Disconnected Concept

This commentary has four sections. The first was written by Linda Kendall and was printed in Zip Coder in 1998. The second was written by Bill Ackerman and posted to Lynette Bellini's web site in September 2002.

The third part is a summary of the rules developed in Linda's and Bill's articles and email discussions on the challenge-sd email service. Diagrams are provided to illustrate these rules.

The fourth part provides additional diagrams about the Disconnected concept.

Part 1 - Linda Kendall's Choreo Corner article about the Disconnected concept.

Choreo Corner
by Linda Kendall

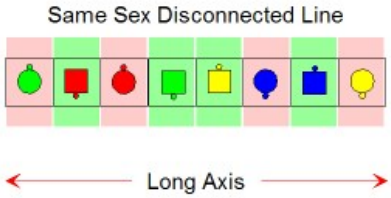
DISCONNECTED

The Lost Concept

DISCONNECTED is a concept currently on the C2 list, but hardly ever used. In This article I will describe some guidelines on the way I think this concept works. Hopefully, you will begin to see increased use of DISCONNECTED at the C2 level. The sequence of information you can expect to hear is ***designated dancers*** DISCONNECTED ***call***. An example of this would be ***girls*** DISCONNECTED ***mix.***

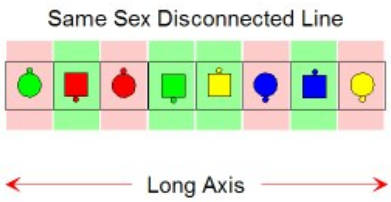
Here are the basics

Disconnected means that there are spaces in the designated-dancer formation along the long axis. Another way of thinking about this is that DISCONNECTED formations are established on planes which are fixed by the positions of the designated dancers at the beginning of the call. Let's look at the most commonly used setup for Disconnected, the tidal (1x8) from which we can have ***same-sex*** DISCONNECTED ***lines/waves.***



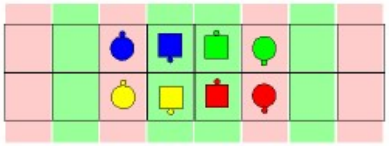
But each of the ***same-sex*** DISCONNECTED formations is a 1x4, with spaces between the dancers in each DISCONNECTED formation. In this case, the spaces in each DISCONNECTED formation are occupied by dancers of the opposite sex. If the call is not a shape-changer, then the designated dancer formation will end on the same spots. In other words, the girls will end on the pink planes because they started on the pink planes.

DISCONNECTED 1x4 and Changing Shape



Changing the shape of a DISCONNECTED formation is easy as long as you do not try to expand it along the long axis. For example, you could do ***same-sex*** DISCONNECTED ***crossfire*** or just ***girls*** DISCONNECTED ***crossfire***.

Same Sex Disconnected Crossfire



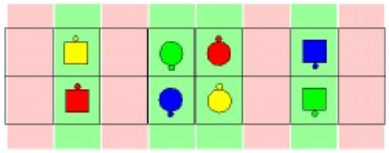
When you change shape is a DISCONNECTED setup, you do the call, and then arrange the formation to occupy the DISCONNECTED planes which were established at the beginning of the call. Notice that the boys stay on green planes and the girls stay on pink planes.

These planes were established at the beginning by ***same-sex*** disconnected. Also, take note of some of the planes which are no longer occupied. They will now drop off as they are to the outside. Most of us have seen this before.

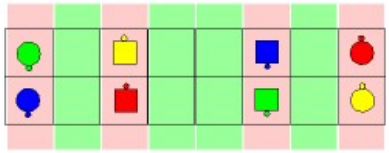
All are DISCONNECTED

You could start DISCONNECTED like this!

Disconnected Lines or Columns



OR Long Axis



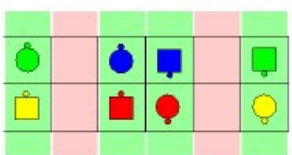
Both of these 8 dancer (2x4) formations are disconnected. Or each line/column (1x4) is disconnected. "ALL" tells you who the DISCONNECTED dancers are so you can find the DISCONNECTED planes and spaces in each formation along the long axis. In this case, ALL establishes the real dancers for the location of the DISCONNECTED planes. In formations which incorporate all 8 dancers, the DISCONNECTED planes must either be occupied or empty. You call all DISCONNECTED rotary spin from here and everyone would end on one of the originally occupied spots and everyone would end on one of the originally occupied spots and the empty planes would remain empty. DISCONNECTED does not tell you how many empty planes there are in your formation. This number is determined by the number of spaces in the original formation. In the second picture above we added some spaces, establishing empty planes which must still be empty at the end of the call.

Can you change shape from here?

