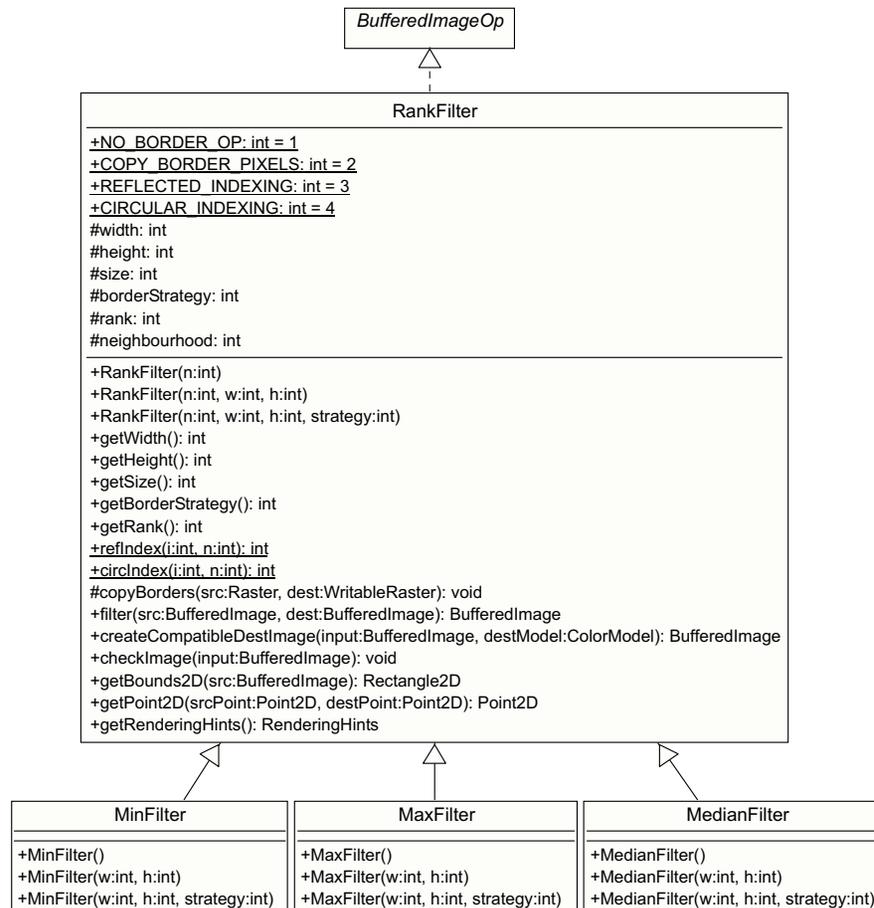


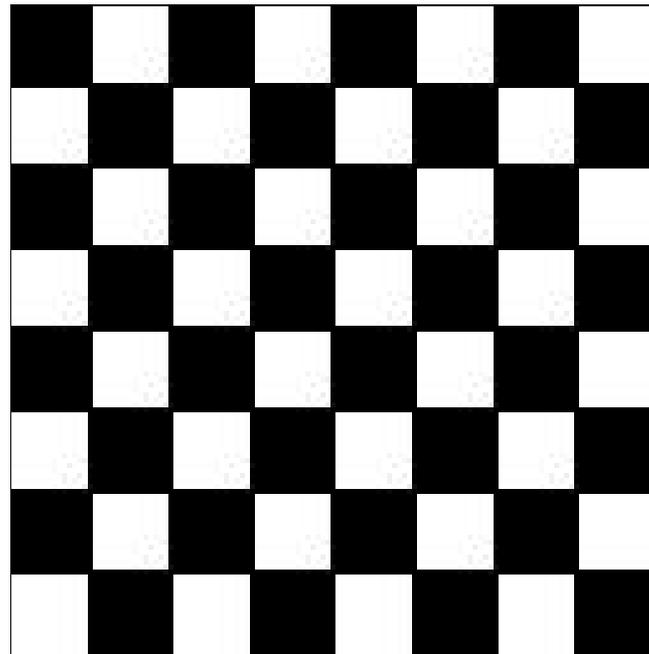
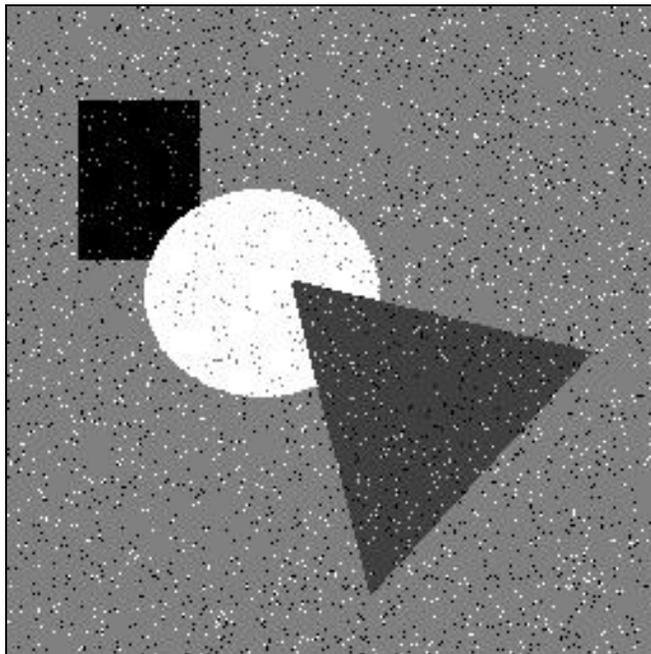
Elementare Bildverarbeitungsoperationen

