

PROPOSED REPLACEMENT TEXT FOR ANNEX D in N1502R

(Contains only BMP updated information. Plane 1 info remains at the original accepted level. Additional guidelines such as starting at half-row boundaries are yet to be included. ... Uma.)

Annex D

BMP and Supplementary Planes Allocation Roadmap

Overview

The intention of this annex D is to lay out a logical roadmap for further allocations of scripts in ISO/IEC 10646 (also in the Unicode Standard), within and beyond the BMP. This roadmap is a snapshot of known scripts and characters as of 1998-08-29. It is intended as a general guideline and does not attempt to make detailed allocations of characters. The roadmap consists of two parts.

- The first part addresses the BMP (Plane 0) in ISO/IEC 10646 (and the Unicode Standard). It locates all script and individual character additions accepted in amendments up to PDAM.27 (as of 1998-08-30) in WG2 (and Unicode Technical Committee), plus all script additions currently foreseen to be reasonable candidates for future encoding on the BMP.
- The second part is for Plane 1 and Plane 2 (both accessible in ISO/IEC 10646 and in the Unicode Standard version 2.0 via UTF-16 (Amendment no. 1) and will be dedicated to all other future allocations, as follows:
 - Plane 1: General Scripts and Symbols Supplementary Plane (GSP)
 - Plane 2: Unified Ideographs Supplementary Plane (UISP)

For Plane 1, a proposed list of all additional known scripts is provided here, with rough estimates of the sizes of the scripts. In contrast to the roadmap for the BMP, no particular locations for scripts are proposed as yet. By current estimates (see details below), all remaining General scripts and symbol sets should fit within this one plane.

Plane 2 is envisioned as containing future Unified Ideographic character additions. The largest current Unified Ideographic character collections should fit within Plane 0 and Plane 2, as long as duplicate character encoding is avoided. No substructure for Plane 2 is proposed here.

The roadmap indicates that these three planes should suffice for all future encoding of characters having worldwide utility. However, note that 14 supplementary planes are available altogether for encoding (with an additional 2 planes reserved for private use). The planes described in this roadmap, as well as all other planes accessible by UTF-16 are explicitly enumerated in Table 1.

Status of script proposals and their progress at any given time can be found in the standing documents list in WG 2's document register (e.g. N1750

- Summary of WG2 work items (e.g. N1775) or the SC2 program of work available at the SC2 home page at the url: <http://www.dkuug.dk/JTC1/SC2>
- Repertoire additions - Cumulative list (e.g. N1791)
- Editorial Corrigenda - Cumulative list (e.g. N1529)
- New symbols for ISO 10646 (e.g. N1416) (all the symbols from this document have been accepted and processed as PDAMs in WG2)
- Defect report index (e.g. N1565)

Table 1: Suggested Allocations for Planes in ISO10646

Range of UCS-4 values (Hex)	Plane #	Name of Plane
00000000 ... 0000FFFF	Plane 0	Basic Multilingual Plane - BMP; Encoded in 10646 Part 1
00010000 ... 0001FFFF	Plane 1	General Scripts and Symbols Supplementary Plane - GSP
00020000 ... 0002FFFF	Plane 2	Unified Ideographs Supplementary Plane - UISP
00030000 ... 0003FFFF	Plane 3	Reserved for Future Encoding
00040000 ... 0004FFFF	Plane 4	Reserved for Future Encoding
00050000 ... 0005FFFF	Plane 5	Reserved for Future Encoding
00060000 ... 0006FFFF	Plane 6	Reserved for Future Encoding
00070000 ... 0007FFFF	Plane 7	Reserved for Future Encoding
00080000 ... 0008FFFF	Plane 8	Reserved for Future Encoding
00090000 ... 0009FFFF	Plane 9	Reserved for Future Encoding
000A0000 ... 000AFFFF	Plane 10	Reserved for Future Encoding
000B0000 ... 000BFFFF	Plane 11	Reserved for Future Encoding
000C0000 ... 000CFFFF	Plane 12	Reserved for Future Encoding
000D0000 ... 000DFFFF	Plane 13	Reserved for Future Encoding
000E0000 ... 000EFFFF	Plane 14	Reserved for Future Encoding
000F0000 ... 000FFFFF	Plane 15	Reserved for Private Use
00100000 ... 0010FFFF	Plane 16	Reserved for Private Use

1 plane (Plane 0 or BMP) is accessible by UCS2.

16 planes (planes 1 to 16 inclusive) are accessible by UTF-16.

2 planes (planes 15 and 16) are reserved completely for private use, accessible by UTF-16.

12 planes (3..14 inclusive) are left reserved for future standardized encoding, accessible by UTF-16. (Note: there is a proposal in WG2 and in IETF for using plane 14 for special purposes such as for 'ltag alphabet'.)

Notes on the BMP (Plane 0)

All accounting of unassigned space in this proposal is done in terms of “columns”: 16-character chunks starting with a coded value divisible by 16, e.g. U+0700..U+070F, etc. These are visualizable as vertical columns in the chart formats printed in IS 10646-1 (also the Unicode Standard). It is considered easier and more accurate to track available columns rather than unassigned character positions.

Proposed additional scripts are placed within the open areas. The exact order at this stage is not significant. However, right-to-left script additions are placed adjacent to the currently encoded right-to-left scripts, Hebrew and Arabic.