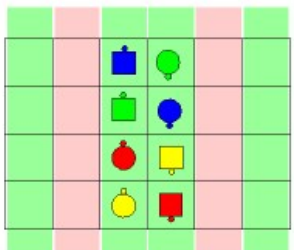
Of course you can! If you change the shape of a DISCONNECTED 2x4 formation which changes the long axis, you could end up with a normal setup.

All Disconnected Crossfire

Start



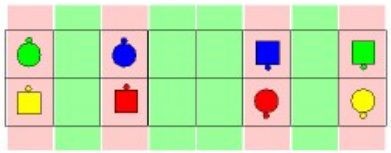
End



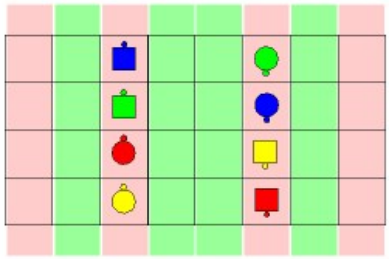
then again, maybe not.

All Disconnected Crossfire

Start

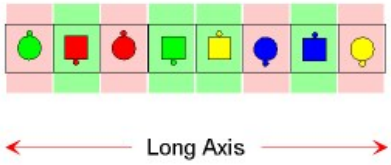


End



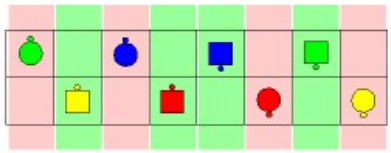
The point is that the empty planes (the green ones) remain empty and all the dancers end on originally occupied planes (the pink ones). Furthermore, the matrix can expand infinitely along the original short axis. The reason you can never expand longer than the original long axis is because the planes must be deignated at the beginning to establish whether they are occupied or empty.

Additionally, you could not do ***same-sex*** DISCONNECTED ***lockit*** because the center point of each formation (*) is on a line between the disconnected planes, and not on a plane established at the beginning of the call.



Another example of DISCONNECTED would be to call ***each line*** DISCONNECTED ***some call*** from the formation in the picture below. In this case, each line would be the designated dancers.

Each Line Disconnected Here Comes The Judge



The 8 person formation is a distorted tidal wave commonly call a "zipper". This 8 person formation is distorted. NOT disconnected. Each line DISCONNECTED means that in each line, there are occupied planes and empty ones.

So remember ***designated*** DISCONNECTED ***call***. Look to see where your DISCONNECTED planes are. Then do the call correctly with your DISCONNECTED group, ending on one of your group's planes. If your do this every time, you will always be on the correct spot.

Linda's article ends here.

Part 2 - Sd Application Note by William Ackerman

What you see here is Bil's article with the dancers' positions shown as graphics instead of the text positions shown in Bill's original article. This is the same article. If you wish to look at the original article use this link:

Sd Application Note 3

The "Sd" referred to in this document refers to the "Sd" square dance choreography program for the PC. Use this link to view a short description of this program:

Sd Program

Sd Application Note 3

Sd Application Note 5

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DISCONNECTED and IGNORE

The "Disconnected" concept has not enjoyed a lot of popularity over the last several years. An article in the Zip Coder magazine described it as the "lost concept" (1) . This may be, in part, because people don't always perceive it as having a sound logical basis.

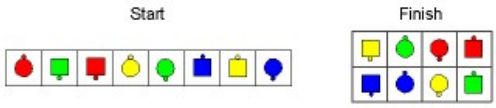
In recent years there has been increased interest in 'theoretical" or "computational" approaches to calls and concepts. Calls and concepts that were conceptualized by examples rather than by algorithmic rules haven't fared very well. The "Disconnected" concept may have been a victim of this. It has mostly been conceptualized by examples that people run into on the dance floor.

Common usage has given rise to the principle that, if the call is not a shape-or orientation-changer, you work to spots

Boys Disconnected Swing Thru

and the principle that, if both groups are doing Disconnected calls, whoever "owned" the center at the start will own it at the end.

Girls Disconnected Crossfire while boys Crossfire

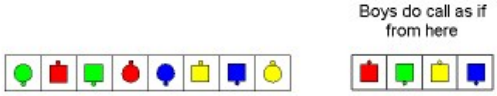


But applications that go beyond these simple principles have not been very popular.

In this note I will try to explain how I (and Sd) believe the concept works.

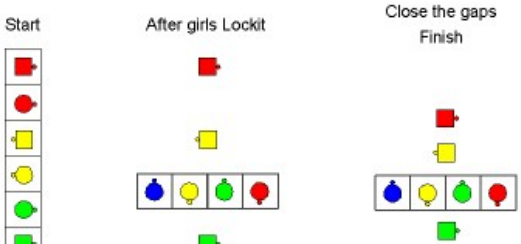
The CALLERLAB definition says that the designated people do the call as if they had slid together, that is, as though the intervening spots weren't there.

