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# Modul:Unicode data/Doku

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## Usage

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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

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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.

- [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**

## Copyright

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# Modul:Unicode data

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## Usage

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## Functions

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### 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 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](#))
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- [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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```
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
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
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/" .. key)
        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 characters
    { 0x3400, 0x4DBF, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Extension A
    { 0x4E00, 0x9FFF, "CJK UNIFIED IDEOGRAPH-%04X" }, -- CJK Ideograph Extension B
    { 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.final_syllable_count)],
            Hangul_data.vowels[floor((syllable_index % Hangul_data.final_syllable_count) / Hangul_data.vowel_count)],
            Hangul_data.consonants[floor(syllable_index % Hangul_data.vowel_count)]
        )
    end
}

```

```

        / Hangul_data.trail_count)],
        Hangul_data.trails[syllable_index % Hangul_data.trail_co
    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, 0x10FFFFD, "<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

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

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) >= 0xFFFFE) then
        return ("<noncharacter-%04X>"):format(codepoint)
    end
end

```

```
    if name_range_cache -- Check if previously used "name hook" applies to the
        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 have 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 == 0xFFFFD) -- 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
end
```

```
        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]
                }
            else -- codepoint < range[index][1]
                dots_range = {
                    ranges[index - 1] and ranges[index - 1][2],
                    ranges[index][1] - 1,
                }
            end
            return match_func(codepoint, manual_unpack(dots_range, dots))
        end

        table.sort(cache, compare_ranges)
    end
end
```

```
        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.ustext.gsub(str, ".",
        function(char)
            if p.is_combining(mw.ustext.codepoint(char)) then
                return '◌' .. char
            end
        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 strings
  require "libraryUtil".checkType("get_best_script", 1, str, "string")

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

  local scripts = {}
  for codepoint in mw.ustr.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 least
  -- one Latin-script character, the string counts as Latin, because the rest
  -- 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.ustr.gcodepoint(str) do
      if lookup_script(codepoint) == "Latn" then
        return true
      end
    end
  end

  local Latn = false

  for codepoint in mw.ustr.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 only
-- have characters from a left-to-right script, because the first code point
-- 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.ustr.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 base",
            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

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, "LR0" };
};
[0x00202e] = {
    { abbreviation, "RL0" };
};
[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 VER" };
};
[0x002b7c] = {
    { correction, "RIGHTWARDS TRIANGLE-HEADED ARROW WITH DOUBLE VER" };
};
[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 LENT"
};
[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" };
};
[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"}
```



```

{ 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, "Khitani 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, 0x0FFFFFF, "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",
[0x00123] = "Ll",
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[0x00129] = "Ll",
[0x0012A] = "Lu",
[0x0012B] = "Ll",
[0x0012C] = "Lu",
[0x0012D] = "Ll",
[0x0012E] = "Lu",
[0x0012F] = "Ll",
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[0x00131] = "Ll",
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[0x00133] = "Ll",
[0x00134] = "Lu",
[0x00135] = "Ll",
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[0x00139] = "Lu",
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[0x0013B] = "Lu",
[0x0013C] = "Ll",
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[0x0013E] = "Ll",
[0x0013F] = "Lu",
[0x00140] = "Ll",
[0x00141] = "Lu",
[0x00142] = "Ll",
[0x00143] = "Lu",
[0x00144] = "Ll",
[0x00145] = "Lu",
[0x00146] = "Ll",
[0x00147] = "Lu",
[0x0014A] = "Lu",
[0x0014B] = "Ll",
```



```
[0x0014C] = "Lu",  
[0x0014D] = "Ll",  
[0x0014E] = "Lu",  
[0x0014F] = "Ll",  
[0x00150] = "Lu",  
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[0x00152] = "Lu",  
[0x00153] = "Ll",  
[0x00154] = "Lu",  
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[0x00157] = "Ll",  
[0x00158] = "Lu",  
[0x00159] = "Ll",  
[0x0015A] = "Lu",  
[0x0015B] = "Ll",  
[0x0015C] = "Lu",  
[0x0015D] = "Ll",  
[0x0015E] = "Lu",  
[0x0015F] = "Ll",  
[0x00160] = "Lu",  
[0x00161] = "Ll",  
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[0x00165] = "Ll",  
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[0x00169] = "Ll",  
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[0x0016F] = "Ll",  
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[0x00173] = "Ll",  
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[0x00177] = "Ll",  
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[0x00188] = "Ll",  
[0x00192] = "Ll",  
[0x00195] = "Ll",  
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[0x001A1] = "Ll",  
[0x001A2] = "Lu",  
[0x001A3] = "Ll",  
[0x001A4] = "Lu",  
[0x001A5] = "Ll",  
[0x001A8] = "Ll",  
[0x001A9] = "Lu",  
[0x001AC] = "Lu",  
[0x001AD] = "Ll",
```



```
[0x001B0] = "Ll",
[0x001B4] = "Ll",
[0x001B5] = "Lu",
[0x001B6] = "Ll",
[0x001BB] = "Lo",
[0x001BC] = "Lu",
[0x001C4] = "Lu",
[0x001C5] = "Lt",
[0x001C6] = "Ll",
[0x001C7] = "Lu",
[0x001C8] = "Lt",
[0x001C9] = "Ll",
[0x001CA] = "Lu",
[0x001CB] = "Lt",
[0x001CC] = "Ll",
[0x001CD] = "Lu",
[0x001CE] = "Ll",
[0x001CF] = "Lu",
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[0x001D1] = "Lu",
[0x001D2] = "Ll",
[0x001D3] = "Lu",
[0x001D4] = "Ll",
[0x001D5] = "Lu",
[0x001D6] = "Ll",
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[0x001D8] = "Ll",
[0x001D9] = "Lu",
[0x001DA] = "Ll",
[0x001DB] = "Lu",
[0x001DE] = "Lu",
[0x001DF] = "Ll",
[0x001E0] = "Lu",
[0x001E1] = "Ll",
[0x001E2] = "Lu",
[0x001E3] = "Ll",
[0x001E4] = "Lu",
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[0x001E9] = "Ll",
[0x001EA] = "Lu",
[0x001EB] = "Ll",
[0x001EC] = "Lu",
[0x001ED] = "Ll",
[0x001EE] = "Lu",
[0x001F1] = "Lu",
[0x001F2] = "Lt",
[0x001F3] = "Ll",
[0x001F4] = "Lu",
[0x001F5] = "Ll",
[0x001F9] = "Ll",
[0x001FA] = "Lu",
[0x001FB] = "Ll",
[0x001FC] = "Lu",
[0x001FD] = "Ll",
[0x001FE] = "Lu",
[0x001FF] = "Ll",
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[0x00201] = "Ll",
[0x00202] = "Lu",
[0x00203] = "Ll",
[0x00204] = "Lu",
```



