45] = Cn,
                [0x000C49] = Cn,
                [0x000C57] = Cn,
                [0x000C8D] = Cn,
                [0x000C91] = Cn,
                [0x000CA9] = Cn,
                [0x000CB4] = Cn,
                [0x000CC5] = Cn,
                [0x000CC9] = Cn,
                [0x000CDF] = Cn,
                [0x000CF0] = Cn,
                [0x000D0D] = Cn,
                [0x000D11] = Cn,
                [0x000D45] = Cn,
                [0x000D49] = Cn,
                [0x000D80] = Cn,
                [0x000D84] = Cn,
                [0x000DB2] = Cn,
                [0x000DBC] = Cn,
                [0x000DD5] = Cn,
                [0x000DD7] = Cn,
                [0x000E83] = Cn,
                [0x000E85] = Cn,
                [0x000E8B] = Cn,
                [0x000EA4] = Cn,
                [0x000EA6] = Cn,
                [0x000EC5] = Cn,
                [0x000EC7] = Cn,
                [0x000F48] = Cn,
                [0x000F98] = Cn,
                [0x000FBD] = Cn,
                [0x000FCD] = Cn,
                [0x0010C6] = Cn,
                [0x001249] = Cn,
                [0x001257] = Cn,
                [0x001259] = Cn,
                [0x001289] = Cn,
                [0x0012B1] = Cn,
                [0x0012BF] = Cn,
                [0x0012C1] = Cn,
                [0x0012D7] = Cn,
                [0x001311] = Cn,
                [0x001680] = Zs,
                [0x00176D] = Cn,
                [0x001771] = Cn,
                [0x00180E] = Cf,
                [0x00191F] = Cn,
                [0x001A5F] = Cn,
                [0x001B7F] = Cn,
                [0x001F58] = Cn,
                [0x001F5A] = Cn,
                [0x001F5C] = Cn,
                [0x001F5E] = Cn,
                [0x001FB5] = Cn,
                [0x001FC5] = Cn,
                [0x001FDC] = Cn,
                [0x001FF5] = Cn,
                [0x001FFF] = Cn,
                [0x002028] = Zl,
                [0x002029] = Zp,
                [0x00202F] = Zs,
                [0x00205F] = Zs,
                [0x002065] = Cn,
                [0x00208F] = Cn,
```

```
                [0x002B96] = Cn,
                [0x002D26] = Cn,
                [0x002DA7] = Cn,
                [0x002DAF] = Cn,
                [0x002DB7] = Cn,
                [0x002DBF] = Cn,
                [0x002DC7] = Cn,
                [0x002DCF] = Cn,
                [0x002DD7] = Cn,
                [0x002DDF] = Cn,
                [0x002E9A] = Cn,
                [0x003000] = Zs,
                [0x003040] = Cn,
                [0x003130] = Cn,
                [0x00318F] = Cn,
                [0x00321F] = Cn,
                [0x00A7D2] = Cn,
                [0x00A7D4] = Cn,
                [0x00A9CE] = Cn,
                [0x00A9FF] = Cn,
                [0x00AB27] = Cn,
                [0x00AB2F] = Cn,
                [0x00FB37] = Cn,
                [0x00FB3D] = Cn,
                [0x00FB3F] = Cn,
                [0x00FB42] = Cn,
                [0x00FB45] = Cn,
                [0x00FE53] = Cn,
                [0x00FE67] = Cn,
                [0x00FE75] = Cn,
                [0x00FEFF] = Cf,
                [0x00FF00] = Cn,
                [0x00FFE7] = Cn,
                [0x01000C] = Cn,
                [0x010027] = Cn,
                [0x01003B] = Cn,
                [0x01003E] = Cn,
                [0x01018F] = Cn,
                [0x01039E] = Cn,
                [0x01057B] = Cn,
                [0x01058B] = Cn,
                [0x010593] = Cn,
                [0x010596] = Cn,
                [0x0105A2] = Cn,
                [0x0105B2] = Cn,
                [0x0105BA] = Cn,
                [0x010786] = Cn,
                [0x0107B1] = Cn,
                [0x010809] = Cn,
                [0x010836] = Cn,
                [0x010856] = Cn,
                [0x0108F3] = Cn,
                [0x010A04] = Cn,
                [0x010A14] = Cn,
                [0x010A18] = Cn,
                [0x010E7F] = Cn,
                [0x010EAA] = Cn,
                [0x0110BD] = Cf,
                [0x0110CD] = Cf,
                [0x011135] = Cn,
                [0x0111E0] = Cn,
                [0x011212] = Cn,
                [0x011287] = Cn,
                [0x011289] = Cn,
```

```
                [0x01128E] = Cn,
                [0x01129E] = Cn,
                [0x011304] = Cn,
                [0x011329] = Cn,
                [0x011331] = Cn,
                [0x011334] = Cn,
                [0x01133A] = Cn,
                [0x01145C] = Cn,
                [0x011914] = Cn,
                [0x011917] = Cn,
                [0x011936] = Cn,
                [0x011C09] = Cn,
                [0x011C37] = Cn,
                [0x011CA8] = Cn,
                [0x011D07] = Cn,
                [0x011D0A] = Cn,
                [0x011D3B] = Cn,
                [0x011D3E] = Cn,
                [0x011D66] = Cn,
                [0x011D69] = Cn,
                [0x011D8F] = Cn,
                [0x011D92] = Cn,
                [0x01246F] = Cn,
                [0x01342F] = Cn,
                [0x016A5F] = Cn,
                [0x016ABF] = Cn,
                [0x016B5A] = Cn,
                [0x016B62] = Cn,
                [0x01AFF4] = Cn,
                [0x01AFFC] = Cn,
                [0x01AFFF] = Cn,
                [0x01D455] = Cn,
                [0x01D49D] = Cn,
                [0x01D4AD] = Cn,
                [0x01D4BA] = Cn,
                [0x01D4BC] = Cn,
                [0x01D4C4] = Cn,
                [0x01D506] = Cn,
                [0x01D515] = Cn,
                [0x01D51D] = Cn,
                [0x01D53A] = Cn,
                [0x01D53F] = Cn,
                [0x01D545] = Cn,
                [0x01D551] = Cn,
                [0x01DAA0] = Cn,
                [0x01E007] = Cn,
                [0x01E022] = Cn,
                [0x01E025] = Cn,
                [0x01E7E7] = Cn,
                [0x01E7EC] = Cn,
                [0x01E7EF] = Cn,
                [0x01E7FF] = Cn,
                [0x01EE04] = Cn,
                [0x01EE20] = Cn,
                [0x01EE23] = Cn,
                [0x01EE28] = Cn,
                [0x01EE33] = Cn,
                [0x01EE38] = Cn,
                [0x01EE3A] = Cn,
                [0x01EE48] = Cn,
                [0x01EE4A] = Cn,
                [0x01EE4C] = Cn,
                [0x01EE50] = Cn,
                [0x01EE53] = Cn,
```