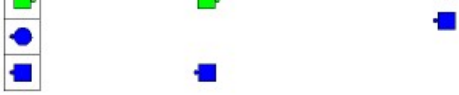
Boys Disconnected [anything]



If the call is not a shape-changer, they go back to the same spots. Otherwise, they "stay near the original centers" spots", and all gaps are closed:

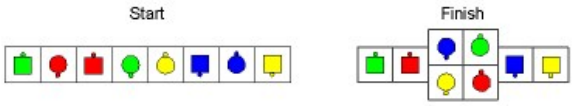
Girls Disconnected Lockit





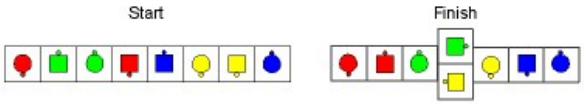
From the "Crossfire" example, we know that the designees can sometimes all crowd into the center:

Girls Disconnected Crossfire



But they can't always do so:

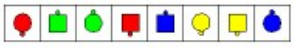
Boys Disconnected Switch to a Diamond



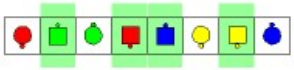
What was the problem in that last example? It was that having all the designees crowd into the center would have pushed the others out. So we have the principle that the designees crowd into the center as much as they can without displacing the others. With "Crossfire" they were able to go into the center because they saved space by stacking themselves 2 people deep.

When the Disconnected dancers do a shape- or orientation-changing call that has them maneuver around the others, we are going to restrict their maneuvering to one direction for now.

Boys Disconnected



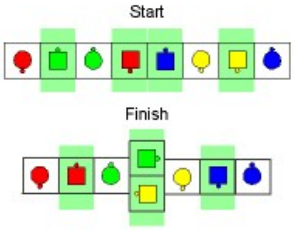
In this case, all of the maneuvering is done along a left-to-right axis. We paint imaginary stripes on the floor perpendicular to that axis, showing what left-to-right positions are occupied by the designated people.



After doing the call, the designated people redistribute themselves on the same stripes. They fill the stripes from innermost to outermost, taking whatever space is is provided, and avoiding unnecessarily pushing the inactives outward. In the current instance of Switch to a Diamond, the centers of the resulting diamond can occupy the center stripe. In fact, the there is room left over--they are only one person wide, and the center stripe is two people wide. So, can the points go into the center also? They would now occupy a width of three, which is greater than the stripe width. This would unnecessarily push the inactives outward. There is room for the diamond points in the outer stripes, so they don't need to occupy the center stripe.

So the center stripe actually gets thinner.

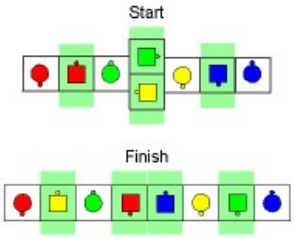
Boys Disconnected Switch to a Diamond



What happens if we do a "Disconnected Flip the Diamond" from here? The centers of the resulting wave want to occupy the center stripe. But that stripe is only one person wide. We can't have just one of them occupy the center, and the Solomon rule (2) says we can't put half of each in the center. We either put in zero people or two. The rule is that we always put someone in, unless we have run out of people. So, in this case, the two centers go into the center stripe, widening it slightly. This is a case where widening was necessary.

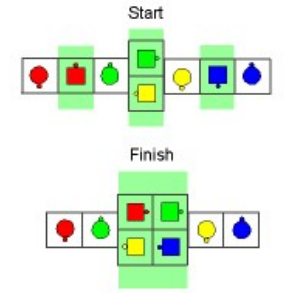
Boys Disconnected Flip the Diamond

Boys Disconnected Flip the Diamond



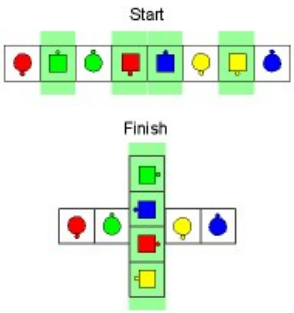
If the call had been "Disconnected Drop In", all four people would have have gone into the center stripe. The outer stripe would have been closed.

Boys Disconnected Drop In



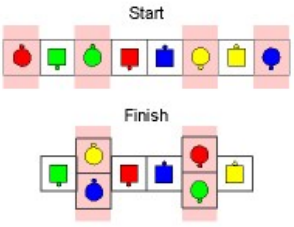
Here is another case in which the outer stripes disappear:

Boys Disconnected Lockit



The designated people don't need to occupy the center stripe:

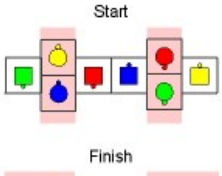
Girls Disconnected Crossfire

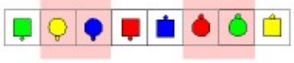


A "girls Disconnected Lockit" would be illegal from the above formation. All four girls would need to occupy a stripe in the center--the Solomon rule prevents any other solution. But no stripe is available in the center. There is one more case in which it is necessary to push the inactive people outward. There might not be any more available stripes farther out. When the designated people reach their last stripe, they use it, even if it pushes the inactives outward.