```
[0x00205] = "Ll",  
[0x00206] = "Lu",  
[0x00207] = "Ll",  
[0x00208] = "Lu",  
[0x00209] = "Ll",  
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[0x0020B] = "Ll",  
[0x0020C] = "Lu",  
[0x0020D] = "Ll",  
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[0x0020F] = "Ll",  
[0x00210] = "Lu",  
[0x00211] = "Ll",  
[0x00212] = "Lu",  
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[0x00215] = "Ll",  
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[0x00217] = "Ll",  
[0x00218] = "Lu",  
[0x00219] = "Ll",  
[0x0021A] = "Lu",  
[0x0021B] = "Ll",  
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[0x00222] = "Lu",  
[0x00223] = "Ll",  
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[0x00227] = "Ll",  
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[0x0022B] = "Ll",  
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[0x0022F] = "Ll",  
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[0x00231] = "Ll",  
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[0x0023C] = "Ll",  
[0x00241] = "Lu",  
[0x00242] = "Ll",  
[0x00247] = "Ll",  
[0x00248] = "Lu",  
[0x00249] = "Ll",  
[0x0024A] = "Lu",  
[0x0024B] = "Ll",  
[0x0024C] = "Lu",  
[0x0024D] = "Ll",  
[0x0024E] = "Lu",  
[0x00294] = "Lo",  
[0x002EC] = "Lm",  
[0x002ED] = "Sk",  
[0x002EE] = "Lm",  
[0x00370] = "Lu",  
[0x00371] = "Ll",  
[0x00372] = "Lu",
```



```
[0x00373] = "Ll",
[0x00374] = "Lm",
[0x00375] = "Sk",
[0x00376] = "Lu",
[0x00377] = "Ll",
[0x0037A] = "Lm",
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[0x0037F] = "Lu",
[0x00386] = "Lu",
[0x00387] = "Po",
[0x0038C] = "Lu",
[0x00390] = "Ll",
[0x003CF] = "Lu",
[0x003D8] = "Lu",
[0x003D9] = "Ll",
[0x003DA] = "Lu",
[0x003DB] = "Ll",
[0x003DC] = "Lu",
[0x003DD] = "Ll",
[0x003DE] = "Lu",
[0x003DF] = "Ll",
[0x003E0] = "Lu",
[0x003E1] = "Ll",
[0x003E2] = "Lu",
[0x003E3] = "Ll",
[0x003E4] = "Lu",
[0x003E5] = "Ll",
[0x003E6] = "Lu",
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[0x003E8] = "Lu",
[0x003E9] = "Ll",
[0x003EA] = "Lu",
[0x003EB] = "Ll",
[0x003EC] = "Lu",
[0x003ED] = "Ll",
[0x003EE] = "Lu",
[0x003F4] = "Lu",
[0x003F5] = "Ll",
[0x003F6] = "Sm",
[0x003F7] = "Lu",
[0x003F8] = "Ll",
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[0x004BD] = "Ll",





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[0x0052A] = "Lu",  
[0x0052B] = "Ll",  
[0x0052C] = "Lu",  
[0x0052D] = "Ll",  
[0x0052E] = "Lu",  
[0x0052F] = "Ll",  
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[0x00589] = "Po",  
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[0x0058F] = "Sc",  
[0x005BE] = "Pd",  
[0x005BF] = "Mn",  
[0x005C0] = "Po",  
[0x005C3] = "Po",  
[0x005C6] = "Po",  
[0x005C7] = "Mn",  
[0x0060B] = "Sc",  
[0x0061B] = "Po",  
[0x0061C] = "Cf",  
[0x00640] = "Lm",  
[0x00670] = "Mn",  
[0x006D4] = "Po",  
[0x006D5] = "Lo",  
[0x006DD] = "Cf",
```



```
[0x006DE] = "So",
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[0x00711] = "Mn",
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[0x007F6] = "So",
[0x007FA] = "Lm",
[0x007FD] = "Mn",
[0x0081A] = "Lm",
[0x00824] = "Lm",
[0x00828] = "Lm",
[0x0085E] = "Po",
[0x00888] = "Sk",
[0x008C9] = "Lm",
[0x008E2] = "Cf",
[0x00903] = "Mc",
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[0x0094D] = "Mn",
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[0x00A76] = "Po",
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[0x00ABC] = "Mn",
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[0x00ACD] = "Mn",
[0x00AD0] = "Lo",
[0x00AF0] = "Po",
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[0x00AF9] = "Lo",
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[0x00B40] = "Mc",
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[0x00B57] = "Mc",
[0x00B70] = "So",
[0x00B71] = "Lo",
[0x00B82] = "Mn",
```



```
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[0x00BF9] = "Sc",
[0x00BFA] = "So",
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[0x00C04] = "Mn",
[0x00C3C] = "Mn",
[0x00C3D] = "Lo",
[0x00C5D] = "Lo",
[0x00C77] = "Po",
[0x00C7F] = "So",
[0x00C80] = "Lo",
[0x00C81] = "Mn",
[0x00C84] = "Po",
[0x00CBC] = "Mn",
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[0x00CBE] = "Mc",
[0x00CBF] = "Mn",
[0x00CC6] = "Mn",
[0x00D3D] = "Lo",
[0x00D4D] = "Mn",
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[0x00D57] = "Mc",
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[0x01CF7] = "Mc",  
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```
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[0x01E7D] = "Ll",  
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```
[0x01E81] = "Ll",  
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[0x01EAA] = "Lu",  
[0x01EAB] = "Ll",  
[0x01EAC] = "Lu",  
[0x01EAD] = "Ll",  
[0x01EAE] = "Lu",  
[0x01EAF] = "Ll",  
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[0x01EB1] = "Ll",  
[0x01EB2] = "Lu",  
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[0x01EBC] = "Lu",  
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[0x01EC1] = "Ll",  
[0x01EC2] = "Lu",  
[0x01EC3] = "Ll",  
[0x01EC4] = "Lu",  
[0x01EC5] = "Ll",  
[0x01EC6] = "Lu",  
[0x01EC7] = "Ll",  
[0x01EC8] = "Lu",  
[0x01EC9] = "Ll",
```





```
[0x01ECA] = "Lu",  
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[0x01F5F] = "Lu",  
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[0x01FBD] = "Sk",  
[0x01FBE] = "Ll",  
[0x01FCC] = "Lt",  
[0x01FFC] = "Lt",  
[0x02018] = "Pi",  
[0x02019] = "Pf",
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```
[0x0201A] = "Ps",  
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[0x02028] = "Zl",  
[0x02029] = "Zp",  
[0x0202F] = "Zs",  
[0x02039] = "Pi",  
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[0x02044] = "Sm",  
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[0x02046] = "Pe",  
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[0x02053] = "Po",  
[0x02054] = "Pc",  
[0x0205F] = "Zs",  
[0x02070] = "No",  
[0x02071] = "Lm",  
[0x0207D] = "Ps",  
[0x0207E] = "Pe",  
[0x0207F] = "Lm",  
[0x0208D] = "Ps",  
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[0x02113] = "Ll",  
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[0x02115] = "Lu",  
[0x02118] = "Sm",  
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[0x02C71] = "Ll",  
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[0x02CBC] = "Lu",  
[0x02CBD] = "Ll",
```



```
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[0x02E1D] = "Pf",
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```
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[0x02E29] = "Pe",  
[0x02E2F] = "Lm",  
[0x02E40] = "Pd",  
[0x02E41] = "Po",  
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[0x030FB] = "Po",  
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[0x0A76C] = "Lu",  
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[0x0A788] = "Lm",  
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```
[0x0A7AF] = "Ll",  
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[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",
```