Because of the need to accommodate Yi, a script with 1165 characters proposed for encoding, this roadmap designates a new area: A000..ABFF = General Scripts Area II.

There remains considerable free space in BMP (Plane 0) in ISO/IEC 10646 (and the Unicode Standard) to make adjustments in specific placements of one or another script before committing to actual encoding of any new scripts.

BMP Roadmap

(Note: Information provided in the original document N1499 that was accepted at meeting 32, has been updated to reflect the characters and scripts that have been processed by WG2 and have reached the status of at least a PDAM under ballot. Also the information has been expanded to show the details of position allocations in each column / groups of columns, as an aid for placement of individual or small number of character additions in existing blocks.)

The following text explains the abbreviations and terms used in the Roadmap table for the BMP that follows.

Amd.nn	Amendment No. nn
coll 301	Collection number 301
NO BLOCK	Code positions are not allocated to any block / script in the standard
IN BLOCK	Code positions are allocated to a named block in the standard
fn	Number of free columns (groups of 16 cells) in NO-BLOCK category
fi	Number of free columns in IN-BLOCK category
ai	Number of columns to which characters are assigned in some block.
fn..fi..ai	The first column in the table indicates the number of free and used columns taking into account all allocations up to Amendment 7. These allocations correspond to the fixed collection 301 defined in Technical Corrigendum No. 2. The second column indicates the free and used number of columns including all allocations up to Amendment 27 (some of which are still under PDAM ballot).
Row (hex)	Row Octet in the BMP in hex; Row octets are shown as R-nn (row nn) or R-mm - nn (Range of rows from mm to nn). Associated with the row are shown the positions occupied in the collection number 301. Collection 299 corresponding to the first edition of 10646-1:1993 is included in collection 301, except where the differences are noted against the row. This information has been taken from the collections 299 and 301 defined in Technical Corrigendum No. 2.
Col (hex)	Column number: column number corresponds to the first hex digit of the Cell octet, and corresponds to a column in the code table layout for a row in the standard. Against each column number entry is a row of 16 position entries. Whenever the position entries are identical for a range of columns, the range of column numbers is shown.
Position allocation entries	<p>The position allocation entries for each cell in the column are marked with two characters with the following meanings:</p> <ul style="list-style-type: none"> uu unassigned cell in a partially filled in-block column ii unassigned cell in a free in-block column (all 16 cells are free); nn unassigned in cell (No-block); (when it comes to assigning either entire new scripts or a few new characters to any of the uu, ii or nn cells, the guidelines for allocation of new scripts given in this document should be used as a Roadmap). n5 characters which were de-assigned from the first edition by Amendment no. 5 (Hangul), and still remained unassigned like 'nn' cells above. ff has been assigned a character in the first edition of the standard -- 10646-1:1993 <p>Numbers 01, ... , 27 indicate the amendment number by which the position was assigned a character since the publication of the first edition. Allocations arising out of Amendments 1 to 7 are included in collection 301. Character positions that have been subsequently assigned by WG 2 resolutions have followed the Roadmap guidelines (with some minor exceptions).</p> <ul style="list-style-type: none"> 17* character positions which were freed up in Amendment no. 5 that have been assigned other characters per Amendment no. 17. cc control character positions hs, hp, ls - high S-zone, high S-zone for accessing private use planes 15 and 16, and low S-zone positions (reserved for use in UTF-16) xx Special values defined in the standard (in row FF of BMP)

Up to Amd.7 (coll 301) fn...fi...ai	Up to Amd.27 fn..fi..ai	Row (hex) Col (hex)	Block NamePosition in column (hex).....															
				.0.	.1.	.2.	.3.	.4.	.5.	.6.	.7.	.8.	.9.	.A.	.B.	.C.	.D.	.E.	.F.
		B C D E F		ff. uu. ff. uu. uu. ff. ff. ff. ff. uu. uu. ff. uu. ff. ff. ff. ff. ff. ff. ff. uu. uu. ff. ff. uu. uu. ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. ff. uu. uu. uu. uu. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu.															
		R-0A	02 05-0A 0F-10 13-28 2A-30 32-33 35-36 38-39 3C 3E-42 47-48 4B-4D 59-5C 5E 66-74 81-83 85-8B 8D 8F-91 93-A8 AA-B0 B2-B3 B5-B9 BC-C5 C7-C9 CB-CD D0 E0 E6-EF (collection 301)																
0...0...8	0...0...8	0 1 2 3 4 5 6 7	Gurmukhi	uu. uu. ff. uu. uu. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. ff. ff. uu. uu. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. uu. ff. uu. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.															
0...1...7	0...1...7	8 9 A B C D E F	Gujarati	uu. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. uu. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. uu. uu. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.															
		R-0B	01-03 05-0C 0F-10 13-28 2A-30 32-33 36-39 3C-43 47-48 4B-4D 56-57 5C-5D 5F-61 66-70 82-83 85-8A 8E-90 92-25 99-9A 9C 9E-9F A3-A4 A8-AA AE-B5 B7-B9 BE-C2 C6-C8 CA-CD D7 E7-F2 (collection 301)																
0...0...8	0...0...8	0 1 2 3 4 5 6 7	Oriya	uu. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. ff. ff. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. uu. uu. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. ff. ff. ff. ff. ff. uu. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu.															
0...0...8	0...0...8	8 9 A B C D E F	Tamil	uu. uu. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. uu. uu. ff. ff. ff. uu. ff. ff. ff. ff. uu. uu. uu. ff. ff. ff. uu. uu. ff. ff. uu. uu. uu. ff. ff. ff. uu. uu. ff. ff. ff. ff. uu. uu. ff. ff. ff. ff. ff. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu.															
		R-0C	01-03 05-0C 0E-10 12-28 2A-33 35-39 3E-44 46-48 4A-4D 55-56 60-61 66-6F 82-83 85-8C 8E-90 92-A8 AA-B3 B5-B9 BE-C4 C6-C8 CA-CD D5-D6 DE E0- E1 E6-EF (collection 301)																
0...1...7	0...1...7	0 1 2 3 4 5 6 7	Telugu	uu. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.															
0...1...7	0...1...7	8 9 A B C D E F	Kannada	uu. uu. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. ff. ff. uu. uu. uu. uu. uu. uu. uu. ff. uu. ff. ff. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.															
		R-0D	02-03 05-0C 0E-10 12-28 2A-39 3E-43 46-48 4A-4D 57 60-61 66-6F (collection 301)																
0...1...7	0...1...7	0	Malayalam	uu. uu. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff.															