New stripes are never created.

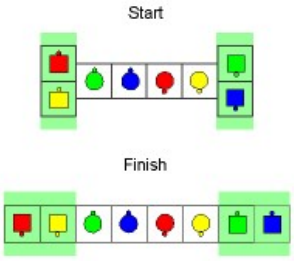
Girls Disconnected Peel Off





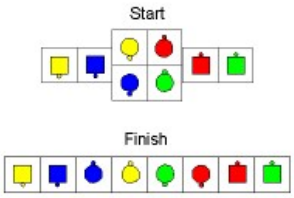
If there is a stripe at the outside of the setup, it is filled as necessary.

Boys Disconnected Peel Off



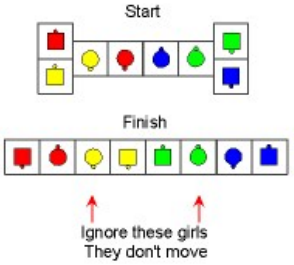
If the last stripe is the one in the center, it gets filled appropriately, however far the inactives have to be pushed out.

Girls Disconnected Peel Off

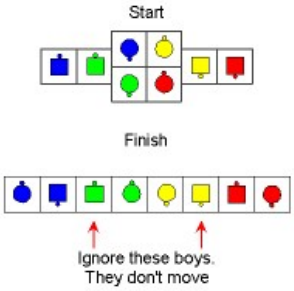


(But this isn't a real instance of "Disconnected".) Here are some examples showing 6 active people:

Ignore the side girls, Triangle Peel and Trail

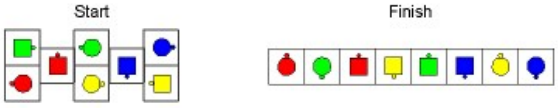


Ignore the side boys, Triangle Peel and Trail



The "Ignore" concept is the way to make 6 people work Disconnected. Naming them explicitly ("heads and side girls") is unwieldy, and is not supported by Sd. In both of these cases, the designated people started in a center stripe two people wide, and the outermost stripes.

Ignore the head boys, those facing start, Pass the Ocean



In this case, the designated people started in a center stripe one person wide, and the outermost stripes. They must push the inactive people out slightly.

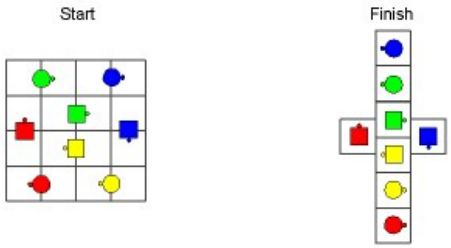
When The Stripes Aren't Simple

When The Stripes Aren't Simple

Up to this point, we have been assuming that the designated people are spread out only along one axis, so that stripes can be used, and that they are totally compressed along the other axis. I know of no comprehensive theory that can describe the situation in which the spreading out can be arbitrary. Fortunately, it appears that, for setups with only 8 people, only a few cases can arise.

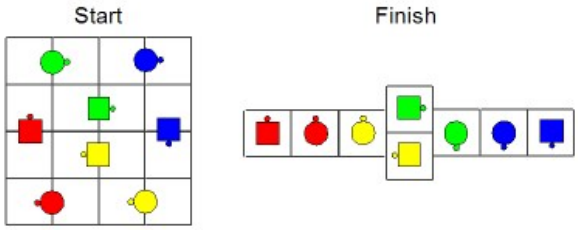
It seems that, when the selected people are Disconnected along both axes, they either work to spots (the obvious easy case) or they work in a simple way around whoever is causing them to be Disconnected. Gaps are closed as needed. About the only straightforward and sensible case of this is is a call done by the points of an hourglass.

Girls Disconnected Peel Off



(A "girls Concentric Peel Off", or just "girls Peel Off", would have gotten the same result.)

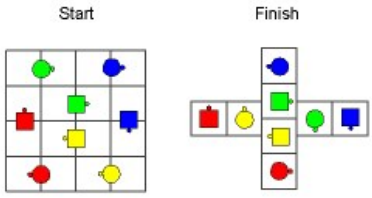
Girls Disconnected Follow Thru



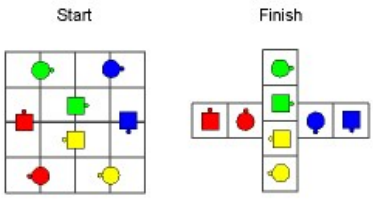
(A "girls Concentric Follow Thru" would have moved the girls outside of the head boys.)

Here are some cases in which a diamond is formed. Notice that the girls work only around the side boys. They are inside of the head boys.

