F356 Method 1 source code (based on HM3.3)

- Change source code in “xPredInterBi” function

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| Void TComPrediction::xPredInterBi ( TComDataCU\* pcCU, UInt uiPartAddr, Int iWidth, Int iHeight, TComYuv\*& rpcYuvPred, Int iPartIdx )  {  TComYuv\* pcMbYuv;  Int iRefIdx[2] = {-1, -1};  #define UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO 1 ///< JCTVC-F356: uni-pred. MC instead of bi-pred. MC in case of the same motion info. for both ref. lists  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  Bool bSameMV = false;  TComMv cMvL0, cMvL1;  iRefIdx[REF\_PIC\_LIST\_0] = pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getRefIdx( uiPartAddr );  iRefIdx[REF\_PIC\_LIST\_1] = pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getRefIdx( uiPartAddr );  if( iRefIdx[REF\_PIC\_LIST\_0] >= 0 && iRefIdx[REF\_PIC\_LIST\_1] >= 0)  {  cMvL0 = pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getMv( uiPartAddr );  cMvL1 = pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getMv( uiPartAddr );  bSameMV = (pcCU->getSlice()->getRefPic( REF\_PIC\_LIST\_0, iRefIdx[REF\_PIC\_LIST\_0] )->getPOC()  == pcCU->getSlice()->getRefPic( REF\_PIC\_LIST\_1, iRefIdx[REF\_PIC\_LIST\_1] )->getPOC())  && (cMvL0.getHor() == cMvL1.getHor()) && (cMvL0.getVer() == cMvL1.getVer()) ? true : false;  }  #endif  for ( Int iRefList = 0; iRefList < 2; iRefList++ )  {  RefPicList eRefPicList = (iRefList ? REF\_PIC\_LIST\_1 : REF\_PIC\_LIST\_0);  iRefIdx[iRefList] = pcCU->getCUMvField( eRefPicList )->getRefIdx( uiPartAddr );  if ( iRefIdx[iRefList] < 0 )  {  continue;  }  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  if( (iRefList == REF\_PIC\_LIST\_1) && bSameMV )  continue;  #endif  assert( iRefIdx[iRefList] < pcCU->getSlice()->getNumRefIdx(eRefPicList) );  pcMbYuv = &m\_acYuvPred[iRefList];  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  if( (pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getRefIdx( uiPartAddr ) >= 0  && pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getRefIdx( uiPartAddr ) >= 0) && !bSameMV)  #else  if( pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getRefIdx( uiPartAddr ) >= 0  && pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getRefIdx( uiPartAddr ) >= 0 )  #endif  {  xPredInterUni ( pcCU, uiPartAddr, iWidth, iHeight, eRefPicList, pcMbYuv, iPartIdx, true );  }  else  {  xPredInterUni ( pcCU, uiPartAddr, iWidth, iHeight, eRefPicList, pcMbYuv, iPartIdx );  }  }  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  if( bSameMV)  m\_acYuvPred[0].copyPartToPartYuv( rpcYuvPred, uiPartAddr, iWidth, iHeight );  else  xWeightedAverage( pcCU, &m\_acYuvPred[0], &m\_acYuvPred[1], iRefIdx[0], iRefIdx[1], uiPartAddr, iWidth, iHeight, rpcYuvPred );  #else  xWeightedAverage( pcCU, &m\_acYuvPred[0], &m\_acYuvPred[1], iRefIdx[0], iRefIdx[1], uiPartAddr, iWidth, iHeight, rpcYuvPred );  #endif  } |

F356 Method 1 source code (based on HM3.0)

- Change source code in “xPredInterBi” function

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| Void TComPrediction::xPredInterBi ( TComDataCU\* pcCU, UInt uiPartAddr, Int iWidth, Int iHeight, TComYuv\*& rpcYuvPred, Int iPartIdx )  {  TComYuv\* pcMbYuv;  Int iRefIdx[2] = {-1, -1};  #define UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO 1 ///< JCTVC-F356: uni-pred. MC instead of bi-pred. MC in case of the same motion info. for both ref. lists  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  Bool bSameMV = false;  TComMv cMvL0, cMvL1;  iRefIdx[REF\_PIC\_LIST\_0] = pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getRefIdx( uiPartAddr );  iRefIdx[REF\_PIC\_LIST\_1] = pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getRefIdx( uiPartAddr );  if( iRefIdx[REF\_PIC\_LIST\_0] >= 0 && iRefIdx[REF\_PIC\_LIST\_1] >= 0)  {  cMvL0 = pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getMv( uiPartAddr );  cMvL1 = pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getMv( uiPartAddr );  bSameMV = (pcCU->getSlice()->getRefPic( REF\_PIC\_LIST\_0, iRefIdx[REF\_PIC\_LIST\_0] )->getPOC()  == pcCU->getSlice()->getRefPic( REF\_PIC\_LIST\_1, iRefIdx[REF\_PIC\_LIST\_1] )->getPOC())  && (cMvL0.getHor() == cMvL1.getHor()) && (cMvL0.getVer() == cMvL1.getVer()) ? true : false;  }  #endif  for ( Int iRefList = 0; iRefList < 2; iRefList++ )  {  RefPicList eRefPicList = (iRefList ? REF\_PIC\_LIST\_1 : REF\_PIC\_LIST\_0);  iRefIdx[iRefList] = pcCU->getCUMvField( eRefPicList )->getRefIdx( uiPartAddr );  if ( iRefIdx[iRefList] < 0 )  {  continue;  }  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  if( (iRefList == REF\_PIC\_LIST\_1) && bSameMV )  continue;  #endif  assert( iRefIdx[iRefList] < pcCU->getSlice()->getNumRefIdx(eRefPicList) );  pcMbYuv = &m\_acYuvPred[iRefList];  #if HIGH\_ACCURACY\_BI  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  if( (pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getRefIdx( uiPartAddr ) >= 0  && pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getRefIdx( uiPartAddr ) >= 0) && !bSameMV)  #else  if( pcCU->getCUMvField( REF\_PIC\_LIST\_0 )->getRefIdx( uiPartAddr ) >= 0  && pcCU->getCUMvField( REF\_PIC\_LIST\_1 )->getRefIdx( uiPartAddr ) >= 0 )  #endif  xPredInterUni ( pcCU, uiPartAddr, iWidth, iHeight, eRefPicList, pcMbYuv, iPartIdx, true );  else  xPredInterUni ( pcCU, uiPartAddr, iWidth, iHeight, eRefPicList, pcMbYuv, iPartIdx );  #else  xPredInterUni ( pcCU, uiPartAddr, iWidth, iHeight, eRefPicList, pcMbYuv, iPartIdx );  #endif  }  #if UNI\_PRED\_MC\_FOR\_SAME\_MOTION\_INFO  if( bSameMV)  m\_acYuvPred[0].copyPartToPartYuv( rpcYuvPred, uiPartAddr, iWidth, iHeight );  else  xWeightedAverage( pcCU, &m\_acYuvPred[0], &m\_acYuvPred[1], iRefIdx[0], iRefIdx[1], uiPartAddr, iWidth, iHeight, rpcYuvPred );  #else  xWeightedAverage( pcCU, &m\_acYuvPred[0], &m\_acYuvPred[1], iRefIdx[0], iRefIdx[1], uiPartAddr, iWidth, iHeight, rpcYuvPred );  #endif  } |