Up to Amd.7 (coll 301) fn...fi...ai	Up to Amd.27 fn...fi...ai	Row (hex) Col (hex)	Block Name	.....Position in column (hex).....															
				.0.	.1.	.2.	.3.	.4.	.5.	.6.	.7.	.8.	.9.	.A.	.B.	.C.	.D.	.E.	.F.	
	Amd.26	3		26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	uu.	uu.	uu.	uu.	uu.	
		4		26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	
		5		26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	uu.	uu.	uu.	uu.	uu.
	6--7		uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.		
	0...1...7	8 -- C	Khmer	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	
Amd.25	D		25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	uu.	uu.	uu.	
	E		25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	uu.	uu.	uu.	
	F		ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	
		R-18-1D	no positions (collection 301)																	
96...0...0	0 -- F	NO BLOCK	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	nn.	
		R-1E	00-9B A0-F9 (collection 301). 00-9A A0-F9 (collection 299)																	
0...0..16	0...0..16	0 -- 7	Latin Extended Additional	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
Amd.7		8		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		9		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		A -- E		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		F		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		R-1F	00-15 18-1D 20-45 48-4D 50-57 59 5B 5D 5F-7D 80-B4 B6-C4 C6-D3 D6-DB DD-EF F2-F4 F6-FE																	
0...0..16	0...0..16	0	Greek Extended	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		1		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		2--3		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		4		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		5		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		6		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		7		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		8--A		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		B		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		C		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		D		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		E		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
F	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.			
				0000 -- 1FFFF																
				END OF GENERAL SCRIPTS AREA																
				2000 -- 2FFF																
				START OF SYMBOLS AREA																
		R-20	00-2E 30-46 6A-70 74-8E A0-AB D0-E1 (collection 301). 00-2E 30-46 6A-70 74-8E A0-AA D0-E1 (collection 299)																	
0...1...6	0...1...6	0 -- 1	General Punctuation	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		2		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		3		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		4		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.
		5		ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.
		6		uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.
0...1...2	0...1...2	7	Superscripts and Subscripts	ff.	uu.	uu.	uu.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
Amd.7	Amd.18 Amd.23	8		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		9		ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	
		A		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
0...1...2	0...1...2	B -- C	Currency Symbols	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	
Amd.7	Amd.23	D	Combining Marks for Symbols	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		E		ff.	ff.	23.	23.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	
		F		ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.
		R-21	00-38 53-82 90-EA (collection 301)																	
0...1...4	0...1...4	0 -- 2	Letterlike Symbols	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		3		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		4		ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	
0...0...4	0...0...4	5	Number Forms	uu.	uu.	uu.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.		
		6--7		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		8		ff.	ff.	ff.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	uu.	
0...1...6	0...1...6	9 -- D	Arrows	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.		
		E		ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	ff.	
		F		ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	ii.	
		R-22	00-F1 (collection 301)																	