Girls Disconnected Peel to a Diamond



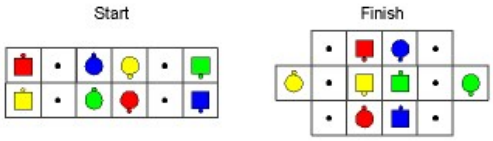
Girls ½ Circulate



Everyone Disconnected

The Disconnected concept is usually not used with phantoms. However, an interesting extension was recently introduced in the Zip Coder article mentioned previously. This is "Everyone Disconnected". (Sd also lets you say "All Disconnected".) In this case, the "stripes" must be able to distinguish the matrix spots occupied by live dancers and the unoccupied spots. The live dancers work to the live stripes according to the usual rules.

Everyone Disconnected Mini Busy

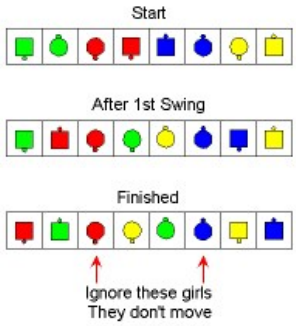


The "Ignore" Concept

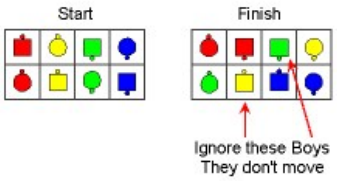
This concept, like "Disconnected", has suffered from a lack of sound theoretical understanding. The CALLERLAB definition says to do the call as though the other spots weren't there. That's a lot like Disconnected.

I believe that, except for "space invader" calls, the "Ignore the sides" concept should be treated as "Disconnected" for the other people. The same rules about working to spots, or filling stripes and closing gaps, should apply. Hence we have:

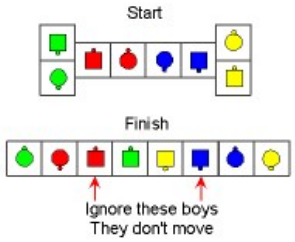
Ignore the head girls, Grand Swing Thru



Ignore the side boys, In Roll Circulate



Ignore the head boys, Triangle Peel and Trail

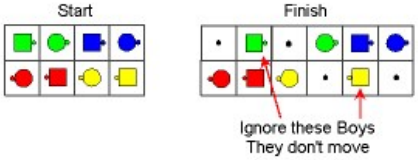


When the call is a space-invader (e.g. "Press" or "Truck"), the "Ignore the sides" concept can't mean to do work around the others as though they weren't there.

Space-invading calls work in absolute position.

When some people are Ignore the sides for a space-invading call, they simply don't do it. The others do the call, using the usual absolute definition of where they go.

Ignore the side boys, Press Ahead



Footnotes

(1) Choreo Corner, Zip Coder XXVII, 2(June 1998), 23-28

(2) The Solomon rule (I Kings 3:16-28) says that cutting people in half is generally not a good way to solve a problem.

This document was generated on 2 September

Bill's article ends here.

Part 3 - Derived Rules for the Disconnected concept. - by Charles Young

Part 3 - Summary

The Disconnected concept is not a heavily used concept. Where it is used it is mostly used in very simple situations. It is, however, a rather complicated concept that is probably under used because it is not well-understood by most dancers and perhaps not the callers. The definitions are shown below.

Definitions

Callerlab Definition

> From any appropriate formation: The dancers specified, who needn't be together, act as though they had slid together, done the call, then slid apart. If the call changes the formation, stay near the original centers' spots. Dancers adjust to close up any gaps that were created

Vic Ceder's Definition

> Identified dancers work together in a setup which has gaps (consisting of other dancers or blank space) between some of the identified dancers. Identified dancers must end within the same set of planes as they started, or as close to these planes as possible.

Ben Rubright's Definition

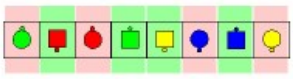
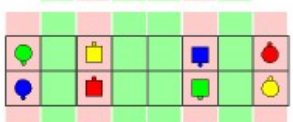
> identified dancers do call maintaining disconnected setup

These definitions are not very specific. There are many things that everyone needs to understand about the Disconnected concept that exceeds what information is provided by these definitions.

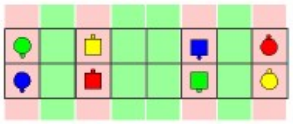
The rules and diagrams shown below will help to better understand how to use and dance and use this call. The two papers included above, written by Linda Kendall and Bill Ackerman, respectively, expand greatly on the definitions shown above. They should be examined in detail. The two papers are followed by a number of Disconnected concept diagrams.

Stripes are formed when the Disconnected concept is invoked by the caller. There is a stripe for every spot along the long axis of the formation. The stripes are perpendicular to the long axis of the formation.

