

# Enhancements in Morningstar® EnCorr®

Jan 10 Update

<b>Monte Carlo Simulation</b>	<ul style="list-style-type: none"> <li>▶ Compare portfolios from two different frontiers</li> <li>▶ Allow changing allocation weights over time</li> <li>▶ Incorporate portfolio rebalancing rules</li> <li>▶ Select whether cash flows are inflation adjusted</li> <li>▶ Separate inflows from outflows</li> <li>▶ New cash flow graph</li> </ul>	<ul style="list-style-type: none"> <li>▶ New analysis: Probability of losing specified amount at any point in a specified period of time</li> <li>▶ Export simulation return paths</li> <li>▶ Random seed option added</li> <li>▶ Allow frequency setting to be independent of input file assumptions</li> </ul>
<b>Cross-Application Update</b>	<ul style="list-style-type: none"> <li>▶ Allow date setting to float automatically</li> <li>▶ Improved compatibility with Windows 7 and Excel .xlsx files</li> <li>▶ Extend historical data by selecting a proxy data series in combined series functionality</li> </ul>	<ul style="list-style-type: none"> <li>▶ Allow user defined weight choice to transfer from Attribution to Allocator</li> <li>▶ Add category average series data for non-US investments</li> <li>▶ New data points: <ul style="list-style-type: none"> <li>▶ Primary category benchmark</li> <li>▶ Secondary category benchmark</li> </ul> </li> </ul>
<b>Inputs Generator</b>	<ul style="list-style-type: none"> <li>▶ Add Spearman rank calculation option to correlation</li> <li>▶ Allow date/frequency setting to be specified by asset class for expected return/standard deviation</li> </ul>	
<b>Analyzer</b>	<ul style="list-style-type: none"> <li>▶ Add holding period setting to regression statistics</li> </ul>	

Apr 09 | Ver 9.5

<b>Data</b>	<ul style="list-style-type: none"> <li>▶ Addition of South Africa fund database</li> <li>▶ New summary statistics data points</li> <li>▶ Addition of two dozen index data points</li> </ul>	
<b>Cross-Application Update</b>	<ul style="list-style-type: none"> <li>▶ Addition of AND/OR search functionality in standard query</li> <li>▶ Save frequently used queries for each database</li> <li>▶ Search by list of ISINs for global funds</li> <li>▶ Order search criteria using parentheses</li> <li>▶ Feedback, training and data update schedule added</li> </ul>	<ul style="list-style-type: none"> <li>to menu bar</li> <li>▶ Replace constituents within a portfolio without altering portfolio weights</li> <li>▶ Populate Ibbotson ID for select series</li> </ul>
<b>Data Center</b>	<ul style="list-style-type: none"> <li>▶ Append most recent performance to existing user-defined data</li> </ul>	<ul style="list-style-type: none"> <li>▶ Enter returns in percentage format in series editor</li> </ul>
<b>Optimizer</b>	<ul style="list-style-type: none"> <li>▶ Display standard deviation instead of position number as the x-axis on the frontier area graph</li> <li>▶ Addition of marginal contribution columns to risk decomposition table</li> </ul>	<ul style="list-style-type: none"> <li>▶ Lock constraints available asset classes and capital market assumptions for internal deployment</li> <li>▶ Addition of an over or underfunded graph from Monte Carlo simulation results</li> </ul>
<b>Inputs Generator</b>	<ul style="list-style-type: none"> <li>▶ Addition of 12,000 equity market capitalization values</li> </ul>	
<b>Allocator</b>	<ul style="list-style-type: none"> <li>▶ Revised methodology to replace estimated measures of tracking error and alpha with actual portfolio measures</li> </ul>	<ul style="list-style-type: none"> <li>▶ Transfer target benchmark weights from an optimized portfolio</li> </ul>
<b>Attribution</b>	<ul style="list-style-type: none"> <li>▶ Choose from commonly used index sets for style analysis</li> </ul>	