Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) Submission Title: [A proposed plan to merge Intel MATLAB code and NICT MATLAB code] Date Submitted: [December 4, 2006] Source: [Hiroshi Harada, Ryuhei Funada, Hirokazu Sawada, Chang-soon Choi, Yozo Shoji, Shuzo Kato] Company [NICT] Address[3-4 Hikari-no-oka, Yokosuka-shi, Kanagawa 239-0847, Japan] Voice:[+81-46-847-5074] FAX:[+81-46-847-5440] E-Mail:[harada@nict.go.jp, funada@nict.go.jp, sawahiro@nict.go.jp, shoji@nict.go.jp, cschoi@nict.go.jp,shu.kato@nict.go.jp] **Re:** [] **Abstract:** [Proposing a plan to merge Intel MATLAB code and NICT MATLAB code] **Purpose:** [Explain the merge plan] Notice: **Release:** The contributors acknowledge and accept that this contribution becomes the property of IEEE

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A Proposed Plan to Merge Intel MATLAB code and NICT MATLAB code

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Summary of this document

Show a proposal to merge Intel MATLAB code and NICT MATLAB code

All the group has to do (from Dallas meeting)

Merge Intel MATLAB code and NICT MATLAB code

Validate the MATLAB code by comparison with the experimental data

A proposal of how to merge MATLAB code Start (1)Set channel model number (cm num), the number of channel realizations (num_channels), center frequency (fc [Hz]), minimum time resolution (Ts [ns]), and types of antenna pattern (ant_type) TSV SV (2)(3)TSV or SV Call function to obtain parameters for TSV channel model Call function to obtain parameters for SV channel model call functions to generate N continuous impulse responses call functions to generate N continuous impulse responses Save N continuous impulse responses and some of parameters (4) NICT will provide Call functions to resample the continuous impulse responses (5)Intel will provide (6)Save N discrete impulse responses and some of parameters Either NICT or Intel will provide (7)Plot out the impulse responses, and calculate RMS delay spreads and K factors Done

Overview of merge program

- As for TSV model (in the flowchart (2)), NICT will provide the MATLAB code and validate the code by comparison with measurement data
- As for SV model (in the flowchart (3)), Intel will provide the MATLAB code and validate the code by comparison with measurement data
- □ As for the other part (common part), we will decide who make the codes

A detailed time schedule (If programs (1) and (4) are provided by Intel)

- Intel will develop programs (1) and (4) in the flowchart and its document and will provide to NICT
- NICT will include the programs to TSV code and create final code and validate the code by using measurement data
- □ NICT will provide the code to Intel
- □ Intel will merge TSV code and SV code.

Time plan discussed on Dec.06

- □ The following is based on the document IEEE 15-06-0516-00-003c slide 5.
- □ Intel will finish to develop MATLAB codes of (1),(3), and (4) to give them to NICT

□ Until Dec. 15

- NICT will finish to develop MATLAB codes of (1),(2), and (4) to give back the codes to Intel
 - □ A half of week later after getting code (1), (3), and (4)
- □ Intel finish to develop MATLAB codes
 - A couple of day later after getting code (1),(2), and (4)
- Cross-Validate the final code by comparison with measurement data
 - Only continuous mode
 - □ Until Dec. 22
- □ Make a document to suit for the flowchart
 - □ Intel and NICT will do that until Dec. 28

Summary of available LOS / NLOS channel models

	LOS	NLOS
Office	Available (NICT)	Available (NICT)
Residential	Available (NICT)	N/A
Desktop	Available (NICT)	N/A
Library	Available (IMST/Intel)	N/A

Who validate the performance of MATLAB code?

Request from NICT to Intel

Please make an official document on the Intel's MATLAB code. The document must include flowchart and detailed

- As for NICT code, 15-06-0468-00-003c show the information
- Please also provide a document that mentions how to use it.