For example:

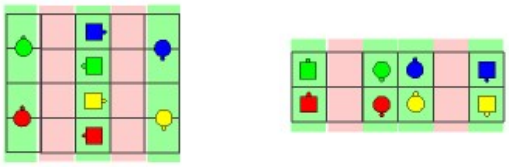
Tidal Wave	8 stripes	
2x6 formation	6 stripes	
2x8 formation	8 stripes	

The stripes are 1 dancer wide. Sometimes 2 stripes are adjacent forming a double wide stripe.



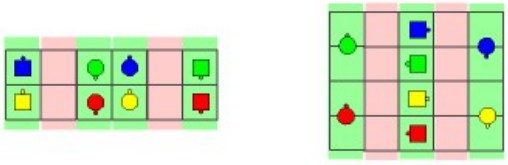
The stripes may change width. Stripes may start 1 dancer wide but expand to be 2 dancers wide.

Disconnected Flip the Diamond



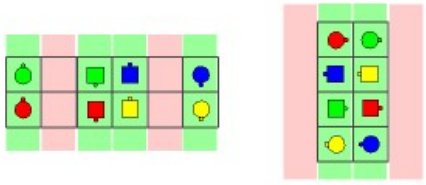
Stripes are theoretically infinite in length. The length changes as required by the call.

Disconnected Switch to a Diamond

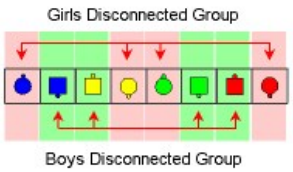


Stripes are never created during the call, only at the beginning of the call. Stripes are sometimes removed because their location is outside of the final formation.

Disconnected Counter Rotate

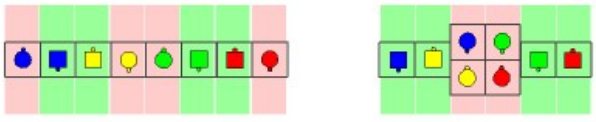


Disconnected Groups



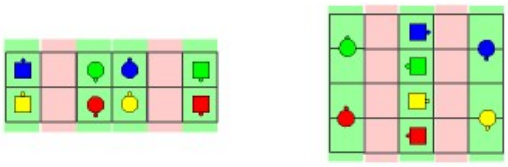
The dancers in a disconnected group which has dancers start in the center of the formation, "owns" the center of the formation. Conversely, a diconnected group that has no dancers in the center of the formation at the start of the call, has no one in the center at the end of the call.

Disconnected Girls Single Wheel



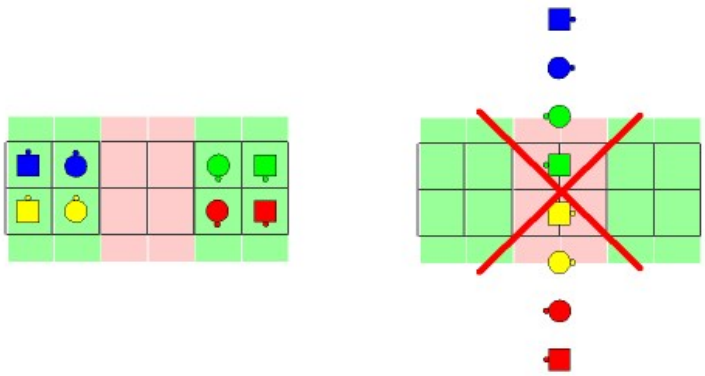
A double wide stripe is two normal stripes wide Idf a double wide stripe only needs to be 1 dancer wide at the end of the call, the stripe shrinks to be 1 dancer wide. This means that a formation that is 2x6 at the start of the call may be a 4x5 matrix at the end of the call. In this case, the double wide stripe shrinks in width to be 1 dancer wide but stretched in length to be 4 dancers high. This is often true with shapechanger calls.

Disconnected Switch to a Diamond



Dancers can never end on the joint between two stripes. They most end on a stripe.

Disconnected Lockit



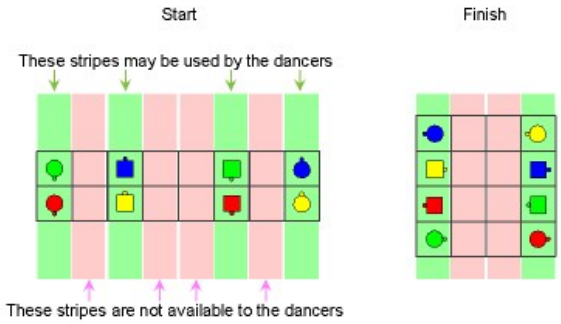
All the dancers doing the Lock It would end up in the center stripe which is not allowed because they didn't end on their own stripes. This call can be done only by those dancers who "owned" the center stripes at the start of the call.

Dancers can only end up on the stripes defined for their disconnected group.