```
[0xFF5C] = "Sm",
[0xFF5D] = "Pe",
[0xFF5E] = "Sm",
[0xFF5F] = "Ps",
[0xFF60] = "Pe",
[0xFF61] = "Po",
[0xFF62] = "Ps",
[0xFF63] = "Pe",
[0xFF70] = "Lm",
[0xFFE2] = "Sm",
[0xFFE3] = "Sk",
[0xFFE4] = "So",
[0xFFE8] = "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",  
[0x114B9] = "Mc",  
[0x114BA] = "Mn",  
[0x114C1] = "Mc",  
[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" },
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{ 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" },
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{ 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" },
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{ 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" },
```



```
{ 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" },
```



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{ 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" }
```



```
{ 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, 0x00FE1, "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, 0x10FFFFD, "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 },
{ 0x01113B, 0x01113C, 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,  
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[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,





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[0x01129E] = Cn,  
[0x011304] = Cn,  
[0x011329] = Cn,  
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[0x011334] = Cn,  
[0x01133A] = Cn,  
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[0x011936] = Cn,  
[0x011C09] = Cn,  
[0x011C37] = Cn,  
[0x011CA8] = Cn,  
[0x011D07] = Cn,  
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[0x011D3B] = Cn,  
[0x011D3E] = Cn,  
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[0x01342F] = Cn,  
[0x016A5F] = Cn,  
[0x016ABF] = Cn,  
[0x016B5A] = Cn,  
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[0x01AFFC] = Cn,  
[0x01AFFF] = Cn,  
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[0x01D49D] = Cn,  
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[0x01D4BC] = Cn,  
[0x01D4C4] = Cn,  
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[0x01D515] = Cn,  
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[0x01D551] = Cn,  
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[0x01E7E7] = Cn,  
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[0x01E7FF] = Cn,  
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[0x01EE50] = Cn,  
[0x01EE53] = Cn,



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[0x01EE5E] = Cn,  
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[0x01EE63] = Cn,  
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  { 0x00058B, 0x00058C, Cn },  
  { 0x0005C8, 0x0005CF, Cn },  
  { 0x0005EB, 0x0005EE, Cn },  
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  { 0x0007FB, 0x0007FC, Cn },  
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  { 0x000890, 0x000891, Cf },  
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  { 0x0009BA, 0x0009BB, Cn },  
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  { 0x0009C9, 0x0009CA, Cn },  
  { 0x0009CF, 0x0009D6, Cn },  
  { 0x0009D8, 0x0009DB, Cn },  
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  { 0x0009FF, 0x000A00, Cn },  
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  { 0x000A4E, 0x000A50, Cn },  
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{ 0x000B78, 0x000B81, Cn },
{ 0x000B8B, 0x000B8D, Cn },
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{ 0x000BD8, 0x000BE5, Cn },
{ 0x000BFB, 0x000BFF, Cn },
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{ 0x000C4E, 0x000C54, Cn },
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{ 0x00200B, 0x00200F, Cf },
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```



```
{ 0x016FE5, 0x016FEF, Cn },
{ 0x016FF2, 0x016FFF, Cn },
{ 0x0187F8, 0x0187FF, Cn },
{ 0x018CD6, 0x018CFF, Cn },
{ 0x018D09, 0x01ADEF, 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, 0x01FBFF, 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, 0x10FFFF, 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/PropertyValueAliases  
-- 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] = "Cyrł",  
[0x01D78] = "Cyrł",  
[0x01DBF] = "Grek",  
[0x01F59] = "Grek",  
[0x01F5B] = "Grek",  
[0x01F5D] = "Grek",  
[0x02071] = "Latn",  
[0x0207F] = "Latn",  
[0x02126] = "Grek",  
[0x02132] = "Latn",  
[0x0214E] = "Latn",  
[0x02D27] = "Geor",  
[0x02D2D] = "Geor",  
[0x02D7F] = "Tfng",  
[0x03005] = "Hani",  
[0x03006] = "Zyyy",  
[0x03007] = "Hani",  
[0x030A0] = "Zyyy",  
[0x032FF] = "Zyyy",  
[0x0A7D3] = "Latn",  
[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",  
[0x1083C] = "Cprt",  
[0x1083F] = "Cprt",  
[0x1091F] = "Phnx",  
[0x1093F] = "Lydi",  
[0x1107F] = "Brah",  
[0x110CD] = "Kthi",  
[0x11288] = "Mult",  
[0x1133B] = "Zinh",  
[0x11350] = "Gran",  
[0x11357] = "Gran",  
[0x118FF] = "Wara",  
[0x11909] = "Diak",  
[0x11D3A] = "Gonm",
```



```
[0x11FB0] = "Lisu",
[0x11FFF] = "Taml",
[0x16FE0] = "Tang",
[0x16FE1] = "Nshu",
[0x16FE4] = "Kits",
[0x1B000] = "Kana",
[0x1D4A2] = "Zyyy",
[0x1D4BB] = "Zyyy",
[0x1D546] = "Zyyy",
[0x1E2FF] = "Wcho",
[0x1EE24] = "Arab",
[0x1EE27] = "Arab",
[0x1EE39] = "Arab",
[0x1EE3B] = "Arab",
[0x1EE42] = "Arab",
[0x1EE47] = "Arab",
[0x1EE49] = "Arab",
[0x1EE4B] = "Arab",
[0x1EE54] = "Arab",
[0x1EE57] = "Arab",
[0x1EE59] = "Arab",
[0x1EE5B] = "Arab",
[0x1EE5D] = "Arab",
[0x1EE5F] = "Arab",
[0x1EE64] = "Arab",
[0x1EE7E] = "Arab",
[0x1F200] = "Hira",
[0x1F7F0] = "Zyyy",
[0xE0001] = "Zyyy",
},
ranges = {
  { 0x00000, 0x00040, "Zyyy" },
  { 0x00041, 0x0005A, "Latn" },
  { 0x0005B, 0x00060, "Zyyy" },
  { 0x00061, 0x0007A, "Latn" },
  { 0x0007B, 0x000A9, "Zyyy" },
  { 0x000AB, 0x000B9, "Zyyy" },
  { 0x000BB, 0x000BF, "Zyyy" },
  { 0x000C0, 0x000D6, "Latn" },
  { 0x000D8, 0x000F6, "Latn" },
  { 0x000F8, 0x002B8, "Latn" },
  { 0x002B9, 0x002DF, "Zyyy" },
  { 0x002E0, 0x002E4, "Latn" },
  { 0x002E5, 0x002E9, "Zyyy" },
  { 0x002EA, 0x002EB, "Bopo" },
  { 0x002EC, 0x002FF, "Zyyy" },
  { 0x00300, 0x0036F, "Zinh" },
  { 0x00370, 0x00373, "Grek" },
  { 0x00375, 0x00377, "Grek" },
  { 0x0037A, 0x0037D, "Grek" },
  { 0x00388, 0x0038A, "Grek" },
  { 0x0038E, 0x003A1, "Grek" },
  { 0x003A3, 0x003E1, "Grek" },
  { 0x003E2, 0x003EF, "Copt" },
  { 0x003F0, 0x003FF, "Grek" },
  { 0x00400, 0x00484, "Cyrł" },
  { 0x00485, 0x00486, "Zinh" },
  { 0x00487, 0x0052F, "Cyrł" },
  { 0x00531, 0x00556, "Armn" },
  { 0x00559, 0x0058A, "Armn" },
  { 0x0058D, 0x0058F, "Armn" },
  { 0x00591, 0x005C7, "Hebr" },
  { 0x005D0, 0x005EA, "Hebr" },
}
```