```
                [0x01EE58] = Cn,
                [0x01EE5A] = Cn,
                [0x01EE5C] = Cn,
                [0x01EE5E] = Cn,
                [0x01EE60] = Cn,
                [0x01EE63] = Cn,
                [0x01EE6B] = Cn,
                [0x01EE73] = Cn,
                [0x01EE78] = Cn,
                [0x01EE7D] = Cn,
                [0x01EE7F] = Cn,
                [0x01EE8A] = Cn,
                [0x01EEA4] = Cn,
                [0x01EEAA] = Cn,
                [0x01F0C0] = Cn,
                [0x01F0D0] = Cn,
                [0x01FB93] = Cn,
                [0x0E0001] = Cf,
        };
        ranges = {
                { 0x000000, 0x00001F, Cc },
                { 0x00007F, 0x00009F, Cc },
                { 0x000378, 0x000379, Cn },
                { 0x000380, 0x000383, Cn },
                { 0x000557, 0x000558, Cn },
                { 0x00058B, 0x00058C, Cn },
                { 0x0005C8, 0x0005CF, Cn },
                { 0x0005EB, 0x0005EE, Cn },
                { 0x0005F5, 0x0005FF, Cn },
                { 0x000600, 0x000605, Cf },
                { 0x00074B, 0x00074C, Cn },
                { 0x0007B2, 0x0007BF, Cn },
                { 0x0007FB, 0x0007FC, Cn },
                { 0x00082E, 0x00082F, Cn },
                { 0x00085C, 0x00085D, Cn },
                { 0x00086B, 0x00086F, Cn },
                { 0x000890, 0x000891, Cf },
                { 0x000892, 0x000897, Cn },
                { 0x00098D, 0x00098E, Cn },
                { 0x000991, 0x000992, Cn },
                { 0x0009B3, 0x0009B5, Cn },
                { 0x0009BA, 0x0009BB, Cn },
                { 0x0009C5, 0x0009C6, Cn },
                { 0x0009C9, 0x0009CA, Cn },
                { 0x0009CF, 0x0009D6, Cn },
                { 0x0009D8, 0x0009DB, Cn },
                { 0x0009E4, 0x0009E5, Cn },
                { 0x0009FF, 0x000A00, Cn },
                { 0x000A0B, 0x000A0E, Cn },
                { 0x000A11, 0x000A12, Cn },
                { 0x000A3A, 0x000A3B, Cn },
                { 0x000A43, 0x000A46, Cn },
                { 0x000A49, 0x000A4A, Cn },
                { 0x000A4E, 0x000A50, Cn },
                { 0x000A52, 0x000A58, Cn },
                { 0x000A5F, 0x000A65, Cn },
                { 0x000A77, 0x000A80, Cn },
                { 0x000ABA, 0x000ABB, Cn },
                { 0x000ACE, 0x000ACF, Cn },
                { 0x000AD1, 0x000ADF, Cn },
                { 0x000AE4, 0x000AE5, Cn },
                { 0x000AF2, 0x000AF8, Cn },
                { 0x000B0D, 0x000B0E, Cn },
                { 0x000B11, 0x000B12, Cn },
```

```
                { 0x000B3A, 0x000B3B, Cn },
                { 0x000B45, 0x000B46, Cn },
                { 0x000B49, 0x000B4A, Cn },
                { 0x000B4E, 0x000B54, Cn },
                { 0x000B58, 0x000B5B, Cn },
                { 0x000B64, 0x000B65, Cn },
                { 0x000B78, 0x000B81, Cn },
                { 0x000B8B, 0x000B8D, Cn },
                { 0x000B96, 0x000B98, Cn },
                { 0x000BA0, 0x000BA2, Cn },
                { 0x000BA5, 0x000BA7, Cn },
                { 0x000BAB, 0x000BAD, Cn },
                { 0x000BBA, 0x000BBD, Cn },
                { 0x000BC3, 0x000BC5, Cn },
                { 0x000BCE, 0x000BCF, Cn },
                { 0x000BD1, 0x000BD6, Cn },
                { 0x000BD8, 0x000BE5, Cn },
                { 0x000BFB, 0x000BFF, Cn },
                { 0x000C3A, 0x000C3B, Cn },
                { 0x000C4E, 0x000C54, Cn },
                { 0x000C5B, 0x000C5C, Cn },
                { 0x000C5E, 0x000C5F, Cn },
                { 0x000C64, 0x000C65, Cn },
                { 0x000C70, 0x000C76, Cn },
                { 0x000CBA, 0x000CBB, Cn },
                { 0x000CCE, 0x000CD4, Cn },
                { 0x000CD7, 0x000CDC, Cn },
                { 0x000CE4, 0x000CE5, Cn },
                { 0x000CF3, 0x000CFF, Cn },
                { 0x000D50, 0x000D53, Cn },
                { 0x000D64, 0x000D65, Cn },
                { 0x000D97, 0x000D99, Cn },
                { 0x000DBE, 0x000DBF, Cn },
                { 0x000DC7, 0x000DC9, Cn },
                { 0x000DCB, 0x000DCE, Cn },
                { 0x000DE0, 0x000DE5, Cn },
                { 0x000DF0, 0x000DF1, Cn },
                { 0x000DF5, 0x000E00, Cn },
                { 0x000E3B, 0x000E3E, Cn },
                { 0x000E5C, 0x000E80, Cn },
                { 0x000EBE, 0x000EBF, Cn },
                { 0x000ECE, 0x000ECF, Cn },
                { 0x000EDA, 0x000EDB, Cn },
                { 0x000EE0, 0x000EFF, Cn },
                { 0x000F6D, 0x000F70, Cn },
                { 0x000FDB, 0x000FFF, Cn },
                { 0x0010C8, 0x0010CC, Cn },
                { 0x0010CE, 0x0010CF, Cn },
                { 0x00124E, 0x00124F, Cn },
                { 0x00125E, 0x00125F, Cn },
                { 0x00128E, 0x00128F, Cn },
                { 0x0012B6, 0x0012B7, Cn },
                { 0x0012C6, 0x0012C7, Cn },
                { 0x001316, 0x001317, Cn },
                { 0x00135B, 0x00135C, Cn },
                { 0x00137D, 0x00137F, Cn },
                { 0x00139A, 0x00139F, Cn },
                { 0x0013F6, 0x0013F7, Cn },
                { 0x0013FE, 0x0013FF, Cn },
                { 0x00169D, 0x00169F, Cn },
                { 0x0016F9, 0x0016FF, Cn },
                { 0x001716, 0x00171E, Cn },
                { 0x001737, 0x00173F, Cn },
                { 0x001754, 0x00175F, Cn },
```

