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| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  20th Meeting: Geneva, CH, 10–18 Feb. 2015 | Document: JCTVC-T0010 |

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| *Title:* | **JCT-VC AHG report: Complexity of IBC, intra line & intra string copy coding (AHG10)** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Report | | |
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| *Source:* | AHG10 | | |

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# Abstract

This report summarizes the activities of the JCT-VC ad hoc group on complexity of IBC, intra line & intra string copy coding (AHG10) between the JCT-VC 19th meeting in Strasbourg, France, and the 20th meeting in Geneva, Switzerland.

# Mandates

* Analyze complexity characteristics of f IBC, intra line & intra string copy methods with regards to throughput, amount of memory, memory bandwidth, parsing dependencies, pixel processing.
* Analyze the complexity impact of the search area size on the design.
* Quantify the average and worst-case throughput (e.g., in context-coded bins) for these methods and compare them with the average and worst-case throughput for other coding elements.
* Identify criteria to determine the hardware implementability of the key elements.

Identify bottlenecks in the current design with regard to implementation complexity.

# Activities

Results of the activities in this AhG can be found in the CE3 and non-CE3 input documents below. In these input contributions, the throughput and memory bandwidth of individual tools are analyzed.

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| JCTVC-T0045 | AHG10: Memory bandwidth reduction for intra block copy |
| JCTVC-T0051 | AHG10: On IBC memory reduction |
| JCTVC-T0105 | CE3: Results of Test A on Intra Line Copy |
| JCTVC-T0041 | CE3: results of test B.1 and test B.7 |
| JCTVC-T0125 | CE3 Test B.1: Adaptive Scan Directions in HEVC SCC |
| JCTVC-T0135 | CE3: Results of Test B.2 on Intra String Copy |
| JCTVC-T0126 | CE3 Test B.3: 2-D Intra String Copy in HEVC SCC |
| JCTVC-T0111 | CE3 Test B.4.1: Constrained run for Intra String Copy |
| JCTVC-T0136 | CE3: Results of Test B.4.2 on Intra String Copy |
| JCTVC-T0128 | CE3: Results of Test B.5 on entropy coding ISC syntax elements |

# Recommendations

It is recommended to

* Discuss related documents.