- Implementierung von Rang-Filtern -

1 UML-Diagramm



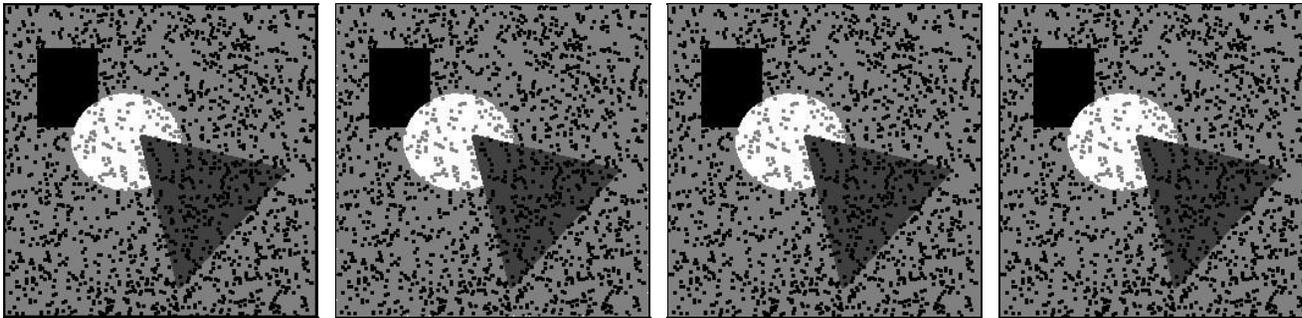
2 Betrachtete Beispielbilder



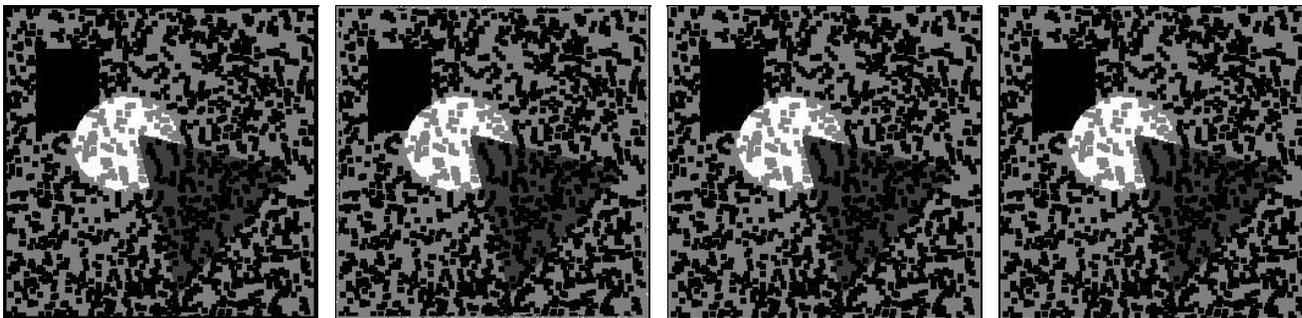
3 Beispiel-Bild 1

3.1 Minimum-Filter

3 × 3-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

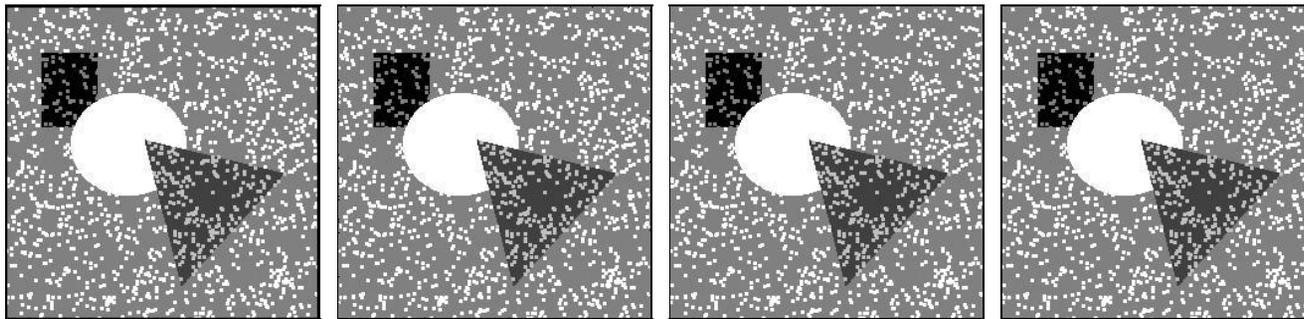


5 × 5-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

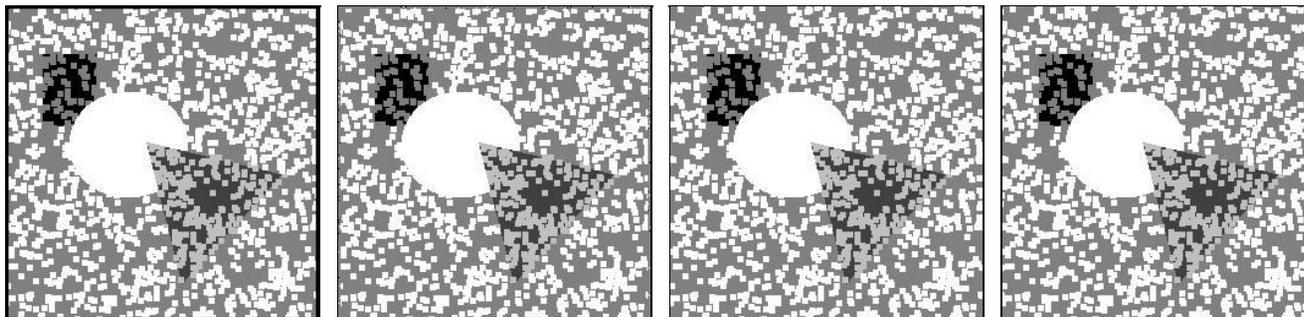