```
                { 0x001774, 0x00177F, Cn },
                { 0x0017DE, 0x0017DF, Cn },
                { 0x0017EA, 0x0017EF, Cn },
                { 0x0017FA, 0x0017FF, Cn },
                { 0x00181A, 0x00181F, Cn },
                { 0x001879, 0x00187F, Cn },
                { 0x0018AB, 0x0018AF, Cn },
                { 0x0018F6, 0x0018FF, Cn },
                { 0x00192C, 0x00192F, Cn },
                { 0x00193C, 0x00193F, Cn },
                { 0x001941, 0x001943, Cn },
                { 0x00196E, 0x00196F, Cn },
                { 0x001975, 0x00197F, Cn },
                { 0x0019AC, 0x0019AF, Cn },
                { 0x0019CA, 0x0019CF, Cn },
                { 0x0019DB, 0x0019DD, Cn },
                { 0x001A1C, 0x001A1D, Cn },
                { 0x001A7D, 0x001A7E, Cn },
                { 0x001A8A, 0x001A8F, Cn },
                { 0x001A9A, 0x001A9F, Cn },
                { 0x001AAE, 0x001AAF, Cn },
                { 0x001ACF, 0x001AFF, Cn },
                { 0x001B4D, 0x001B4F, Cn },
                { 0x001BF4, 0x001BFB, Cn },
                { 0x001C38, 0x001C3A, Cn },
                { 0x001C4A, 0x001C4C, Cn },
                { 0x001C89, 0x001C8F, Cn },
                { 0x001CBB, 0x001CBC, Cn },
                { 0x001CC8, 0x001CCF, Cn },
                { 0x001CFB, 0x001CFF, Cn },
                { 0x001F16, 0x001F17, Cn },
                { 0x001F1E, 0x001F1F, Cn },
                { 0x001F46, 0x001F47, Cn },
                { 0x001F4E, 0x001F4F, Cn },
                { 0x001F7E, 0x001F7F, Cn },
                { 0x001FD4, 0x001FD5, Cn },
                { 0x001FF0, 0x001FF1, Cn },
                { 0x002000, 0x00200A, Zs },
                { 0x00200B, 0x00200F, Cf },
                { 0x00202A, 0x00202E, Cf },
                { 0x002060, 0x002064, Cf },
                { 0x002066, 0x00206F, Cf },
                { 0x002072, 0x002073, Cn },
                { 0x00209D, 0x00209F, Cn },
                { 0x0020C1, 0x0020CF, Cn },
                { 0x0020F1, 0x0020FF, Cn },
                { 0x00218C, 0x00218F, Cn },
                { 0x002427, 0x00243F, Cn },
                { 0x00244B, 0x00245F, Cn },
                { 0x002B74, 0x002B75, Cn },
                { 0x002CF4, 0x002CF8, Cn },
                { 0x002D28, 0x002D2C, Cn },
                { 0x002D2E, 0x002D2F, Cn },
                { 0x002D68, 0x002D6E, Cn },
                { 0x002D71, 0x002D7E, Cn },
                { 0x002D97, 0x002D9F, Cn },
                { 0x002E5E, 0x002E7F, Cn },
                { 0x002EF4, 0x002EFF, Cn },
                { 0x002FD6, 0x002FEF, Cn },
                { 0x002FFC, 0x002FFF, Cn },
                { 0x003097, 0x003098, Cn },
                { 0x003100, 0x003104, Cn },
                { 0x0031E4, 0x0031EF, Cn },
                { 0x00A48D, 0x00A48F, Cn },
```

```
                { 0x00A4C7, 0x00A4CF, Cn },
                { 0x00A62C, 0x00A63F, Cn },
                { 0x00A6F8, 0x00A6FF, Cn },
                { 0x00A7CB, 0x00A7CF, Cn },
                { 0x00A7DA, 0x00A7F1, Cn },
                { 0x00A82D, 0x00A82F, Cn },
                { 0x00A83A, 0x00A83F, Cn },
                { 0x00A878, 0x00A87F, Cn },
                { 0x00A8C6, 0x00A8CD, Cn },
                { 0x00A8DA, 0x00A8DF, Cn },
                { 0x00A954, 0x00A95E, Cn },
                { 0x00A97D, 0x00A97F, Cn },
                { 0x00A9DA, 0x00A9DD, Cn },
                { 0x00AA37, 0x00AA3F, Cn },
                { 0x00AA4E, 0x00AA4F, Cn },
                { 0x00AA5A, 0x00AA5B, Cn },
                { 0x00AAC3, 0x00AADA, Cn },
                { 0x00AAF7, 0x00AB00, Cn },
                { 0x00AB07, 0x00AB08, Cn },
                { 0x00AB0F, 0x00AB10, Cn },
                { 0x00AB17, 0x00AB1F, Cn },
                { 0x00AB6C, 0x00AB6F, Cn },
                { 0x00ABEE, 0x00ABEF, Cn },
                { 0x00ABFA, 0x00ABFF, Cn },
                { 0x00D7A4, 0x00D7AF, Cn },
                { 0x00D7C7, 0x00D7CA, Cn },
                { 0x00D7FC, 0x00D7FF, Cn },
                { 0x00D800, 0x00DFFF, Cs },
                { 0x00E000, 0x00F8FF, Co },
                { 0x00FA6E, 0x00FA6F, Cn },
                { 0x00FADA, 0x00FAFF, Cn },
                { 0x00FB07, 0x00FB12, Cn },
                { 0x00FB18, 0x00FB1C, Cn },
                { 0x00FBC3, 0x00FBD2, Cn },
                { 0x00FD90, 0x00FD91, Cn },
                { 0x00FDC8, 0x00FDCE, Cn },
                { 0x00FDD0, 0x00FDEF, Cn },
                { 0x00FE1A, 0x00FE1F, Cn },
                { 0x00FE6C, 0x00FE6F, Cn },
                { 0x00FEFD, 0x00FEFE, Cn },
                { 0x00FFBF, 0x00FFC1, Cn },
                { 0x00FFC8, 0x00FFC9, Cn },
                { 0x00FFD0, 0x00FFD1, Cn },
                { 0x00FFD8, 0x00FFD9, Cn },
                { 0x00FFDD, 0x00FFDF, Cn },
                { 0x00FFEF, 0x00FFF8, Cn },
                { 0x00FFF9, 0x00FFFB, Cf },
                { 0x00FFFE, 0x00FFFF, Cn },
                { 0x01004E, 0x01004F, Cn },
                { 0x01005E, 0x01007F, Cn },
                { 0x0100FB, 0x0100FF, Cn },
                { 0x010103, 0x010106, Cn },
                { 0x010134, 0x010136, Cn },
                { 0x01019D, 0x01019F, Cn },
                { 0x0101A1, 0x0101CF, Cn },
                { 0x0101FE, 0x01027F, Cn },
                { 0x01029D, 0x01029F, Cn },
                { 0x0102D1, 0x0102DF, Cn },
                { 0x0102FC, 0x0102FF, Cn },
                { 0x010324, 0x01032C, Cn },
                { 0x01034B, 0x01034F, Cn },
                { 0x01037B, 0x01037F, Cn },
                { 0x0103C4, 0x0103C7, Cn },
                { 0x0103D6, 0x0103FF, Cn },
```

