3GPP TSG RAN WG1#17
Stockholm, Sweden, 21-24 Nov 2000

Document R1-00-1446
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.212	CR	101	Current Version:	3.4.0

GSM (AA.BB) or 3G (AA.BBB) specification number ? *? CR number as allocated by MCC support team*

For submission to:	RAN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ?		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: Mitsubishi Electric (Trium RD) **Date:** 21-Nov-2000

Subject: Correction to code block segmentation

Work item: Release 99

Category: *(only one category shall be marked with an X)*

F	Correction	[X]	**Release:**	Phase 2	[ ]
A	Corresponds to a correction in an earlier release	[ ]		Release 96	[ ]
B	Addition of feature	[ ]		Release 97	[ ]
C	Functional modification of feature	[ ]		Release 98	[ ]
D	Editorial modification	[ ]		Release 99	[X]
				Release 00	[ ]

Reason for change: Useless "end if" in the code block segmentation algorithm

Clauses affected: 4.2.2.2

Other specs affected:

Other 3G core specifications	[ ]	?	List of CRs:
Other GSM core specifications	[ ]	?	List of CRs:
MS test specifications	[ ]	?	List of CRs:
BSS test specifications	[ ]	?	List of CRs:
O&M specifications	[ ]	?	List of CRs:

Other comments:

<---------- double-click here for help and instructions on how to create a CR.

4.2.2.2 Code block segmentation

Segmentation of the bit sequence from transport block concatenation is performed if $X_i > Z$. The code blocks after segmentation are of the same size. The number of code blocks on TrCH i is denoted by C_i. If the number of bits input to the segmentation, X_i, is not a multiple of C_i, filler bits are added to the beginning of the first block. If turbo coding is selected and $X_i < 40$, filler bits are added to the beginning of the code block. The filler bits are transmitted and they are always set to 0. The maximum code block sizes are:

- convolutional coding: $Z = 504$;
- turbo coding: $Z = 5114$;
- no channel coding: $Z = unlimited$.

The bits output from code block segmentation are denoted by $o_{ir1}, o_{ir2}, o_{ir3}, \square, o_{irK_i}$, where i is the TrCH number, r is the code block number, and K_i is the number of bits.

Number of code blocks: $C_i = ?X_i / Z?$

Number of bits in each code block:

if $X_i < 40$ and Turbo coding is used, then

$K_i = 40$

else

$K_i = ?X_i / C_i?$

end if

Number of filler bits: $Y_i = C_i K_i - X_i$

for $k = 1$ to Y_i -- Insertion of filler bits

o_{i1k} ? 0

end for

for $k = Y_i + 1$ to K_i

o_{i1k} ? $x_{i,(k?Y_i)}$

end for

$r = 2$ -- Segmentation

while r ? C_i

for $k = 1$ to K_i

o_{irk} ? $x_{i,(k?(r?1)?K_i?Y_i)}$ I

end for

$r = r + 1$

end while

~~end if~~