```
{ 0x005EF, 0x005F4, "Hebr" },
{ 0x00600, 0x00604, "Arab" },
{ 0x00606, 0x0060B, "Arab" },
{ 0x0060D, 0x0061A, "Arab" },
{ 0x0061C, 0x0061E, "Arab" },
{ 0x00620, 0x0063F, "Arab" },
{ 0x00641, 0x0064A, "Arab" },
{ 0x0064B, 0x00655, "Zinh" },
{ 0x00656, 0x0066F, "Arab" },
{ 0x00671, 0x006DC, "Arab" },
{ 0x006DE, 0x006FF, "Arab" },
{ 0x00700, 0x0070D, "Syrc" },
{ 0x0070F, 0x0074A, "Syrc" },
{ 0x0074D, 0x0074F, "Syrc" },
{ 0x00750, 0x0077F, "Arab" },
{ 0x00780, 0x007B1, "Thaa" },
{ 0x007C0, 0x007FA, "Nkoo" },
{ 0x007FD, 0x007FF, "Nkoo" },
{ 0x00800, 0x0082D, "Samr" },
{ 0x00830, 0x0083E, "Samr" },
{ 0x00840, 0x0085B, "Mand" },
{ 0x00860, 0x0086A, "Syrc" },
{ 0x00870, 0x0088E, "Arab" },
{ 0x00890, 0x00891, "Arab" },
{ 0x00898, 0x008E1, "Arab" },
{ 0x008E3, 0x008FF, "Arab" },
{ 0x00900, 0x00950, "Deva" },
{ 0x00951, 0x00954, "Zinh" },
{ 0x00955, 0x00963, "Deva" },
{ 0x00964, 0x00965, "Zyyy" },
{ 0x00966, 0x0097F, "Deva" },
{ 0x00980, 0x00983, "Beng" },
{ 0x00985, 0x0098C, "Beng" },
{ 0x0098F, 0x00990, "Beng" },
{ 0x00993, 0x009A8, "Beng" },
{ 0x009AA, 0x009B0, "Beng" },
{ 0x009B6, 0x009B9, "Beng" },
{ 0x009BC, 0x009C4, "Beng" },
{ 0x009C7, 0x009C8, "Beng" },
{ 0x009CB, 0x009CE, "Beng" },
{ 0x009DC, 0x009DD, "Beng" },
{ 0x009DF, 0x009E3, "Beng" },
{ 0x009E6, 0x009FE, "Beng" },
{ 0x00A01, 0x00A03, "Guru" },
{ 0x00A05, 0x00A0A, "Guru" },
{ 0x00A0F, 0x00A10, "Guru" },
{ 0x00A13, 0x00A28, "Guru" },
{ 0x00A2A, 0x00A30, "Guru" },
{ 0x00A32, 0x00A33, "Guru" },
{ 0x00A35, 0x00A36, "Guru" },
{ 0x00A38, 0x00A39, "Guru" },
{ 0x00A3E, 0x00A42, "Guru" },
{ 0x00A47, 0x00A48, "Guru" },
{ 0x00A4B, 0x00A4D, "Guru" },
{ 0x00A59, 0x00A5C, "Guru" },
{ 0x00A66, 0x00A76, "Guru" },
{ 0x00A81, 0x00A83, "Gujr" },
{ 0x00A85, 0x00A8D, "Gujr" },
{ 0x00A8F, 0x00A91, "Gujr" },
{ 0x00A93, 0x00AA8, "Gujr" },
{ 0x00AAA, 0x00AB0, "Gujr" },
{ 0x00AB2, 0x00AB3, "Gujr" },
{ 0x00AB5, 0x00AB9, "Gujr" },
{ 0x00ABC, 0x00AC5, "Gujr" },
```



```
{ 0x00AC7, 0x00AC9, "Gujr" },
{ 0x00ACB, 0x00ACD, "Gujr" },
{ 0x00AE0, 0x00AE3, "Gujr" },
{ 0x00AE6, 0x00AF1, "Gujr" },
{ 0x00AF9, 0x00AFF, "Gujr" },
{ 0x00B01, 0x00B03, "Orya" },
{ 0x00B05, 0x00B0C, "Orya" },
{ 0x00B0F, 0x00B10, "Orya" },
{ 0x00B13, 0x00B28, "Orya" },
{ 0x00B2A, 0x00B30, "Orya" },
{ 0x00B32, 0x00B33, "Orya" },
{ 0x00B35, 0x00B39, "Orya" },
{ 0x00B3C, 0x00B44, "Orya" },
{ 0x00B47, 0x00B48, "Orya" },
{ 0x00B4B, 0x00B4D, "Orya" },
{ 0x00B55, 0x00B57, "Orya" },
{ 0x00B5C, 0x00B5D, "Orya" },
{ 0x00B5F, 0x00B63, "Orya" },
{ 0x00B66, 0x00B77, "Orya" },
{ 0x00B82, 0x00B83, "Taml" },
{ 0x00B85, 0x00B8A, "Taml" },
{ 0x00B8E, 0x00B90, "Taml" },
{ 0x00B92, 0x00B95, "Taml" },
{ 0x00B99, 0x00B9A, "Taml" },
{ 0x00B9E, 0x00B9F, "Taml" },
{ 0x00BA3, 0x00BA4, "Taml" },
{ 0x00BA8, 0x00BAA, "Taml" },
{ 0x00BAE, 0x00BB9, "Taml" },
{ 0x00BBE, 0x00BC2, "Taml" },
{ 0x00BC6, 0x00BC8, "Taml" },
{ 0x00BCA, 0x00BCD, "Taml" },
{ 0x00BE6, 0x00BFA, "Taml" },
{ 0x00C00, 0x00C0C, "Telu" },
{ 0x00C0E, 0x00C10, "Telu" },
{ 0x00C12, 0x00C28, "Telu" },
{ 0x00C2A, 0x00C39, "Telu" },
{ 0x00C3C, 0x00C44, "Telu" },
{ 0x00C46, 0x00C48, "Telu" },
{ 0x00C4A, 0x00C4D, "Telu" },
{ 0x00C55, 0x00C56, "Telu" },
{ 0x00C58, 0x00C5A, "Telu" },
{ 0x00C60, 0x00C63, "Telu" },
{ 0x00C66, 0x00C6F, "Telu" },
{ 0x00C77, 0x00C7F, "Telu" },
{ 0x00C80, 0x00C8C, "Knda" },
{ 0x00C8E, 0x00C90, "Knda" },
{ 0x00C92, 0x00CA8, "Knda" },
{ 0x00CAA, 0x00CB3, "Knda" },
{ 0x00CB5, 0x00CB9, "Knda" },
{ 0x00CBC, 0x00CC4, "Knda" },
{ 0x00CC6, 0x00CC8, "Knda" },
{ 0x00CCA, 0x00CCD, "Knda" },
{ 0x00CD5, 0x00CD6, "Knda" },
{ 0x00CDD, 0x00CDE, "Knda" },
{ 0x00CE0, 0x00CE3, "Knda" },
{ 0x00CE6, 0x00CEF, "Knda" },
{ 0x00CF1, 0x00CF2, "Knda" },
{ 0x00D00, 0x00D0C, "Mlym" },
{ 0x00D0E, 0x00D10, "Mlym" },
{ 0x00D12, 0x00D44, "Mlym" },
{ 0x00D46, 0x00D48, "Mlym" },
{ 0x00D4A, 0x00D4F, "Mlym" },
{ 0x00D54, 0x00D63, "Mlym" },
{ 0x00D66, 0x00D7F, "Mlym" },
```