```
                { 0x01049E, 0x01049F, Cn },
                { 0x0104AA, 0x0104AF, Cn },
                { 0x0104D4, 0x0104D7, Cn },
                { 0x0104FC, 0x0104FF, Cn },
                { 0x010528, 0x01052F, Cn },
                { 0x010564, 0x01056E, Cn },
                { 0x0105BD, 0x0105FF, Cn },
                { 0x010737, 0x01073F, Cn },
                { 0x010756, 0x01075F, Cn },
                { 0x010768, 0x01077F, Cn },
                { 0x0107BB, 0x0107FF, Cn },
                { 0x010806, 0x010807, Cn },
                { 0x010839, 0x01083B, Cn },
                { 0x01083D, 0x01083E, Cn },
                { 0x01089F, 0x0108A6, Cn },
                { 0x0108B0, 0x0108DF, Cn },
                { 0x0108F6, 0x0108FA, Cn },
                { 0x01091C, 0x01091E, Cn },
                { 0x01093A, 0x01093E, Cn },
                { 0x010940, 0x01097F, Cn },
                { 0x0109B8, 0x0109BB, Cn },
                { 0x0109D0, 0x0109D1, Cn },
                { 0x010A07, 0x010A0B, Cn },
                { 0x010A36, 0x010A37, Cn },
                { 0x010A3B, 0x010A3E, Cn },
                { 0x010A49, 0x010A4F, Cn },
                { 0x010A59, 0x010A5F, Cn },
                { 0x010AA0, 0x010ABF, Cn },
                { 0x010AE7, 0x010AEA, Cn },
                { 0x010AF7, 0x010AFF, Cn },
                { 0x010B36, 0x010B38, Cn },
                { 0x010B56, 0x010B57, Cn },
                { 0x010B73, 0x010B77, Cn },
                { 0x010B92, 0x010B98, Cn },
                { 0x010B9D, 0x010BA8, Cn },
                { 0x010BB0, 0x010BFF, Cn },
                { 0x010C49, 0x010C7F, Cn },
                { 0x010CB3, 0x010CBF, Cn },
                { 0x010CF3, 0x010CF9, Cn },
                { 0x010D28, 0x010D2F, Cn },
                { 0x010D3A, 0x010E5F, Cn },
                { 0x010EAE, 0x010EAF, Cn },
                { 0x010EB2, 0x010EFF, Cn },
                { 0x010F28, 0x010F2F, Cn },
                { 0x010F5A, 0x010F6F, Cn },
                { 0x010F8A, 0x010FAF, Cn },
                { 0x010FCC, 0x010FDF, Cn },
                { 0x010FF7, 0x010FFF, Cn },
                { 0x01104E, 0x011051, Cn },
                { 0x011076, 0x01107E, Cn },
                { 0x0110C3, 0x0110CC, Cn },
                { 0x0110CE, 0x0110CF, Cn },
                { 0x0110E9, 0x0110EF, Cn },
                { 0x0110FA, 0x0110FF, Cn },
                { 0x011148, 0x01114F, Cn },
                { 0x011177, 0x01117F, Cn },
                { 0x0111F5, 0x0111FF, Cn },
                { 0x01123F, 0x01127F, Cn },
                { 0x0112AA, 0x0112AF, Cn },
                { 0x0112EB, 0x0112EF, Cn },
                { 0x0112FA, 0x0112FF, Cn },
                { 0x01130D, 0x01130E, Cn },
                { 0x011311, 0x011312, Cn },
                { 0x011345, 0x011346, Cn },
```

```
                { 0x011349, 0x01134A, Cn },
                { 0x01134E, 0x01134F, Cn },
                { 0x011351, 0x011356, Cn },
                { 0x011358, 0x01135C, Cn },
                { 0x011364, 0x011365, Cn },
                { 0x01136D, 0x01136F, Cn },
                { 0x011375, 0x0113FF, Cn },
                { 0x011462, 0x01147F, Cn },
                { 0x0114C8, 0x0114CF, Cn },
                { 0x0114DA, 0x01157F, Cn },
                { 0x0115B6, 0x0115B7, Cn },
                { 0x0115DE, 0x0115FF, Cn },
                { 0x011645, 0x01164F, Cn },
                { 0x01165A, 0x01165F, Cn },
                { 0x01166D, 0x01167F, Cn },
                { 0x0116BA, 0x0116BF, Cn },
                { 0x0116CA, 0x0116FF, Cn },
                { 0x01171B, 0x01171C, Cn },
                { 0x01172C, 0x01172F, Cn },
                { 0x011747, 0x0117FF, Cn },
                { 0x01183C, 0x01189F, Cn },
                { 0x0118F3, 0x0118FE, Cn },
                { 0x011907, 0x011908, Cn },
                { 0x01190A, 0x01190B, Cn },
                { 0x011939, 0x01193A, Cn },
                { 0x011947, 0x01194F, Cn },
                { 0x01195A, 0x01199F, Cn },
                { 0x0119A8, 0x0119A9, Cn },
                { 0x0119D8, 0x0119D9, Cn },
                { 0x0119E5, 0x0119FF, Cn },
                { 0x011A48, 0x011A4F, Cn },
                { 0x011AA3, 0x011AAF, Cn },
                { 0x011AF9, 0x011BFF, Cn },
                { 0x011C46, 0x011C4F, Cn },
                { 0x011C6D, 0x011C6F, Cn },
                { 0x011C90, 0x011C91, Cn },
                { 0x011CB7, 0x011CFF, Cn },
                { 0x011D37, 0x011D39, Cn },
                { 0x011D48, 0x011D4F, Cn },
                { 0x011D5A, 0x011D5F, Cn },
                { 0x011D99, 0x011D9F, Cn },
                { 0x011DAA, 0x011EDF, Cn },
                { 0x011EF9, 0x011FAF, Cn },
                { 0x011FB1, 0x011FBF, Cn },
                { 0x011FF2, 0x011FFE, Cn },
                { 0x01239A, 0x0123FF, Cn },
                { 0x012475, 0x01247F, Cn },
                { 0x012544, 0x012F8F, Cn },
                { 0x012FF3, 0x012FFF, Cn },
                { 0x013430, 0x013438, Cf },
                { 0x013439, 0x0143FF, Cn },
                { 0x014647, 0x0167FF, Cn },
                { 0x016A39, 0x016A3F, Cn },
                { 0x016A6A, 0x016A6D, Cn },
                { 0x016ACA, 0x016ACF, Cn },
                { 0x016AEE, 0x016AEF, Cn },
                { 0x016AF6, 0x016AFF, Cn },
                { 0x016B46, 0x016B4F, Cn },
                { 0x016B78, 0x016B7C, Cn },
                { 0x016B90, 0x016E3F, Cn },
                { 0x016E9B, 0x016EFF, Cn },
                { 0x016F4B, 0x016F4E, Cn },
                { 0x016F88, 0x016F8E, Cn },
                { 0x016FA0, 0x016FDF, Cn },
```