Part 4 - Additional Disconnected Diagrams and Notes - by Charles Young

The paint stripes on the floor that Bill Ackerman talks about have additional characteristics as pointed out by Linda Kendall.

The stripes actually are of infinite length (or at least to the edge of the formation). Every dancer starts on a stripe and MUST end on a stripe. Look at this example:



At the beginning of the call there are 4 sets of stripes for the dancers and four stripes that just contain empty spaces. At the end of the call there are still the two stripes of spaces in the middle but we lost the other two stripes because they are outside of the ending formation. The dancers all end on two stripes because that's all they need to do the call. All the stripes extended as required to the bounds of the formation.

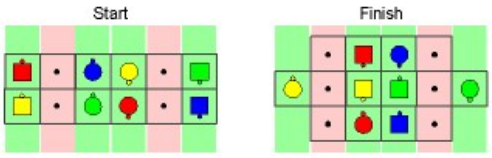
A Counter Rotate from a normal line setup would result in a normal column setup. In this case, those pesky stripes in the center won't go away so the dancers have to spread apart to form their completed Counter Rotate spots.

Linda said that there are technically no phantoms in DISCONNECTED. It only has to do with space and stripes. (Linda talks about planes and roads). This is non-intuitive and does not follow any of the rules we have for anything else. That's good because we want all the modifiers to be different. And even though the DISCONNECTED concept is frequently used to get rid of phantoms, sometimes you can't just get rid of all the phantoms.

You can see that the center roads are occupied. If you ALL DISCONNECTED, counter rotate from here, you will get what you wanted.

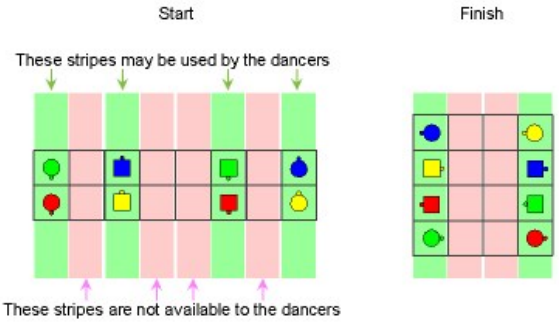
In the example below, the dancers do start and end on the stripes and the stripes do expand to whatever length is needed to accomodate the dancers.

All Disconnected, Mini Busy



This example is perhaps a bit extreme but clearly demonstrates what Linda Kendall is talking about:

All Disconnected, Counter Rotate

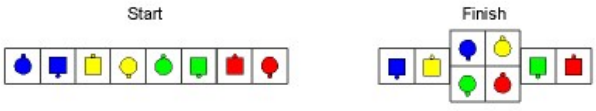


This is a real world example where no one on the dance floor understood the concept well enough to end up on the correct spots.

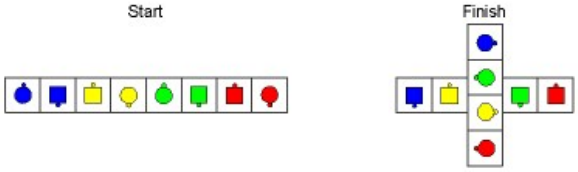
Tidal formation additional diagrams:

Disconnected Girls Single Wheel

Disconnected Girls Turn and Deal



Disconnected Girls Lockit



Disconnected Girls Switch to a Diamond

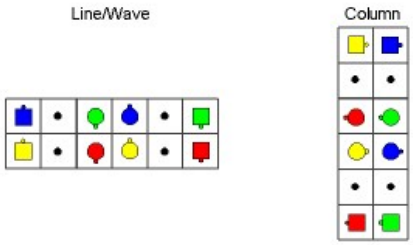
Disconnected Girls Half Tag

Disconnected Girls Ah So

Disconnected Girls Step and Fold

Most of the Disconnected calls that we have seen up to now have been the line or column variety where the ends of columns and lines are separated from the centers by an empty space.

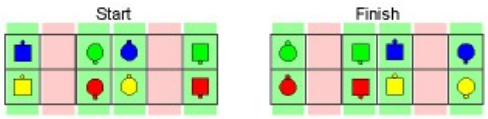
Basic Disconnected Formation from Lines/Waves and Columns:



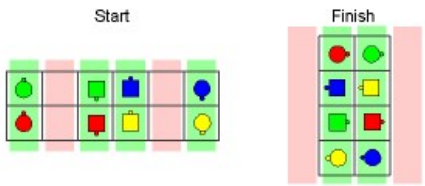
The open spaces have their own planes or "paint stripes". Since those spaces are not involved in the call the "paint stripes" never disappear or change size unless they end up outside of the final formation at the end of the call. They change position along the axis as needed when a dancer "paint stripe" disappears. If those "paint stripes" end up outside of the final formation, a caller may say that those stripes are gone.