```
{ 0x00D81, 0x00D83, "Sinh" },
{ 0x00D85, 0x00D96, "Sinh" },
{ 0x00D9A, 0x00DB1, "Sinh" },
{ 0x00DB3, 0x00DBB, "Sinh" },
{ 0x00DC0, 0x00DC6, "Sinh" },
{ 0x00DCF, 0x00DD4, "Sinh" },
{ 0x00DD8, 0x00DDF, "Sinh" },
{ 0x00DE6, 0x00DEF, "Sinh" },
{ 0x00DF2, 0x00DF4, "Sinh" },
{ 0x00E01, 0x00E3A, "Thai" },
{ 0x00E40, 0x00E5B, "Thai" },
{ 0x00E81, 0x00E82, "Lao" },
{ 0x00E86, 0x00E8A, "Lao" },
{ 0x00E8C, 0x00EA3, "Lao" },
{ 0x00EA7, 0x00EBD, "Lao" },
{ 0x00EC0, 0x00EC4, "Lao" },
{ 0x00EC8, 0x00ECD, "Lao" },
{ 0x00ED0, 0x00ED9, "Lao" },
{ 0x00EDC, 0x00EDF, "Lao" },
{ 0x00F00, 0x00F47, "Tibt" },
{ 0x00F49, 0x00F6C, "Tibt" },
{ 0x00F71, 0x00F97, "Tibt" },
{ 0x00F99, 0x00FBC, "Tibt" },
{ 0x00FBE, 0x00FCC, "Tibt" },
{ 0x00FCE, 0x00FD4, "Tibt" },
{ 0x00FD5, 0x00FD8, "Zyyy" },
{ 0x00FD9, 0x00FDA, "Tibt" },
{ 0x01000, 0x0109F, "Mymr" },
{ 0x010A0, 0x010C5, "Geor" },
{ 0x010D0, 0x010FA, "Geor" },
{ 0x010FC, 0x010FF, "Geor" },
{ 0x01100, 0x011FF, "Hang" },
{ 0x01200, 0x01248, "Ethi" },
{ 0x0124A, 0x0124D, "Ethi" },
{ 0x01250, 0x01256, "Ethi" },
{ 0x0125A, 0x0125D, "Ethi" },
{ 0x01260, 0x01288, "Ethi" },
{ 0x0128A, 0x0128D, "Ethi" },
{ 0x01290, 0x012B0, "Ethi" },
{ 0x012B2, 0x012B5, "Ethi" },
{ 0x012B8, 0x012BE, "Ethi" },
{ 0x012C2, 0x012C5, "Ethi" },
{ 0x012C8, 0x012D6, "Ethi" },
{ 0x012D8, 0x01310, "Ethi" },
{ 0x01312, 0x01315, "Ethi" },
{ 0x01318, 0x0135A, "Ethi" },
{ 0x0135D, 0x0137C, "Ethi" },
{ 0x01380, 0x01399, "Ethi" },
{ 0x013A0, 0x013F5, "Cher" },
{ 0x013F8, 0x013FD, "Cher" },
{ 0x01400, 0x0167F, "Cans" },
{ 0x01680, 0x0169C, "Ogam" },
{ 0x016A0, 0x016EA, "Runr" },
{ 0x016EB, 0x016ED, "Zyyy" },
{ 0x016EE, 0x016F8, "Runr" },
{ 0x01700, 0x01715, "Tglg" },
{ 0x01720, 0x01734, "Hano" },
{ 0x01735, 0x01736, "Zyyy" },
{ 0x01740, 0x01753, "Buhd" },
{ 0x01760, 0x0176C, "Tagb" },
{ 0x0176E, 0x01770, "Tagb" },
{ 0x01772, 0x01773, "Tagb" },
{ 0x01780, 0x017DD, "Khmr" },
{ 0x017E0, 0x017E9, "Khmr" },
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{ 0x01802, 0x01803, "Zyyy" },
{ 0x01806, 0x01819, "Mong" },
{ 0x01820, 0x01878, "Mong" },
{ 0x01880, 0x018AA, "Mong" },
{ 0x018B0, 0x018F5, "Cans" },
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{ 0x01920, 0x0192B, "Limb" },
{ 0x01930, 0x0193B, "Limb" },
{ 0x01944, 0x0194F, "Limb" },
{ 0x01950, 0x0196D, "Tale" },
{ 0x01970, 0x01974, "Tale" },
{ 0x01980, 0x019AB, "Talu" },
{ 0x019B0, 0x019C9, "Talu" },
{ 0x019D0, 0x019DA, "Talu" },
{ 0x019DE, 0x019DF, "Talu" },
{ 0x019E0, 0x019FF, "Khmr" },
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{ 0x01A1E, 0x01A1F, "Bugi" },
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{ 0x01A60, 0x01A7C, "Lana" },
{ 0x01A7F, 0x01A89, "Lana" },
{ 0x01A90, 0x01A99, "Lana" },
{ 0x01AA0, 0x01AAD, "Lana" },
{ 0x01AB0, 0x01ACE, "Zinh" },
{ 0x01B00, 0x01B4C, "Bali" },
{ 0x01B50, 0x01B7E, "Bali" },
{ 0x01B80, 0x01BBF, "Sund" },
{ 0x01BC0, 0x01BF3, "Batk" },
{ 0x01BFC, 0x01BFF, "Batk" },
{ 0x01C00, 0x01C37, "Lepc" },
{ 0x01C3B, 0x01C49, "Lepc" },
{ 0x01C4D, 0x01C4F, "Lepc" },
{ 0x01C50, 0x01C7F, "Olck" },
{ 0x01C80, 0x01C88, "Cyr1" },
{ 0x01C90, 0x01CBA, "Geor" },
{ 0x01CBD, 0x01CBF, "Geor" },
{ 0x01CC0, 0x01CC7, "Sund" },
{ 0x01CD0, 0x01CD2, "Zinh" },
{ 0x01CD4, 0x01CE0, "Zinh" },
{ 0x01CE2, 0x01CE8, "Zinh" },
{ 0x01CE9, 0x01CEC, "Zyyy" },
{ 0x01CEE, 0x01CF3, "Zyyy" },
{ 0x01CF5, 0x01CF7, "Zyyy" },
{ 0x01CF8, 0x01CF9, "Zinh" },
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{ 0x01D26, 0x01D2A, "Grek" },
{ 0x01D2C, 0x01D5C, "Latn" },
{ 0x01D5D, 0x01D61, "Grek" },
{ 0x01D62, 0x01D65, "Latn" },
{ 0x01D66, 0x01D6A, "Grek" },
{ 0x01D6B, 0x01D77, "Latn" },
{ 0x01D79, 0x01DBE, "Latn" },
{ 0x01DC0, 0x01DFF, "Zinh" },
{ 0x01E00, 0x01EFF, "Latn" },
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{ 0x01F18, 0x01F1D, "Grek" },
{ 0x01F20, 0x01F45, "Grek" },
{ 0x01F48, 0x01F4D, "Grek" },
{ 0x01F50, 0x01F57, "Grek" },
{ 0x01F5F, 0x01F7D, "Grek" },
{ 0x01F80, 0x01FB4, "Grek" },
{ 0x01FB6, 0x01FC4, "Grek" },
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{ 0x01FDD, 0x01FEF, "Grek" },
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{ 0x01FF6, 0x01FFE, "Grek" },
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{ 0x0200C, 0x0200D, "Zinh" },
{ 0x0200E, 0x02064, "Zyyy" },
{ 0x02066, 0x02070, "Zyyy" },
{ 0x02074, 0x0207E, "Zyyy" },
{ 0x02080, 0x0208E, "Zyyy" },
{ 0x02090, 0x0209C, "Latn" },
{ 0x020A0, 0x020C0, "Zyyy" },
{ 0x020D0, 0x020F0, "Zinh" },
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{ 0x02127, 0x02129, "Zyyy" },
{ 0x0212A, 0x0212B, "Latn" },
{ 0x0212C, 0x02131, "Zyyy" },
{ 0x02133, 0x0214D, "Zyyy" },
{ 0x0214F, 0x0215F, "Zyyy" },
{ 0x02160, 0x02188, "Latn" },
{ 0x02189, 0x0218B, "Zyyy" },
{ 0x02190, 0x02426, "Zyyy" },
{ 0x02440, 0x0244A, "Zyyy" },
{ 0x02460, 0x027FF, "Zyyy" },
{ 0x02800, 0x028FF, "Brai" },
{ 0x02900, 0x02B73, "Zyyy" },
{ 0x02B76, 0x02B95, "Zyyy" },
{ 0x02B97, 0x02BFF, "Zyyy" },
{ 0x02C00, 0x02C5F, "Glag" },
{ 0x02C60, 0x02C7F, "Latn" },
{ 0x02C80, 0x02CF3, "Copt" },
{ 0x02CF9, 0x02CFF, "Copt" },
{ 0x02D00, 0x02D25, "Geor" },
{ 0x02D30, 0x02D67, "Tfng" },
{ 0x02D6F, 0x02D70, "Tfng" },
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{ 0x02DA0, 0x02DA6, "Ethi" },
{ 0x02DA8, 0x02DAE, "Ethi" },
{ 0x02DB0, 0x02DB6, "Ethi" },
{ 0x02DB8, 0x02DBE, "Ethi" },
{ 0x02DC0, 0x02DC6, "Ethi" },
{ 0x02DC8, 0x02DCE, "Ethi" },
{ 0x02DD0, 0x02DD6, "Ethi" },
{ 0x02DD8, 0x02DDE, "Ethi" },
{ 0x02DE0, 0x02DFF, "Cyr1" },
{ 0x02E00, 0x02E5D, "Zyyy" },
{ 0x02E80, 0x02E99, "Hani" },
{ 0x02E9B, 0x02EF3, "Hani" },
{ 0x02F00, 0x02FD5, "Hani" },
{ 0x02FF0, 0x02FFB, "Zyyy" },
{ 0x03000, 0x03004, "Zyyy" },
{ 0x03008, 0x03020, "Zyyy" },
{ 0x03021, 0x03029, "Hani" },
{ 0x0302A, 0x0302D, "Zinh" },
{ 0x0302E, 0x0302F, "Hang" },
{ 0x03030, 0x03037, "Zyyy" },
{ 0x03038, 0x0303B, "Hani" },
{ 0x0303C, 0x0303F, "Zyyy" },
{ 0x03041, 0x03096, "Hira" },
{ 0x03099, 0x0309A, "Zinh" },
{ 0x0309B, 0x0309C, "Zyyy" },
{ 0x0309D, 0x0309F, "Hira" },
{ 0x030A1, 0x030FA, "Kana" },
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{ 0x030FD, 0x030FF, "Kana" },
{ 0x03105, 0x0312F, "Bopo" },
{ 0x03131, 0x0318E, "Hang" },
{ 0x03190, 0x0319F, "Zyyy" },
{ 0x031A0, 0x031BF, "Bopo" },
{ 0x031C0, 0x031E3, "Zyyy" },
{ 0x031F0, 0x031FF, "Kana" },