```
                { 0x016FE5, 0x016FEF, Cn },
                { 0x016FF2, 0x016FFF, Cn },
                { 0x0187F8, 0x0187FF, Cn },
                { 0x018CD6, 0x018CFF, Cn },
                { 0x018D09, 0x01AFEF, Cn },
                { 0x01B123, 0x01B14F, Cn },
                { 0x01B153, 0x01B163, Cn },
                { 0x01B168, 0x01B16F, Cn },
                { 0x01B2FC, 0x01BBFF, Cn },
                { 0x01BC6B, 0x01BC6F, Cn },
                { 0x01BC7D, 0x01BC7F, Cn },
                { 0x01BC89, 0x01BC8F, Cn },
                { 0x01BC9A, 0x01BC9B, Cn },
                { 0x01BCA0, 0x01BCA3, Cf },
                { 0x01BCA4, 0x01CEFF, Cn },
                { 0x01CF2E, 0x01CF2F, Cn },
                { 0x01CF47, 0x01CF4F, Cn },
                { 0x01CFC4, 0x01CFFF, Cn },
                { 0x01D0F6, 0x01D0FF, Cn },
                { 0x01D127, 0x01D128, Cn },
                { 0x01D173, 0x01D17A, Cf },
                { 0x01D1EB, 0x01D1FF, Cn },
                { 0x01D246, 0x01D2DF, Cn },
                { 0x01D2F4, 0x01D2FF, Cn },
                { 0x01D357, 0x01D35F, Cn },
                { 0x01D379, 0x01D3FF, Cn },
                { 0x01D4A0, 0x01D4A1, Cn },
                { 0x01D4A3, 0x01D4A4, Cn },
                { 0x01D4A7, 0x01D4A8, Cn },
                { 0x01D50B, 0x01D50C, Cn },
                { 0x01D547, 0x01D549, Cn },
                { 0x01D6A6, 0x01D6A7, Cn },
                { 0x01D7CC, 0x01D7CD, Cn },
                { 0x01DA8C, 0x01DA9A, Cn },
                { 0x01DAB0, 0x01DEFF, Cn },
                { 0x01DF1F, 0x01DFFF, Cn },
                { 0x01E019, 0x01E01A, Cn },
                { 0x01E02B, 0x01E0FF, Cn },
                { 0x01E12D, 0x01E12F, Cn },
                { 0x01E13E, 0x01E13F, Cn },
                { 0x01E14A, 0x01E14D, Cn },
                { 0x01E150, 0x01E28F, Cn },
                { 0x01E2AF, 0x01E2BF, Cn },
                { 0x01E2FA, 0x01E2FE, Cn },
                { 0x01E300, 0x01E7DF, Cn },
                { 0x01E8C5, 0x01E8C6, Cn },
                { 0x01E8D7, 0x01E8FF, Cn },
                { 0x01E94C, 0x01E94F, Cn },
                { 0x01E95A, 0x01E95D, Cn },
                { 0x01E960, 0x01EC70, Cn },
                { 0x01ECB5, 0x01ED00, Cn },
                { 0x01ED3E, 0x01EDFF, Cn },
                { 0x01EE25, 0x01EE26, Cn },
                { 0x01EE3C, 0x01EE41, Cn },
                { 0x01EE43, 0x01EE46, Cn },
                { 0x01EE55, 0x01EE56, Cn },
                { 0x01EE65, 0x01EE66, Cn },
                { 0x01EE9C, 0x01EEA0, Cn },
                { 0x01EEBC, 0x01EEEF, Cn },
                { 0x01EEF2, 0x01EFFF, Cn },
                { 0x01F02C, 0x01F02F, Cn },
                { 0x01F094, 0x01F09F, Cn },
                { 0x01F0AF, 0x01F0B0, Cn },
                { 0x01F0F6, 0x01F0FF, Cn },
```

```
                { 0x01F1AE, 0x01F1E5, Cn },
                { 0x01F203, 0x01F20F, Cn },
                { 0x01F23C, 0x01F23F, Cn },
                { 0x01F249, 0x01F24F, Cn },
                { 0x01F252, 0x01F25F, Cn },
                { 0x01F266, 0x01F2FF, Cn },
                { 0x01F6D8, 0x01F6DC, Cn },
                { 0x01F6ED, 0x01F6EF, Cn },
                { 0x01F6FD, 0x01F6FF, Cn },
                { 0x01F774, 0x01F77F, Cn },
                { 0x01F7D9, 0x01F7DF, Cn },
                { 0x01F7EC, 0x01F7EF, Cn },
                { 0x01F7F1, 0x01F7FF, Cn },
                { 0x01F80C, 0x01F80F, Cn },
                { 0x01F848, 0x01F84F, Cn },
                { 0x01F85A, 0x01F85F, Cn },
                { 0x01F888, 0x01F88F, Cn },
                { 0x01F8AE, 0x01F8AF, Cn },
                { 0x01F8B2, 0x01F8FF, Cn },
                { 0x01FA54, 0x01FA5F, Cn },
                { 0x01FA6E, 0x01FA6F, Cn },
                { 0x01FA75, 0x01FA77, Cn },
                { 0x01FA7D, 0x01FA7F, Cn },
                { 0x01FA87, 0x01FA8F, Cn },
                { 0x01FAAD, 0x01FAAF, Cn },
                { 0x01FABB, 0x01FABF, Cn },
                { 0x01FAC6, 0x01FACF, Cn },
                { 0x01FADA, 0x01FADF, Cn },
                { 0x01FAE8, 0x01FAEF, Cn },
                { 0x01FAF7, 0x01FAFF, Cn },
                { 0x01FBCB, 0x01FBEF, Cn },
                { 0x01FBFA, 0x01FFFF, Cn },
                { 0x02A6E0, 0x02A6FF, Cn },
                { 0x02B739, 0x02B73F, Cn },
                { 0x02B81E, 0x02B81F, Cn },
                { 0x02CEA2, 0x02CEAF, Cn },
                { 0x02EBE1, 0x02F7FF, Cn },
                { 0x02FA1E, 0x02FFFF, Cn },
                { 0x03134B, 0x0E0000, Cn },
                { 0x0E0002, 0x0E001F, Cn },
                { 0x0E0020, 0x0E007F, Cf },
                { 0x0E0080, 0x0E00FF, Cn },
                { 0x0E01F0, 0x0EFFFF, Cn },
                { 0x0F0000, 0x0FFFFD, Co },
                { 0x0FFFFE, 0x0FFFFF, Cn },
                { 0x100000, 0x10FFFD, Co },
                { 0x10FFFE, 0x10FFFF, Cn },
        };
}