The following diagrams show several situations:

Disconnected Swing Thru

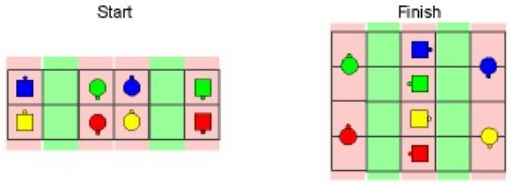


Disconnected Counter Rotate

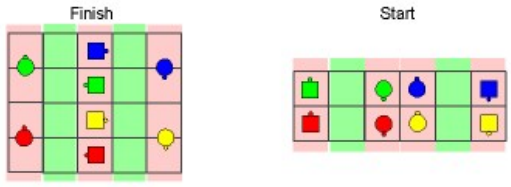


Disconnected Switch to a Diamond

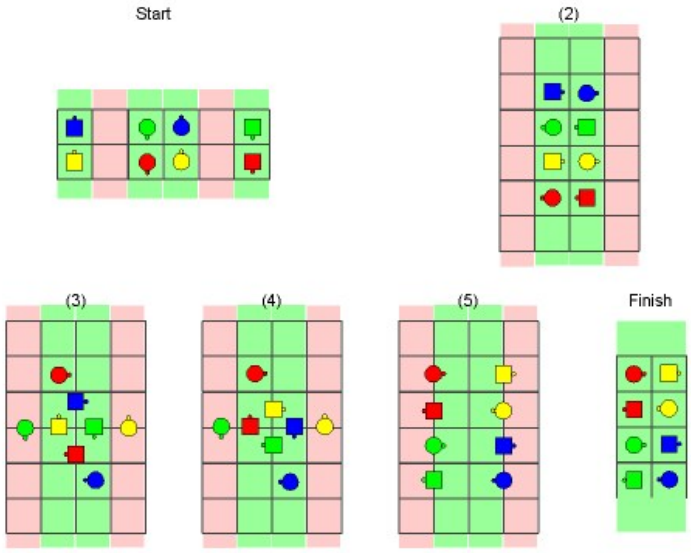
This call is interesting because it changes the matrix from a 2x6 to a 4X5. This diagram shows the "paint stripes" on the floor. Since the call for each line ends up with 2 mini wave in the center of each diamond, the original two paint stripes in the center must be shrunk to be only 1 dancer wide. The rules also say to close up the formation toward the center. SInce we have eliminated 1 "paint stripe" we have changed the matrix.



If we were to do a Disconnected Flip the Diamond from this formation, we would end up with a 2x6 line-oriented formation with the original empty spots in the grid.

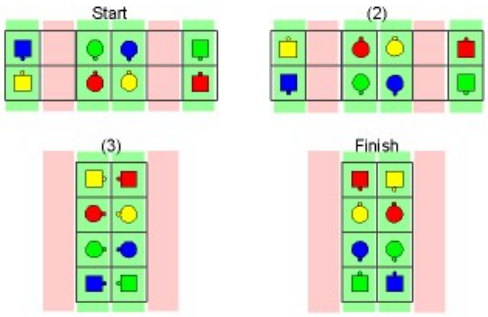


Disconnected Quarter the Deucey

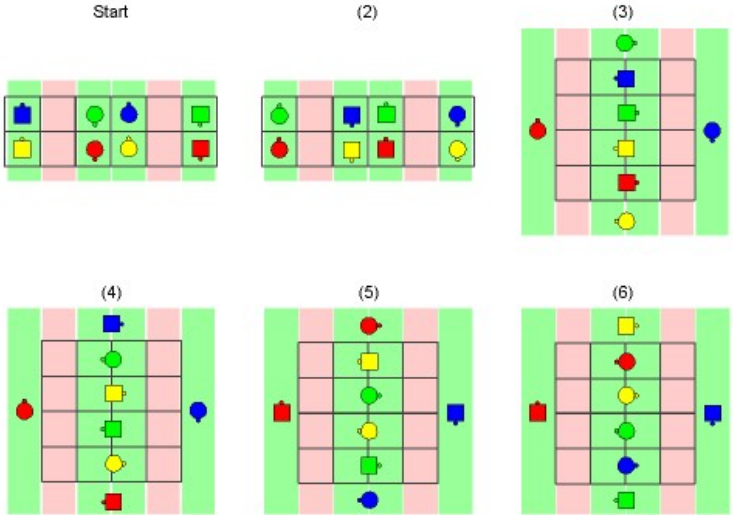


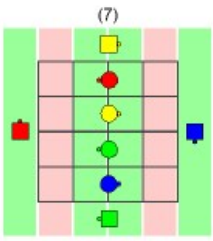
It's OK to step on the stripes while doing the call

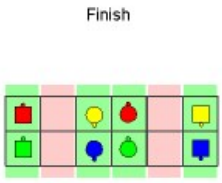
Disconnected Grand Chain Eight



Disconnected Relay the Deucey







Disconnected Split Counter Rotate