# Control Point Registration

Align two images using control point mapping

## Start Here

## Functions

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| [cpselect](http://www.mathworks.in/help/images/ref/cpselect.html) | Control Point Selection Tool |
| [fitgeotrans](http://www.mathworks.in/help/images/ref/fitgeotrans.html) | Fit geometric transformation to control point pairs |
| [cpcorr](http://www.mathworks.in/help/images/ref/cpcorr.html) | Tune control-point locations using cross correlation |
| [cpstruct2pairs](http://www.mathworks.in/help/images/ref/cpstruct2pairs.html) | Convert CPSTRUCT to valid pairs of control points |
| [normxcorr2](http://www.mathworks.in/help/images/ref/normxcorr2.html) | Normalized 2-D cross-correlation |
| [cp2tform](http://www.mathworks.in/help/images/ref/cp2tform.html) | Infer spatial transformation from control point pairs |

## Examples and How To

* [Start the Control Point Selection Tool](http://www.mathworks.in/help/images/start-the-control-point-selection-tool.html)
* [Find Visual Elements Common to Both Images](http://www.mathworks.in/help/images/find-visual-elements-common-to-both-images.html)
* [Select Matching Control Point Pairs](http://www.mathworks.in/help/images/select-matching-control-point-pairs.html)
* [Use Cross-Correlation to Improve Control Point Placement](http://www.mathworks.in/help/images/using-correlation-to-improve-control-points.html)

## Concepts

* [Image Registration Techniques](http://www.mathworks.in/help/images/registering-an-image.html)
* [Control Point Registration](http://www.mathworks.in/help/images/point-mapping.html)
* [Control Point Selection Procedure](http://www.mathworks.in/help/images/control-point-selection-procedure.html)
* [Geometric Transformation Types](http://www.mathworks.in/help/images/geometric-transformation-types.html)