-- Needed for binary search.
data.ranges.length = #data.ranges

return data
```

Modul:Unicode data/scripts

This module contains data that is used by Module:Unicode data to determine the Unicode script code for a code point and to determine if a Unicode script is written right-to-left. The right-to-left script data is sourced from Module:Lang/data. The main table in the module is generated by Module:Unicode data/scripts/make from Scripts.txt and PropertyValueAliases.txt in the Unicode Character Database (version 14.0).

```
--[=[
-- Official Unicode script values for individual codepoints and ranges of
-- codepoints.

-- https://www.unicode.org/Public/UNIDATA/Scripts.txt provided
-- the script names, and https://www.unicode.org/Public/UNIDATA/PropertyValueAlia
-- provided script codes corresponding to the names (see [[Script (Unicode)]]).
--]=]

local data = {
        singles = {
                [0x000AA] = "Latn",
                [0x000BA] = "Latn",
                [0x000D7] = "Zyyy",
                [0x000F7] = "Zyyy",
                [0x00374] = "Zyyy",
                [0x0037E] = "Zyyy",
                [0x0037F] = "Grek",
                [0x00384] = "Grek",
                [0x00385] = "Zyyy",
                [0x00386] = "Grek",
                [0x00387] = "Zyyy",
                [0x0038C] = "Grek",
                [0x00605] = "Zyyy",
                [0x0060C] = "Zyyy",
                [0x0061B] = "Zyyy",
                [0x0061F] = "Zyyy",
                [0x00640] = "Zyyy",
                [0x00670] = "Zinh",
                [0x006DD] = "Zyyy",
                [0x0085E] = "Mand",
                [0x008E2] = "Zyyy",
                [0x009B2] = "Beng",
                [0x009D7] = "Beng",
                [0x00A3C] = "Guru",
                [0x00A51] = "Guru",
                [0x00A5E] = "Guru",
                [0x00AD0] = "Gujr",
                [0x00B9C] = "Taml",
                [0x00BD0] = "Taml",
                [0x00BD7] = "Taml",
                [0x00C5D] = "Telu",
                [0x00DBD] = "Sinh",
                [0x00DCA] = "Sinh",
                [0x00DD6] = "Sinh",
                [0x00E3F] = "Zyyy",
                [0x00E84] = "Laoo",
                [0x00EA5] = "Laoo",
```