{ 0x03200, 0x0321E, "Hang" },
{ 0x03220, 0x0325F, "Zyyy" },
{ 0x03260, 0x0327E, "Hang" },
{ 0x0327F, 0x032CF, "Zyyy" },
{ 0x032D0, 0x032FE, "Kana" },
{ 0x03300, 0x03357, "Kana" },
{ 0x03358, 0x033FF, "Zyyy" },
{ 0x03400, 0x04DBF, "Hani" },
{ 0x04DC0, 0x04DFF, "Zyyy" },
{ 0x04E00, 0x09FFF, "Hani" },
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{ 0x0A490, 0x0A4C6, "Yiii" },
{ 0x0A4D0, 0x0A4FF, "Lisu" },
{ 0x0A500, 0x0A62B, "Vaii" },
{ 0x0A640, 0x0A69F, "Cyrl" },
{ 0x0A6A0, 0x0A6F7, "Bamu" },
{ 0x0A700, 0x0A721, "Zyyy" },
{ 0x0A722, 0x0A787, "Latn" },
{ 0x0A788, 0x0A78A, "Zyyy" },
{ 0x0A78B, 0x0A7CA, "Latn" },
{ 0x0A7D0, 0x0A7D1, "Latn" },
{ 0x0A7D5, 0x0A7D9, "Latn" },
{ 0x0A7F2, 0x0A7FF, "Latn" },
{ 0x0A800, 0x0A82C, "Sylo" },
{ 0x0A830, 0x0A839, "Zyyy" },
{ 0x0A840, 0x0A877, "Phag" },
{ 0x0A880, 0x0A8C5, "Saur" },
{ 0x0A8CE, 0x0A8D9, "Saur" },
{ 0x0A8E0, 0x0A8FF, "Deva" },
{ 0x0A900, 0x0A92D, "Kali" },
{ 0x0A930, 0x0A953, "Rjng" },
{ 0x0A960, 0x0A97C, "Hang" },
{ 0x0A980, 0x0A9CD, "Java" },
{ 0x0A9D0, 0x0A9D9, "Java" },
{ 0x0A9DE, 0x0A9DF, "Java" },
{ 0x0A9E0, 0x0A9FE, "Mymr" },
{ 0x0AA00, 0x0AA36, "Cham" },
{ 0x0AA40, 0x0AA4D, "Cham" },
{ 0x0AA50, 0x0AA59, "Cham" },
{ 0x0AA5C, 0x0AA5F, "Cham" },
{ 0x0AA60, 0x0AA7F, "Mymr" },
{ 0x0AA80, 0x0AAC2, "Tavt" },
{ 0x0AADB, 0x0AADF, "Tavt" },
{ 0x0AAE0, 0x0AAF6, "Mtei" },
{ 0x0AB01, 0x0AB06, "Ethi" },
{ 0x0AB09, 0x0AB0E, "Ethi" },
{ 0x0AB11, 0x0AB16, "Ethi" },
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{ 0x0AB28, 0x0AB2E, "Ethi" },
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{ 0x0AB5C, 0x0AB64, "Latn" },
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{ 0x0AB6A, 0x0AB6B, "Zyyy" },
{ 0x0AB70, 0x0ABBF, "Cher" },
{ 0x0ABC0, 0x0ABED, "Mtei" },
{ 0x0ABF0, 0x0ABF9, "Mtei" },
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{ 0x0AC00, 0x0D7A3, "Hang" },
{ 0x0D7B0, 0x0D7C6, "Hang" },
{ 0x0D7CB, 0x0D7FB, "Hang" },
{ 0x0F900, 0x0FA6D, "Hani" },
{ 0x0FA70, 0x0FAD9, "Hani" },
{ 0x0FB00, 0x0FB06, "Latn" },
{ 0x0FB13, 0x0FB17, "Armn" },
{ 0x0FB1D, 0x0FB36, "Hebr" },
{ 0x0FB38, 0x0FB3C, "Hebr" },
{ 0x0FB40, 0x0FB41, "Hebr" },
{ 0x0FB43, 0x0FB44, "Hebr" },
{ 0x0FB46, 0x0FB4F, "Hebr" },
{ 0x0FB50, 0x0FBC2, "Arab" },
{ 0x0FBD3, 0x0FD3D, "Arab" },
{ 0x0FD3E, 0x0FD3F, "Zyyy" },
{ 0x0FD40, 0x0FD8F, "Arab" },
{ 0x0FD92, 0x0FDC7, "Arab" },
{ 0x0FDF0, 0x0FDFE, "Arab" },
{ 0x0FE00, 0x0FE0F, "Zinh" },
{ 0x0FE10, 0x0FE19, "Zyyy" },
{ 0x0FE20, 0x0FE2D, "Zinh" },
{ 0x0FE2E, 0x0FE2F, "Cyr1" },
{ 0x0FE30, 0x0FE52, "Zyyy" },
{ 0x0FE54, 0x0FE66, "Zyyy" },
{ 0x0FE68, 0x0FE6B, "Zyyy" },
{ 0x0FE70, 0x0FE74, "Arab" },
{ 0x0FE76, 0x0FEFC, "Arab" },
{ 0x0FF01, 0x0FF20, "Zyyy" },
{ 0x0FF21, 0x0FF3A, "Latn" },
{ 0x0FF3B, 0x0FF40, "Zyyy" },
{ 0x0FF41, 0x0FF5A, "Latn" },
{ 0x0FF5B, 0x0FF65, "Zyyy" },
{ 0x0FF66, 0x0FF6F, "Kana" },
{ 0x0FF71, 0x0FF9D, "Kana" },
{ 0x0FF9E, 0x0FF9F, "Zyyy" },
{ 0x0FFA0, 0x0FFBE, "Hang" },
{ 0x0FFC2, 0x0FFC7, "Hang" },
{ 0x0FFCA, 0x0FFCF, "Hang" },
{ 0x0FFD2, 0x0FFD7, "Hang" },
{ 0x0FFDA, 0x0FFDC, "Hang" },
{ 0x0FFE0, 0x0FFE6, "Zyyy" },
{ 0x0FFE8, 0x0FEE, "Zyyy" },
{ 0x0FFF9, 0x0FFFD, "Zyyy" },
{ 0x10000, 0x1000B, "Linb" },
{ 0x1000D, 0x10026, "Linb" },
{ 0x10028, 0x1003A, "Linb" },
{ 0x1003C, 0x1003D, "Linb" },
{ 0x1003F, 0x1004D, "Linb" },
{ 0x10050, 0x1005D, "Linb" },
{ 0x10080, 0x100FA, "Linb" },
{ 0x10100, 0x10102, "Zyyy" },
{ 0x10107, 0x10133, "Zyyy" },
{ 0x10137, 0x1013F, "Zyyy" },
{ 0x10140, 0x1018E, "Grek" },
{ 0x10190, 0x1019C, "Zyyy" },
{ 0x101D0, 0x101FC, "Zyyy" },
{ 0x10280, 0x1029C, "Lyci" },
{ 0x102A0, 0x102D0, "Cari" },
{ 0x102E1, 0x102FB, "Zyyy" },
{ 0x10300, 0x10323, "Ital" },
{ 0x1032D, 0x1032F, "Ital" },
{ 0x10330, 0x1034A, "Goth" },
{ 0x10350, 0x1037A, "Perm" },
{ 0x10380, 0x1039D, "Ugar" },
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{ 0x103C8, 0x103D5, "Xpeo" },
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{ 0x10450, 0x1047F, "Shaw" },
{ 0x10480, 0x1049D, "Osma" },
{ 0x104A0, 0x104A9, "Osma" },
{ 0x104B0, 0x104D3, "Osge" },
{ 0x104D8, 0x104FB, "Osge" },
{ 0x10500, 0x10527, "Elba" },
{ 0x10530, 0x10563, "Aghb" },
{ 0x10570, 0x1057A, "Vith" },
{ 0x1057C, 0x1058A, "Vith" },
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{ 0x10597, 0x105A1, "Vith" },
{ 0x105A3, 0x105B1, "Vith" },
{ 0x105B3, 0x105B9, "Vith" },
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{ 0x1080A, 0x10835, "Cprt" },
{ 0x10837, 0x10838, "Cprt" },
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{ 0x10857, 0x1085F, "Armi" },
{ 0x10860, 0x1087F, "Palm" },
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{ 0x108A7, 0x108AF, "Nbat" },
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{ 0x108FB, 0x108FF, "Hatr" },
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{ 0x10F30, 0x10F59, "Sogd" },
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{ 0x10FE0, 0x10FF6, "Elym" },
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{ 0x11052, 0x11075, "Brah" },
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{ 0x110F0, 0x110F9, "Sora" },
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{ 0x11136, 0x11147, "Cakm" },
{ 0x11150, 0x11176, "Mahj" },
{ 0x11180, 0x111DF, "Shrd" },
{ 0x111E1, 0x111F4, "Sinh" },
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{ 0x11213, 0x1123E, "Khoj" },
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{ 0x112F0, 0x112F9, "Sind" },
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{ 0x11347, 0x11348, "Gran" },
{ 0x1134B, 0x1134D, "Gran" },
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{ 0x11366, 0x1136C, "Gran" },
{ 0x11370, 0x11374, "Gran" },
{ 0x11400, 0x1145B, "Newa" },
{ 0x1145D, 0x11461, "Newa" },
{ 0x11480, 0x114C7, "Tirh" },
{ 0x114D0, 0x114D9, "Tirh" },
{ 0x11580, 0x115B5, "Sidd" },
{ 0x115B8, 0x115DD, "Sidd" },
{ 0x11600, 0x11644, "Modi" },
{ 0x11650, 0x11659, "Modi" },
{ 0x11660, 0x1166C, "Mong" },
{ 0x11680, 0x116B9, "Takr" },
{ 0x116C0, 0x116C9, "Takr" },
{ 0x11700, 0x1171A, "Ahom" },
{ 0x1171D, 0x1172B, "Ahom" },
{ 0x11730, 0x11746, "Ahom" },
{ 0x11800, 0x1183B, "Dogr" },
{ 0x118A0, 0x118F2, "Wara" },
{ 0x11900, 0x11906, "Diak" },
{ 0x1190C, 0x11913, "Diak" },
{ 0x11915, 0x11916, "Diak" },
{ 0x11918, 0x11935, "Diak" },
```