Up to Amd.7 (coll 301) fn...fi...ai	Up to Amd.27 fn..fi...ai	Row (hex) Col (hex)	Block Name	.....Position in column (hex)..... .0. | .1. | .2. | .3. | .4. | .5. | .6. | .7. | .8. | .9. | .A. | .B. | .C. | .D. | .E. | .F.
0...0..16	0...0..16	0 -- E F	Mathematical Operators	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu.
		R-23	00 02-7A (collection 301)	
0...8...8	0...6...10	0 -- 2 3 4 -- 6 7 8 9 A -- F	Miscellaneous Technical Symbols	ff. | uu. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | uu. uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | 18. | 18. | 18. 18. | 18. | 18. | 18. | 18. | 18. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
		R-24	00-24 40-4A 60-EA (collection 301)	
0...1...3	0...1...3	0 -- 1 2 3	Control Pictures	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
0...1...1	0...1...1	4 5	Optical Character Recognition	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
0...1...9	0...1...9	6 -- 7 8 -- D E F	Enclosed Alphanumerics	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | uu. ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
		R-25	00-95 A0-EF (collection 301)	
0...0...8	0...0...8	0 -- 7	Box Drawing	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff.
0...0...2	0...0...2	8 9	Block Elements	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu.
0...1...5	0...1...5	A -- E F	Geometric Shapes	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
		R-26	00-13 1A-6F (collection 301)	
0...9...7	0...8...8	0 1 2 -- 6 7 8 -- F	Miscellaneous Symbols	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | uu. | uu. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. 23. | 23. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
		R-27	01-04 06-09 0C-27 29-4B 4D 4F-52 56 58-5E 61-67 76-94 98-AF B1-BE (collection 301)	
0...0...12	0...0...12	0 1 2 3 4 5 6 7 8 9 A B	Dingbats	uu. | ff. | ff. | ff. | ff. | uu. | ff. | ff. | ff. | ff. | uu. | uu. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | uu. | ff. | uu. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | ff. | ff. | ff. | uu. uu. | uu. | uu. | uu. | uu. | uu. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. uu. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | uu.
132...0...0				Guideline For Allocation: NO BLOCK Braille patterns (Amd.16) (2800-28FF) KangXi Radicals (Amd.15) (2F00-2FDF) CJK Unified Ideographic Radicals (Amd.15)(2E00-2E7F)(Check WG2 N1783 Amd.15) NO BLOCK
CHECK		4 16c 14c 8c 90c	NEW NEW CHANGED	
4...0...0		C -- F	NO BLOCK	nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn.
		R-28	no positions (collection 301)	
0...0..16 Amd.16		0 -- F	Braille patterns	16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16. | 16.
		R-29 -- 2D	no positions (collection 301) (2900-2EFF)	
80...0...0		0 -- F	NO BLOCK	nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn.
		R-2E	no positions (collection 301)	

Up to Amd.7 (coll 301) fn...fi...ai	Up to Amd.27 fn...fi...ai	Row (hex) Col (hex)	Block Name	.....Position in column (hex)..... .0. | .1. | .2. | .3. | .4. | .5. | .6. | .7. | .8. | .9. | .A. | .B. | .C. | .D. | .E. | .F.
		R-34--4C		no positions (collection 301); . | 3400-4DFF (collection 299) u5 = space freed in Amd.5 (Hangul); * = repopulated with new characters
	0...0.412	0 -- 7	CJK Extension A	17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17*
		8 -- F		17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17*
	Amd.17	R-4D		no positions (collection 301). | 3400-4DFF (collection 299) u5 = space freed in Amd.5 (Hangul); * = repopulated with new characters
		0 -- A		17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17* | 17*
		B		17* | 17* | 17* | 17* | 17* | 17* | u5. | u5. | u5. | u5. | u5. | u5. | u5. | u5. | u5. | u5.
	4...0...0	C-- F	NO BLOCK	n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5. | n5.
				3400 -- 4DFF END OF NO (NAMED) AREA
				4E00 -- 9FFF START OF CJK IDEOGRAPHS AREA
		R-4E-9E		4E00-9FA5 (collection 301)
0..5.1307	0..5.1307	0 -- F	CJK Unified	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff.
		R-9F		
		0 -- 7	Ideographs	ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff.
		8 -- 9		ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff. | ff.
		A		ff. | ff. | ff. | ff. | ff. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu.
		B -- F		ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii. | ii.
				4E00 -- 9FFF END OF CJK IDEOGRAPHS AREA
				A000 -- ABFF START OF GENERAL SCRIPTS AREA II
192...0...0		73c 4c 115c	NEW CHANGED	Guideline For Allocation: Yi Syllables (Nuo-su, Lolo) (Amd.14)(A000-A48F) Yi Radicals (Amd.14) (A490-A4CF) NO BLOCK
		R-A0--A3		no positions (collection 301)
	0...0..73	0 -- F	Yi Syllables	14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14.
		R-A4		no positions (collection 301)
		0 -- 7		14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14.
		8		14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | uu. | uu. | uu. | uu.
	0...0...4	9 -- B	Yi Radicals	14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14.
		C		14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | 14. | uu. | uu. | uu. | uu. | uu. | uu. | uu.
	3...0...0	D -- F	NO BLOCK	nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn.
		R-A5--AB		no positions (collection 301)
	.112...0...0	0 -- F	NO BLOCK	nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn.
				A000 -- ABFF END OF GENERAL SCRIPTS AREA II
				AC00 -- D7AF START OF HANGUL SYLLABLES AREA
		R-AC-D6		AC00-D6FF (collection 301) [no positions] (collection 299)
0...0.699	0...0.699	0 -- F	Hangul Syllables	05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05.
		R- D7		00-A3 (collection 301) (no positions] (collection 299)
		0 -- 9		05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05. | 05.
		A		05. | 05. | 05. | 05. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu. | uu.
				AC00 -- D7AF END OF HANGUL SYLLABLES AREA
5...0...0	5...0...0	B -- F	NO BLOCK	nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn. | nn.
				D800 -- DCFE START OF S-ZONE (SURROGATES AREA)
		R- D8-DA		Reserved for UTF-16 use (AM-1) hs = high S-zone; hp = high S-zone for private use; ls = low S-zone positions
0...0.128	0...0.128	0 -- F	S-zone	hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs.
		R- DB		00-FF (Reserved for UTF-16 use) (AM-1)
		0 -- 7		hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs. | hs.
		8 - F		hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp. | hp.
		R- DC-DF		DC00-DFFF (Reserved for UTF-16 use) (AM-1)