3.2 Maximum-Filter

3 × 3-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

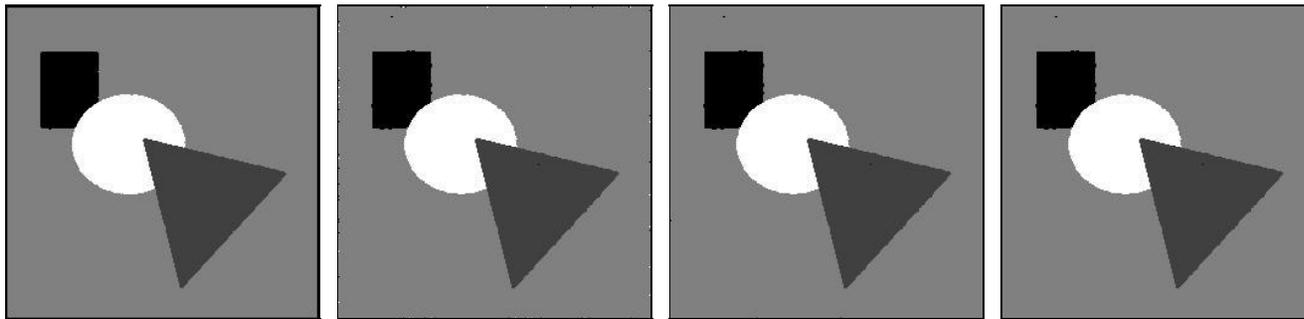


5 × 5-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

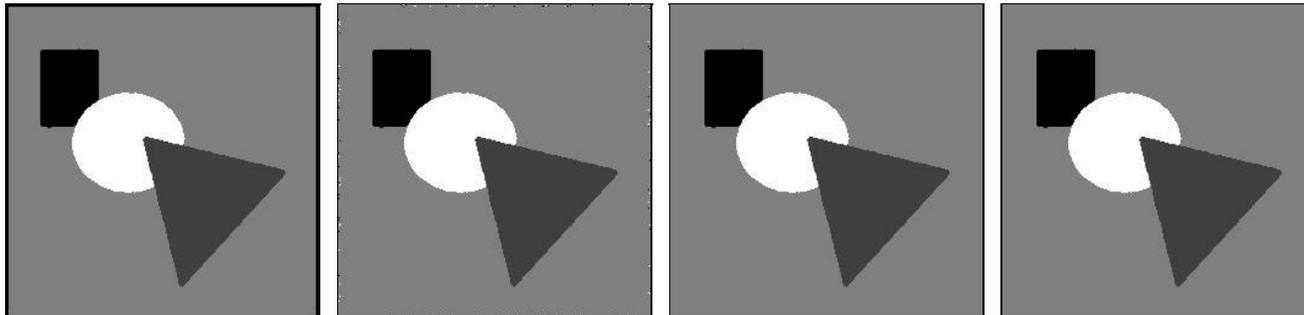


3.3 Median-Filter

3 × 3-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)



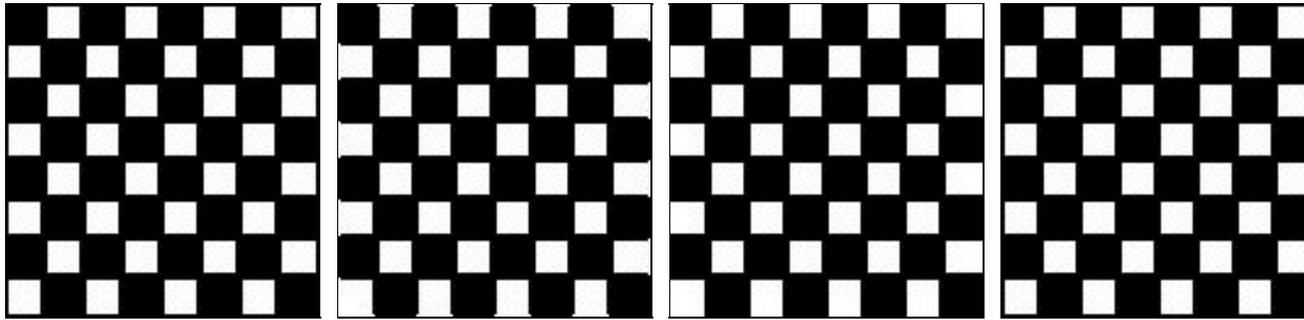
5 × 5-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)



