An Unoffical ArcGIS Pro
Spatial Join Cheat Sheet

🟩 Target Feature
🟦 Join Feature

JOIN TYPES

Keep All All target features with be kept

Keep Common Only target features will be kept that have the spatial relationship with the join feature specified in the spatial join

JOIN OPERATIONS

Join One to One If multiple join features are found to have the same target feature, the attributes from the join feature will be aggregated

Join One to Many If a multiple features in the Join Feature have a spatial relationship with a single target feature, the output feature will have multiple records of the target feature

MATCH TYPES

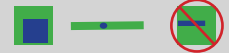**Intersects** The target and join feature intersect

Intersects 3D The target and join feature intersect each other in three dimentsional space

In intersects the target and join features can be reversed

Contains The target feautre contains the join feature

The target feature cannot be a point

Completely Contains The join feature completely contain the target feature. It cannot be touching the border.

Contains Clementini Same as contains, but if the join feature is completely on the border it will not be matched

Within The target feature is within the join feature

The join feature cannot be a point

Completely Within The target feature is completely within the join feautre. It cannot be touching the border

Within Clementini Same as within, but if the feature is completely on the border it will not be matched

Within A Distance The join feature is within a specified distance of the target feature

Within A Distance Geodesic Same as within a distance, but geodesic distance is used instead of planar

Within A Distance 3D The join feature is within a specified distance of the target feature in three-dimensional space

Closest Matches with the join feature that is closet to the target feature

Closest Geodesic Same as closest but using geodesic distance instead of planar distance

Are Identical To The target feature and the join feature are identical. Target and Join feature must be the same shape type

Crossed By the Outline Of The join feature is crossed by the outline of the target feature

Share a Line Segment With The join feature shares a line segment with a target feature

Boundary Touches The join feature has a boundary that touches the target feature. No part of the join feature can cross the boundary of the target feature if the join feature is a line or polygon

Have Their Center In The target features center is within the join feature

FIELD MAPPING

Controls what attributes will be in the output feature class. Fields can be added, deleted, renamed, and have their properties changed

Merge Rule join features can be aggregated by a merge rule: first, last, join, sum, mean, median, mode, min, max, standard deviation, count, range

PYTHON

Use Jupyter Notebook, the Command Line, or the Python Window in ArcPro.

Python syntax: arcpy.SpatialJoin_analysis (target_features, join_features, out_feature_class, {join_operation}, {join_type}, {field_mapping}, {match_option}, {search_radius}, {distance_field_name})

Source: https://pro.arcgis.com/en/pro-app/tool-reference/analysis/spatial-join.htm