```
{ 0x11937, 0x11938, "Diak" },
{ 0x1193B, 0x11946, "Diak" },
{ 0x11950, 0x11959, "Diak" },
{ 0x119A0, 0x119A7, "Nand" },
{ 0x119AA, 0x119D7, "Nand" },
{ 0x119DA, 0x119E4, "Nand" },
{ 0x11A00, 0x11A47, "Zanb" },
{ 0x11A50, 0x11AA2, "Soyo" },
{ 0x11AB0, 0x11ABF, "Cans" },
{ 0x11AC0, 0x11AF8, "Pauc" },
{ 0x11C00, 0x11C08, "Bhks" },
{ 0x11C0A, 0x11C36, "Bhks" },
{ 0x11C38, 0x11C45, "Bhks" },
{ 0x11C50, 0x11C6C, "Bhks" },
{ 0x11C70, 0x11C8F, "Marc" },
{ 0x11C92, 0x11CA7, "Marc" },
{ 0x11CA9, 0x11CB6, "Marc" },
{ 0x11D00, 0x11D06, "Gonm" },
{ 0x11D08, 0x11D09, "Gonm" },
{ 0x11D0B, 0x11D36, "Gonm" },
{ 0x11D3C, 0x11D3D, "Gonm" },
{ 0x11D3F, 0x11D47, "Gonm" },
{ 0x11D50, 0x11D59, "Gonm" },
{ 0x11D60, 0x11D65, "Gong" },
{ 0x11D67, 0x11D68, "Gong" },
{ 0x11D6A, 0x11D8E, "Gong" },
{ 0x11D90, 0x11D91, "Gong" },
{ 0x11D93, 0x11D98, "Gong" },
{ 0x11DA0, 0x11DA9, "Gong" },
{ 0x11EE0, 0x11EF8, "Maka" },
{ 0x11FC0, 0x11FF1, "Taml" },
{ 0x12000, 0x12399, "Xsux" },
{ 0x12400, 0x1246E, "Xsux" },
{ 0x12470, 0x12474, "Xsux" },
{ 0x12480, 0x12543, "Xsux" },
{ 0x12F90, 0x12FF2, "Cpmn" },
{ 0x13000, 0x1342E, "Egyp" },
{ 0x13430, 0x13438, "Egyp" },
{ 0x14400, 0x14646, "Hluw" },
{ 0x16800, 0x16A38, "Bamu" },
{ 0x16A40, 0x16A5E, "Mroo" },
{ 0x16A60, 0x16A69, "Mroo" },
{ 0x16A6E, 0x16A6F, "Mroo" },
{ 0x16A70, 0x16ABE, "Tnsa" },
{ 0x16AC0, 0x16AC9, "Tnsa" },
{ 0x16AD0, 0x16AED, "Bass" },
{ 0x16AF0, 0x16AF5, "Bass" },
{ 0x16B00, 0x16B45, "Hmng" },
{ 0x16B50, 0x16B59, "Hmng" },
{ 0x16B5B, 0x16B61, "Hmng" },
{ 0x16B63, 0x16B77, "Hmng" },
{ 0x16B7D, 0x16B8F, "Hmng" },
{ 0x16E40, 0x16E9A, "Medf" },
{ 0x16F00, 0x16F4A, "Plrd" },
{ 0x16F4F, 0x16F87, "Plrd" },
{ 0x16F8F, 0x16F9F, "Plrd" },
{ 0x16FE2, 0x16FE3, "Hani" },
{ 0x16FF0, 0x16FF1, "Hani" },
{ 0x17000, 0x187F7, "Tang" },
{ 0x18800, 0x18AFF, "Tang" },
{ 0x18B00, 0x18CD5, "Kits" },
{ 0x18D00, 0x18D08, "Tang" },
{ 0x1AFF0, 0x1AFF3, "Kana" },
{ 0x1AFF5, 0x1AFFB, "Kana" },
```