Up to Amd.7 (coll 301) fn...fi...ai	Up to Amd.27 fn..fi..ai	Row (hex) Col (hex)	Block Name	.....Position in column (hex).....
		0 - F		.0. .1. .2. .3. .4. .5. .6. .7. .8. .9. .A. .B. .C. .D. .E. .F. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls. ls.
			D800 -- DCFF	END OFS-ZONE (SURROGATES AREA)
			E000 -- F8FF	START OF PRIVATE USE AREA
		R- E0- -F8		
0...0.400	0...0.400	0 -- F	Private Use Area	ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
			E000 -- F8FF	END OF PRIVATE USE AREA
			F900 -- FFFF	START OF COMPATIBILITY AND SPECIALS AREA
		R- F9		00-FF (collection 301)
0..13..19	0..13..19	0 -- F	CJK	ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		R- FA	Compatibility	00-2D (collection 301)
		0 -- 1	Ideographs	ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		2		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		3 -- F		ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.
		R- FB		00-06 13-17 1E-36 38-3C 3E 40-41 43-44 46-B1 D3-FF (collection 301)
0..0..5	0..0..5	0	Alphabetic Presentation Forms	ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		1		uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		2		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		3		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		4		ff. ff. uu. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff.
0..4..39	0..4..39	5 -- 7	Arabic Presentation Form A	ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		8 -- A		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		B		ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu.
		C		ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.
		D		uu. uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		E -- F		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		R- FC		00-FF (collection 301)
		0 -- F		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		R- FD		00-3F 50-8F 92-C7 F0-FB (collection 301)
		0 -- 3		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		4		ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.
		5 -- 7		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		8		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		9		uu. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		A -- B		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		C		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		D -- E		ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii. ii.
		F		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		R- FE		20-23 30-44 49-52 54-66 68-6B 70-72 74 76-FC FF (collection 301)
2...0..0	2...0..0	0 -- 1	NO BLOCK	nn. nn. nn. nn. nn. nn. nn. nn. nn. nn. nn. nn. nn. nn. nn.
0...0..1	0...0..1	2	Combining Half Marks	ff. ff. ff. ff. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu.
0...0..2	0...0..2	3	CJK Compatibility Forms	ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		4		ff. ff. ff. ff. ff. uu. uu. uu. uu. ff. ff. ff. ff. ff. ff.
0...0..2	0...0..2	5	Small Form Variants	ff. ff. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		6		ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. uu. uu. uu.
0...0..9	0...0..9	7	Arabic Presentation Forms B	ff. ff. ff. uu. ff. uu. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		8 -- E		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		F		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. uu. uu. xx.
		R- FF		01-5E 61-BE C2-C7 CA-CF D2-D7 DA-DC E0-E6 E8-EE FD (collection 301)
0...0..15	0...0..15	0	Halfwidth and Fullwidth Forms	uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		1 -- 4		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		5		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		6		uu. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		7 -- A		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		B		ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff. ff.
		C		uu. uu. ff. ff. ff. ff. ff. ff. ff. uu. uu. ff. ff. ff. ff.
		D		uu. uu. ff. ff. ff. ff. ff. ff. ff. uu. uu. ff. ff. ff. ff.
		E		ff. ff. ff. ff. ff. ff. ff. ff. uu. ff. ff. ff. ff. ff. ff.

Up to Amd.7 (coll 301) fn...fi...ai	Up to Amd.27 fn..fi..ai	Row (hex) Col (hex)	Block NamePosition in column (hex).....																
0...0...1	0...0...1 Amd.18	F	Specials	.0. .1. .2. .3. .4. .5. .6. .7. .8. .9. .A. .B. .C. .D. .E. .F. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. uu. 18. 18. ff. xx. xx.																
			F900 -- FFFF	END OF COMPATIBILITY AND SPECIALS AREA																
			TOTALS	Totals (number of columns) (does not include partial columns):: <table border="1"> <thead> <tr> <th>Free No Block</th> <th>Free In Block</th> <th>Assigned</th> <th></th> </tr> </thead> <tbody> <tr> <td>1002</td> <td>64</td> <td>3030</td> <td>(up to Amd.7)</td> </tr> <tr> <td>362</td> <td>64</td> <td>3670</td> <td>(up to Amd.27)</td> </tr> <tr> <td>277</td> <td>64</td> <td>3755</td> <td>(including ALL scripts)</td> </tr> </tbody> </table>	Free No Block	Free In Block	Assigned		1002	64	3030	(up to Amd.7)	362	64	3670	(up to Amd.27)	277	64	3755	(including ALL scripts)
Free No Block	Free In Block	Assigned																		
1002	64	3030	(up to Amd.7)																	
362	64	3670	(up to Amd.27)																	
277	64	3755	(including ALL scripts)																	

A Pictorial View of the BMP Roadmap -

Key to the table layout that follows:

[Script Name - Nc, ..]	Proposed / candidate scripts and approximate number of columns (groups of 16 octets) expected to be used by that script
(Script Name -DD or -Am.DD or -Amd.DD)	Script which has been processed by Amendment.DD (at least in PDAM ballot stage)
Script or Block Name (NN)	Script / Block, which has been in the first edition of the standard and to which characters have been added by Amendment NN.
iiii	Column (group of 16 cells) free in a named block (IN BLOCK)
nnnn	Column (group of 16 cells) free in blocks which have not been assigned any block name (NO BLOCK)
R1 .. R2	Range of rows from R1 to R2 inclusive (in hex)

Cell=>	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Row	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
V																
00	C0				Basic Latin				C1				Latin 1 Supplement			
01	Latin Extended-A								Latin Extended-B							
02	Latin Extended-B (18,23)				IPA Extensions				Spacing Modifier				Letters (23)			
03	Combining Diacritical Marks				Basic Greek				Greek Symbols				& Coptic			
04	Cyrillic (18)															
05	nnnn				Armenian				Hebrew - Basic & Extended				(18)			
06	Arabic - Basic and Extended (18)															
07	(Syriac-27)				nnnn				(Thaana-24)				nnnn			
08	[Samaritan-3c, Phoenician-2c, Old Aramaic-2c, Tifinagh-3c, Avestan-3c]															
09	Devanagari				Bengali				Gurmukhi				Gujarati			
0A	Oriya				Tamil				Telugu				Kannada			
0B	Malayalam				(Sinhala-21)				Thai				Lao			
0C	iiii				iiii				iiii				iiii			
0D	(Basic Tibetan-6)															
0E	[Extended Tibetan-4c, Mongolian-10c]				Georgian				Hangul Jamo				(Ethiopic-10)			
0F	nnnn				nnnn				(Cherokee-12)				(Unified Canadian Aboriginal Syllabics-11)			
10	(Unified Canadian Aboriginal Syllabics-11)															
11	(Unified Canadian Aboriginal Syllabics-11,23)				(Ogham -23)				(Runic-19)				(Burmese-26)			
12	iiii				iiii				iiii				iiii			
13	(Khmer-25)															
14	[Dai-8c, Cham-5c, ai Lue-5c, Tai Nuea-3c, Lepcha-5c, Limbu-6c, 'Phagss-Pa-6c, Siddham-4c, Meitel-6c, Javanese-6c, Batak-2c, Buginese-2c, Lisu-2c, Karenni-4c, Glagolitic-6c]															
15	nnnn															
16	Latin Extended Additional (7)															
17	iiii															
1E	iiii															

Cell=>	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F		
|Row	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
V	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|		
1F	.....Greek Extended.....																
20	.....General Punctuation.....				.....Subscripts &.....				.....Currency.....				.....Combining.....			
					.....Superscripts.....				.....(7,18,23).....				.....Marks for Symb			
					|iii|				|iii|				|iii| |iii|					
21	.....Letterlike.....				.....Number Forms.....				.....Arrows.....							
	.....Symbols.....				|iii|								|iii|					
22	.....Mathematical Operators.....																
23	.....Miscellaneous Technical Symbols (18).....																
					|iii|				|iii|				|iii| |iii| |iii| |iii|					
24	.....Control Pictures.....				.....OCR.....				.....Enclosed Alphanumerics.....							
	|iii|				|iii|								|iii|					
25	.....Box Drawing.....				.....Block.....				.....Geometric Shapes.....							
					.....Elements.....								|iii|					
26	.....Miscellaneous Symbols (23).....																
					|iii|				|iii|				|iii| |iii| |iii| |iii|					
27	.....Dingbats.....																
28	.....(Braille Patterns-16).....																
29																		
..	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn		
2D																		
2E	.....(CJK Ideographic Radicals - 15).....				|nnnn				|nnnn				|nnnn				
2F	.....(KangXi Radicals-15).....																
					|nnnn				|nnnn				|nnnn					
30	.....CJK Symbols &.....				.....Hiragana.....				.....Katakana.....							
	.....Punctuation.....																
31Bopomofo.....			Hangul Compatibility Jamo.....				CJK		(BopoMof		|nnnn		|nnnn		|nnnn	
									Misc		Extended							
											-23)							
32	.....Enclosed CJK Letters & Months.....																
					|iii|													
33	.....CJK Compatibility.....																
34																		
..	.....(CJK Ideographic Extension A-17).....																
4C																		
4D	.....(CJK Ideographic Extension A-17).....				|nnnn				|nnnn				|nnnn				
4E																		
..																		
9D	.....CJK Unified Ideographs.....																
9F	.....CJK Unified Ideographs.....																
					|iii|				|iii|				|iii| |iii| |iii| |iii|					
A0																		
..	.....(Yi Syllables-14).....																
A3																		
A4	.....(Yi Syllables-14).....				.....(Yi Radicals-14).....				|nnnn				|nnnn			
A5																		
..	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn	|	nnnn		
AB																		
AC																		
..	.....(Hangul Syllables-5).....																
D6																		
D7	.....(Hangul Syllables-5).....				|nnnn				|nnnn				|nnnn				
D8																		
..	.....(High-half zone of UTF-16 -Amd.1).....(to access planes 1 to 12).....																
DA																		
DB	(High-half zone of UTF-16(Pl 13.14)Am.1)								(High-halves for PU Planes 15,16-Am.1)									
DC																		
..	.....(Low-half zone of UTF-16.-Amd.1).....																
DF																		