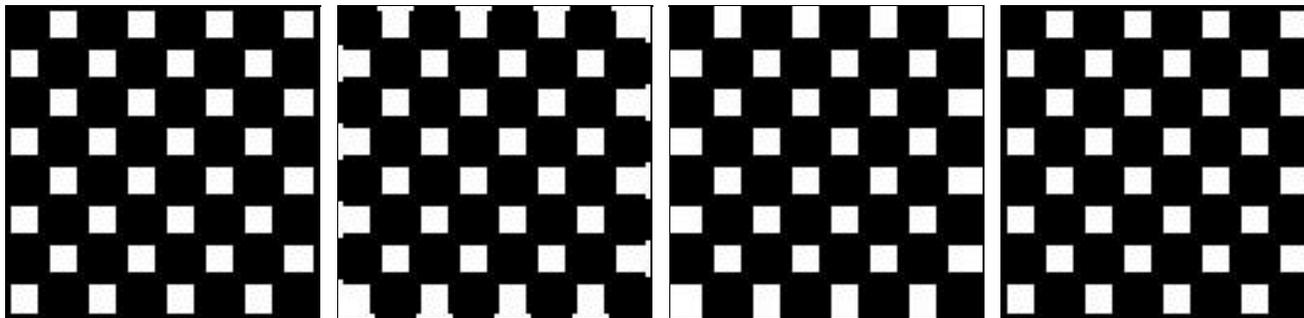
4 Beispiel-Bild 2

4.1 Minimum-Filter

3 × 3-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

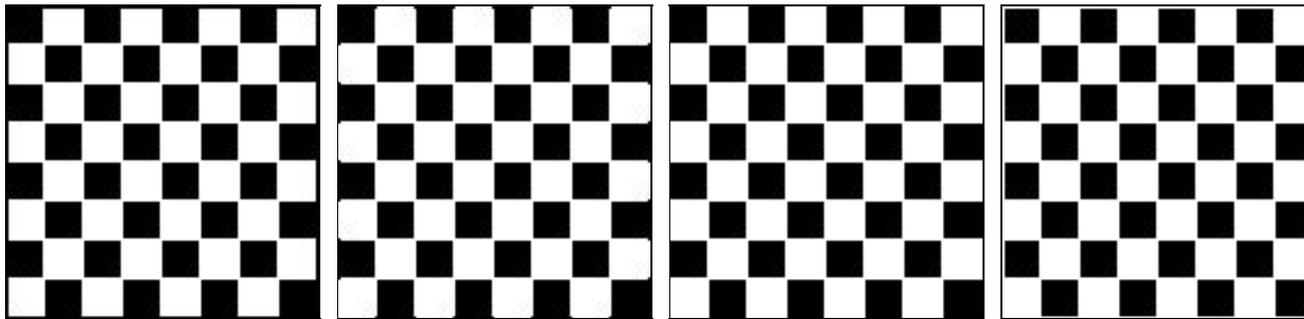


5 × 5-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

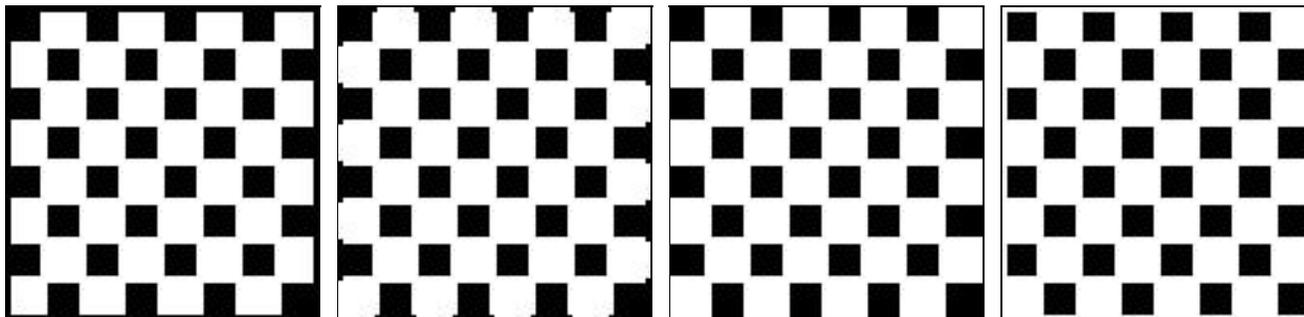


4.2 Maximum-Filter