```
{ 0x1AFFD, 0x1AFFE, "Kana" },
{ 0x1B001, 0x1B11F, "Hira" },
{ 0x1B120, 0x1B122, "Kana" },
{ 0x1B150, 0x1B152, "Hira" },
{ 0x1B164, 0x1B167, "Kana" },
{ 0x1B170, 0x1B2FB, "Nshu" },
{ 0x1BC00, 0x1BC6A, "Dupl" },
{ 0x1BC70, 0x1BC7C, "Dupl" },
{ 0x1BC80, 0x1BC88, "Dupl" },
{ 0x1BC90, 0x1BC99, "Dupl" },
{ 0x1BC9C, 0x1BC9F, "Dupl" },
{ 0x1BCA0, 0x1BCA3, "Zyyy" },
{ 0x1CF00, 0x1CF2D, "Zinh" },
{ 0x1CF30, 0x1CF46, "Zinh" },
{ 0x1CF50, 0x1CFC3, "Zyyy" },
{ 0x1D000, 0x1D0F5, "Zyyy" },
{ 0x1D100, 0x1D126, "Zyyy" },
{ 0x1D129, 0x1D166, "Zyyy" },
{ 0x1D167, 0x1D169, "Zinh" },
{ 0x1D16A, 0x1D17A, "Zyyy" },
{ 0x1D17B, 0x1D182, "Zinh" },
{ 0x1D183, 0x1D184, "Zyyy" },
{ 0x1D185, 0x1D18B, "Zinh" },
{ 0x1D18C, 0x1D1A9, "Zyyy" },
{ 0x1D1AA, 0x1D1AD, "Zinh" },
{ 0x1D1AE, 0x1D1EA, "Zyyy" },
{ 0x1D200, 0x1D245, "Grek" },
{ 0x1D2E0, 0x1D2F3, "Zyyy" },
{ 0x1D300, 0x1D356, "Zyyy" },
{ 0x1D360, 0x1D378, "Zyyy" },
{ 0x1D400, 0x1D454, "Zyyy" },
{ 0x1D456, 0x1D49C, "Zyyy" },
{ 0x1D49E, 0x1D49F, "Zyyy" },
{ 0x1D4A5, 0x1D4A6, "Zyyy" },
{ 0x1D4A9, 0x1D4AC, "Zyyy" },
{ 0x1D4AE, 0x1D4B9, "Zyyy" },
{ 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" },
```



```
{ 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 space
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",
    Cpvt = "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",
    Tavn = "Tai Viet",
    Telu = "Telugu",
    Tfng = "Tifinagh",
    Tglg = "Tagalog",
    Thaa = "Thaana",
    Thai = "Thai",
    Tibt = "Tibetan",
    Tirh = "Tirhuta",
    Tnsa = "Tangsa",
    Toto = "Toto",
    Ugar = "Ugaritic",
    Vaih = "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
```