Cell=>	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
| Row	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
V	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|
E0	Private Use Area																
F8	Private Use Area																
F9	CJK Compatibility Ideographs																
FA	CJK Compatibility Ideographs																
FB	Alphabetic Pres. Forms				Arabic Presentation Forms A												
FC	Arabic Presentation Forms A																
FD	Arabic Presentation Forms A																
FE	nnnn	nnnn	Comb	CJK	SmallForm	Arabic Presentation Forms B											
			Half	Compatib	Variants												
			Mark	forms													
FF	Halfwidth & Fullwidth Forms																Spec

Summary of Additional New Scripts in the BMP

The scripts from the guidelines sections in the above table that have not reached PDAM balloting stage as of the date of writing this document are shown in the table below. All the others have been processed (as shown in the previous table) as various amendments up to Amd.27 (some are at the stage of PDAM ballot). Amd.8 through Amd.27 have used up 640 no-block columns with 362 remaining free. The total number of in-block free columns remain the same at 64 as at Amd.7 (some in-block columns have been used from existing blocks and new unassigned free in-block columns have resulted from assignments since Amd.7). An additional 85 columns are guesstimated to be used for the scripts listed in the following table.

Table 3 Summary of Guidelines for Additional Candidate Scripts for the BMP

fn..fi..ai up to Amd.7	fn..fi..ai up to Amd.27		
0700-08FF			
32...0...0	23...0...9	~ 3c	Samaritan
		~ 2c	Phoenician
		~ 2c	Old Aramaic
		~ 3c	Tifinagh (= Tamasheq)
		~ 3c	Avestan (= Pahlavi)
	10...0...22	Total of column categories after above script allocations.	
0FC0-109F			
14...0...0	14...0...0	~4c	Tibetan Extended
		~10c	Mongolian (including Manchu)
	14...0...0	No changes since Amd.7 in the number of free no-block columns.	
1200-1DFF			
192...0...0	98...2..92	~ 8c	Dai
		~ 5c	Cham
		~ 5c	Tai Lue (= Chiang Mai)
		~ 3c	Tai Nuea (= Tai Mau)
		~ 5c	Lepcha (= Rong)
		~ 6c	Limbu (= Kirat)
		~ 6c	'Phags-Pa (= Passepa)
		~ 4c	Siddham
		~ 6c	Meitei (= Manipuri)
		~ 6c	Javanese
		~ 2c	Batak
		~ 2c	Buginese (= Makassar)
		~ 2c	Lisu
		~ 4c	Karenni (= Kayah Li)
		~ 6c	Glagolitic (= Glagolitsa)
	26...2..164	Total of column categories after above script allocations.	

The above tables (tables 2 and 3) do not include the two following inactive symbol proposals:

150 [approx.] Non-Ideographic Japanese Characters

14 Greek Byzantine Musical Notation (note: the Greek Byzantine Musical Notation has been accepted for inclusion in Plane 1).

Plane 1: (First) General Scripts and Symbols Supplementary Plane (GSP)

The following section represents all other significant scripts of the world (mostly extinct) for which there exists, in principle, if not in practice, enough information to eventually produce a detailed character encoding proposal.

These scripts are culled from Unicode Technical Committee working documents, taking into account the placement of scripts proposed for the BMP roadmap above. Several of these scripts are under consideration in WG 2 (see document register N 1701 for example). Estimates of sizes of the scripts vary in accuracy. For some of these scripts an encoding proposal already exists, and the exact number of characters is known. For other small scripts a reasonably accurate guess can be made from the size of historically affiliated scripts. For the large scripts such as Cuneiform and various ideographic or hieroglyphic systems, only very rough estimates can be made until detailed proposals are brought forward.

The scripts are organized by general type and by historical and geographic affinity. The group headings are only meant for convenience in reference in this roadmap; they should not be taken as designating particular script areas for the purposes of encoding.

Additionally, to accommodate sets of symbols which may not fit within the 94 columns still open in the Symbols Area of the BMP, 4K cells (=256 columns) are set aside for encoding other symbols on Plane 1.

Based on these estimates, all of these scripts total to approximately 40,000 characters to encode, and fit within a single plane with a large amount of space still free.

Alphabetic

Name	Chars #	Cols
European		
Albanian (Buthakukye)	31	2
Albanian (Elbassan)	53	4
Albanian (Veso Bei's)	22	2
Gothic	58	4
Iberian	32E	2
Misc. Mediterranean Classical Scripts		
Carian	32E	2
Cretan Linear A	75	5
Cretan Linear B (Mycenaean)	128	8
Cypriote syllabary	55-58?	4
Cypro-Minoan (Enkomi + Ugarit)	64E	4
Etruscan (+ Oscan) {RL}	36	3
Kök Turki runes (Orkhon script)	64E	4
Old Hungarian runes	?	
Lycian {RL}	29	2
Lydian {RL}	26	2
Semitic & Middle Eastern		
Cuneiform, Old Persian (Achaemenid)	49	3
Cuneiform, Ugaritic	31	2
Meroitic {RL}	24	2
Parthian	32E	2
South Arabian {RL}	29	2
Arabic-like & North African		
Ethiopic Extended	120E	8
Maghreb	96E	6
Mandaean (Mandaic) [see Syriac] {RL}	24?	2