3 × 3-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

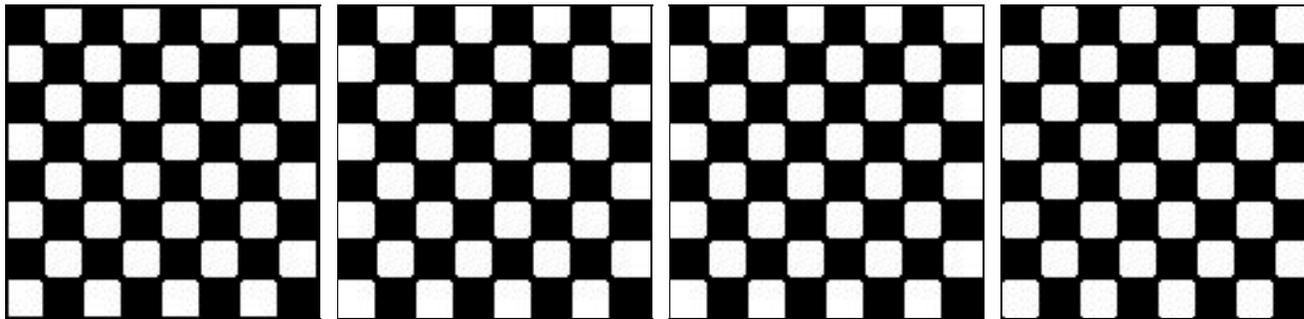


5 × 5-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)



4.3 Median-Filter

3 × 3-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)



5 × 5-Nachbarschaft (NO_BORDER_OP, COPY_BORDER_PIXELS, REFLECTED_INDEXING, CIRCULAR_INDEXING)