```
                [0x00EC6] = "Laoo",
                [0x010C7] = "Geor",
                [0x010CD] = "Geor",
                [0x010FB] = "Zyyy",
                [0x01258] = "Ethi",
                [0x012C0] = "Ethi",
                [0x0171F] = "Tglg",
                [0x01804] = "Mong",
                [0x01805] = "Zyyy",
                [0x01940] = "Limb",
                [0x01CD3] = "Zyyy",
                [0x01CE1] = "Zyyy",
                [0x01CED] = "Zinh",
                [0x01CF4] = "Zinh",
                [0x01CFA] = "Zyyy",
                [0x01D2B] = "Cyrl",
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                [0x0207F] = "Latn",
                [0x02126] = "Grek",
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                [0x0214E] = "Latn",
                [0x02D27] = "Geor",
                [0x02D2D] = "Geor",
                [0x02D7F] = "Tfng",
                [0x03005] = "Hani",
                [0x03006] = "Zyyy",
                [0x03007] = "Hani",
                [0x030A0] = "Zyyy",
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                [0x0A92E] = "Zyyy",
                [0x0A92F] = "Kali",
                [0x0A95F] = "Rjng",
                [0x0A9CF] = "Zyyy",
                [0x0AB5B] = "Zyyy",
                [0x0AB65] = "Grek",
                [0x0FB3E] = "Hebr",
                [0x0FDCF] = "Arab",
                [0x0FEFF] = "Zyyy",
                [0x0FF70] = "Zyyy",
                [0x101A0] = "Grek",
                [0x101FD] = "Zinh",
                [0x102E0] = "Zinh",
                [0x1039F] = "Ugar",
                [0x1056F] = "Aghb",
                [0x10808] = "Cprt",
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                [0x1083F] = "Cprt",
                [0x1091F] = "Phnx",
                [0x1093F] = "Lydi",
                [0x1107F] = "Brah",
                [0x110CD] = "Kthi",
                [0x11288] = "Mult",
                [0x1133B] = "Zinh",
                [0x11350] = "Gran",
                [0x11357] = "Gran",
                [0x118FF] = "Wara",
                [0x11909] = "Diak",
                [0x11D3A] = "Gonm",
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                [0x1D4A2] = "Zyyy",
                [0x1D4BB] = "Zyyy",
                [0x1D546] = "Zyyy",
                [0x1E2FF] = "Wcho",
                [0x1EE24] = "Arab",
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                [0x1EE7E] = "Arab",
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                [0xE0001] = "Zyyy",
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                { 0x000BB, 0x000BF, "Zyyy" },
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                { 0x002EA, 0x002EB, "Bopo" },
                { 0x002EC, 0x002FF, "Zyyy" },
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                { 0x003E2, 0x003EF, "Copt" },
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                { 0x00485, 0x00486, "Zinh" },
                { 0x00487, 0x0052F, "Cyrl" },
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                { 0x03030, 0x03037, "Zyyy" },
                { 0x03038, 0x0303B, "Hani" },
                { 0x0303C, 0x0303F, "Zyyy" },
                { 0x03041, 0x03096, "Hira" },
                { 0x03099, 0x0309A, "Zinh" },
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                { 0x030A1, 0x030FA, "Kana" },
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                { 0x031F0, 0x031FF, "Kana" },
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                { 0x03220, 0x0325F, "Zyyy" },
                { 0x03260, 0x0327E, "Hang" },
                { 0x0327F, 0x032CF, "Zyyy" },
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                { 0x0A500, 0x0A62B, "Vaii" },
                { 0x0A640, 0x0A69F, "Cyrl" },
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                { 0x0AA5C, 0x0AA5F, "Cham" },
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                { 0x0FFCA, 0x0FFCF, "Hang" },
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                { 0x0FFDA, 0x0FFDC, "Hang" },
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		{ 0x1145D, 0x11461, "Newa" },
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                { 0x1D4BD, 0x1D4C3, "Zyyy" },
                { 0x1D4C5, 0x1D505, "Zyyy" },
                { 0x1D507, 0x1D50A, "Zyyy" },
                { 0x1D50D, 0x1D514, "Zyyy" },
                { 0x1D516, 0x1D51C, "Zyyy" },
                { 0x1D51E, 0x1D539, "Zyyy" },
                { 0x1D53B, 0x1D53E, "Zyyy" },
                { 0x1D540, 0x1D544, "Zyyy" },
                { 0x1D54A, 0x1D550, "Zyyy" },
                { 0x1D552, 0x1D6A5, "Zyyy" },
                { 0x1D6A8, 0x1D7CB, "Zyyy" },
                { 0x1D7CE, 0x1D7FF, "Zyyy" },
                { 0x1D800, 0x1DA8B, "Sgnw" },
                { 0x1DA9B, 0x1DA9F, "Sgnw" },
                { 0x1DAA1, 0x1DAAF, "Sgnw" },
                { 0x1DF00, 0x1DF1E, "Latn" },
                { 0x1E000, 0x1E006, "Glag" },
                { 0x1E008, 0x1E018, "Glag" },
                { 0x1E01B, 0x1E021, "Glag" },
                { 0x1E023, 0x1E024, "Glag" },
                { 0x1E026, 0x1E02A, "Glag" },
                { 0x1E100, 0x1E12C, "Hmnp" },
                { 0x1E130, 0x1E13D, "Hmnp" },
                { 0x1E140, 0x1E149, "Hmnp" },
                { 0x1E14E, 0x1E14F, "Hmnp" },
                { 0x1E290, 0x1E2AE, "Toto" },
                { 0x1E2C0, 0x1E2F9, "Wcho" },
                { 0x1E7E0, 0x1E7E6, "Ethi" },
```

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                { 0x1E7E8, 0x1E7EB, "Ethi" },
                { 0x1E7ED, 0x1E7EE, "Ethi" },
                { 0x1E7F0, 0x1E7FE, "Ethi" },
                { 0x1E800, 0x1E8C4, "Mend" },
                { 0x1E8C7, 0x1E8D6, "Mend" },
                { 0x1E900, 0x1E94B, "Adlm" },
                { 0x1E950, 0x1E959, "Adlm" },
                { 0x1E95E, 0x1E95F, "Adlm" },
                { 0x1EC71, 0x1ECB4, "Zyyy" },
                { 0x1ED01, 0x1ED3D, "Zyyy" },
                { 0x1EE00, 0x1EE03, "Arab" },
                { 0x1EE05, 0x1EE1F, "Arab" },
                { 0x1EE21, 0x1EE22, "Arab" },
                { 0x1EE29, 0x1EE32, "Arab" },
                { 0x1EE34, 0x1EE37, "Arab" },
                { 0x1EE4D, 0x1EE4F, "Arab" },
                { 0x1EE51, 0x1EE52, "Arab" },
                { 0x1EE61, 0x1EE62, "Arab" },
                { 0x1EE67, 0x1EE6A, "Arab" },
                { 0x1EE6C, 0x1EE72, "Arab" },
                { 0x1EE74, 0x1EE77, "Arab" },
                { 0x1EE79, 0x1EE7C, "Arab" },
                { 0x1EE80, 0x1EE89, "Arab" },
                { 0x1EE8B, 0x1EE9B, "Arab" },
                { 0x1EEA1, 0x1EEA3, "Arab" },
                { 0x1EEA5, 0x1EEA9, "Arab" },
                { 0x1EEAB, 0x1EEBB, "Arab" },
                { 0x1EEF0, 0x1EEF1, "Arab" },
                { 0x1F000, 0x1F02B, "Zyyy" },
                { 0x1F030, 0x1F093, "Zyyy" },
                { 0x1F0A0, 0x1F0AE, "Zyyy" },
                { 0x1F0B1, 0x1F0BF, "Zyyy" },
                { 0x1F0C1, 0x1F0CF, "Zyyy" },
                { 0x1F0D1, 0x1F0F5, "Zyyy" },
                { 0x1F100, 0x1F1AD, "Zyyy" },
                { 0x1F1E6, 0x1F1FF, "Zyyy" },
                { 0x1F201, 0x1F202, "Zyyy" },
                { 0x1F210, 0x1F23B, "Zyyy" },
                { 0x1F240, 0x1F248, "Zyyy" },
                { 0x1F250, 0x1F251, "Zyyy" },
                { 0x1F260, 0x1F265, "Zyyy" },
                { 0x1F300, 0x1F6D7, "Zyyy" },
                { 0x1F6DD, 0x1F6EC, "Zyyy" },
                { 0x1F6F0, 0x1F6FC, "Zyyy" },
                { 0x1F700, 0x1F773, "Zyyy" },
                { 0x1F780, 0x1F7D8, "Zyyy" },