Name	Chars #	Cols
Manichaeen	64E	4
Nabataean [See Aramaic]	24?	2
Numidian {TB or RL}	25	2
Palmyrene {RL} [See Aramaic]	24?	2
Central Asian		
Sogdian (Uzbekistan)	48E	3
Uighur	96E	6
Indic & Southeast Asian		
Ahom	41 (~48)	3
Balinese (~Javanese?)	96E	6
Balti {RL}	30	2
Box-headed script	96E	6
Brahmi (Asoka)	96E	6
Chakma	96E	6
Chola	96E	6
Hmong	<96E	6
Kaithi (orig. Bihari)	96E	6
Khamti (~ Kham))	35	3
Kharoshthi	96E	6
Khotanese	96E	6
Lahnda (orig. Punjabi)	96E	6
Modi	96E	6
Pyu (Tircul)	<64E	4
Satavahana	96E	6
Tankri	96E	6
Indonesian & Micronesian		
Mangyan(Buhid)	<64E	4
Rejang (Sumatra)	<64E	6
Tagalog	19	2
Woleai (Caroline)	100E	7
Americas		
Chinook shorthand	48E	3

Hieroglyphic, Ideographic & Misc. Syllabaries

Name	Chars #	Cols
Middle-Eastern Classical Precursors		
Proto-Byblic	100E	7
Proto-Elamic	<500E	
Cuneiform, Ideographic Types (Akkadian)		
Cuneiform, Assyrian	<600E	
Cuneiform, Babylonian	<500E	
Hieroglyphs, Classical		
Cretan (Minoan) ideograms	?	
Egyptian (Hieroglyphic, Hieratic, Demotic)	<9000E	
Hittite hieroglyphics	>110E	7
Hittite hieroglyphic syllabary (Luwian)	48	3
Sumerian pictograms	<1000E	
Hieroglyphs, pictograms, and syllabaries, other		
Aymara pictograms	<1000E	
Aztec pictograms	<1000E	
Bamum (Cameroon)	<500E	
Kauder script (Micmac)	<500E	
Mayan hieroglyphics	<1000E	
Rongo-rongo (Easter Island script)	253-396?	
Indus Valley script	<500E	
Paucartambo script	<500E	

Han Ideographic Derived

Name	Chars #
Khitan (Ch'i-Tan, Liao)	5000E

Name	Chars #
Naxi (Nahsi, Nasi, Moso) ideograms	2000E
Naxi (Moso) phonetic script	500E
Nuchen characters (Yu-Chen)	5000E
Tangut (Xixia) ideograms	5819

Newly Invented Scripts (in roughly chronological order)

Name	Chars #	Cols
Deseret Alphabet (Mormon)	76	6
Pollard phonetic script	64E	4
Vai (Liberian syllabary)	<500E	
Shorthands (misc.)	<200E	
Shaw Alphabet (Shavian)	53	4
Osmanya script (Somalian)	64E	4
Cirth	60	4
Tengwar (Elvish)	64	4
Aiha (Kesh)	40	3
plqaD (Klingon)	32E	2

Others (poorly understood, single instances, etc.)

Name	Chars #	Cols
Bone & Shell script	?	
Jindai (Shinto, Japan)	?	
Phaistos disk script	64E	4
Sidetic	?	
Tamil Granta (probably extension of Tamil)	?	
Tartaria (Romanian ideographs)	?	

Symbol Sets

Name	Chars #	Cols
Plane 1 Symbols Area	<4096E	256

(For example, musical symbols and symbols from a large number of other specific disciplines and/or cultural areas. See N884 for a representative sampling of symbol sets which might be appropriate for encoding as characters.)

Totals

These totals apply to the estimates made above for the GSP. They do not include any estimates for the number of Unified Ideographic characters which may be encoded in the UISP.

Alphabetic	< 3767
Syllabaries, hieroglyphs, miscellaneous ideographs, and pictograms	~ 17754
Han-derived ideographic systems	~ 18319
Total for Scripts	~ 40000
Plane 1 Symbols Area	< 4096
Grand Total (Scripts + Symbols)	~ 44000

References (TO check and replace with latest)

WG2 N 884 (= X3L2/93-017 = UTC-93-004)
 Concerning Future Allocations
 Unicode Technical Committee -- Rick McGowan & Joe Becker
 1993-04-06

WG2 N 1370
 Roadmap to 10646 BMP

Michael Everson
1996-04-22
<http://www.indigo.ie/egt/standards/iso10646/map/map.html> — latest update

WG2 N 1385(S)
Repertoire additions for 10646 — Cumulative List No. 3
Bruce Paterson
1996-05-12

WG2 N 1452
Summary of WG2 work items — post Quebec meeting 31 (replaces N 1302)
Sven Thygesen
1996-10-03
<ftp://dkuug.dk/JTC1/SC2/WG2/docs/N1452.xls> — also .doc

WG2 N 1464
Guidance to position allocation in 10646
Sven Thygesen, Mike Ksar
1996-10-03
<ftp://dkuug.dk/JTC1/SC2/WG2/docs/N1464.doc>

Proposed Unicode Characters
Mark Davis
1996-10-25
<http://www.unicode.org/unicode/alloc/Pipeline.html>