Femap Tips and Tricks: Coincident Node Move Only

Sometimes you may need to set up a model to have a set of coincident nodes which can be connected together using spring or gap elements. To help prepare such a model, Femap includes a method of moving nodes to be coincident within a tolerance.

This is the Move Only, No Merge option which can be found in the Check/Merge Coincident Node dialog.

In the menu, select **Tools / Check / Coincident Nodes** and select the nodes to check in the *Entity Selection* dialog box.

Check/Merge Coincident			
Tolerance	0.00228127	Options	
Action	Merge 🔹	V Safe Merge	
Keep ID	Automatic	Make Groups	
Move To	Current Location 👻	Merge Across Connections	
	Preview	OK Cancel	

The Move Only, No Merge option will move nodes found to be within the coincident node tolerance. In the *Check/Merge Coincident* dialog, enter a suitable number for the **Tolerance**.

Click on the **Move To** button to control how the nodes move - higher ID to lower, lower ID to higher, or both to the midpoint of the distance between them.

Then select the Action button and set that to Move Only, No Merge.

Check/Merge Coincident			
Tolerance	0.6	Options	
Action	Move Only, No Merge 🔻	📝 Safe Merge	
Keep ID	Both	Make Groups	
Move To	Lower ID 🔻	Merge Across Connections	
	Preview	OK Cancel	

You can check to see which nodes have been selected for the move operation by clicking the **Preview** button.

1030 1029 1028 1027 1026 1025 1024 1023 1022 1021 1022030 2029 2028 2027 2026 2025 2024 2023 2022 2021 2020 1031 1112 1113 1114 1115 1116 1117 1118 1119 1120 <mark>1028</mark>031 2112 2113 2114 2115 2116 2117 2118 2119 2120 2019 1032 1103 1104 1105 1106 1107 1108 1109 1110 1111 <mark>10120</mark>32 2103 2104 2105 2106 2107 2108 2109 2110 2111 <mark>2018</mark> 1033 1094 1095 1096 1097 1098 1099 1100 1101 1102 <mark>10127</mark>033 2094 2095 2096 2097 2098 2099 2100 2101 2102 <mark>2017</mark> 1034 1085 1086 1087 1088 1089 1090 1091 1092 1093 <mark>10128</mark>034 2085 2086 2087 2088 2089 2090 2091 2092 2093 <mark>2016</mark> 1035 1076 1077 1078 1079 1080 1081 1082 1083 1084 <mark>1012</mark>035 2076 2077 2078 2079 2080 2081 2082 2083 2084 2015 1036 1067 1068 1069 1070 1071 1072 1073 1074 1075 1072036 2067 2068 2069 2070 2071 2072 2073 2074 2075 2014 1037 1058 1059 1060 1061 1062 1063 1064 1065 1066 <mark>10120</mark>37 2058 2059 2060 2061 2062 2063 2064 2065 2066 <mark>2013</mark> 1038 1049 1050 1051 1052 1053 1054 1055 1056 1057 <mark>10120</mark>38 2049 2050 2051 2052 2053 2054 2055 2056 2057 <mark>2012</mark> 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 <mark>101</mark>2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 <mark>2011</mark> ,1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 <mark>10120</mark>00 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

Click **Done** and **OK** to execute the move operation.



You can watch the video of this Femap tip on the YouTube.