                { 0x1F7E0, 0x1F7EB, "Zyyy" },
                { 0x1F800, 0x1F80B, "Zyyy" },
                { 0x1F810, 0x1F847, "Zyyy" },
                { 0x1F850, 0x1F859, "Zyyy" },
                { 0x1F860, 0x1F887, "Zyyy" },
                { 0x1F890, 0x1F8AD, "Zyyy" },
                { 0x1F8B0, 0x1F8B1, "Zyyy" },
                { 0x1F900, 0x1FA53, "Zyyy" },
                { 0x1FA60, 0x1FA6D, "Zyyy" },
                { 0x1FA70, 0x1FA74, "Zyyy" },
                { 0x1FA78, 0x1FA7C, "Zyyy" },
                { 0x1FA80, 0x1FA86, "Zyyy" },
                { 0x1FA90, 0x1FAAC, "Zyyy" },
                { 0x1FAB0, 0x1FABA, "Zyyy" },
                { 0x1FAC0, 0x1FAC5, "Zyyy" },
                { 0x1FAD0, 0x1FAD9, "Zyyy" },
                { 0x1FAE0, 0x1FAE7, "Zyyy" },
                { 0x1FAF0, 0x1FAF6, "Zyyy" },
```

```
                { 0x1FB00, 0x1FB92, "Zyyy" },
                { 0x1FB94, 0x1FBCA, "Zyyy" },
                { 0x1FBF0, 0x1FBF9, "Zyyy" },
                { 0x20000, 0x2A6DF, "Hani" },
                { 0x2A700, 0x2B738, "Hani" },
                { 0x2B740, 0x2B81D, "Hani" },
                { 0x2B820, 0x2CEA1, "Hani" },
                { 0x2CEB0, 0x2EBE0, "Hani" },
                { 0x2F800, 0x2FA1D, "Hani" },
                { 0x30000, 0x3134A, "Hani" },
                { 0xE0020, 0xE007F, "Zyyy" },
                { 0xE0100, 0xE01EF, "Zinh" },
        },
        -- Scripts.txt gives full names; here we consider them aliases to save sp
        aliases = {
                Adlm = "Adlam",
                Aghb = "Caucasian Albanian",
                Ahom = "Ahom",
                Arab = "Arabic",
                Armi = "Imperial Aramaic",
                Armn = "Armenian",
                Avst = "Avestan",
                Bali = "Balinese",
                Bamu = "Bamum",
                Bass = "Bassa Vah",
                Batk = "Batak",
                Beng = "Bengali",
                Bhks = "Bhaiksuki",
                Bopo = "Bopomofo",
                Brah = "Brahmi",
                Brai = "Braille",
                Bugi = "Buginese",
                Buhd = "Buhid",
                Cakm = "Chakma",
                Cans = "Canadian Aboriginal",
                Cari = "Carian",
                Cham = "Cham",
                Cher = "Cherokee",
                Chrs = "Chorasmian",
                Copt = "Coptic",
                Cpmn = "Cypro Minoan",
                Cprt = "Cypriot",
                Cyrl = "Cyrillic",
                Deva = "Devanagari",
                Diak = "Dives Akuru",
                Dogr = "Dogra",
                Dsrt = "Deseret",
                Dupl = "Duployan",
                Egyp = "Egyptian Hieroglyphs",
                Elba = "Elbasan",
                Elym = "Elymaic",
                Ethi = "Ethiopic",
                Geor = "Georgian",
                Glag = "Glagolitic",
                Gong = "Gunjala Gondi",
                Gonm = "Masaram Gondi",
                Goth = "Gothic",
                Gran = "Grantha",
                Grek = "Greek",
                Gujr = "Gujarati",
                Guru = "Gurmukhi",
                Hang = "Hangul",
                Hani = "Han",
                Hano = "Hanunoo",
```

```
                Hatr = "Hatran",
                Hebr = "Hebrew",
                Hira = "Hiragana",
                Hluw = "Anatolian Hieroglyphs",
                Hmng = "Pahawh Hmong",
                Hmnp = "Nyiakeng Puachue Hmong",
                Hrkt = "Katakana Or Hiragana",
                Hung = "Old Hungarian",
                Ital = "Old Italic",
                Java = "Javanese",
                Kali = "Kayah Li",
                Kana = "Katakana",
                Khar = "Kharoshthi",
                Khmr = "Khmer",
                Khoj = "Khojki",
                Kits = "Khitan Small Script",
                Knda = "Kannada",
                Kthi = "Kaithi",
                Lana = "Tai Tham",
                Laoo = "Lao",
                Latn = "Latin",
                Lepc = "Lepcha",
                Limb = "Limbu",
                Lina = "Linear A",
                Linb = "Linear B",
                Lisu = "Lisu",
                Lyci = "Lycian",
                Lydi = "Lydian",
                Mahj = "Mahajani",
                Maka = "Makasar",
                Mand = "Mandaic",
                Mani = "Manichaean",
                Marc = "Marchen",
                Medf = "Medefaidrin",
                Mend = "Mende Kikakui",
                Merc = "Meroitic Cursive",
                Mero = "Meroitic Hieroglyphs",
                Mlym = "Malayalam",
                Modi = "Modi",
                Mong = "Mongolian",
                Mroo = "Mro",
                Mtei = "Meetei Mayek",
                Mult = "Multani",
                Mymr = "Myanmar",
                Nand = "Nandinagari",
                Narb = "Old North Arabian",
                Nbat = "Nabataean",
                Newa = "Newa",
                Nkoo = "Nko",
                Nshu = "Nushu",
                Ogam = "Ogham",
                Olck = "Ol Chiki",
                Orkh = "Old Turkic",
                Orya = "Oriya",
                Osge = "Osage",
                Osma = "Osmanya",
                Ougr = "Old Uyghur",
                Palm = "Palmyrene",
                Pauc = "Pau Cin Hau",
                Perm = "Old Permic",
                Phag = "Phags Pa",
                Phli = "Inscriptional Pahlavi",
                Phlp = "Psalter Pahlavi",
                Phnx = "Phoenician",
```

```
                Plrd = "Miao",
                Prti = "Inscriptional Parthian",
                Rjng = "Rejang",
                Rohg = "Hanifi Rohingya",
                Runr = "Runic",
                Samr = "Samaritan",
                Sarb = "Old South Arabian",
                Saur = "Saurashtra",
                Sgnw = "SignWriting",
                Shaw = "Shavian",
                Shrd = "Sharada",
                Sidd = "Siddham",
                Sind = "Khudawadi",
                Sinh = "Sinhala",
                Sogd = "Sogdian",
                Sogo = "Old Sogdian",
                Sora = "Sora Sompeng",
                Soyo = "Soyombo",
                Sund = "Sundanese",
                Sylo = "Syloti Nagri",
                Syrc = "Syriac",
                Tagb = "Tagbanwa",
                Takr = "Takri",
                Tale = "Tai Le",
                Talu = "New Tai Lue",
                Taml = "Tamil",
                Tang = "Tangut",
                Tavt = "Tai Viet",
                Telu = "Telugu",
                Tfng = "Tifinagh",
                Tglg = "Tagalog",
                Thaa = "Thaana",
                Thai = "Thai",
                Tibt = "Tibetan",
                Tirh = "Tirhuta",
                Tnsa = "Tangsa",
                Toto = "Toto",
                Ugar = "Ugaritic",
                Vaii = "Vai",
                Vith = "Vithkuqi",
                Wara = "Warang Citi",
                Wcho = "Wancho",
                Xpeo = "Old Persian",
                Xsux = "Cuneiform",
                Yezi = "Yezidi",
                Yiii = "Yi",
                Zanb = "Zanabazar Square",
                Zinh = "Inherited",
                Zyyy = "Common",
                Zzzz = "Unknown",
        },
}

-- Required for binary search function in [[Module:Language/scripts]].
-- Cannot get length of module loaded with mw.loadData.
data.ranges.length = #data.ranges

data.rtl = {}

for _, script in ipairs(mw.loadData "Module:Lang/data".rtl_scripts) do
```

```
        -- [[Module:Lang/data]] has script codes in lowercase;
        -- this module has script codes with the first letter capitalized.
        data.rtl[script:gsub("^%a", string.upper)] = true
end

return data
```